2021-22

Annual REPORT



KERALA VETERINARY AND ANIMAL SCIENCES UNIVERSITY

KERALA VETERINARY AND ANIMALSCIENCES UNIVERSITY, POOKODE

www.kvasu.ac.in

ANNUAL REPORT 2021-2022

Patron

Vice Chancellor
Kerala Veterinary & Animal Sciences University
Pookode, Wayanad

Acknowledgements

Hon. Vice Chancellor

Registrar

Finance Officer

Director (Academics & Research)

Director (Entrepreneurship)

Chief Engineer (ID Wing)

Controller of Examinations

Deans, College of Veterinary & Animal Sciences, Mannuthy

Deans, College of Veterinary & Animal Sciences, Pookode

Deans, Verghese Kurien Institute of Dairy and Food Technology, Mannuthy

Director Clinics

Director Farms

Director (Student's Welfare)

Special Officers

College of Avian Sciences and Management, Thiruvazhamkunnu

College of Dairy Science and Technology, Pookode

College of Dairy Science and Technology, Thiruvananthapuram

College of Dairy Science and Technology, Kolahalamedu

Officers and Heads

Station heads

Faculty members

Librarian

Published By

Directorate of Entrepreneurship
Kerala Veterinary & Animal Sciences University
Pookode, Lakkidi P.O., Wayanad- 673576

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ABOUT THE UNIVERSITY

Kerala Veterinary and Animal Sciences University with headquarters in Pookode, Wayanad has landed assets of KVASU of about 957.95 acres spread across different campuses in Thrissur, Wayanad, Palakkad, Idukki and Thiruvananthapuam districts of Kerala . The powers of the University are vested in its authorities –the Management Council Chaired by the Chancellor, the Board of Management (Board) and Academic Council chaired by the Vice Chancellor. The ex-officio members include the Chancellor, Vice Chancellor, Registrar, Finance Officer, Directors and Deans. The functions and powers of these officers are defined in the University Act. The academic staff comprise of Professors, Associate Professors and Assistant Professors apart from research fellows and scholars at various phases of instruction or research. University now has a faculty occupancy of around 78% which would be one of the country's best and a teacher student ratio of 1:8. Further, the academic activity is supported by a non teaching cum farm staffing of nearly 948. The territorial jurisdiction of the University extends to the whole of the state of Kerala. The University encompasses three faculties- the Faculty of Veterinary and Animal Sciences, the Faculty of Dairy Science and Faculty of Poultry Science; with seven constituent colleges-

1. College of Veterinary and Animal Sciences, Mannuthy, Thrissur
2. College of Veterinary and Animal Sciences, Pookode Wayanad
3. Verghese Kurien Institute of Dairy and Food Technology, Mannuthy, Thrissur
4. College of Dairy Science and Technology Pookode Wayanad,
5. College of Dairy Science and Technology, Kaimanam, Thiruvananthapuram
6. College of Dairy Science and Technology, Kolahalamedu, Idukki
7. College of Avian Sciences and Management, Thiruvazhamkunnu, Palakkad

The University has wide network of instructional and research farms spread throughout the state, which include the instructional livestock farms attached to College of Veterinary and Animal Sciences, Pookode and Livestock Farm and Fodder Research & Development Scheme at Mannuthy, Livestock Research Station, Thiruvazhamkunnu, Palakkad, University Poultry and Duck Farm, Mannuthy, Centre for Pig Production and Research, Mannuthy, Goat and Sheep Farm, Mannuthy, Cattle Breeding Farm, Thumburmuzhy and Base Farm, Kolahalamedu. KVASU hosts the All India Co-ordinated Research Project on Poultry, Centre for Advanced Studies in Poultry Science and Centre for Advanced Studies in Animal Breeding and Genetics at Mannuthy. The recent development in the inter-disciplinary initiatives of the University is the establishment of five schools and seven centres, an emerging academic feature of importance. They are School of Bio-Energy studies and farm waste management, School of Applied Production and Biotechnology, School of Zoonosis, Public Health and Pathobiology, School of New Media and Research, School of Animal Nutrition and Feed Technology, Centre for Animal Adaptation to Environment and Climate Change studies, Centre for Ethno pharmacology, Centre for Livestock Development and Policy Research, Centre

for Small Laboratory Animal Production, Central Instrumentation Laboratory and central store. Centre for Wildlife Studies and Centre for One Health Education, Advocacy, Research and Training (COHEART) are located at Pookode, Wayanad. The Centre for Livestock Policy Research is located in Thiruvananthapuram, the State capital along with Regional Research Training Centre. The University offers its services through Teaching Veterinary Clinical Complex at College of Veterinary and Animal Sciences, Pookode, Peripheral Veterinary Clinic and Entrepreunership Centre, Kakkavayal, Wayanad, Veterinary Hospital Complex at Mannuthy,Veterinary Hospital at Kokkalai, Thrissur . Products from University Meat Plant and Dairy Plant at Mannuthy offers quality assured livestock products to public. The products developed under various stations of the University are being marketed under the brand "kvasu".

Our mandate:

A reading of the Act and Statutes bestows the responsibility of leading the State with innovative research and education in Animal agriculture and Veterinary sciences including all supporting and allied subjects including management and policy sciences. An added aspect is the responsibility to train farmers to enhance productivity and profit in animal agriculture, promote factor productivity by entrepreneurship acting individually and as concerns, if necessary by forming companies. Focus on entrepreneurship; actable research and commercialization of research productivity are the innovative aspects of institutional design.

Funds and funding

KVASU is funded primarily by the legislature of the state of Kerala as grants in aid in its annual budgets. Apart from Govt. of Kerala, KVASU receive funds from Indian Council for Agricultural Research (ICAR), Externally Aided Projects from other agencies and internal revenue of the University.

FROM THE OFFICE OF VICE CHANCELLOR

As Vice Chancellor of the Kerala Veterinary and Animal Sciences University, I am proud to present the annual report for the academic year 2021-2022. This year has been a milestone for our university, highlighting significant achievements across various domains including student and faculty excellence, research innovation, and community engagement. Our students have achieved remarkable success in both national and international competitions, showcasing their skills in veterinary and animal sciences. The university has been a nurturing ground for budding researchers and veterinarians, with many of our students presenting their research at prestigious conferences, thereby contributing to the global veterinary community. The faculty at our university have received recognition for their contributions to veterinary, poultry, dairy and food sciences. Research has been a cornerstone of our university's mission. This year, we have embarked on numerous research projects with the potential to significantly impact livestock and dairy sectors. These projects include studies on productivity enhancement of livestock and poultry, novel diagnostics, establishment of state of the art facilities, waste management, zoonotic diseases, mitigation of human-wild life conflict, value added products from foods of animal origin, conservation of germplasm, climate change studies, tackling antimicrobial resistance, and animal welfare, funded by both national and international grants, reflecting our global collaborations and partnership. Besides the RIDF projects , we operate projects from several funding agencies including ICAR, DST, DBT, RKVY, KSCSTE, NABARD, ICMR, to mention a few. Our commitment to social welfare is evident through our various schemes and initiatives. The university has actively engaged in community service through veterinary camps, offering free health check-ups and treatment for livestock in rural areas. Additionally, our students have participated in National Service Scheme (NSS) activities, focusing on environmental conservation and community health, reinforcing the importance of social responsibility among our students. In closing, the year 2021-2022 stands as a testament to our unwavering dedication to the advancement of veterinary and animal sciences. The strides we have made in academic achievements, research breakthroughs, and community engagement reflect our collective commitment to excellence and innovation. As we look to the future, we remain inspired by the achievements of our students and faculty and are committed to continuing our pursuit of excellence in all aspects of our mission. We extend our deepest gratitude to all members of the KVASU community for their contributions and to our partners for their continued support. Together, we move forward with renewed vigour and dedication towards shaping the future of livestock, poultry and dairy sectors of the country.

FROM REGISTRAR'S OFFICE

The Kerala Veterinary and Animal Sciences University (KVASU) was established under the KVASU Act, 2010 (Act 3 of 2011) of the Government of Kerala for the development of Veterinary and Animal Sciences and for the purpose of ensuring proper and systematic instruction, teaching, training and research and extension exclusively in Veterinary and Animal Sciences in the State of Kerala. The headquarters of the University is situated at Pookode in Wayanad district. KVASU now undertakes academic, research, extension and entrepreneurship activities in the animal husbandary and dairy sector. The University is empowered to award degrees as specified by the UGC under section 22 of the UGC Act 1956 through its main campus in regular mode with the approval of statutory bodies/ councils, wherever required. The University has seven constituent colleges, the names of the colleges have been listed below, and these colleges undertake academic, research and extension activities in the areas assigned to them.

1. College of Veterinary and Animal Sciences, Pookode, Wayanad.
2. College of Dairy Science and Technology, Pookode, Wayanad.
3. College of Veterinary and Animal Sciences, Mannuthy, Thrissur
4. Verghese Kurien Institute of Dairy and Food Technology, Mannuthy, Thrissur
5. College of Avian Sciences and Management, Thiruvazhamkunnu, Palakkad
6. College of Dairy Science and Technology, Kolahalamedu, Idukki
7. College of Dairy Science and Technology, Kaimanam, Thiruvananthapuram

The University is working as per the KVASU Act, 2010 (Act 3 of 2011), the KVASU Statutes, 2014, the Delegation of Powers and other rules/ amendments that came into existence by the order of the Government of Kerala or by the University. According to Chapter IV of the KVASU Act, 2010, the Chancellor, Pro-Chancellor and officers of the University are detailed and the list of persons who held the powers (except deans and other officers of the university prescribed in the statutes) during the period is listed below.

Sl.No.	Position	Name	Tenure
1	The Chancellor	Sri. Arif Mohammed Khan	Continues from 06.09.2019
2	The Pro – Chancellor	Adv K. Raju Smt. J. Chinchurani	From 25.05.2016 to 03.05.2021 Continues from 20.05.2021
3	The Vice Chancellor	Prof. (Dr.) M.R. Saseendranath	Continues from 24-07-2019
4	The Registrar	Prof.(Dr.).P.Sudheer Babu	Continues from 29-12-2020
5	The Finance Officer	Smt.Sreelatha.M.	Continues from 19-06-2019
6	The Director of Academics & Research	Dr. N. Ashok	Continues from 29-12-2020
7	The Director of Entrepreneurship	Dr. M. K. Narayanan	Continues from 22-10-2018

As per Chapter V of the KVASU Act, 2010, the Authorities of the University are enlisted as follows.

1. The Management Council;
2. The Board of Management;
3. Academic Council;
4. Research Council;
5. Extension Council;
6. Finance Council;
7. Board of Studies;
8. Faculty Research Committee;
9. Project Co-ordination Committee; and

such other bodies of the University as may be designated by Statutes to be the authorities of the University.

The university have provided appropriate level of officers and staff in the following categories of Joint Registrar, Deputy Registrar, Assistant Registrar, Section Officer, Assistant, Office Superintendent, and Computer Assistant to support the authorities in the management and administration of its Institutions/ Stations/ Offices.

The General Administration of the University is under the purview of the office of the Registrar. Important functions and responsibilities attached to this office are as stated below.

- appointments, promotions, and other service-related matters of the teaching, non-teaching and labourer employees in the University.
- legal-related activities for the University.
- dealing with general directions, legislative questions, and other Government Communications.
- the conduct of the Management Council, Board of Management, and such other Authorities, Bodies, and Committees (other than those related to Academic and Financial matters) as provided under the Act and the Statute of the University.
- the elections to the Authorities, Bodies, and Committees as provided under the Act and the Statute of the University.
- other administrative duties & responsibilities assigned to the University/ Registrar.

In addition to the above the General administration wing started their actions to strengthen the E-Governance system and the implementation of the Biometric Punching system in the University during the report period.

Details of the meeting of the various authorities of the University (other than those at the Faculty level) are as follows.

Meetings of the Board of Management held during the period 2021-22		
No. of the Meeting	**Date**	**Venue**
72nd Meeting	31/07/2021	Online (Google Meet)
Urgent Meeting	01/10/2021	Online (Google Meet)
73rd Meeting	18/11/2021	Online (Google Meet)
74th Meeting	29/01/2022	Online (Google Meet)
75th Meeting	16/02/2022	Online (Google Meet)
76th Meeting	26/03/2022	Periyar Hall, CVAS, Pookode

Meetings of the Management Council held during the period 2021-22		
No. of the Meeting	**Date**	**Venue**
38th Meeting	31/07/2021	Online (Google Meet)
Urgent Meeting	01/10/2021	Online (Google Meet)
39th Meeting	29/01/2022	Online (Google Meet)
40th Meeting	26/03/2022	Periyar Hall, CVAS, Pookode

Meetings of the Academic Council held during the period 2021-22	
No. of the Meeting	**Date**
31st Meeting	01-10-2021
6th Special Meeting	16-12-2021
32nd Meeting	27-01-2022

Meetings of the Finance Council held during the period 2021-22	
No. of the Meeting	**Date**
23rd Meeting	30-07-2021
24th Meeting	11-11-2021
25th Meeting	21-01-2022
26th Meeting	26-03-2022

Meetings of the Research Council held during the period 2021-22	
No. of the Meeting	**Date**
3rd Meeting	16/12/2021

Meetings of the Extension Council held during the period 2021-22	
No. of the Meeting	**Date**
4th Meeting	18/11/2021

Staffing of the University

Teaching Staff of the University				
	Assistant Professor	Associate Professor	Professor	Total
Sanctioned Strength	217	64	54	335
In position	151	45	55	251

Non-Teaching Staff of the University		
Male	**Female**	**Total**
180	153	333

Labours of the University	
Permanent Labours	451
Casual Labours	106

Resume of works conducted in the General Administration wing during 2021-22

- Election to the Academic Council, to the Management Council from the constituency 'MLA's in MC', to the Board of Management from the Management Council, to the Finance Council, to the Extension Council and to the Grievance Committee were conducted successfully. The reconstitution notifications were published.
- The Management Council of the University was re-constituted on 08/03/2021 and the Council was fully reconstituted on 15/09/2021 after incorporating MLAs and Hon'ble Chancellor's nominees.
- The Board of Management was reconstituted on 21/12/2021.
- The Academic Council was reconstituted on 02/02/2022.
- The Finance Council and the Extension Council were reconstituted on 03/03/22.
- During the report period six meetings of the Board of Management and four meetings of the Management Councils has been conducted.
- Strengthening the E-Governance system at the office of the Registrar by initiating steps for installing a Digital Document Filing System (DDFS) as a pilot project and installation of a Biometric Punching system at the University Headquarters will be completed soon.
- Agreement executed with M/s MSTC (Metal Scrap Trade Co-operation Ltd.)for the disposal of Unserviceable articles and the auction process will be initiated soon.
- As per the decision of the 72nd Board of Management, the B.Tech Food Technology programme offered by the College of Food Technology (CFT), Thumburmuzhy shifted to Mannuthy Campus and renamed CDST, Mannuthy as Verghese Kurien Institute of Dairy and Food Technology (VKIDFT).
- Appointed HoD & HoUD in the University.
- The Finance Officer and Law Officer were appointed by the government on deputation.
- Action initiated for the appointment of University officers.
- CAS interviews and promotions in respect of members of the faculty were conducted.
- General transfer of Teaching & Non-Teaching staff 2021.
- Establishment matters regarding declaration of probation, promotion, IUT, Transfer and posting, liaisoning with Govt. for approval of Non-teaching posts were done during the reporting period.
- Two Assistants have secured admission for the Post Graduate Diploma in e-Governance programme 2021-22 offered at Kerala University of Digital Science, Innovation and Technology and granted deputation for perusing the cadre.
- A note containing proposals for the formation of IT cells has been submitted before the Board of Management.
- Appointed a Technical Officer for a period of one year on a contract basis in the IT Cell,

Headquarters, KVASU, Pookode.

- Declared probation of seven Clerical Assistants.
- Four applicants for appointments under the compassionate employment scheme were granted appointments with the approval of the BoM.
- A standing committee was constituted to evaluate and monitor the activities of the IT Cell in the University.
- A note submitted to the Management Council regarding amendment of the statute.
- Hon'ble Chancellor visited Pookode Campus on 07.10.2021 and conducted 3rd Convocation.
- Adv. Manu Govind is appointed as the new standing counsel of the University.
- The University Students Grievance Redressal Committee(USGRC) is constituted to consider grievances unresolved by one or more collegiate/Departmental/ Institutional Student grievance Redressal Committees.
- Complaint committee on Harassment against Women at the workplace re-constituted.
- A detailed RTI annual report was sent to Government for the year 2020-21.
- Replies were sent to various petitions in the CMO Portal. No complaints are pending as of 05/03/2022.
- Orders were issued for shifting the Guest house, KVASU, and Pookode from the Dean's office to the Registrar's office.
- Order is issued for appointing the Nodal Officer to coordinate the activities for the establishment of the Career Development Centre at the University.
- Permission is granted to the District Suchithwa mission, Thrissur for implementing the Gobardhan scheme at CBF, Thumburmuzhy. Permission is granted to the District Suchithwa mission, Idukki for implementing the Gobardhan scheme at Base Farm, Kolahalamedu.
- Disciplinary proceedings were initiated against Sri. Sumesh. P.S. (Permanent Farm Labourer, ILFC, Pookode), Sri. Dhas. K (Permanent Labourer, Base Farm, Kolahalamedu), Sri. Biju. M.K(Permanent Labourer, Base Farm, Kolahalamedu), Smt. Jhancy. V.P(Permanent Labourer, CPPR, Mannuthy), Sri. Sunil. P.C(Permanent Labourer, ILFC, Pookode) and enquiry against Sri. Sarath Soman (Office Superintendent H.G, CoVAS, Pookode) is under process.
- NOC was issued to Commanding Officer, 1(K) R&V SQN, NCC, Mannuthy for constructing a new Hayshed for horses of 1(K) R&V SQN, NCC, Mannuthy in the land occupied by the unit at University Campus, Mannuthy through state PWD.
- A proposal was submitted to the Government, requesting to exempt KVASU from paying stamp duty and registration fees for registering lease deeds with KSIDC.
- Site inspection Report of Koyilandy & Kakkoor, proposed centres for VURTC (Veterinary University Research & Training Centre) was submitted to the Animal Husbandry Department for consideration and further necessary action from that end.

- A meeting was held at Pookode headquarters under the chairmanship of the Registrar, leaders of labour unions and University officers on 11.10.2021 regarding the issues of labourers working at various farms/ colleges/ stations under the University.
- A meeting was held at VKIDFT Hall Mannuthy under the chairmanship of the Hon. Animal Husbandry Department Minister and the leaders of labour unions on 20.12.2021, regarding the issues of labourers.
- The University has conducted a meeting with the government to sanction 118 labour posts for Pookode station from the government.

FINANACE WING

1. Financial Landscape: a profile in numbers

Kerala Veterinary and Animal Sciences University is a grant in aid Educational & Research institution receiving grants from the Government of India, ICAR and the Government of Kerala.

KVASU, a government aided institution heavily relies on government grants, which make up 80% of its funding. The internal revenue generated by the University such as Fees, Farm proceeds, charges etc. in addition to endowments and donation also contribute substantially.

In the Fiscal year 2021-22, KVASU had a total budget of Rs.20,953.62 lakhs. The University allocated 61% of its budget to Non Plan, 23% percentage to State Plan, 3% to External Aided Projects, 12% to RIDF and the remaining 1% to New Courses.

A significant amount of expenditure of the University is incurred for the disbursement of salaries/ Pension of staff and Faculty. The University has a utilisation percentage of 98% for Non Plan components in which salaries/ pension of staff and other contingencies are incurred and 88% for plan components in which the expenditure for Research Projects and Infrastructure are incurred. The University has maintained a stable financial position all throughout the year. However, it has faced challenges related to increasing operational costs and potential fluctuation in Government support. The university also constituted a pension fund for disbursing the benefits of the retired staff.

2. Duties and Responsibilities of Financial Steward:

1. Subject to the general direction and control of the Vice-Chancellor, the Finance Officer shall,-
   - *be in charge of the Finance, Accounts and Audit branches of the University;*
   - *be the principal adviser of the University on all matters connected with Finance and Audit of the University. The advice tendered by him shall generally be followed in the University office unless they are inconsistent with the provisions of the Act. Any exception to this shall be recorded by the authorities concerned and thereafter reported to the Finance Committee.*
2. The Finance Officer shall, subject to the control of the Board of Management,-
   - *ensure that the limits fixed by the Board of Management for recurring and non-recurring expenditure, for a year are not exceeded and that the amount expended for the purpose for which they are granted or allotted;*
   - *be responsible for the preparation of annual accounts and the Budget of the University and for their presentation to the Board of Management;*
   - *keep a constant watch on the progress of expenditure against the budget and on the state of investments;*
   - *watch the progress of the collection of revenue and advise on the methods of collection employed;*

- *ensure that the registers of buildings, land, furniture and equipment are maintained up-to-date and that stock verifications of equipment and other consumable materials in all Departments of the University, University Centres, University Farms, specialized laboratories, colleges and institutions maintained by the University are conducted;*
- *put forward proposal to the Board of Management for calling for explanation in respect of unauthorized expenditure or other financial irregularities in any particular case and suggest disciplinary action against the persons at fault;*
- *call for from any Centre, Farm, Laboratory College or Institution maintained by the University any information or returns that he may consider necessary for the discharge of his duties; (viii) make all arrangements for the transaction of business of the meetings of the Finance Council;*
- *enter into correspondence with the University Grants Commission, Government of India, State Government and other institutions and bodies on matters connected with the Finance, Accounts and Audit of the University;*
- *scrutinize every item of new expenditure not provided for in the budget estimates of the University;*
- *make recommendations, whenever necessary, to the Board of Management on all matters relating to the Finance, Accounts and Audit of the University;*
- *suggest any new account or audit form or register considered necessary or to suggest alteration to any existing form or register suitable for the proper working of the University office and the subordinate offices for the approval of the Finance Committee and the Board of Management;*
- *realise and receive grants or other funds due to the University from Central and State Governments, University 'Grants Commission and other bodies, institutions or individuals;*
- *fix the duties and responsibilities of the officers working under him and to exercise control over these officers and to assess their 'work and performance*

3. The Finance Officer shall be the custodian and disbursing officer of the General Fund of the University. All payments received by him shall be credited to that Fund and he shall arrange to issue cheques on behalf of the University.
4. The Finance Officer shall make all authorized payment out of the University Fund.
5. The Finance Officer shall be responsible for the proper maintenance of the accounts of the University. It shall also be the duty of the Finance Officer to make arrangements for the audit and payment of bills presented at the University office.
6. The receipt of the Finance Officer or the person or persons duly authorized in this behalf by the Board of Management for any money payable to the University shall be sufficient discharge for payment of such money.

3. Insights of the Financial Committee Gatherings:

Finance Council is one of the authorities of the University which consists of the Vice Chancellor, the Registrar, the Finance Officer and two elected members from the Management

Council. The Finance Officer Convenes the Finance Council is the authority to prepare the budget estimate of the University and, to review the accounts of expenditure and to make recommendations to the Management Council. The Finance Council will advise and make recommendations to the Management Council on any other financial question affecting the affairs of the University. Further it reviews the finance condition of the University and suggests concurrent audit to be conducted whenever necessary. During the financial year 2021-22 four Finance Council meetings were conducted respectively on 30.07.2021, 11.11.2021, 21.01.2022 and 26.03.2022.

4. Recorded Receipts; Grant in Aids:

Sl No	Receipt Head	Amount
1	Grant in Aid Non Plan	78,59,50,000
2	Grant in Aid Plan	48,20,00,000
3	External Aided Projects	2,25,51,585
4	ICAR	4,86,45,052
5	RIDF	1,37,07,000
6	RKVY	28,05,153
7	PF arrear from State Government	19,18,50,000
8	Internal Revenue	19,86,24,788
Total		**1,74,61,33,578**

5. Disbursement breakdown: Fund allocation for the financial year 2021-22

- **Non Plan**

Salary & Wages	Contingency fund transferred to station	Pension & Retirement benefits	Total fund disbursed
898998157	117399113	241433425	1257830695

- **State Plan**

KVASU State Plan 2021-22				
Budget Outlay	**Opening Balance**	**Fund Released**	**TOTAL**	**Total Expenditure**
Rs.48,20,00,000	Rs.57,74,876	Rs.47,62,25,223	Rs.48,20,00,099	Rs.42,61,49,781

- **External Aided Projects**

EAP Receipts 2021-22	Receipt	Disbursement
AICRP PIG	5579000	5579000
AICRP POULTRY	6597000	6597000
AICRP GOAT	1797000	1797000
AICRP MEGASEED	4708087	4708087
OUTREACH-EVM	559750	559750
FPT	3721668	3721668
SERB	1450000	1450000

UNDP	910800	910800
DBT	807233	1332341
ICAR JRF/SRF	278940	278940
ICAR SC SP	5000000	5000000
ICAR DEVELOPMENT GRANT	8000000	8000000
ICAR LIBRARY STRENGTHENING	1000000	1000000
ICAR VETERINARY INTERNSHIP	4728600	4728600
ICAR STUDENT READY	468000	468000
ICAR NASF	1079377	1079377
ICAR JVAS	150000	150000
ICAR EMERITUS	123214	123214
ICAR NCVTC	225000	225000
ICAR NTS	4629416	4629416
KEMIN	696000	696000
KSCSTE	509242	549131
NABARD	1598600	1598600
AHD	100000	5400000
GIZ	1013472	0
INSPIRE FELLOWSHIP	451520	451520
ARJUNA NATURALS	96000	96000
AVT NATURALS	446402	0
ICMR	2103160	2103160
TRAINING	5936500	498750
NAHEP	5735554	5660554
DTRA	659246	659246
INDO AFRICAN FELLOWSHIP PROGRAMME	36000	36000
OTHERS	1856	0
TOTAL	**71196637**	**70087154**

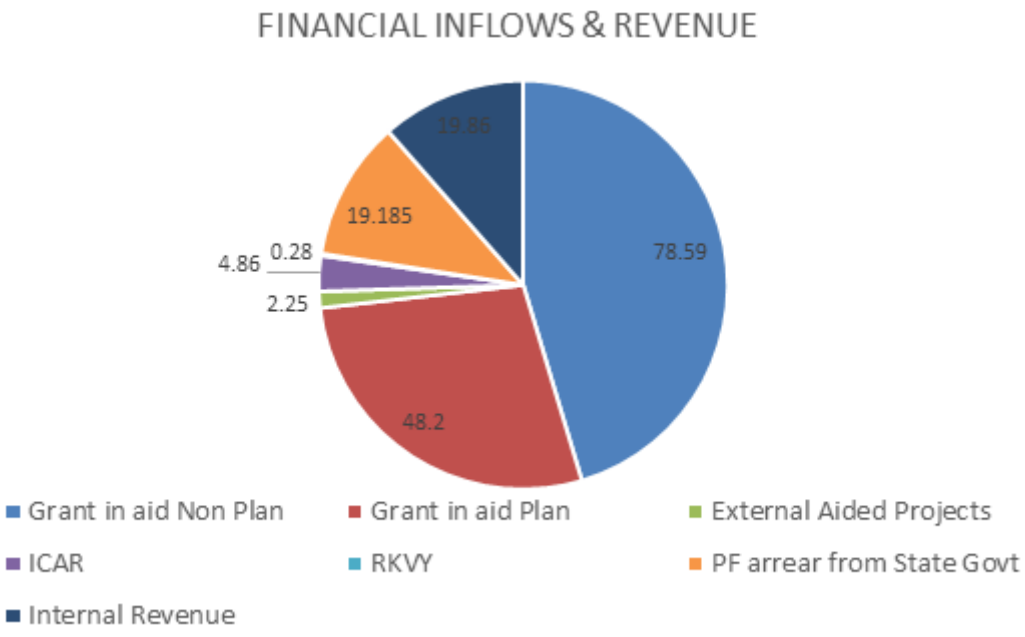
6. Breakdown of Pension Payments for the year 2021-22

Pension	Commutation	DCRG	TSEL	NPS University share
148988384	23669624	11012390	6883256	50879771
TOTAL – 24,14,33,425				

7. Concise Budget summary for the year 2021-22

Head	Non-Plan	PLAN	External Aided Projects	RIDF	New Courses	TOTAL
TOTAL	12799.53	4820.00	545.09	2617.00	172.00	20953.62

8. Financial Inflows and Revenue:



DIRECTORATE OF ACADEMICS AND RESEARCH

1. Scholarly and Investigative Programs

i. Existing programmes: Academic

The University offers the following programs at the undergraduate and postgraduate level.

Sl. No.	Course
1	BVSc and AH
2	BTech Dairy Technology
3	BTech Food Technology
4	M.S. in Wildlife Studies
5	M.Sc. in Biostatistics
6	M.Sc. in Quality Control in Dairy Industry
7	M.Sc. in Biochemistry and Molecular Biology
8	M.Sc. in Applied Microbiology
9	M.Sc. in Animal Biotechnology
10	M.Sc. in Animal Sciences
11	P.G. Diploma in Climate Services in Animal Agriculture
12	P.G. Diploma in Climate Services
13	P.G. Diploma in Veterinary Cardiology
14	P.G. Diploma in Veterinary Anaesthesia
15	B.Sc. (Poultry Production and Business Management)
16	Diploma in Dairy Science
17	Diploma in Poultry Production
18	Diploma in Laboratory Techniques
19	Diploma In Feed Technology
20	Ph.D. in Animal Genetics and Breeding
21	Ph.D. in Animal Nutrition
22	Ph.D. in Animal Reproduction, Gynaecology and Obstetrics
23	Ph.D in Livestock Production and Management
24	Ph.D in Livestock Products Technology(Dairy/Meat)
25	Ph.D in Poultry Science
26	Ph.D in Veterinary Anatomy
27	Ph.D in Veterinary Extension Education
28	Ph.D in Veterinary Biochemistry
29	Ph.D in Veterinary Medicine (Clinical/Preventive)
30	Ph.D in Veterinary Microbiology
31	Ph.D in Veterinary Parasitology
32	Ph.D in Veterinary Pathology
33	Ph.D in Veterinary Pharmacology and Toxicology

34	Ph.D in Veterinary Physiology
35	Ph.D in Veterinary Public Health & Epidemiology
36	Ph.D in Veterinary Surgery and Radiology
37	Ph.D in Dairy Technology
38	Ph.D in Dairy Microbiology
39	Ph.D in Dairy Chemistry
40	Ph.D in Histology
41	Ph.D in Developmental Anatomy
42	Ph.D in Molecular Biology
43	Ph.D in Clinical Biochemistry
44	Ph.D in Molecular Genetics
45	Ph.D in Livestock Products
46	Ph.D in Diagnostics and Vaccinology
47	Ph.D in Animal Sciences
48	Ph.D in Applied Microbiology
49	Ph.D in Diagnostic & Molecular Microbiology
50	Ph.D in Clinical Molecular Genetics
51	Ph.D in One Health
52	Ph.D in Experimental Toxicology
53	Ph.D in Climate Change in Animal Agriculture
54	MVSc in Veterinary Biotechnology
55	MVSc in Animal Genetics and Breeding
56	MVSc in Animal Nutrition
57	MVSc in Animal Reproduction, Gynecology and Obstetrics
58	MVSc in Livestock Production and Management
59	MVSc in Livestock Products Technology(Meat/Dairy)
60	MVSc in Poultry Science
61	MVSc in Veterinary Anatomy
62	MVSc in Veterinary Extension Education
63	MVSc in Veterinary Biochemistry
64	MVSc in Veterinary Medicine(Clinical/Preventive)
65	MVSc in Veterinary Microbiology
66	MVSc in Veterinary Parasitology
67	MVSc in Veterinary Pathology
68	MVSc in Veterinary Pharmacology and Toxicology
69	MVSc in Veterinary Physiology
70	MVSc in Veterinary Public Health and Epidemiology
71	MVSc in Veterinary Surgery and Radiology
72	M Tech in Dairy Technology
73	M Tech in Dairy Microbiology
74	M Tech in Dairy Chemistry

ii) Existing programs: Research

A. State Plan Projects 2019-20 (RIDF)

The Government have accorded sanction for the release of Rs. 1,37,07,000/- (Rupees One Crore Thirty Seven lakh and Seven Thousand Only) towards the RIDF project entitled "Establishment of referral and diagnostic laboratory for supporting livestock farming and diagnostic zoonotic disease being reimbursement vide order no G.O (Rt)No. 188/2021/AHD dated, 07/05/2021 and the fund has been released to the Director, ID Wing , KVASU. The detailed Civil and Electrical estimates of the project has been approved by ADG-CPWD. The site of the project is fully cleared and ready for construction activities and the EoI for the comprehensive consultancy for BSL-3 lab including services has been initiated by the CPWD.

B. State Plan Projects 2021-22 (RIDF)

The combined proposals of two RIDF projects for a total budget of 1788.85 lakhs for the financial year (2021- 22) is under consideration of the Government for approval and funding.

State Plan Projects 2021-22

Administrative Sanction for State Plan projects for the year 2021-22 with total outlay of Rs.48.20 crores has been received vide. G O.(Rt.)No.243 /2021/AHD dtd.19/06/2021 and a total amount of Rs. 48.20 crores has been released to the University by the Government under State Plan (2021-22). The amount of Rs.2.42223/- lakh resumed from State Plan projects during 2020-21 has been refunded to the University and same has been disbursed among various State Plan projects for the year 2021-22. Also, an amount of Rs. 57.74876/- lakh from University fund have been released to various State Plan projects for the year 2021-22 for utilizing under the projects. Plan proposals worth Rs. 49.647 crores have been submitted to the Government for the financial year 2022-23.

C. RKVY Projects

A project proposal entitled "Augmenting fertility in goats by improving semen cryopreservation techniques" with an outlay of 39 lakh submitted from this University has been sanctioned by Government of Kerala and 22 new project proposals under RKVY-RAFTAAR for the year 2022-23 have been submitted to the Government for approval and funding.

D. Externally aided projects/Revolving fund projects

Currently, the University has 52 ongoing research projects with execution period up to five years with financial support of Rs. 24.68 crores from different external agencies as detailed below.

Sl No	Name of Funding Agency	Number of ongoing projects	Outlay (in Lakhs)
1	ICAR	10	409.99
2	DST	07	147.22
3	DBT	01	39.33
4	RKVY	04	1517.00
5	KSCSTE	13	32.65

6	AHD	03	43.06
7	ATMA	03	31.77
8	NABARD	02	24.43
9	IDSP	01	3.00
10	DTRA	01	86.18
11	NMPB	01	21.38
12	UNDP	01	45.54
13	ICMR	01	19.0716
14	Others	04	47.47
	TOTAL	**52**	**2468.0916**

Besides, 33 projects are running in the University under revolving fund mode.

During this period a total number of 33 new project proposals have been forwarded to different funding agencies for approval and funding.

E. State Plan Projects

Sl. No	Name of Department/ Station	Title of Project	Total Outlay (Lakhs)
1	AICRP on Poultry for Eggs, Mannuthy	25 per cent AICRP on poultry for eggs	24.00
2	AICRP on Poultry for Eggs, Mannuthy	Production and marketing of enriched eggs	10.00
3	AICRP on Poultry for Eggs, Mannuthy	Improving backyard poultry production by supplying crossbred chicks from improved hens	25.00
4	Animal Genetics and Breeding, CVAS, Pookode	Establishment of Bioinformatics Laboratory	8.00
6	Animal Nutrition, Mannuthy	Increasing the productivity of Cross breed Cattle at ULF & FRDS, Mannuthy	50.00
7	Animal Nutrition, Mannuthy	Strengthening of Analytical facilities of Animal Nutrition Department	8.00
8	Animal Nutrition, Mannuthy	Strengthening of rumen microbiology	5.00
9	Animal Nutrition, Pookode	Differential expression profile of FCR genes in broiler goat kids on soya bean based diet	8.00
10	Assistant Professor, Dept. of Animal Nutrition, Pookode	Establishment of Goat Nursery, semen preservation facility for the supply of kids in Wayanad District	12.00
11	Avian Research Station, Thiruvazhamkunnu	Developing waste management systems for effective utilization of farm, hatchery, feedmill and canteen waste	2.00

12	Base Farm, Kolahalamedu	Strengthening of Base Farm, Kolahalamedu as knowledge dissemination hub on latest technologies and innovations in dairy farming	55.00
13	Bioscience Research and Training Centre, Thiruvananthapuram	Laboratory at BRTC, TVM	30.00
14	Bioscience Research and Training Centre, Thiruvananthapuram	Capacity building programmes for various stakeholders of livestock sector	5.00
15	Bioscience Research and Training Centre, Thiruvananthapuram	Isolation and characterization of antibiotic resistant pathogens from chicken and raw milk samples of Thiruvananthapuram District	5.00
16	Bioscience Research and Training Centre, Thiruvananthapuram	Studies on Infectious bursal disease virus-host interactions	5.00
17	Bioscience Research and Training Centre, Thiruvananthapuram	Strengthening of Bioscience Research and Training Centre, Thiruvananthapuram	5.00
18	CAADECCS KVASU, Mannuthy	Livestock Advisory Based on Weather Forewarning	8.00
19	Centre for Advanced Studies in Poultry Science, Mannuthy	Conservation, characterization and popularization of native varieties of poultry in Kerala	30.00
20	Centre for Advanced Studies in Poultry Science, Mannuthy	Advanced Mycotoxin testing facility for poultry feed	8.00
21	Centre for Wildlife Studies, Pookode	Augmenting Academic/Training Activities of KVASU-CWS for Mitigating Adverse Effects of Climate Change and Human-Wildlife Conflict on Tribal People and Farmers of Wayanad	9.00
22	Clinical Medicine, Ethics and Jurisprudence, Mannuthy	Comprehensive health care of farm animals and pets- Mannuthy campus	8.00
23	Clinical Medicine, Ethics and Jurisprudence, Mannuthy	Establishment of a training hall for livestock farmers, entrepreneurs, veterinarians and para veterinarians	8.00
24	College of Dairy Science & Technology Kolahalamedu	Development of functional dairy foods	12.00
25	College of Dairy Science & Technology, Kolahalamedu	Development of Ready to Eat (RTE) based Functional Dairy	14.00
26	College of Dairy Science & Technology, Kolahalamedu	Technology Upgradation, Mechanisation, Shelf life enhancement of value addition of traditional dairy products of Kerala	14.00
27	College of Dairy Science and Technology, Pookode	Rheological characterization of locally available dairy products in Wayanad district.	8.00

28	College of Dairy Science and Technology, Pookode	Research on development of passion fruit juice incorporated low calorie ice- cream.	8.00
29	College of Dairy Science and Technology, Pookode	Development of antidiabetic whey jelly	4.00
30	College of Dairy Science and Technology, Pookode	Studies on extending shelf life and anti-oxidant properties of ghee using herbal isolates	4.00
31	College of Dairy Science and Technology, Pookode	Yeast Fermentation: Study on the symbiotic association of yeast and lactic acid bacteria in fermented milk products	4.00
32	College of Dairy Science and Technology, Pookode	Identification lactic phages from the dairy effluents and their effect on commercial starters	4.00
33	College of Dairy Science and Technology, Pookode	Enhancing milk production potential of genetically superior cows through scientific intervention for producing better progenies	3.00
34	College of Food Technology, Thumburmuzhy	Evaluation of bio-functional property of Nutmeg fruit and its utilization in the development of healthy drink	8.00
35	College of Food Technology, Thumburmuzhy	Process standardization of jackfruit enriched fermented and non fermented food products	8.00
36	College of Food Technology, Thumburmuzhy	Preparation of processed Rambutan pulp incorporated fruit beverages using seasonal and underutilized fruits in Kerala and study of the processing parameters and product properties	8.00
37	College of Food Technology, Thumburmuzhy	Development of fiber enriched muffins incorporating legumes and fruits.	8.00
38	College of Food Technology, Thumburmuzhy	Preparation of processed fruit beverages using seasonal and underutilized fruits in Kerala and optimization	8.00
39	Clinical Medicine, Ethics and Jurisprudence, Mannuthy	Comprehensive health care of farm animals and pets- Mannuthy campus	8.00
40	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy	Establishment of a training hall for livestock farmers, entrepreneurs, veterinarians and para veterinarians	8.00
41	Department of Surgery and Radiology	Developing best anaesthetic practices and protocols for various classes of veterinary patients	8.00
42	Veterinary Physiology, Pookode	Assessment of health status of crossbred cattle during peripartum period and its impact on production performance	8.00
43	Statistics, CVAS, Mannuthy	Forecasting weather parameters and effects of disease outbreaks in Kerala	8.00
44	Poultry Science, Pookode	Establishing Breeder Farms in ILFC	12.00

45	Poultry Science, Pookode	Strengthening of Hatchery of poultry farm, ILFC, Pookode	10.00
46	Preventive Medicine, Mannuthy	Surveillance of infectious diseases, their management and seromonitoring of vaccination in university farm animals	8.00
47	Instructional Farm, Pookode	Strengthening of Fodder production at CVAS Pookode	15.00
48	Instructional Farm, Pookode	Establishment of Milk processing and packing unit at ILFC, Pookode	6.00
49	Instructional Farm, Pookode	Establishment of cow lift at ILFC, Pookode	2.50
50	Instructional Farm, Pookode	Establishment of TMR unit at ILFC, Pookode	13.00
51	Livestock Production Management	Assessing the performance of Murrah Buffalo Herd for Milk & Meat Production in Hot and Humid climate of Kerala	25.00
52	Livestock Production Management, CVAS, Mannuthy	Indicator based analysis of potentials and developing strategies for improving the livestock economy of the state	8.00
53	Livestock Production Management, CVAS, Mannuthy	Performance evaluation and need based intervention for enhancing production and productivity of Livestock enterprise	5.00
54	Livestock Production Management, CVAS, Mannuthy	Model bio-waste management by combined mechanical and biological process	5.00
55	Livestock Production Management, Pookode	Strengthening of Pig farm and enhancing the production of quality piglets	8.00
56	Livestock Production Management, Pookode	Strengthening of Rabbit farm, ILFC, Pookode	6.00
57	Livestock Products Technology, Pookode	Mapping, standardisation and quality evaluation of traditional value added products from meat, poultry and egg in three southern districts (Pathanamthitta, Kollam and Thiruvananthapuram) of Kerala	8.00
58	Livestock Products Technology, Pookode	Mapping, standardisation and quality evaluation of traditional value added products from meat, poultry and egg in three southern districts (Pathanamthitta, Kollam and Thiruvananthapuram) of Kerala	8.00
59	Livestock Research Station, Thiruvazhamkunnu	Development of Silent Valley farm platform for sustainable livestock production	17.00
60	Livestock Research Station, Thiruvazhamkunnu	Conservation and evaluation of Malabari and Attappady Black goats	6.50

61	Poultry Science, CVAS, Mannuthy	Assessment of egg production, fertility and hatchability changes in crossbred chicken at different climatic conditions in Wayanad district and development of strategies to optimize chick number / breeder hen	8.00
62	Poultry Science, Pookode	Popularization of Backyard poultry in Wayanad	8.00
63	Poultry Science, Pookode	Hatchery waste disposal and its effective utilization.	4.00
64	Sheep and Goat Farm Mannuthy	Conservation and evaluation of Malabari and Attappady black goats	16.40
65	University Livestock Farm and Fodder Research and Development Scheme, Mannuthy	Strategies for Improving Fodder Production of Kerala State	22.00
66	University Veterinary Hospital, Kokkalai, Thrissur	Empowering Farm Animal Health care services for Enhancing Production	2.00
67	UVH, Kokkalai, Thrissur	Strengthening of Veterinary Clinical Laboratory at University Veterinary Hospital, Kokkalai.	6.00
68	Veterinary & Animal Husbandry Extension, Mannuthy	Revitalisation of the animal production sector in the post covid era through strengthening of farmer research linkages and optimisation or production, marketing and pricing strategies	8.00
69	Veterinary & Animal Husbandry Extension, Mannuthy	Strengthening of elephant study centre CVAS, Mannuthy for better welfare and conservation and of captive elephants in Kerala through efficient health care and management	5.00
70	Veterinary Anatomy, Pookode	Systemic anatomical studies on domestic and wild animals	8.00
71	Veterinary and Animal Husbandry Extension Education	Effect of COVID-19 pandemic on the livelihood of Dairy farmers of Wayanad district and measures for mitigation	8.00
72	Veterinary Biochemistry, Mannuthy	Assessment of antibacterial activities of goat lactoferrin conjugated silver nanoparticles	8.00
73	Veterinary Biochemistry, Pookode	Characterization and comparative antibiogram analysis of drug resistant *E.coli* isolates recovered from poultry settings	8.00
74	Veterinary Epidemiology and Preventive Medicine, Pookode	Preventive healthcare programme for livestock in rural areas of Wayanad district with special emphasis to mastitis and haemoprotozoan diseases”	8.00

75	Veterinary Microbiology, Mannuthy	Development of multiplex polymerase chain reaction assays for the detection of respiratory pathogens in goats and dogs-	81.00
76	Veterinary Microbiology, Mannuthy	Development of multiplex polymerase chain reaction assays for the diagnosis of common bacterial and viral agents associated with respiratory infections in goats and dogs	8.00
77	Veterinary Parasitology, CVAS, mannuthy	Detection and molecular characterisation of genes associated with drug resistance in nematodes and ticks affecting livestock of Kerala	8.00
78	Veterinary Parasitology, Mannuthy	Detection and molecular characterisation of genes associated with drug resistance in nematodes and ticks affecting livestock of Kerala	8.00
79	Veterinary Parasitology, Pookode	A recombinant antigen based ELISA for the detection of *Babesia gibsoni* infection in canine from northern zone of Kerala	8.00
80	Veterinary Pathology, Mannuthy	Project proposal for definitive diagnosis of common swine and canine diseases including canine tumours	8.00
81	Veterinary Pharmacology and Toxicology, CVAS, Mannuthy	Formulation of low cost plant based nanoparticle incorporated hydrogel with antibacterial wound healing activities for the treatment of wounds in animals	8.00
82	Veterinary Public Health, CVAS, Mannuthy	Spatial modeling of leptospirosis and antimicrobial resistance of foodborne pathogenic bacteria from beef and milk samples in Central Kerala	8.00
83	Veterinary Public Health, CVAS, Mannuthy	Strengthening of NABL accredited Quality Control Laboratory	4.00

2. Publications

i. *Journals/ Books / text books/ popular articles*

Peer Reviewed Journal Publications

Research publications

1. Lucy, K. M., Ashok, N., Maya, S., Indu, V. R., Sreeranjini, A.R. and Karthiayini, K., 2021. Histology of hair follicles in differenet breeds of rabbits. *Indian J. Anim. Res.* DOI: 10.18805/IJAR.B-4343 Online published on 06.04.2021.
2. Maya, S., Sanil, G., Sreeranjini, A. R., Leena, C., Sunilkumar, N. S. and Sumena, K.B. 2021. Identification of deer and goat species from skin samples-a DNA barcoding approach. *J. Vet.*

Anim. Sci. 52(1): 85-87. DOI: https://doi.org/10.51966/jvas.2021.52.1.85-87

3. Maya S, Anitha P, Aravindakshan T.V, Ashok N, Lucy K.M, Indu V.R, Sreeranjini A.R, Leena C, Sunilkumar N.S and Sumena K.B. 2021. Lectin histochemical studies on chicken embryos. *J Ind Vet Assoc*. 19(2): 112-118.

4. N.M. Rajashailesha, R.V.Prasad, N.S.Sunilkumar, M H Girish, S. Ganga Naik, M K Vinuthan and K V Jamuna. 2021. Cytoarchitecture of medial cuneate nucleus in the buffalo (*Bubalus bubalis)*. *The Pharma Innovation Journal.* 10(1S): 171-174.

5. Annie, V.R., Lucy, K.M., Ashok, N., Maya, S., Hiron, M.H. and Sathu, T. 2021. Scanning electron microscopy of ovary and oviduct of crossbred dairy cows with ovarian hypoplasia. *J. Vet. Anim. Sci.* 52(2): 187-190. DOI: https://doi.org/10.51966/jvas.2021.52.2.187-190

6. Annie, V.R., Lucy, K.M., Ashok, N., Maya, S., Hiron, M.H. and Sathu, T. 2021. Histo-morphology of genitalia in crossbred dairy cows with kinked cervix. *J. Vet. Anim. Sci.* 52(2): 191-195. DOI: https://doi.org/10.51966/jvas.2021.52.2.191-195

7. V.R. Annie, K.M. Lucy, N. Ashok, S. Maya, M. Shynu and G. Radhika. 2021. Wnt7a Mutations in Crossbred Dairy Cows with Kinked Cervix Leading to Infertility. *Indian J. Vet. Anat*. 33 (1): 27-29.

8. Alphine Joseph, K.M. Lucy, S. Maya, K.B. Sumena, V.N. Vasudevan and C. Sunanda. 2021. Histological and Physico-Chemical Characterization of Skin Dermis in Broiler and Kuttanad Ducks. *Indian J. Vet. Anat*. 33 (1): 48-50.

9. Lhingneivah Doungel, Indu VR, Lucy KM, Vasudevan VN, Sunilkumar NS, Justin Davis and Gleeja VL. 2021. Physico-chemical properties of decellularised tunica vaginalis of buffalo. *The Pharma Innovation Journal.* SP-10(10): 1342-1346.

10. Lucy, K. M., 2021. Infertility in dairy cows- anatomical causes. *Journal of Indian Veterinary Association.* 19(1):7 -9

11. N.V. Jisha.,G. Girish Varma., V.L. Gleeja., A.Prasad., V. Beena., .,K. Karthiayini and V. Sejian. 2021. .Annual temperature profile of Thrissur: a climate change perspective. *J.Vet. Anim.Sci*. 52 (1): 26-31

12. Suraj Janardan Chavan, Dildeep Varadan, Chintu Ravishankar, Babitha Vazhoor, Renjith Sebastian, Sunanda Chulliparambil & Priya Prakash. (2021). The Effect of Inorganic and Organic Zinc Supplementation on Growth Performance, Mineral Profile and Gene Expression Pattern of GLUT1 in Malabari Kids. Biological Trace Element Research. 199:568–577.

13. Mankuzhy, P. D., Ramesh, S. T., Thirupathi, Y., Mohandas, P. S., Chandra, V., & Sharma, T. G. (2021). The preclinical and clinical implications of fetal adnexa derived mesenchymal stromal cells in wound healing therapy. Wound Repair and Regeneration.

14. Sreekumar, T. R., Eswari, S., & Vijayarani, K (2021) Evaluation of Culture Morphology of Neuronally Trans-differentiated Wharton's Jelly Derived Mesenchymal Stem Cells. *Indian Journal of Animal Research*, *1*, 5.

15. Jisha.,G. Girish Varma., V.L. Gleeja.K., A.Prasad., V. Beena., Karthiayini and V. Sejian.

2021. Annual temperature profile of Thrissur: a climate change perspective. J.Vet.Anim.Sci. 52(1):26-31

16. Sasi, D., Harikumar, S., Prasad, A., Beena, V., Gleeja, V.L. and Nameer, P.O (2021). Structural and microclimatic characteristics of dairy cattle shelters in Kerala. J Indian Vet Assoc. 19(1): pp-33-42

17. Debia Yamin.,V. Beena., B. Ramnath., R. Thirupathi Venkatachalapathy and Aziz Zarina (2021). Association of temperature humidity index during summer with haematological parameters in native and crossbred goats of Kerala J.Vet.Anim.Sci.52(3) : 222-227

18. Rohil Chopra, V. Ramnath, V. Beena, K. Raji, and Arun George:Evaluation of glutathione peroxidase in anemia associated with hemoprotozoan infections in dogs JVAS- Manuscript No. 262/27/11/2

19. Aishwary Vibhuti R. Thirupathy Venkatachalapthy, Pramod S, T.V. Aravindakshan and V. Beena Expression profilingof Ecto-NOX Disulfide-Thiol Exchanger 2 (ENOX2) gene during heat stress in Attappady black and Malabari goats JVAS- Manuscript No. 273/06/01/22

20. Bhat V.S.V., Uma R., Jayavardanan K. K., Mukul C. G. and Desai A.G. 2021. Therapeutic tumour vaccines- a review. *Pharm. Innov. J.* 10(6): 979-984

21. Pranjali, P., Divya, P.D., Lijo, J., and Jayavardhanan, K.K. 2021. Molecular characterization of exon region of type 2 diabetes associated gene (*KCNJ11*) in Labrador retriever dogs. *J. Vet. Anim. Sci*. 52(1): 36-41

22. Akhil, K.S., Chackochan, M., Sunanda, C., Rojan, P.M., Nair, S.N., Simon, S., Sanjay, D., Dinesh, C.N. and Ravindran, R., 2021. South Indian zebu dwarf cattle show higher natural resistance to tick infestation compared to crossbreds: preliminary observations. Tropical Animal Health and Production, 53(5), pp.1-8.

23. Arya Mohan, A.R. Nisha, S. Sujith, S. Suja Rani and Naicy Thomas. 2021. Antibiofilm activity of berberine and capsaicin in combination with quinolones against Staphylococcus aureus from bovine mastitis. Journal of Veterinary and Animal Sciences

24. Dhanusha, G., Sujith, S ., Nisha, A.R., Aathira, K.K. and Haima, J.S. 2021. Cytotoxic and antiproliferative potential of methanolic extracts of Asparagus racemosus in MDAMB231 cells. Pharma Innovation J. 10 (2): 355-358

25. Kariyil BJ., Ayyappan UPT, Gopalakrishnan A., George AJ. 2021. Chloroform fraction of methanolic extract of seeds of Annona muricata induce S phase arrest and ROS dependent caspase activated mitochondria mediated apoptosis in triple negative breast cancer. Anticancer agents in medicinal chemistry, 1250-1265

26. Madhusudhanan, M., Saranya, C., John, M.S., Sanjay, B.M., Suraj, S.V., Nair, S.N., Ajithkumar, K.G., Nisha, A.R., Ravindran, R. and Juliet, S., 2021. Modulation of acetylcholine induced smooth muscle contractile activity of rat ileum by histamine.

27. Mechery, S., Nair, S.N., Divya, T.M., Promod, K., Paramba, S.I.N., Ravindran, R. and Juliet, S., 2021. Influence of Pyrexia on Pharmacokinetics of Azithromycin and Its Interaction with

Tolfenamic Acid in Goats. Frontiers in Veterinary Science, 8.

28. Nanjundappa, S., Nair, S.N., Udayan, D., Kanapadinchareveetil, S., Jacob, M., Ravindran, R. and Juliet, S., 2021. Disposition Kinetics of Amitraz in Lactating Does. Molecules, 26(16), p.4769.

29. Ramachandran, P.D., Muniyappa, M.D., Kanapadinchareveetil, S., Nair, S.N., Ajithkumar, K.G., Samraj, S., Rajappan, A., Varghese, A., Kalarickal, D.C., Ravindran, R. and Ghosh, S., 2021. Modulation of the PGE2-Mediated Pathway in the Eclosion Blocking Effect of Flumethrin and Terpenoid Subfraction Isolated from Artemesia nilagirica in Rhipicephalus annulatus. Molecules, 26(16), p.4905.

30. Reni John, Bibu John Kariyil, Usha PTA and Surya S. Apoptosis mediated cytotoxic potential of Erythrina variegata L. stem bark in human breast carcinoma cell lines Apoptosis mediated cytotoxic potential of Erythrina variegata L. stem bark in human breast carcinoma cell lines. Indian Journal of Experimental Biology, 2021, 437447

31. Shanthi Vasudevan C.N., Bibu John Kariyil, Athira Nair D. and I'ma Neerakkal. 2021. Screening of phytcompounds, molecular docking studies and in vivo anti-inflammatory activity of heartwood aquoeus extract of Pterocarpus santalinus L.f. Asian Pacific Journal of Tropical Biomedicine 11(2): 59-65.

32. Sudharsan, C., Murugan, S.S., Chacko, B., Juliet, S., Nair, S.N., Bency, A. and Muneer, A.K., 2021. Influence of dietary substitution of palm oil by rapeseed oil at different levels on growth performance and economics of broilers. Indian Journal of Animal Research, 1, p.6.

33. V. Keerthika, A. R. Nisha, Suresh N. Nair, Preethy John, V. Ramnath, R. Shankar, Arya Mohan. 2021. Phytochemical analysis and biosynthesis of silver nanoparticles from aqueous extract of seeds of Sesasum indicum. Journal of Veterinary and Animal Sciences

34. Aathira, K.K., Kariyil, B.J., Dhanusha, G., Haima, J.S., Sujith, S., Shynu, M. and Nisha, A.R., 2021. Qualitative and quantitative analysis (GC-MS) of methanol extract of Crataeva nurvala stem bark. Journal of Veterinary and Animal Sciences.

35. Praveen, M.K., Martin, K.J., Nair, S.S., Varghese, R. and Nair, S.N., 2021. Haemato-biochemical and blood gas changes in bovines under multimodal anaesthesia. Journal of Veterinary and Animal Sciences.

36. Archana, R., Nair, S.N., Abdulvahab, R. and Ittoop, G., 2022. In-Silico Modelling of Interaction Between Environmental Xenoestrogens and Estrogen Receptor of Pacific Oyster (Magallana gigas [Thunberg, 1793]) Using AutoDock. Informatics Studies, 9(1).

37. Karthika ,R., K.Devada, BinduLakshmanan , K.Syamala, K. Vijayakumar and G.M. Pooja (2021). Seroprevalence of Toxoplasma gondii in aborted goats in Kerala .J. Vet. Anim. Sci.52(2): 166-170

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3. Aggregate Students Body and Turnout

a) Student Status in the University/ Constituent College/Faculty (2021-22):

SN	Name of College	Parame-ters	Numbers				
			Bachelor's	Master's	Ph.D.	Others Including Diploma	Total
1	CVAS, Pookode	Intake	100	63	28	33	224
		Enrolled	100	41	9	22	172
		Passed Out	153	30	2	26	211
2	CVAS, Mannuthy	Intake	125	79	12	34	250
		Enrolled	125	68	11	28	232
		Passed Out	244	95	9	-	348
3	VKIDFT, Mannuthy	Intake	65	6	3	-	74
		Enrolled	47	6	3	-	56
		Passed Out	33	2	1	-	36
4	CDST, Pookode	Intake	22	-	-	-	22
		Enrolled	17	-	-	-	17
		Passed Out	13	-	-	-	13
5	CDST Thiruvananthapuram	Intake	22	-	-	-	22
		Enrolled	18	-	-	-	18
		Passed Out	18	-	-	-	18
6	CDST, Kolahalamedu.	Intake	22	-	-	-	22
		Enrolled	22	-	-	-	22
		Passed Out	18	-	-	-	18

7	CASM, Thiruvazhamkunnu.	Intake	50	-	-	-	50
		Enrolled	26	-	-	-	26
		Passed Out	44	-	-	-	44

b) Category wise total number of students in the University

Programme	No. of students					
	SC	ST	OBC	EWS	General	Total
Bachelor's	160	60	1111	39	563	1933
Master's	20	9	98	0	70	197
Ph. D.	3	1	20	0	27	50
Others	18	7	46	0	28	99

c) Gender Pattern amongst Student Enrolled in University/ Constituent College/Faculty:

SN	Name of College	Parameters	Numbers			
			Bachelor's	Master's	Ph.D	Total
1	CVAS, Pookode	Male	262	26	10	**347**
		Female	357	65	10	**482**
		Total	**619**	**91**	**20**	**829**
2	CVAS, Mannuthy	Male	273	60	10	**343**
		Female	423	26	13	**462**
		Total	**696**	**86**	**23**	**805**
3	VKIDFT, Mannuthy	Male	64	5	1	**70**
		Female	159	15	7	**181**
		Total	**223**	**20**	**8**	**251**
4	CDST, Pookode	Male	21	-	-	**21**
		Female	67	-	-	**67**
		Total	**88**	-	-	**88**
5	CDST Thiruvananthapuram	Male	12	-	-	**12**
		Female	66	-	-	**66**
		Total	**78**	**-**	**-**	**78**
6	CDST, Kolahalamedu.	Male	13	-	-	**13**
		Female	55	-	-	**55**
		Total	**68**	-	-	**68**
7	CASM, Thiruvazham-kunnu.	Male	86	-	-	**86**
		Female	75	-	-	**75**
		Total	**161**	-	-	**161**

Total number of students registered for various technology enabled distance (2021-2022)

Sl. No	Name of course	Year of Admission	Total Number of students	Male	Female
1	Post Graduate Diploma in Poultry Entrepreneurship	2021-22	1	1	0
2	PG Diploma in Toxicologic Pathology	2021-22	3	1	2
3	Post Graduate Certificate Course in Veterinary Forensic Medicine	2021-22	1	1	0
4	Post Graduate Diploma in Dairy Entrepreneurship	2021--22	2	2	0

4. Chief of Disciplines, Scholarly Staff and Turnout

5. Student details - Gender based data/SC/ST based list – given above

6. Commenced course offerings

i. Details of new courses started

Regular Programmes

S.No	Course
1	PhD in Biosciences (Clinical Molecular Genetics)
2	PhD in Biosciences (One Health)
3	PhD in Biosciences (Experimental Toxicology)

Distant programmes

S.No	Course
1	PG Diploma in Small Animal Theriogenology
2	PG Diploma in Recent Advancement in Therapeutic and Prophylactic Management of Infectious Diseases of Livestock
3	PG Diploma in Applied Animal Welfare Ethics and Law
4	PG Certificate Course in Veterinary Forensic Medicine
5	Certificate Course in Animal Forensics

7. Unveiled Academics extensions

i. Details of new Departments created (Deans)

8. Scholarships conferred

A. Merit Scholarship for the following numbers of students were granted during the period. (Rs.1500/- per semester)

Sl. No.	Name of the Programme	Colleges	Year of Admission and Year of study	No. of students
1	B.V.Sc.&A.H	CVAS, Pookode	2015 adm- 4th year	12
			2015 adm- 5th year	12
			2016 adm- 3rd year	12
			2016 adm- 4th year	12
			2020 adm- 1st year	8
2	B.V.Sc.&A.H	CVAS, Mannuthy	2016 adm- 2nd year	10
			2016 adm- 3rd year	14
			2016 adm- 4th year	14
			2020 adm- 1st year	10
3	B.Tech (DT)	CDST, Mannuthy	2017 adm- 4th year	3
			2019 adm- 2nd year	4
			2020 adm- 1st year	4
4	B.Tech (DT)	CDST, Kolahalamedu	2017 adm- 4th year	2
			2018 adm- 3rd year	2
			2019 adm- 2nd year	2
			2020 adm- 1st year	2
5	B.Tech (DT)	CDST, Pookode	2020 adm- 1st year	2
6	B.Tech (FT)	CFT, Thumburmuzhy	2017 adm- 4th year	2
			2020 adm- 1st year	2
7	B.Tech (DT)	CDST, Thiruvananthapuram	2018 adm- 3rd year	2
			2019 adm- 2nd year	2
			2020 adm- 1st year	2
8	BSc. PPBM	CVAS, Pookode	2016 adm- 3rd year	2
			2017 adm- 2nd year	3
			2020 adm- 1st year	2
9	BSc. PPBM	CASM, Thiruvazhamkunnu	2018 adm- 3rd year	5
			2019 adm- 2nd year	5
			2020 adm- 1st year	5

B. Merit cum Means Scholarship for the following number of students were granted during the Period- (Rs.20000/- per annum)

Sl No.	Name of the Programme	Colleges	Year of Admission and Year of study	No. of students
1	B.V.Sc&A.H	CVAS,Mannuthy	2020 Admn	5
2	B.Tech (DT)	CDST, Pookode	2021 Admn	1

3	B.Tech (FT)	VKIDFT,Mannuthy	2021 Admn	1
4	B.Tech (DT)	CDST,Kolahalamedu	2021 Admn	1
5	B.Tech (DT)	CDST, Thiruvananthapuram	2021 Admn	1
6	BSc PPBM	CASM, Thiruvazhamkunnu	2021 Admn	2

C. JRF/ SRF for the following number of students were permitted during this period.

Name of fellowship	Name of the programme	Colleges	Year of Admission	No of students
JRF	MVSc	CVAS, Mannuthy	2020	53
		CVAS, Pookode	2020	28
	M Tech	CDST, Mannuthy	2020	5
SRF	PhD	CVAS, Mannuthy	2020	8
			2019	1
		CVAS, Pookode	2020	1

D. Assistantship for the following number of students was permitted during this period.

Name of the programme	Name of the college	Year of Admission	Number of students
MS in Wildlife Studies	Centre for Wildlife Studies, Pookode	2020	1
M.Sc. in Biostatistics	CVAS, Mannuthy	2020	1
MSc. in Biochemistry and Molecular Biology	CVAS, Mannuthy	2020	1

9. Memoranda of Understanding Endorsed

In order to augment the academic and research activities of the Univesity, MoU have been signed with reputed National and International Institutions. The following MoUs were signed during 2021-2022.

Sl. No.	Name of Institution	Date of commencement	Period
1	ICAR National Research Centre on Meat, Hyderabad (NRCM)	11-05-2021	5 years
2	Central Coastal Agricultural Research Institute, Goa (CCARI)	21-04-2021	
3	DBT National Institute of Animal Biotechnology, Hyderabad (NIAB)	04-08-2021	3 years
4	DM Wayanad Institute of Medical Sciences, Wayanad (DM WIMS)	03-09-2021	5 years
5	Kemin Industries Ltd, Chennai	23-04-2021	2 years

6	Arjuna Natural Private Limited, Aluva, Kerala (ANPL)	09-07-2021	5 years
7	AVT Natural Products Limited, Aluva, Kerala	16-08-2021	3 years
8	Veterinary College Alumni Association, Kerala (VAAK)	30-07-2021	
9	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram (RGCB)	Nov 2021	3 years

10. Emergence of Excellence: Convocation Gala

The third convocation ceremony of the University was held on 7th October, 2021. Hon'ble Governor and Chancellor of KVASU, Shri. Arif Mohammed Khan confered the degrees and awards in the august presence of Hon'ble Pro-Chancellor, Smt. J. Chinchurani. The details of the students who registered for the event is as follows:

Course	Total number of students
Ph.D	22
M.V.Sc.	48
MS/MSc.	22
B.V.Sc.&A.H.	138
Diploma	90
M.Tech.	6
B.Tech (Dairy Sci. & Tech)	211
B.Tech (Food Tech)	40
B.Sc.(PPBM)	23
Total	**600**

1. **Externally Aided Projects**

SI No	Principal Investigator	Funding Agency	Title of the project	Total outlay (Rs)
1	Dr. V. Beena	RKVY-RAFTAR	Strengthening of Centre for Animal Adaptation to Environment and Climate Change Studies (CAADECCS) for Thermal Stress Assessment in Dairy cattle	170.00
2	Dr. Stella Cyriac	DBT	Genetic up-breeding of duck production to strengthen livelihood security in NER of India by converging conventional and molecular techniques	39.33
3	Dr. Jamuna Valsalan	DST SERB	Development of multi trait selection criteria in crossbred cattle of Kerala	28.57
4	Dr. Muhammad Aslam M.K.	DST-SERB	Comprehensive study on spermatozoa of Vechur and Crossbred bulls for identifying breed specific and fertility related biomarkers	2738

5	Dr. Bibu John Kariyil	Medicinal Plant Board	National Bioactivity guided fractionation and isolation of bioactive compounds from Thespesia populnea medicinal plant with anticancer potential against triple negative breast cancer	21.38
6	Dr. S. Senthil Murugan (Mentor)	DST-WOSA	Lion-tailed Macaque *(Macaca silenus):* Feeding Ecology and Management of an endangered species in captivity	19.85
7	Dr. Ambily R.	ICMR	Molecular characterisation, antibiogram and geospatial analysis of leptospiral isolates from Kerala	19.07
8	Dr. Priya P. M	NABARD	Evaluation of inactivated and subunit vaccines against riemerellosis among ducks in Kerala	18.50
9	Dr. Lali F. Anand	DST SERB	Genomic approach for genetic improvement and conservation of important aquaculture species, Etroplus suratensis and Trachinotus blochii under changing climate scenario	18.30
10	Dr Leena Chandrasekhar	SERB-TARE Project	Role of Parkin mediated mitophagy in metastatic melanoma in the *in vivo* mouse and *in vitro* anoikia models	18.00
11	Dr Bindu Lakshmanan	KSCSTE	Development of recombinant protein based diagnostic kit for visceral schistosomosis and sero-epidemiological study of the infection in ruminants.	12.57
12	Dr Radhika G	KSCSTE	Genetic Diversity Analysis among cattle genetic groups of Kerala using microsatellite markers	7.94
13	Dr. S. Senthil Murugan	M/s. Kemin Industries South Asia Ltd	Evaluation of dietary supplementation of exogenous fibrolytic enzymes on *in-vitro* nutrient digestibility for ruminants	7.00
14	K Syamala	NABARD	Sustainable parasite management using anaemia eye card in goats	5.93
15	Dr. A. K. Beena	KSCSTE Student project	Milk as a reservoir of multiple drug resistant bacteria — an assessment	0.10
16	Dr. Aparna Sudhakaran V	KSCSTE, Student project	Microbiological quality profiling of pasteurized milk during refrigerated storage	0.10

17	Dr. Ligimol James	KSCSTE, Student project	Post pasteurization contaminating bacteria as shelf life determinants of pasteurized milk	0.10
18	Dean, CDST, Pookode	Wayanad Project	Knowledge park for capacity building & business promotion in dairy processing under KVASU – Phase I	415.5

Network Projects

Sl No	Name of Principal Investigator	Name of the project	Outlay per annum (lakhs)
	Dr. A. P. Usha	AICRP on pigs	68.50
	Dr. Beena C. Joseph & Dr. S. Sanakaralingam	AICRP on poultry for eggs	65.97
	Dr. A. P. Usha	Mega seed project on pigs	51.00
	Dr. K. Anilkumar	ICAR Field Progeny Testing Program	42.62
	Dr. Thirupathy Venkatachalapathy	AICRP on Goat Improvement	17.97
	Dr Usha Narayana Pillai	Outreach Program on Ethnoveterinary Medicine	5.59
	Rejeesh R	Network centre on Dairy Microbes under ICAR-NCVTC, NRCE, Hisar, Hariana	2.00

2. Research Report

Attached

3. PG, PhD thesis (PhD, PG and B. Tech Projects)

Sl.No	Title of the Thesis/Dissertation	Degree conferred	Department
1	Antineoplastic activity of baicalein andpiperlongumine nanoparticles	Ph.D	Veterinary Pharmacology and Toxicology, Mannuthy
2	Production, quality attributes andconsumption pattern of ethnic goan pork sausages	Ph.D	Livestock Products Technology, Pookode
3	Development of a blueprint for consumer handling of buffalo meat for optimum quality	Ph.D	Livestock Products Technology, Mannuthy

4	Institutionalised livestock service deliverysystem in Kerala	Ph.D	Veterinary and Animal Husbandry Extension, Mannuthy
5	Nutrient recycling potential of fly larvae for biowaste management	Ph.D	Livestock Production and Management, Mannuthy
6	Diagnosis and management of cardiovascular-renal axis disorder subtype H in dogs	Ph.D	Clinical Medicine, Ethics and Jurisprudence, Mannuthy
7	Detection of drug resistant and biofilm forming food borne pathogenic bacteria in retail chicken and mitigation using plant extracts	Ph.D	Veterinary Public Health, Mannuthy
8	Occurrence and molecular characterisation of Campylobacter spp. in sea foods andassociated environment of Kerala and control of biofilm formation	Ph.D	Veterinary Public Health, Mannuthy
9	Streamlining surgical approaches of skin and mammary tissue / subcutaneous neoplasms in dogs with special reference to neo-adjuvantand adjuvant chemotherapeutic protocols	Ph.D	Department of Veterinary Surgery and Radiology, Mannuthy
10	Aetiology and therapeutic management of theileriosis in goats	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
11	Antifungal resistance of dermatophytesisolated from dogs	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
12	Antineoplastic activity of silver nanoparticles biosynthesised from seeds of *sesamumindicum* (sesame) in Dalton's lymphoma ascites	M.V.Sc	Veterinary Pharmacology and Toxicology, Mannuthy
13	Bacterial etiology of infertility in dogs with special reference to brucellosis	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
14	Clinico-biochemical and molecular investigations of haemolytic anaemia in dogs	M.V.Sc	Veterinary Clinical Medicine, Ethics and Jurisprudence Mannuthy
15	Comparative study of berberine and capsaicin as efflux pump inhibitors in quinolone resistant *Staphylococcus aureus* isolates from bovine mastitis	M.V.Sc	Veterinary Pharmacology and Toxicology, Mannuthy
16	Cytotoxic, carcinogenic and genotoxic effects of carbosulfan in cultured mammalian cells	M.V.Sc	Veterinary Pharmacology and Toxicology, Mannuthy

17	Detection of elephant endotheliotropic herpes virus in Asian elephants (*Elephas maximus*)	M.V.Sc	Veterinary Epidemiology and preventive Medicine, Mannuthy
18	Development of copro-polymerase chain reaction for detection of economically important gastrointestinal strongyles in goats	M.V.Sc	Veterinary Parasitology, Mannuthy
19	Effect of reduced dietary crude protein supplemented with limiting amino acids ongrowth and carcass characteristics of Gramasree male chicks	M.V.Sc	Poultry Science,Mannuthy
20	Evaluation of omentum-based extra cellular matrix scaffolds for soft tissue repair	M.V.Sc	Veterinary Pathology, Mannuthy
21	Genetic variability and virulence factors of *Malassezia pachydermatis* isolated from dogs	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
22	Identification of genes encoding extended spectrum beta lactamase production in *Escherichia coli* and *Klebsiella spp.* associated with bovine coliform mastitis	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
23	Immunohistochemical analysis of P7056kinase protein in superficial tumours of dogs	M.V.Sc	Veterinary pathology, Mannuthy
24	Molecular detection of virulence factors in S*taphylococcus aureus* associated with bovine mastitis	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
25	Screening for methicillin resistant S*taphylococcus aureus* associated withcaprine mastitis	M.V.Sc	Veterinary Epidemiology and preventive medicine, Mannuthy
26	Screening for parasitic infections amongexotic and zoo birds	M.V.Sc	Veterinary Epidemiology and preventive Medicine, Mannuthy
27	Aetio-pathology of canine diarrhoea causedby enteropathogens	M.V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
28	Antineoplastic activities of lactoferrin from Malabari goat	M.V.Sc	Veterinary Biochemistry, Mannuthy
29	Assessment of size evaluation methods in crossbred cattle of Kerala	M.V.Sc	Animal Genetics and Breeding, Mannuthy
30	Assessment of the livestock biodiversity management system under selected local self governments of Kerala	M.V.Sc	Veterinary Clinical Medicine, Ethics and Jurisprudence, Mannuthy
31	Association of Butyrophilin gene polymorphisms with milk yield and fat percent in crossbred cattle of Kerala	M.V.Sc	Animal Genetics and Breeding, Mannuthy

32	Characterisation of bovine integrin beta 6 gene and analysis of its expression with reference to foot and mouth disease	M.V.Sc	Animal Genetics and Breeding, Mannuthy
33	Comparative efficacy of fermented soybean meal, probiotics and organic acids on growth performance in broilers	M.V.Sc	Poultry Science,Mannuthy
34	Development and evaluation of pet treat incorporating buffalo byproducts	M.V.Sc	Livestock Products Technology, Mannuthy
35	Development of organic briquettes fromslaughter house	M.V.Sc	Livestock Products Technology, Mannuthy
36	Effect of feeding black soldier fly (*Hermetia illucens*) larvae meal on performance of meat type ducks	M.V.Sc	Poultry Science,Mannuthy
37	Effectiveness of illuminated fly traps for the control of dipteran biting fly annoyance in dairy farms	M.V.Sc	Livestock Production Management, Mannuthy
38	Evaluation of candidate genes associated with canine mammary tumour	M.V.Sc	Animal Genetics and Breeding, Mannuthy
39	Evaluation of oxidative stress in anaemia associated with haemoprotozoan infections in dogs	M.V.Sc	Veterinary Physiology, Mannuthy
40	Evaluation of rabbit farming under different management conditions	M.V.Sc	Livestock production Management, Mannuthy
41	Expression profiling of candidate genes affecting post thaw sperm parameters inVechur cattle of Kerala	M.V.Sc	Animal Genetics and Breeding, Mannuthy
42	Expression profiling of Ecto-Nox disulfidethiol exchanger 2 (ENOX2) gene in response to heat stress in goats	M.V.Sc	Animal Genetics and Breeding, Mannuthy
43	Impact of enrichment of grazing meadow with automated water trough on the welfare of crossbred cattle	M.V.Sc	Livestock Production and Management, Mannuthy
44	Improving efficiency of production in early lactating dairy cows through augmentation of rumen biomass production	M.V.Sc	Animal Nutrition, Mannuthy
45	Livelihood security of dairy farmers affected by Kerala flood 2018	M.V.Sc	Veterinary and Animal Husbandry Extension, Mannuthy
46	Molecular characterisation and expression profiling of vasorin gene in native goats of Kerala	M.V.Sc	Animal Genetics and Breeding, Mannuthy

47	Protective effect of aqueous fraction of alcoholic extract of *Tamarindus indica* seed coat on acetaminophen induced hepatotoxicity in rats	M.V.Sc	Veterinary Pharmacology and toxicology, Mannuthy
48	Ultrasonographic ocular biometry fordiagnosis of ophthalmic disorders in dogs	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy
49	Wound healing activity and dermal pharmacokinetics of borneol incorporated k- Carrageenan hydrogel in diabetic wound model in rats	M.V.Sc	Veterinary Pharmacology and toxicology, Mannuthy
50	Comparative molecular phylogeny of Nilgiri langur (*Trachypithecus johnii*) using mitochondrial cytochrome B (CYTB) gene	M.V.Sc	Animal Genetics and Breeding, Pookode
51	Dermatological disorders in goats with special reference to mange and dermatophytosis	M.V.Sc	Veterinary Clinical Medicine, Ethics and Jurisprudence, Pookode
52	Molecular characterization of Vp1 gene of virulent infectious bursal disease virus from Kerala	M.V.Sc	Veterinary Microbiology, Pookode
53	Effect of supplementation of *Aspergillus oryzae* and leaf extract of *Psidium guajava* on growth and nutrient utilisation in crossbred female calves	M.V.Sc	Animal Nutrition,Pookode
54	Dietary incorporation of raw banana peel silage ongrowth and nutrient utilization in weanedMalabari kids	M.V.Sc	Department of Animal Nuitrition, Pookode
55	Histomorphology and Ultrastructure ofthyroid and adrenal glands in Large White Yorkshire pigs reared at high and low altitudes	M.V.Sc	Department of Veterinary Anatomy, Pookode
56	Management of Feline lower urinary tract disease	M.V.Sc	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy
57	Storage lesion and post transfusion studies of canine packed red blood cells using saline-adenine-glucose-mannitol additive in citrate-phosphate-dextrose-adenine solution	M.V.Sc	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy
58	Suitability of saline-adenine-glucose-mannitol additive in citrate-phosphate-dextrose-adenine for storing packed red blood cells of goats	M.V.Sc	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy
59	Evaluation of renal resistive index in dogswith acute and chronic renal disease	M.V.Sc	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy
60	Clinico-pathological investigations on thrombocytopaenic dogs with haemostatic disorders	M.V.Sc	Department of Clinical Medicine, Ethics and Jurisprudence, Mannuthy

61	Genotypic characterisation of infectious bronchitis virus from Kerala	M.V.Sc	Veterinary Microbiology, Mannuthy
62	Histomorphology and physico-chemical evaluation of raw and decellularised tunica vaginalis of buffalo as a promising biomaterial in regenerative medicine	M.V.Sc	Veterinary Anatomy, Mannuthy
63	Occurrence of Campylobacter spp. in duck, quail, backyard chicken and associated environmental samples	M.V.Sc	Veterinary Public Health, Mannuthy
64	Isolation and identification of extended spectrum beta lactamase (ESBL) producing Klebsiella pneumoniae and Salmonella spp. from environmental samples	M.V.Sc	Veterinary Public Health, Mannuthy
65	Cloacal carriage and antimicrobial resistance profiling of extended spectrum beta-lactamase producing Escherichia coli and salmonella enteritidis in broiler chicken	M.V.Sc	Veterinary Public Health, Mannuthy
66	Isolation and molecular characterization of Escherichia coli pathotypes in drinking water and identification of the possible sources of contamination	M.V.Sc	Veterinary Public Health, Mannuthy
67	Detection of pathogenic leptospires inslaughtered cattle of Thrsssur	M.V.Sc	Veterinary Public Health, Mannuthy
68	Detection of colistin and quinolone resistant Salmonella enterica from poultry processing line	M.V.Sc	Veterinary Public Health, Mannuthy
69	Effect of partial replacement of soyabean meal with spent brewer's grain in broiler ration, supplemented with and without enzymes	M.V.Sc	Animal Nutrition,Pookode
70	Management of fracture of long bones using string of pearls plating technique in dogs	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy
71	B-mode ocular ultrasonography for diagnosis and treatment evaluation in management of glaucoma in dogs	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy
72	Comparison of multimodal anaesthesia protocols with isoflurane and sevoflurane maintenance in geriatric canine patients.	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy
73	Comparative efficacy of 4 – aminopyridine and polyethylene glycol in combination with methyl prednisolone sodium succinate for the treatment of spinal cord injury in dogs	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy
74	Clinical efficacy of midazolam - ketamine - isoflurane anaesthesia in butorphanol -xylazine premedicated bovines	M.V.Sc	Veterinary Surgery and Radiology, Mannuthy

75	Effect of cell density and serum starvation on vascular endothelial growth factor gene expression in canine adipose tissue derived cells.	M.V.Sc	Department of Veterinary Physiology, Pookode
76	Genetic variability of toll like receptor 4 and Beta Defensin 4 genes and its association withsomatic cell score in crossbred cattle of Kerala	M.V.Sc	Animal Breeding, Genetics and Biostatistics, Mannuthy
77	Assessment of fertility and fecundity in female dogs by sonographic, hormonal and genomic studies	M.V.Sc	Animal Reproduction Gynecology and Obstetrics, Mannuthy
78	Intra-uterine ozone treatment for subclinical endometritis in crossbred dairy cows	M.V.Sc	Department of Animal Reproduction Gynecology and Obstetrics, Mannuthy
79	Impact of Kerala flood 2018 on the milk production and Socio-Economic status ofdairy farmers in Ernakulam and Thrissur Districts	M.V.Sc	Livestock production and management
80	Evaluation of production performance of Athulya, native and IWNXnative crossbred layer under backyard system	M.V.Sc	Poultry Science,Mannuthy
81	Molecular characterization and seromonitoring of canine parvovirus following modified live cpv-2b vaccination in pups	M.V.Sc	Preventive Medicine, Mannuthy
82	Bacterial aetiology of infertility in dogs with special to brucellosis	M,V.Sc	Veterinary Epidemiology and Preventive Medicine, Mannuthy
83	Assessment of the impact of Kerala flood-2018 on the livestock farming systems of Pariyaram panchayath in Thrissur district of Kerala	M.V.Sc	Livestock Production and Management, Mannuthy
84	Radiographic evaluation of thorax to aid staging of superficial and mammaryneoplasms in dogs	M.V.Sc	Department of Veterinary Surgery and Radiology, Mannuthy
85	Comparative evaluation of modified proximal perineal urethrostomy and tube cystostomy for thetreatment of chronic obstructive urolithiasis in male goats	M.V.Sc	Veterinary Surgery and Radiology
86	Performance of Gramasree breeder birds fed with different sources of calcium	M.V.Sc	Animal Nutrition,Pookode
87	Performance and carcass traits of meat type ducks fed on varying dietary levels of metabolisable energy and methionine	M.V.Sc	Animal Nutrition,Pookode
88	Efficiency of two stage restricted flow anaerobic baffled biogas digester and gas purification systems	M.V.Sc	Livestock Production Management, Pookode

89	Diagnosis and Therapeutic Evaluation of Malasseziosis in Dogs	M.V.Sc	Veterinary Clinical Medicine, Ethics and Jurisprudence, Pookode
90	Clinico-pathological and therapeuticevaluation of pneumonia in goats with special reference to mycoplasmosis	M.V.Sc	Veterinary Clinical Medicine, Ethics and Jurisprudence, Pookode
91	Evaluation of the suitability of lactic acid bacterial isolates from natural sources for the preparation of curd	M.Sc	Dairy Science, Mannuthy
92	Assessment of antibacterial potential of silver nanoparticles biosynthesised using Trikatu	M.Sc	Veterinary Biochemistry, Mannuthy
93	Assessment of antibacterial potential of silver nanoparticles green synthesised using Nalpamaram	M.Sc	Veterinary Biochemistry, Mannuthy
94	Assessment of benzimidazole resistance polymorphisms in *Haemonchus contortus* in goats by real time PCR	M.Sc	Veterinary Biochemistry, Mannuthy
95	Autoregressive integrated moving average (ARIMA) model for forecasting production of milk, egg and meat	M.Sc	Statistics, Mannuthy
96	Characterisation of coding regions of 14-3-3 and 23kDa membrane protein genes of *Schistosoma spindale*	M.Sc	Veterinary Biochemistry, Mannuthy
97	Comparative analysis of antibacterial activity of vechur and crossbed cow milk-conjugated silver nanoparticles	M.Sc	Veterinary Biochemistry, Mannuthy
98	Comparison of auto-regressive integrated moving average (ARIMA) and multi-gene genetic programming models for temperature prediction in Thrissur of Kerala	M.Sc	Statistics, Mannuthy
99	Detection of antifungal agents in fermented dairy products and their impact on product quality	M.Sc	Dairy Science, Mannuthy
100	Detection of polymorphisms in the chicken bone morphogenetic protein 15 geneassociated with egg production traits	M.Sc	Veterinary Biochemistry, Mannuthy
101	Developing model for lactation curve in Malabari goats	M.Sc	Statistics, Mannuthy
102	Development and evaluation of enrobed buffalo milk paneer	M.Sc	Dairy Science, Mannuthy
103	Development and quality evaluation of synbiotic yoghurt prepared with *Lactobacillus rhamnosus* GG and flour of C*icer arietinum*	M.Sc	Dairy Science, Mannuthy

104	Effect of flood on the livestock sector in Kadukutty panchayath of Thrissur district	M.Sc	Statistics, Mannuthy
105	Effect of l-threonine concentration on glyA gene	M.Sc	Dairy Science, Mannuthy
106	Evaluation of anti-bacterial potential ofpeptides in whey from fermented goat milk	M.Sc	Dairy Science, Mannuthy
107	Fatty acid profile of crossbred cow milk	M.Sc	Veterinary Biochemistry, Mannuthy
108	Detection of biofilm forming strains of *Escherichia coli* and *Staphylococcus aurues* associated with canine pyometra	M.Sc	Veterinary Microbiology, Mannuthy
109	Fatty acid profile of Vechur cow milk	M.Sc	Veterinary Biochemistry, Mannuthy
110	Forecasting rainfall in Thrissur district of Kerala using artificial neural network	M.Sc	Statistics, Mannuthy
111	Forecasting the price of poultry meat in Kerala	M.Sc	Statistics, Mannuthy
112	Green synthesis of silver nanoparticles using dashmula churna and evaluation of its	M.Sc	Veterinary Biochemistry, Mannuthy
113	Green synthesis of silver nanoparticles using Triphala and assessment of its antibacterial potential	M.Sc	Veterinary Biochemistry, Mannuthy
114	Impact of Covid-19 lock down on dairy co-operatives in Thrissur district of Kerala State	M.Sc	Livestock production and management, Mannuthy
115	Isolation and antibiogram of C*orynebacterium pseudotuberculosis* from goats	M.Sc	Veterinary Microbiology, Mannuthy
116	Isolation of Infectious Bursal Disease virus in embryonated chicken eggs	M.Sc	Veterinary Microbiology, Mannuthy
117	Modelling and forecasting the spread of covid-19 in Kerala	M.Sc	Statistics, Mannuthy
118	Molecular characterization of partial mitochondrial 16S rRNA gene to identify meat from avian species	M.Sc	Veterinary Biochemistry, Mannuthy
119	A study on efficiency of detergents and their application in dairy sector	M.Sc	Dairy Science, Mannuthy
120	Development of time series model forforecasting red meat price in Kerala	M.Sc	Statistics, Mannuthy
121	Utilization of date seed a by-product from cake industry for the preparation of cupcake	B.Tech	Food Technology, VKIDFT, Mannuthy
122	Development of Chocolates containingBrahmi (*Bacopa Monnieri*)	B.Tech	Food Technology, VKIDFT, Mannuthy

123	Higher fibre and vitamin C contents in Mung Beans Microgreens than in its Sprouts	B.Tech	Food Technology, VKIDFT, Mannuthy
124	Preparation and characterization of gluten free cake enriched with jackfruit powder	B.Tech	Food Technology, VKIDFT, Mannuthy
125	Gluten- free cake incorporated with moringa leaves	B.Tech	Food Technology, VKIDFT, Mannuthy
126	Utilisation of nutmeg (*Myristica fragrans* houtt) fruit for the preparation of value added products	B.Tech	Food Technology, VKIDFT, Mannuthy
127	Development of horse gram and green gram fortified cake	B.Tech	Food Technology, VKIDFT, Mannuthy
128	Development of ragi based jackfruit seed flour cookies	B.Tech	Food Technology, VKIDFT, Mannuthy

4. Journal of Veterinary and Animal Sciences

The Journal of Veterinary and Animal Sciences is a quarterly publication of the Kerala Veterinary and Animal Sciences University (KVASU) devoted to the publication of original research papers on various aspects of Veterinary, Dairy and Animal Sciences and clinical articles which are of interest to research workers and practitioners engaged in livestock and poultry production. The Journal was first published in 1970. The journal launched its website in 2018 and is currently available as an online open access journal with E- ISSN- 2582-0605 through the link: http://www.jvas.in. The articles published in the journal are copyrighted and licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. The journal is currently indexed with several indexing agencies.

The journal is also listed in the NAAS score list published by National Academy of Agricultural Sciences.

The journal follows stringent measures to ensure quality of published articles and so manuscripts are qualified to be forwarded to the reviewers only after screening for plagiarism using software subscribed by the University. Currently plagiarism checker provided by UGC- 'Urkund' software is being used. Every manuscript submitted undergoes a strict review process managed through the online journal management system and follows a double blind review process.

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INFRASTRUCTURE DEVELOPMENT WING

The Infrastructure Development Wing located in the Pookode campus of Kerala Veterinary and Animal Sciences University is entrusted with the construction, maintenance, planning and development of basic facilities of the University. The wing headed by the Director is comprised of technical and administrative staff. Kerala Public Works Department rules and regulations are followed by the ID Wing in executing the works. The wing is also monitoring the water / electricity supply of the Mannuthy and Pookode campuses of the University. Quarters allocation at Mannuthy & Pookode campus and facilitating the accommodation to the University are done from ID wing.

Details of work 2021-2022

Sl. No.	Agreement No & Date	Name of Work	Estimate PAC	Source of Fund
1	"01/EE/2021-22 dated 08.04.2021"	State Plan 2020-21 - Repair and maintenance works of various farm shed in ILFC, Pookode.	1849904	Professor & Head, ILFC, Pookode (State Plan)
2	"02/EE/2021-22 dated 08.04.2021"	RKVY Project - Construction of pig shed at CoVAS, Pookode - Additional works.	902728	Professor & Head, LPM, Pookode (RKVY-Project)
3	"03/EE/2021-22 dated 17.04.2021"	Supply of furniture for the use of newly formed farmers, training hall and conference hall at TVCC, Pookode.	635295	Dean, Pookode (Chancellors Award 2017-18)
4	"04/EE/2021-22 dated 29.04.2021"	Various civil works at LRS, Thiruvazhamkunnu	1605953	Director, ID Wing, Pookode (State Plan 2020-21, 2016-17, 2017-18
5	"05/EE/2021-22 dated 03.05.2022"	State Plan 2020-21 Providing canopy with GI sheet in front of the two storeyed hospital building at UVH, Kokkalai.	242880	Professor & Head, UVH, Kokkalai (State Plan 2020-21)
6	"06/EE/2021-22 dated 03.05.2021"	State Plan 2020-21 - Establishment of an ISO certified facility for production of wholesome meat and meat products - civil works at Meat Technology unit, KVASU, Mannuthy.	949024	Professor & Head, MTU, Mannuthy (State Plan 2020-21)

7	"07/EE/2021-22 dated 18.06.2021"	Efficient treatment plant at CPPR, Mannuthy - Conversion of an existing slurry tank (1 no) to anaerobic chamber and allied chambers sewage channels etc (stage - 2 works) and providing sedimentaion tanks and sieve between drainage systems of pig sheds.	10382000	Professor and Head, CPPR, Mannuthy
8	"08/EE/2021-22 dated 18.06.2022"	Modification to the drainage system around the TVCC building, CoVAS, Mannuthy.	587365	State Plan 2021-22
9	"09/EE/2021-22 Dated 18.06.2021"	RKVY - Porject -2019 - Construction of twin mode chamber facility for large animal research at KVASU, Mannuthy.	4386865	The Implementing Officer, KVASU, Mannuthy
10	"10/EE/2021-22 Dated 19.06.2021"	Revolving fund poultry project - RFPP - Setting up of revolving fund poultry office cum exibition and CAS in poultry science at KVASU, Mannuthy.	2780000	The Director & PI casps, Mannuthy (Revolving fund poultry project)
11	"11/EE/2021-22 Dated 22.06.2021"	State Plan 2020-21 - Deveopment of silent valley platform for sustainable live stock production - providing earthen bunds with "V" for the LRS, T kunnu.	690545	Professor & Head, LRS, Tkunnu
12	"12/EE/2021-22 Dated 22.06.2021"	State Plan 2015-16 - Providing portion wall and repair works in passages of Dairy Diploma, Pookode.	58431	Director, DDS, Co-VAS, Pookode
13	"13/EE/2021-22 Dated 22.06.2022"	Providing partition for setting up of library in the newly constructed block at CDST, Pookode.	61697	Director, ID Wing, Pookdoe (State Plan 2021-22)
14	"14/EE/2021-22 Dated 22.06.2021"	State Plan 2020-21 - Digging of pond with excavator by using timber logs, floads, platforms etc. at Base Farm, Kolahalamedu.	312429	Professor & Head, Base Farm, Kolahalamedu (State Plan 2020-21)
15	"15/EE/2021-22 Dated 24.06.2021"	Renovation of goat and sheep farm at CoVAS, Mannuthy.	535518	Professor & Head, Goat & Sheep Farm, Mannuthy.

16	"16/EE/2021-22 Dated 24.06.2021"	Hiring of vehicles on monthly basis for the official use at the Direcotr, IDW, KVASU, Pookode.	Minimum monthly rate 30,900 for 36,900 (for maximim 200km) for additional distance 13.25 km	
17	"17/EE/2021-22 Dated 19.07.2021"	Supply, installation and commissioning of an automatic 2x4 (8) 30 degree herring barne milking porbour system (including the submission of proposal for the infrastructural works required) at ULF & FRDS, KVASU, Mannuthy.	Item rate	Professor & Head, ULF & FRDS, Mannuthy
18	"18/EE/2021-22 Dated 22.08.2021"	RKVY - Project - Providing slat flooring to the duckshed no.2 at ARS, Thiruvazhamkunnu.	2435285	Profesoor & Head, Goat & Sheep Farm, Mannuthy.(RKVY)
19	"19/EE/2021-22 Dated 02.08.2021"	RKVY Project - Construction of breeder and broader sheds at Thiruvazhamkunnu.	1990432	Special Officer, Thiruvazhamkunnu (RKVY)
20	"20/EE/2021-22 Dated 05.08.2021"	ICAR - DG - 2018-19 - Construction of girls hostel at CoVAS, Mannuthy - Providing Air Conditioner for all rooms.	1192276	Director, ID Wing, Pookode (ICAR - DG 2018-19)
21	"21/EE/2021-22 Dated 05.08.2021"	Providing 1.5 T inverted type split air conditioner for the office of (prefab villa unit) ID Wing, LRS, Thiruvazhamkunnu.	668891	Director, ID Wing, Pookode (Non Plan 2020-21 Maintenance)
22	"22/EE/2021-22 Dated 05.08.2021"	ICAR - DG - 2020-21- Electrical repairs to the experimental learning centre at KVASU, Mannuthy.	100768	The Dean, CoVAS, Mannuthy (ICAR - DG - 2020-21)
23	"23/EE/2021-22 Dated 05.08.2021"	State Plan 2020-21 - CASAGB - Rabbit breeding station, Mannuthy - Comprehensive approach to address the production challenges of small holder rabbit farming in Kerala - Electrification to newly established training hall.	62131	The Director, CASAGB, Mannuthy (State Plan 2020-21)

24	"24/EE/2021-22 dated 05.08.2021"	State Plan 2020-21 - Rewiring of PG mens hostel (ground floor at CoVAS, Mannuthy)	212008	The Dean, CoVAS, Mannuthy (State Plan 2020-21)
25	"25/EE/2021-22 dated 05.08.2021"	ICAR- DG - 2018-19 - Providing Electrification for new examination hall near animal science block, CoVAS, Mannuthy - Additional works	808772	Director, IDW, Pookode (ICAR DG 2018-19)
26	"26/EE/2021-22 dated 09.08.2021"	Various petty civil works at KVASU, Pookode.	519890	Director, IDW, Pookode
27	"27/EE/2021-22 dated 26.08.2021"	State Plan 2021-22 - Road concreting for Type V quarters at KVASU, Pookode.	504827	State Plan 2021-22
28	"28/EE/2021-22 dated 26.08.2021"	Balance work type V7 quarters at KVASU, Pookode.	594936	State Plan 2021-22
29	"29/EE/2021-22 dated 26.08.2021"	RKVY Project - Construction of OH water tank and allied pipe line works at ARS, Tkunnu.	3405586	The Special Officer, ARS, Thiruvazhamkunnu
30	"30/EE/2021-22 dated 26.08.2021"	State Plan 2020-21 - Construction of chicks handling room and renovation of sales counter at UPDF, Mannuthy.	871193	Associate Professor & Head (i/c), UPDF, Mannuthy
31	"31/EE/2021-22 dated 26.08.2021"	Re-roofing of CAADECCS building, providing vitrified tile flooring to seminar hall, laboratories and associated rooms at first floor of animal science block at CoVAS, Mannuthy.	666832	Dean, CoVAS, Mannuthy
32	"32/EE/2021-22 dated 26.08.2022"	State Plan 2020-21 - Renovation of Anatomy museum CoVAS, Mannuthy - Providing virtifed flooring Aluminium partition, Electrification and other works.	1339280	Dena, CoVAS, Mannuthy (State Plan 2020-21)
33	"33/EE/2021-22 dated 27.08.2021"	ICAR - DG - 2020-21 - Providing a CC kerb near basket ball court construction of RR gallery, pointing of exising DR wall etc. at play ground, CoVAS, Pookode.	485931	DAR (ICAR - DG 2020-21)
34	"34/EE/2021-22 dated 27.08.2021"	Special repairs and maintenance to type V quarters and electrical repairs and maintenance to type V quarters at KVASU, Pookode	2751748	Director

35	"35/EE/2021-22 dated 27.08.2021"	ICAR - DG -2020-21 - Construction of remaining portion of RR gallery and repainting works of ceiling at Academic block - I, Urgent repair works to boys hostel and ladies hostela nd construction of wash area in internees hostel at CoVAS, Pookode.	579047	Dean, CoVAS, Pookode
36	"36/EE/2021-22 dated 27.08.2021"	State Plan 2021-22 - Repair and replacing damaged pumping line and distribution line from rock portion to existing ASTM line near LH at KVASU, Pookode.	549417	State Plan 2021-22
37	"37/EE/2021-22 dated 31.08.2021"	State Plan 2021-22 - Implementaion of the project - Laboratory at BRTC, TVM	996408	Co-ordinator, BRTC, TVM
38	"38/EE/2021-22 dated 08.09.2021"	Renovation work at T-type appartments at Mannuthy - Conservation of Indian type wc used to europian type WC	160000	DE, Pookode
39	"39/EE/2021-22 dated 08.09.2021"	Dismantling damaged RCC sunshade and providing new GI sheet sunshage of CoVAS building.	50000	Dean, CoVAS, Mannuthy
40	"40/EE/2021-22 dated 08.09.2021"	Plumbing connection to water tank of MTU training centre at KVASU, Mannuthy.	27000	Director, ID Wing
41	"41/EE/2021-22 dated 08.09.2021"	Supply & fixing of readymade washing stones and towel rod sop dish at new hoster TVCC building CoVAS, Mannuthy.	65000	State Plan 2016-17
42	"42/EE/2021-22 dated 08.09.2021"	State Plan 2020-21 - Providing barbed fencing for the join east boundary of '2' block at CBF, Thumburmuzhy.	352399	The Professor & Head, CBF, Thumburmuzhy.
43	"43/EE/2021-22 dated 08.09.2021"	Electrical repairs to the boys, girls and internees hostels & repair works to sheet roofing of water tank in ladies hostel at KVASU, Pookode.	272135	DAR
44	"44/EE/2021-22 dated 14.09.2021"	State Plan 2015-16 Land preparation for cultivating fodder at CoVAS, Mannuthy.	89052	Director, ID Wing, Mannuthy

45	"45/EE/2021-22 dated 14.09.2021"	State Plan 2019-20 Providing shage net to the open are in pig shed CPPR, Mannuthy.	110949	Professor & Head, CPPR, Mannuthy
46	"46/EE/2021-22 dated 14.09.2021"	State Plan 2020-22 - Security cabin in the entranceo farm road at KVASU, Mannuthy.	141010	Dean, CoVAS, Mannuthy
47	"47/EE/2021-22 dated 28.09.2021"	Urgent maintenance to the Academic block I &II at CoVAS, Pookode.	400343	State Plan 2021-22
48	"48/EE/2021-22 dated 28.09.2021"	State Plan 2021-22 - Supply of electrical fittings to Kabani Auditorium at KVASU, Pookode	Item rate	M/s. YMK Traders Limited
49	"49/EE/2021-22 dated 28.09.2021"	Setting of cubicles in the Registry office at KVASU, Pookode.	191391	Registrar, KVASU, Pookode
50	"50/EE/2021-22 dated 28.09.2021"	Installation of post top lantern street light fillings infront of CoVAS, KVASU, Mannuthy.	26692	Assistant Executive Engineer (i/c), Mannuthy
51	"51/EE/2021-22 dated 28.09.2021"	State Plan 2020-21 - Development of new teaching veterinary clincal complex to input advance health service to farmer providing new operation theatre at CoVAS, Mannuthy.	80327	Professor & Head, KVASU, Mannuthy
52	"52/EE/2021-22 dated 28.09.2021"	Repair and maintenance of pump house near college hostel - rewiring and electrical maintenance.	89238	Dean, KVASU, Mannuthy
53	"53/EE/2021-22 dated 28.09.2021"	Setting up of revolving fund poultry office cum exibition unit under CAS, Poultry Science at KVASU, Mannuthy.	370567	Director & PI, CASPS, Mannuthy
54	"54/EE/2021-22 dated 28.09.2021"	Providing septic tank to various quarters at KVASU, Mannuthy.	137650	Direcot ID Wing (Non Plan Maintenance)
55	"55/EE/2021-22 dated 28.09.2021"	Urgent maintenance to the guest house, security cabin and sales centre at KVASU, Pookode.	357109	State Plan 2021-22
56	"56/EE/2021-22 dated 28.09.2021"	Head Quarters painting and coir carpet laying in passage to Kabani Auditorium at KVASU, Pookode.	360205	State Plan 2021-22
57	"57/EE/2021-22 dated 29.09.2021"	SANFT - Setting up of a pet feed unit at SANFT feed mill KVASU, Mannuthy - Electrification.	227766	Professor & Head Animal Nutrition, Mannuthy

58	"58/EE/2021-22 dated 29.09.2021"	Supply, installation, testing and commissioning of 25 HP open well submerssible pumpset and accessories in the new motor shed at ULF & FRDS, Mannuthy.	385503	Director, IDW, Pookode
59	"59/EE/2021-22 dated 29.09.2021"	RKVY - RAFTAAR - 2019-20 - Project setting up of traning hall and modification of existing lab at Parasitology Department at CoVAS, Pookode.	2821318	Dean, CoVAS, Pookode
60	"60/EE/2021-22 dated 29.09.2021"	State Plan 2020-21 - Providing extension to the canteen building at CASM, Thiruvazhamkunnu.	854866	Dean, Thiruvazhamkunnu
61	"61/EE/2021-22 dated 29.09.2021"	State Plan 2020-21 "Providing false ceiling and correcting of the side wall with sliding aluminium windows for examination hall at CoVAS, Mannuthy.	1426159	Dean, CoVAS, Mannuthy
62	"62/EE/2021-22 dated 30.09.2021"	Urgent maintenance to DAR Office at KVASU, Pookode.	89981	State Plan 2021-22
63	"63/EE/2021-22 dated 30.09.2021"	Providing concrete levelling course to prevent water leakage at roof of TVCC building, Mannuthy.	124127	Director, ID Wing
64	"64/EE/2021-22 dated 30.09.2021"	Concrete lining work to newly constructed dung pit at ULF & FRDS, Mannuthy.	208679	Professor & Head, ULF & FRDS, Mannuthy
65	"65/EE/2021-22 dated 30.09.2021"	Construction of drainage system in fluid mechanics lab at dairy engineering department Mannuthy.	972971	Dean, Mannuthy
66	"66/EE/2021-22 dated 04.10.2021"	State Plan 2020-21 - Installation of AMF for signle phase 30 KVA generator at ARS, Thiruvazhamkunnu.	127257	Special Officer, Thiruvazhamkunnu
67	"67/EE/2021-22 dated 05.10.2021"	ICAR - SC- SP & TSP Project Construction of cages for fish, vegetables, mushroom cultivation purpose at CoVAS, Pookode.	1682488	Dean, CoVAS, Pookode

68	"68/EE/2021-22 dated 05.10.2021"	RKVY Providing adjustable grill for maling & providing extension of sewage lines with pvc pipes etc. at goar farm, Mannuthy.	127340	The Director, ID Wing, Pookode
69	"69/EE/2021-22 dated 06.10.2021"	"State Plan 2020-21 - Conservation cenre for vechure & Kasargode cattle", " State Plan project 2020-21 Conservation centre for vechur & Kasargode cattle"" concrete helifer paddock & Other repair works at vechur cattle farm, Mannuthy. State Plan 2020-21 Repair and maintenance for at Vechur farm at CoVAS, Mannuthy. Construction of Travis near bull shed at KVASU, Mannuthy. Providing interlocking type pairing tiles near bull shed at Vechur cattle farm, CoVAS, Mannuthy."	963479	Director, CASAGB, Mannuthy
70	"70/EE/2021-22 dated 26.10.2021"	ICAR -DG 2019-20 Refurnishing of smart class room at TVCC building CoVAS, Mannuthy - Providing platform & stage to the existing class room.	563609	Deam, CoVAS, Mannuthy.
71	"71/EE/2021-22 dated 26.10.2021"	ICAR - DG 2020-21 Providing aluminium partition to the Examination hall CoVAS, Mannuthy.	305588	Director
72	"72/EE/2021-22 dated 01.11.2022"	Hiring vehicles on monthly basis for the official use of the Assistant Executive Engineer II, ID Wing, Mannuthy.	Minimum monthly rate 27850 (for maximum 2000/ Km) for additional distance Rs. 13Km (for above 200km) for night halt Rs. 300/-	

73	"73/EE/2021-22 dated 16.11.2021"	State Plan 2020-21 - Repair and maintenance works to quarters, caving pens, cattle shed no.2, cattle shed no. 6E, Providing a new store room near to the existing goat shed and construction of a toilet near goat farm at LRS, Thiruvazhamkunnu.	2063206	Associate Professor & Head, LRS, Thiruvazhamkunnu
74	"74/EE/2021-22 dated 18.11.2021"	State Plan 2021-22 - ISP/21-22/19(11) - Constructio of drying yard at ladies hostel, CoVAS, Pookode.	526984	State Plan 2021-22
75	"75/EE/2021-22 dated 18.11.2021"	State Plan 2020-21 - Repairs to toilet of CDST womens hostel, KVASU, Mannuthy.	222515	State Plan 2020-21
76	"76/EE/2021-22 dated 19.11.2021"	Construction of new waster disposal unit for type 3 flats at KVASU, Pookode.	180391	Director, ID Wing, Pookode
77	"77/EE/2021-22 dated 19.11.2021"	State Plan 2021-22 - Urgent maintenance to kitchen waste line in ladies hostel and repairing and maintenance type 11/5 quarters toilet and pointing in DR wall at Sugandagiri, CoVAS, Pookode.	97758	under sanctioning
78	"78/EE/2021-22 dated 22.11.2021"	State Plan 2020-21 "Laboratory at BRTC, Thonnakkal, Thiruvananthapuram - providing lab furniture.	Item rate	Co-ordinator, BRTC, TVM
79	"79/EE/2021-22 dated 22.11.2021"	Chancellors award 2019-20 Extension of 3 phase electrical supply to engineering departmental electricals instrumentation lab at VKIDFT, Mannuthy.	94063	Dean, CoVAS, Mannuthy
80	"80/EE/2021-22 dated 22.11.2021"	State Plan 2021-22 - (ISP/21-22/23(i)) - Maintenance to electrical installation and street light in all campuses - Maintenance to existing solar street lights at various building of Thiruvazhamkunnu campuses.	431001	State Plan 2021-22
81	"81/EE/2021-22 dated 22.11.2021"	ULF & FRDS - KVASU - Mannuthy Settuing up of milking parlour in the existing hay straw storage building - civil works.	1683108	State Plan Project

82	"82/EE/2021-22 dated 22.11.2021"	State Plan 2021-22 - (ISP/21-22/25(i) - Maintenance of Academic buildings - renovation of old clinical complex and old clinical medicine building at CoVAS, Mannuthy.	2415346	State Plan Project
83	"83/EE/2021-22 dated 22.11.2021"	State Plan Project 2020-21 - Providing a vehicle shed adjacent to the instrumentational	410516	Professor & Head, Base Farm, Kolahalamedu (State Plan 2020-21)
84	"84/EE/2021-22 dated 22.11.2021"	State Plan 2020-21 - Reconstruction of damaged RR retaining wall of existing pond at AICRP, KVASU, Mannuthy.	714433	Professr & Head, ULF & FRDS
85	"84/EE/2021-22 dated 23.11.2021"	State Plan 2020-21 - Rewiring of shed no.1 (milking shed) of the Buffallo farm, KVASU, Mannuthy.	282327	Professor & Head
86	"86/EE/2021-22 "	State Plan 2021-22 - ISP/21-22/20(i) - Concreting road in-front of poultry farm at CoVAS, Pookode.	1469541	State Plan 21-22
87	"87/EE/2021-22 dated 30.11.2021 "	State Plan 2021-22 - Maintenance of hostel building in all campuses (ISP/21-22/19(i)- Boys hostel at CASM, Thiruvazhamkunnu.	879932	State Plan 2021-22
88	"88/EE/2021-22 dated 29.11.2021 "	Providing a new main panle and connected cabling to UG mens hostel CoVAS, Mannuthy.	163129	Director ID Wing, Pookode
89	"89/EE/2021-22 dated "	Urgent maintenance to the research lab at department of Pharmacology and toxicology CoVAS, Pookode.	42813	State Plan 2021-22
90	"90/EE/2021-22 dated 06.12.2021 "	State Plan 2021-22 - Providing and laying 45cm dia RCC pipe from CoVAS Boundary to NH drain at CoVAS, Mannuthy.	75429	State Plan 2021-22
91	"91/EE/2021-22 dated 07.12.2021 "	RKVY - Project - Providing GI pressure water washing lines in breeder and grower shed for goat and sheep farm, CoVAS, Mannuthy.	37723	RKVY Project

92	"92/EE/2021-22 dated 10.12.2021 "	State Plan 2021-22 - ISP/21-22/27 - Urgent repair and maintenance works to the guest house at LRS, Thiruvazhamkunnu.	75505	State Plan 2021-22
93	"93/EE/2021-22 dated 10.12.2021 "	RKVY Project - Construction of chicken breeder & brooding shed at ARS, Thiruvazhamkunnu - Providing internal water supply arrangements.	178487	RKVY Project
94	"94/EE/2021-22 dated 10.12.2021 "	State Plan 2021-22 - Special repairs to the overhead tank above the bunkes silo and waiting shed of livestock farm section and various civil works at Buffalo farm at ULF & FRDS, CoVAS, Mannuthy.	972804	Professor & Head, ULF & FRDS, Mannuthy
95	"95/EE/2021-22 dated 10.12.2021 "	Chancellors Award 2019-20 Providinig aluminium partitions for dairy chemistry department at CDST, Mannuthy.	360658	Chancellors Award 2019-20
96	"96/EE/2021-22 dated 13.12.2021 "	State Plan 2021-22 - ISP/21-22/18(i) - Constructtion of boundary fencing compound wall gate and secutiry cabin at KVASU, Basefarm, Kolahalamedu.	4384674	Assistant Professor & Head (State Plan 2021-22)
97	"97/EE/2021-22 dated 17.12.2021 "	Non- Plan 2021-22 Re-roofing works to the KVASU - Teaching organisation building at KVASU, Mannuthy.	121720	Director, ID Wing, Pookode
98	"98/EE/2021-22 dated 17.12.2021 "	State Plan 2021-22 - Urgent repair works to H-21 flat at KVASU, Mannuthy.	53273	Director, ID Wing, Pookode (State Plan 2021-22)
99	"99/EE/2021-22 dated 20.12.2021 "	State Plan 2021-22 - ISP/21-22/27(i) - Construction of additional rooms in the first floor of guest house at KVASU, Pookode.	1141330	Director, ID Wing, Pookode (State Plan 2021-22)
100	"100/EE/2021-22 dated 23.12.2021 "	State Plan 2021-22 -ISP/21-22/28(ii) - Special repair and maintenance to residential building in all campus - maintenance of a duplex quarters at Basefarm, Kolahalamedu.	634424	State Plan 2021-22

101	"101/EE/2021-22 dated 23.12.2021 "	State Plan 2021-22- ISP/21-22/20(ii) - Providing new pavements bituminization and maintenance to campus roads - Construction of concrete road from academic block to hostel at Basefarm, Kolahalamedu.	711287	Director, ID Wing, Pookode (State Plan 2021-22)
102	"102/EE/2021-22 dated 27.12.2021 "	State Plan 2021-22 - Rewiring of shed no. 11 at Buffalo farm, ULF & FRDS, KVASU, Mannuthy.	63192	The Professr & Head, ULF & FRDS
103	"103/EE/2021-22 dated 27.12.2021 "	State Plan 2021-22 - (ISP/21-22/23) - Maintenance to electrical installation of street lights in all campuses Mannuthy campuses.	853631	Unders sanctioning (State Plan 2021-22
104	"104/EE/2021-22 dated 27.12.2021 "	Setting up of pet feed unit at SANFT feed mill KVASU, Mannuhty - Electrification - Additional works.	52826	The Professor & Head, Animal Nutrition
105	"105/EE/2021-22 dated 27.12.2021"	State Plan 2021-22 - Repair and maintenance to rabbit farm shed ILFC, Pookode.	265327	The Associate Professor & Head, ILFC, Pookode
106	"106/EE/2021-22 dated 27.12.2021"	State Plan 2021-22 (ISP/21-22/119(ii) Maintenance to the prefab villas at CoVAS, Pookode.	667004	Director, ID Wing, Pookode (State Plan 2021-22)
107	"107/EE/2021-22 dated 27.12.2021"	State Plan 2021-22 - ISP/21-22/27(ii) Special repair and maintenance of guest house at KVASU, Mannuthy.	1827210	Director, ID Wing, Pookode (State Plan 2021-22)
108	"108/EE/2021-22 dated 27.12.2021"	State Plan 2021-22 Repair of floor and roof of waiting shed of fodder section at ULF & FRDS at KVASU, Mannuthy.	331997	The Professor & Head ULF & FRDS, Mannuthy
109	"109/EE/2021-22 dated 27.12.2021"	Supply of conference chair for the use of newly formed farmers training	116820	Dean, CoVAS, Pookode
110	"110/EE/2021-22 dated 06.01.2022"	State Plan 2020-21 - Energy conservation in the dairy plant at KVASU, Mannuthy.	267617	The Head, University Dairy plant, Mannuthy
111	"111/EE/2021-22 dated 06.01.2022"	State Plan 2021-22 (ISP21-22/25(ii) Provding GI sheet over the existing KVASU AC sheet of wing-2 of Academic block at CoVAS, Pookode.	1308871	Director, ID Wing, Pookode (State Plan 2021-22)

112	"112/EE/2021-22 dated 11.01.2022"	Providing vehicle porch infront of the office building at LRS, Thiruvazhamkunnu.	254119	The Associate Professor & head, LRS, Thiruvazhamkunnu
113	"113/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 Providing GI sheet roofing for hatchery building at UPDF, Mannuthy.	1119776	The Associate Professor & Head (i/c) UPDF, Mannuthy.
114	"114/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 ISP/21-22/15 - Providing a new 82.5 KVA DG sets and air conditioner for the lab at BRTC, TVM.	1463565	State Plan 2021-22
115	"115/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 ISP/21-22(28(i) Special repairs and maintenance residentaila building - Demolishing existing earthern ware line and providing new 150mm dia pvc sewer line to existing septic tank for H type (Teaching staff) quarters at KVASU, Mannuthy.	322108	Director, ID Wing, Pookode (State Plan 2021-22)
116	"116/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 ISP-21-22/20-19(iv) - Providing new pavements bituminization and maintenance of campus road - Resurfacing of meat plant road including finishing with paving tiles infront of feed mill and allied works at KVASU, Mannuthy.	2621004	Director, ID Wing, Pookode (State Plan 2021-22)
117	"117/EE/2021-22 dated 17.01.2022"	State Plan 2020-21 - Repair & Maintenance "Resurfacing of campus roads from hospital gate to NCC office at KVASU, Mannuthy.	1339197	Dean, CoVAS, Mannuthy
118	"118/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 - ISP/21-22/21(iii) - Maintenance to permenent water supply system at CoVAS, Mannuthy.	2443785	Director, ID Wing, Pookode (State Plan 2021-22)
119	"119/EE/2021-22 dated 17.01.2022"	State Plan 2021-22 ISP/21-22/28(iii) Urgent repairs to damaged floor and pettyb repair works to the quarters building at KVASU, Mannuthy.	371708	Director, ID Wing, Pookode (State Plan 2021-22)
120	"120/EE/2021-22 dated 22.01.2022"	State Plan 2020-21 - Various civil works at ARS, Thiruvazhamkunnu.	663757	The Special Officer, ARS, Thiruvazhamkunnu

121	"121/EE/2021-22 dated 24.01.2022"	State Plan 2020-21 - Various civil works at Base Farm, Kolahalamedu.	780736	Professor & Head, Base Farm, Kolahalamedu (State Plan 2020-21)
122	"122/EE/2021-22 dated 27.01.2022"	State Plan 2021-22 - Providing milk can washing area, milk cooling machine are and extension to the second buck shed at LRS, Tkunnu.	1103459	The Associate Professor & head, LRS, Thiruvazhamkunnu
123	"123/EE/2021-22 dated 31.01.2022"	State Plan 2018-19 Providing bituminized chipping carpet to the front side of sales counter and resurfacing of college front yard at KVASU, Mannuthy.	689050	Director, ID Wing, Pookode (State Plan 2018-19)
124	"124/EE/2021-22 dated 31.01.2022"	State Plan 2021-22 ISP/21-22/20(v) Providing new pavements Bituminization and maintenance of campus roads at KVASU, Mannuthy.	2586789	State Plan 2021-22
125	"125/EE/2021-22 dated 01.02.2022"	State Plan 2020-21 - Various civil works in goat farm ULF & FRDS, Rabbit farm CoVAS and Dairy microbilogy at KVASU, Mannuthy.	1925019	
126	"126/EE/2021-22 dated 01.02.2022"	State Plan 2021-22 - Maintenance of farm sheds at ILFC, Pookode.	900686	State Plan 2021-22
127	"127/EE/2021-22 dated 01.02.2022"	State Plan project Construction of second floor of the CASM building Thiruvazhamkunnu - Additional work including bus shed, store room, paving of floor tile for approach road.	1817008	Special Officer, Thiruvazhamkunnu
128	"128/EE/2021-22 dated 07.02.2022"	RKVY Project - Construction of rendering plant at ARS, Thiruvazhamkunnu.	4449419	Special Officer, ARS, Thiruvazhamkunnu
129	"129/EE/2021-22 dated 07.02.2022"	State Plan 2021-22 - Resurfacing of campus between roads - hostel raod in front of UG men's hostel and pump house golden jubilee road, animal science block road, PG ladies hostel road at KVASU, Mannuthy.	1339533	Dean, CoVAS, Mannuthy

130	"130/EE/2021-22 dated 07.02.2022"	State Plan 2021-22 ISP/21-22/25 (iii) - Maintenance of academic building - Renovation of museum building at KVASU, Mannuthy.	673669	Director, ID Wing, Pookode (State Plan 2021-22)
131	"131/EE/2021-22 dated 07.02.2022"	State Plan 2021-22 - Various civil works proposed at CBF, Thumburmuzhi.	1703069	The Professor & Head, CBF, Thumburmuzhy.
132	"132/EE/2021-22 dated 08.02.2022"	State Plan 2021-22 - Electrification to various cattle shed, pump houses at Base Farm, Kolahalamedu.	1294845	Assistat Professor & Head, Base Farm, Kolahalamedu
133	"133/EE/2021-22 dated 08.02.2022"	State Plan 2021-22 - Maintenance of hostel building KVASU, UG mens hostel and CDST ladies & mens hostel building at KVASU, Mannuthy.	2025714	State Plan 2021-22
134	"134/EE/2021-22 dated 09.02.2022"	State Plan 2021-22 - Maintenance to academic block in all campus - Maintenance to external side covering work for the roof floor CDST, Kolahalamedu.	227037	Director, ID Wing, Pookoe (State Plan 2021-22)
135	"135/EE/2021-22 dated 20.02.2022"	State Plan 2021-22 - Resurfacing and maintenance works for the road teaching from guest house to Sugandagiri junction at KVASU, Pookode.	1368375	State Plan 2021-22
136	"136/EE/2021-22 dated 14.02.2022"	State Plan 2021-22 - Provoding PVC coated GI chain link fencing around the fodder plots near pig farm and ILFC office and fodder plots opposite to the teachers flat at CoVAS, Pookode.	1777791	The Assistant Professor, ILFC, Pookode
137	"137/EE/2021-22 dated 14.02.2022"	State Plan 2021-22 - Development and Reconstruction of indoor stadium at KVASU, Mannuthy.	2836975	Director, ID Wing, Pookode
138	"138/EE/2021-22 dated 20.02.2022"	State Plan 2020-21 - Campus Development dismantling the leaking fountain and construction of new water body structure for fixing emblem and out work structure and other works in front of the college at CoVAS, Manntuhy.	396499	Dean, CoVAS, Mannuthy

139	"139/EE/2021-22 dated 22.02.2022"	State Plan - Painting and other repairs works to the old annex ladies hostel building at KVASU, Mannuthy.	576649	State Plan
140	"140/EE/2021-22 dated 23.02.2022"	State Plan 2021-22 - Urgent maintenance to the pig farm at ILFC, Pookode.	401490	The Associate Professor, ILFC, Pookode
141	"141/EE/2021-22 dated 23.02.2022"	State Plan 2021-22 - Concreting the road leading from house stable to hill top at CoVAS, Pookode	1071216	Director, ID Wing, Pookode (State Plan 2021-22)
142	"142/EE/2021-22 dated 25.02.2022"	State Plan 2021-22 - Additional civil works to the guest house (first floor) at KVASU, Pookode.	193761	Director, ID Wing, Pookode
143	"143/EE/2021-22 dated 28.02.2022"	State Plan 2021-22 - Providing chain link fencing behind the teachers quarters (TypeV) and to the Hatchery at ILFC, CoVAS, Pookode.	1213697	(State Plan 2021-22)
144	"144/EE/2021-22 dated 28.02.2022"	State Plan 2021-22 - Providing welded mesh partition to the grower hseds 1 and 2 at ILFC and providing poly carbonate sheet roof to the corridor near IT cell at CoVAS, Pookode.	763922	(State Plan 2021-22)
145	"145/EE/2021-22 dated 28.02.2022"	State Plan 2021-22- Maintenance works of duck shed UPDF and civil works related to renovation of lab at statistics at KVASU, Mannuthy.	926730	State Plan 2021-22
146	"146/EE/2021-22 dated 28.02.2022"	State Plan 2021-22 - Painting & allied works for new annex ladies hostel CoVAS, Mannuthy.	330196	Director, ID Wing, Pookode
147	"147/EE/2021-22 dated 28.02.2022"	State Plan 2021-22 Urgent repair and maintenance to the TVCC building at KVASU, Pookode.	540296	Director, ID Wing, Pookode (State Plan 2021-22)
148	"148/EE/2021-22 dated 02.03.2022"	State Plan 2021-22 - Maintenance to Museum building adjacent to the CDST Academic block KVASU, Kolahalamedu.	609405	Director, ID Wing, Pookode (State Plan 2021-22)
149	"149/EE/2021-22 dated 02.03.2022"	State Plan 2021-22 - Construction of boundary fencing compound wall, gate & security cabin at KVASU, Base Farm, Kolahalamedu.	648295	The Assistant Professor & Head, Base Farm, Kolahalamedu

150	"150/EE/2021-22 dated 03.03.2022"	State Plan 2021-22 - Construction of 2nd floor for VKIDFT at KVASU, Mannuthy.	14394410	Dean, CDST, Mannuthy
151	"151/EE/2021-22 dated 04.03.2022"	State Plan 2021-22 - Maintenance to academic buildings in all campus - Repair and renovation to UVH Kokkalai.	1352332	Director, ID Wing, Pookdoe (State Plan 2021-22)
152	"152/EE/2021-22 dated 05.03.2022"	State Plan 2021-22 - Special repair and maintenance of guest house at KVASU, Mannuthy - Electrification	311886	Director, ID Wing, Pookdoe (State Plan 2021-22)
153	"153/EE/2021-22 dated 05.03.2022"	State Plan 2021-22- Extension to the existing guest house at Pookode - Electrification	288241	Director, ID Wing, Pookdoe (State Plan 2021-22)
154	"154/EE/2021-22 dated 10.03.2022"	State Plan 2021-22 - Providing solar panel street light in the KVASU Mannuthy campus.	355580	Dean, CoVAS, Mannuthy
155	"155/EE/2021-22 dated 10.03.2022"	State Plan 2021-22 - Maintenance to electrial installation and street light in Mannuthy campus- balance work.	581974	Director, ID Wing, Pookdoe (State Plan 2021-22)
156	"156/EE/2021-22 dated 10.03.2022"	"State Plan 2021-22 - ISP/21-22/23(iii) - Providing solar panel street lights in the KVASU,Pookode Campus."	391138	Director, ID Wing, Pookdoe (State Plan 2021-22)
157	"157/EE/2021-22 dated 14.03.2022"	State Plan 2021-22 - Sinking of a RCC well and construction of a pump house near farm pond at LRS, Thiruvazhamkunnu.	87781	Associate Professor & Head, LRS, Thiruvazhamkunnu
158	"158/EE/2021-22 dated 14.03.2022"	State Plan 2021-22 - Supply of 304 grade stainless steel two tier rabbit cage unit at Rabbit Farm, ILFC, KVASU, Pookode.	Item rate	The Assistant Professsor, ILFC, Pookode
159	"159/EE/2021-22 dated 14.03.2022"	State Plam 2021-22 - Renovation work of examination hall - UG & PG examination hall at CoVAS, Mannuthy.	1517620	Dean, CoVAS, Mannuthy

160	"160/EE/2021-22 dated 14.03.2022"	State Plam 2021-22 -State Plan-Providing GI sheet roof by replacing the damaged AC sheet at TBIC and Strengthening of Academic staff College -Providing 80mm thick paving tiles in car porch and Entry way at KVASU,Mannuthy	265267	Director of Enterpreneurship, Pookode
		a) State Plam 2021-22 -State Plan-Providing GI sheet roof by replacing the damaged AC sheet at TBIC(AS Amount -1.42L)		
		b) Strengthening of Academic staff College -Providing 80mm thick paving tiles in car porch and Entry way at KVASU,Mannuthy(AS Amount -1.55L-SBI)		
161	"161/EE/2021-22 dated 15.03.2022"	State Plan 2021-22 - Construction of Loose Housing - Cattle shed at LRS, Thiruvazhamkunnu.	524268	Associate Professor & Head, LRS, Thiruvazhamkunnu
162	"162/EE/2021-22 dated 16.03.2022"	State Plan 2021-22 - Re-roofing of chicken shed no.1 at ARS, Thiruvazhamkunnu.	426502	The Special Officer, ARS, Thiruvazhamkunnu
163	"163/EE/2021-22 dated 16.03.2022"	State Plan 2021-22 - Supply, installation, testing and commissioning of a 30 KVA 3 phase diesel generator set for the hatchery unit at KVASU, Pookode.	643026	The Assistant Professor ,ILFC, Pookode
164	"164/EE/2021-22 dated 16.03.2022"	State Plan 2021-22 - Hands on training on value additon of feeds - Various civil works in the hall above feed mill at KVASU, Mannuthy.	1748454	DE, Pookode
165	"165/EE/2021-22 dated 17.03.2022"	State Plan 2021-22 - ISP/21-22/28(v) - Special repairs and maintenance to duplex quarters (B7 and B8) at Base Farm, Kolahalamedu.	928756	Director, ID Wing, Pookode
166	"166/EE/2021-22 dated 17.03.2022"	State Plan 2021-22 - Providing a Training Centre on the first floor of Farm office and allied works at Base Farm, Kolahalamedu.	2592002	Assistant Professor & Head, Base Farm, Koalahalamedu

167	"167/EE/2021-22 dated 18.03.2022"	State Plan 2021-22 (i) - Maintenance to slow sand filter near pig farm at CoVAS, Pookode.	486873	State Plan 2021-22
168	"168/EE/2021-22 dated 19.03.2022"	State Plan-2021-22-ISP/21-22/28(v)-Special Repairs and Maintenance to the Residential Building-H Type Quarters(2 block-Teaching & Non Teaching) and tiled roof quarters at KVASU,Mannuthy.	3950987	Director, ID Wing, Pookode (State Plan 2021-22)
169	"169/EE/2021-22 dated 19.03.2022"	State Plan-2021-22- Paitining and allied works in the Priyadharshini ladies hostel at KVASU, Mannuthy.	892377	Dean, CoVAS, Mannuthy
170	"170/EE/2021-22 dated 19.03.2022"	KVASU-IDW-State Plan Project – Construction of State Plan-2021-22:Renovation of existing hall in the Dept.of Veterinary Clinical Medicine at CVAS,KVASU,Mannuthy.	2053461	Dean, CoVAS, Mannuthy
171	"171/EE/2021-22 dated 21.03.2022"	KVASU-IDW-State Plan Project – Construction of State Plan-2021-22:Renovation of existing hall in the Dept.of Veterinary Clinical Medicine at CVAS,KVASU,Mannuthy	246376	The Professor & Head, Clinical Veterinary medicine, CoVAS, Mannuthy
172	"172/EE/2021-22 dated 21.03.2022"	State Plan-2021-22: Providing Acoustic work for golden jubilee hall at CVAS, Mannuthy	1025104	Dean, CoVAS, Mannuthy
173	"173/EE/2021-22 dated 21.03.2022"	state plan -2021-22--Installation of basket ball post of international standared"-Construction of Basket ball court at CDST and providing vitrified tile floor to old clinical complex at Department of veterinary Epidemiology and preventive medicineKVASU,Mannuthy	10705321	State Plan 2021-22
174	"174/EE/2021-22 dated 25.03.2022"	State Plan 2021-22 Providing Milkcan washing area mik cooling machine are at LRS, Thiruvazhamkunnu - Electrification.	49178	State Plan 2021-22

175	"175/EE/2021-22 dated 25.03.2022"	State Plan 2021-22 - Maintenance to a academic buildings in all campus - Maintenance to the museum building adjacent to the CDST Academic block, Kolahalamedu - Electrification.	252016	Director, ID Wing, Pookode (State Plan 2021-22)
176	"176/EE/2021-22 dated 25.03.2022"	State Plan 2021-22 - Renovation to farm advisory centre at LRS, Thiruvazhamkunnu - Electrification	105551	Associate Professor & Head, LRS, Thiruvazhamkunnu
177	"177/EE/2021-22 dated 27.03.2022"	State Plan 2021-22 - Construction of milking parlour at ULF & FRDS, Mannuthy - General electrification & supply, testing, commissioning of a 10 KVA three phse DG set	668528	Professor & Head, ULF & FRDS, Mannthy
178	"178/EE/2021-22 dated 27.03.2022"	state plan 2021-2022 providing walueres in isolation shed at LRS Thiruvizhamkunnu	872341	Professor & Head, ULF & FRDS, Mannthy

DIRECTORATE OF ENTREPRENEURSHIP

The Directorate of Entrepreneurship headed by Director (Entrepreneurship) has Publications, Training, Entrepreneurship, Media and Informatics, Technology Enabled Distance Learning as major divisions. Directorate of Entrepreneurship with headquarters at Pookode, Wayanad focus on capacity building of farmers, entrepreneurs and extend services through outreach programmes, developing model farms, supporting self-help groups in improving production and productivity of livestock. This division also conducts need based researches in different fields, workshops, exhibitions and seminars on behalf of the University. The Publication Division coordinates the publication works of University publications. Technology enabled Distance Learning Centre coordinates the conduct of various distance learning courses of the University. The evening clinic under the leadership of the Director provides veterinary services and advisories to owners of large and small ruminants, pet animals in the State coordination with Directorate of Clinics.

The Academic Staff College of the University functioning under the directorate, focus on career advancement programmes of the faculty and other advanced training programmes. The directorate launched the Technology Business Incubation Division (TBIC) in Mannuthy campus during this year, with main focus on student entrepreneurship and startups. The Directorate of Students Welfare (DSW) monitors the student welfare activities, coordination of NSS activities etc. The Technology Information and Sales Center functions at Pookode, which has a sales outlet where the University publications and KVASU products are sold to the public.

The Directorate plays a vital role in commercializing new ideas and raising productivity and employment in all sectors, specially benefitting the farming community. The University student-focused activities include the Student Entrepreneurship, personality development programmes, educating students in cultivating a startup business idea, etc. Entrepreneurship division gives major emphasis to entrepreneurship development, extension, knowledge dissemination, distance learning and awareness programmes. Directorate manages the website of the University and updates timely news and events. And also manages an official instagram account, face book page and You Tube Channel as social media platform for knowledge and information exchange.

Activities undertaken during the period

Training Programme of DE

1. As per the invitation of KDISC for concept notes for skilling projects, KVASU submitted proposals under knowledge mission for imparting Entrepreneurship training for unemployed youth/alumni/ gulf returnees/ educated women with career break/entrepreneurs for providing better skilling and employability.
2. Department of Veterinary and Animal Husbandry Extension in collaboration with Directorate of Entrepreneurship, KVASU conducted “Monsoon Series Online Training” on Scientific goat rearing” from 18 th to 24 th June 2021, online training for dairy farmers during 25.06.21 to

26.06.21 & training for buffalo farmers during 28.06.21 to 03.07.21

3. Directorate of Entrepreneurship coordinated the Collaborative Online Training Programme of CAADECCS, Mannuthy & MANAGE, Hyderabad on Climate Smart Dairying in the Context of Global Warming during 04-07 May 2021.
4. The three months obligatory training for two batches of the Assistant Directors of Animal Husbandry Department.
5. Workshop on culture of responsibility - biosafety in laboratories-10 August 2021
6. ONLINE PROGRAMME FOR DAIRY ENTREPRENEURS "Productive and reproductive health care in small scale and marginal cattle farms in Kerala"-10and11August 2021.
7. College of Dairy Science and Technology, Pookode organised a two day webinar named the samrambhakathva mikavil kaarshikam"- 16 and 17August 2021
8. Digital colloquium on "Avenues for veterinarians in pharma industries: drug development and validation"- 14.9.2021 to 18.09.2021
9. Online collaborative training on'ICT tools for knowledge management and control of emerging zoonoses and animal health threats'-20-23 September 2021.
10. As part of training programme on alternate livelihood methods for unemployed tribal youth of Pookode Dairy Tribal Welfare Project families, Gothra Mission project of KVASU organized apprenticeship training on ornamental fish breeding -22 and 30 of October, 2021
11. Directorate of Entrepreneurship, KVASU organized skill trainings as part of the project 'livelihood enhancement of Wayanad tribal colonies through need based package of theinputs. Art workshop for children- 24 th September to 26 September 2021
12. Acollaborative on-line training programme of Directorate of Entrepreneurship, KVASU& MANAGE, Hyderabad entitled "Refresher Course on Quality Challenges in Dairy Sector" for Officers of Dairy Development Department was organized by Dept. of Dairy science , CVAS, Mannuthy-4/10/2021 to 7/10/2021.
13. A hand on Training on 'Value Addition of Goat Milk' was organized by Directorate of Entrepreneurship in association with College of Dairy Science and Technology, Pookode-26.10.2021 to 27.10.2021.
14. Dairy plant-Kerala Veterinary and Animal Sciences University, Mannuthy in association with Kerala State Kudumba sree Mission organised three days Hands-on-Training programme on "Value Added Dairy products for the selected kudumbasree members-23/11/2021 to 25/11/2021
15. TRAINING ON "Introduction to Basic Bioinformatics Tools" for basic life science researchers for two days-1 st and 2 nd , 3 rd and 4 th of December, 2021.
16. Center for human resource development in meat science and technology KVASU, conducted one day hands on training programme in hygeinic poultry processing and marketing for MS Swaminathan Foundation supported self-help group on 7/12/2021
17. 14 days offline refresher training on "Advances in Analytical Techniques"- 05/01/2022 to

18/01/2022 at Academic Staff College, Mannuthy

18. One day Hands on Training programme for Dairy Farmers of ATMA Kasaragod on 12-01-2022 at ULF &FRDS Mannuthy

19. Web Based Training on Current Concepts of Methodology In Research on 12/01/2022 to 25/01/2022 at Academic Staff College, Mannuthy

20. One day field visit to CBFT by Assistant Directors of AHD as part of their three month obligatory training organized by Academic Staff College, KVASU on 14/01/2022

21. Web based refresher training on "Current concepts in dairy production and processing" scheduled was inaugurated by Hon. Vice Chancellor, KVASU Prof. (Dr.) M. R. Saseendranath through virtual mode on 17.01.2022 to 30 th January 2022

22. Obligatory 3 Months Training for Assistant Directors of Animal Husbandry Department on 09.02.2022 at CASM

Extension Activity conducted during 2021-22

1. Conducted 11 th UNIVERSITY DAY CELEBRATIONS "Samanuayam" on 14 th June 2021. Smt J. Chinchurani, Hon'ble Minister of Animal Husbandry,DairyDevelopment, Milk Co- operatives, Zoos Hon'ble Pro Chancellor, KVASU inaugurated the programme. Adv. K. Rajan,Minister, Land Revenue, Survey and Land Records, Housing &Land Reforms was the Guest of Honor. Hon'ble Vice Chancellor announced and released KVASU's CMDRF contribution cheque. Fodder Crops Development Army, an initiative of ULF&FRC was launched during the event. Anemia eye color chart for goats, the technology developed by Dept. of Parasitology was released during the program.

2. As part of University Day Celebrations, online farmer seminar series was organized from 15 th June to 17 th June 2021.

3. Academic Staff College under Directorate of Entrepreneurship conducted farmer friendly lecture series from 24 th May to 11 th June 2021 online.

4. KVASU Advisory Call Centre, "KALF"- KVASU Advisory for Livestock Farmers started functioning from 17-05-2021 for providing on-call services to farmers more efficiently regarding the matters of advisory nature in the initial stage with the support of the Directorate of Clinics.

5. Evening clinic started functioning at TVCC, Mannuthy to deal with emergency cases.

6. Technology information and sales counter is functioning at Pookode, with sale of KVASU_Safe Meat products and Malabar Meat products of BDS.

7. As part of State Plan project, tribal development activities with regard to education, health and livelihood interventions are being taken up in selected tribal colonies. Poultry were distributed to Priyadarsini tribal colonies for 15 families; feed and food kit distributed to Narangakandy and Chembatty tribal colony. Vegetable seedlings and tuber seeds distributed to Priyadasini tribal colony aiming to promote cultivation and organic agriculture.

8. Published ‘Eternal Flame’ the Multiple Choice Question Bank prepared by faculty of KVASU
9. Published KVASU e-Newsletter ‘Windows ‘ January- March 2020 issue & April-June 2020 , October- December 2020 issue.
10. Doctor’s Day Celebration-01.07.21 conducted by students union 20- 21
11. Webinar on lifestyle diseases and Webinar for farmers "vinjana jalakam padathu ninnu padashalayilekk" on 03.07.21 at Hybrid
12. Monsoon series farmer webinar “profitable baffalo calf rearing for meat purpose” on 5th to 07.07.21 at Hybrid
13. Radio and video programmes on “Zzoonotic diseases and its control strategies” 06/07/2023
14. International webinar on "roadmap for prevention and control of dog mediated rabies on 6 th and 7 th July- dept of vet epidemology and preventive medicine
15. Webinar on use of electronic resources and services with special reference to kvasulis on 08/07/2021- CDST Mannuthy
16. Webinar on “Commercial pig Production” on 8th to 14.07.21 at Hybrid- CVAS mannuthy, cvas pookode, kvk thrissur
17. Hon’ble minister smt. J chinjurani visited KVASU pookode, Male baffalo distribution to tribal youth launched on 16 th July 2021, KVASU Pookode
18. KVASU INDUSTRY collaboration MOU was signed between KVASU and Arjuna Natural PVT LTD for industry funded research on natural ingredients for meat processing
19. The 66 Foundation Day of College of Veterinary and Animal Sciences, Mannuthy was st celebrated virtually-1 st Agust 2021
20. As part of State Plan funds for laboratory development sanctioned to Dairy Plant, Mannuthy, new R& D started functioning with advanced equipment and instruments for quality assurance and testing. Dr. A.K. Beena, Special Officer, College of Food Technology, KVASU inaugurated the lab-03.08.21- KVASU , Mannuthy
21. The ICAR Tribal Sub Plan (TSP) 20-21 project titled “Promoting sustainable Livestock farm-based livelihoods to tribal youth in Wayanad District, Kerala” sanctioned to KVASU was successfully implemented involving 40 beneficiaries of 17 wards of Thirunelly panchayat in Wayanad district-5 .08.21
22. As part of second year VHSE-NQSF programme anonline expert session “Health care and well being measures in dairy cattle” was held for students-28.08.2021.
23. As a part of ‘Jeevanam Jeevadhanam’ Programme of the NSS, a programme for distribution of poultry chicks to VHSE students was organized in association with AICRP on Poultry, KVASU-25-10- 2021
24. Fifth Annual Convention of Association of Meat Scientists and Technologists and International Conference on “Convergence of Technology and Policy for Sustainable Meat Production was

organised by Meat Technology Unit and Department of LPT-25 th to 28 th October 2021

25. On the occasion of birth centenary of Dr. VergheseKurien, the 'Milk man of India',College of Dairy Science and Technology, Pookodein association with Indian Dairy Association organized National milk day celebration. The programme named "ക്ഷീരധ്വനി – 2021"was conducted online through Google meet-26 th November 2021.

26. The 5th Convention of Association of Meat Scientists and Technologists & International Conference on "Convergence of Technology and Policy for Sustainable Meat Production"- October 27 th and 28 th .

27. Distribution of goat feed to tribal farmers of Attappadi was held under Tribal Sub Plan component of ICAR-All India Co-ordinated Research Programme on Goat Improvement (Malabari), Centre for Advanced Studies in Animal Genetics and Breeding, KVASU.- 29/10/2021

28. Kerala Veterinary and Animal Sciences University has approved the revolving fund project of "Conduct of trainings in the Department of Veterinary Pharmacology and Toxicology, CVAS,Mannuthy" comprising of four component trainings- November 22 to 26, 2021.

Trainings

1. The Directorate coordinates the three months obligatory training for Assistant Directors of Animal Husbandry Department being scheduled from 01.12.2020 to 28.02.2022

2. The directorate facilitated the conduct collaborative Online training on 'ICT tools for knowledge management and control of emerging zoonoses and animal health threats'. KVASU-COHEART and National Institute of Agricultural Extension Management (MANAGE), Hyderabad organized online collaborative training programme from 20-23 September 2021.

3. A collaborative on-line training programme of Directorate of Entrepreneurship, KVASU & MANAGE, Hyderabad entitled "Refresher Course on Quality Challenges in Dairy Sector" for Officers of Dairy Development Department was coordinated by Dept. of Dairy science, CVAS, Mannuthy from 4/10/2021 to 7/10/2021.

Extension council meeting

1. The fourth Extension Council meeting was organized on 18 th November 2021 on online mode. Hon'ble Vice Chancellor chaired the meeting, Registrar Dr. P. SudheerBabu, Director of Entrepreeurship, Dr. M. K. Narayanan, Head of Dept. of Extension Dr. Jiji. R. S, IMG representative Dr. Ram Mohan were present.

Extension and Outreach

1. As part of State Plan project 'Special package on Early Life Care of Calves (Ksheera Samrudhi)' the beneficiaries were selected at Thrissur and Wayanad district. The project implementation started in coordination with Animal Husbandry Department in both the districts.

2. Directorate of Entrepreneurship, KVASU organized toy making workshop on 1 st and 2 nd October 2021 at tribal colonies, as part of the state plan Project 'livelihood enhancement of Wayanad tribal colonies through need based package of inputs. Art workshop at Chembatty tribal colony was held on 19 th to 21 st October 2021. Training on value added products from Beeswax was held on

4 th and 5 th October 2021 at Narangakandy and Priyadarsini tribal colonies

3. The Directorate took initiative selecting expert panel from KVASU as part of implementation of the project 'Call escalation under Kisan Call Centre Programme' of Ministery of Agriculture and Farmers Welfare Govt. of India. A list of 23 subject matter experts were selected as part of the project.

4. Technology information and sales counter is functioning at Pookode, with sale of KVASU_Safe Meat products and Malabar Meat products of BDS.

4. Directorate of Entrepreneurship, KVASU organized skill trainings and art workshop for tribal children as part of the project 'livelihood enhancement of Wayanad tribal colonies through need based package of inputs. Art workshop for children was held on 24 th September to 26 th September 2021 at Chembatty tribal colony. The training included drawing, clay modeling and natural painting sessions.

5. KDISC- YIP registration process of University completed. The follow up activities are being undertaken.

Important Visits

The Director of Entrepreneurship has been appointed a member in the Peer Review Team (PRT) constituted by the Director General of Indian Council of Agriculture Research (ICAR) to verify the Self Study Reports of Rajasthan University of Veterinary and Animal Sciences, Bikaner, Rajasthan for accreditation from National Agriculture Education Accreditation Board (NAEAB) of ICAR.The period of inspection was from 01-12-2021 to 05-12-2021.

Publications

1. Published KVASU e-Newsletter 'Windows ' August 2021, September 2021 and October 2021 issue.

2. Published seven publications authored by KVASU faculty.

3. Initiated the development of mobile App of KVASU

COLLEGE OF VETERINARY AND ANIMAL SCIENCES MANNUTHY

College of Veterinary and Animal Sciences, Mannuthy was commissioned as the Government Veterinary College on August 1st 1955 at the campus of the Central Agricultural Farm of the erstwhile Travancore-Cochin State holding 450 acres of land of which 190 acres was with the Animal Husbandry Department. The college that initially began with five composite departments and 71 students has today grown to house 21 departments and over 950 students. Students are admitted to the College through the annual CBSE NEET examination. The college offers prorgrammes leading to the Bachelor of Veterinary Science and Animal Husbandry as well as the Master's and Doctoral Degrees in Veterinary Science. In addition other Certificate, Diploma and M.Sc., programmes are also offered.

Lecture classes for BVSc & AH programme, Master's and doctoral credit and defense seminar are scheduled and conducted at the smart class rooms. Power and logistical back up is ensured by assigning an officer- in- charge for the smart class room, who looks after the finer details of the functioning of the smart class rooms.

Office of the Dean, CVAS, **Mannuthy:** Now College of Veterinary and Animal Sciences, Mannuthy is headed by Dean, Prof. (Dr). C. Latha, Ph.D, FNAVS. The Office of the Dean, CVAS Mannuthy is responsible for ensuring the timely conduct of all official procedures relating to the College. There are six sections in the office which is administered by the Administrative Officer, the various sections *viz.,* Academics, General, Accounts and Bills, Establishment, Fair Copy and Despatch. These sections are responsible for various activities with regard to admissions, scholarships, issuance of certificates, documentation and accounting of funds pertaining to the college and issuance and despatch of official documents in this regard respectively.

Academic cell-1: There are two divisions for the academic cell. The academic cell-1 deals with all the academic matters of Batchelor of Veterinary Sciences and Animal Husbandry (BVSc & AH), Master of Veterinary Sciences (MVSc) and Doctoral (PhD) courses of the University at CVAS, Mannuthy such as registration of students, conduct of exams, issue of Identity cards and various certificates, allotment of admission numbers etc.

I. **Number of students for each course**

1. Batchelor of Veterinary Sciences and Animal Husbandry (BVSc & AH): **554**
2. Master of Veterinary Sciences (MVSc): **200**
3. Doctor of Philosophy (Ph.D) : **66**

Academic cell-2: The academic cell-2 deals with all the academic matters of Diploma and M.Sc. courses of the Kerala Veterinary and Animal Sciences University at CVAS, Mannuthy such as registration of students, conduct of exams, transmission of grade reports, activities related to submission

of dissertation, issue of Identity cards and various certificates etc. Student registration, student course allocation, teacher allocation, monitoring attendance and internal mark entry particulars are computerized in IUMS software. Classes on Spoken English, coaching for competitive examination and general awareness are arranged for the benefit of M.Sc. and Diploma students. Staffs are recruited on contract for these courses

Courses offered and Number of students in each course

Sl. No.	Course	No. of students
1	Diploma in Dairy Science	54
2	Diploma in Feed Technology	5
3	Diploma in Laboratory techniques	30
4	M.Sc. Quality Control in Dairy industry	4
5	M.Sc. Animal Science	3
6	M.Sc. Applied Microbiology	8
7	M.Sc Biostatistics	6
8	M.Sc. Animal Biotechnology	4
9	M.Sc. Biochemistry and Molecular biology	24
	Total	**138**

Teaching Faculty Details- CVAS, Mannuthy

Sl. No.	Department	Professor	Asso. Professor	Asst. Professor
1	Veterinary Anatomy	2	1	3
2	Veterinary Physiology & Biochemistry	2	1	6
3	Livestock Production Management	2	1	5
4	Veterinary Microbiology	1	1	5
5	Veterinary Pathology	0	0	6
6	Animal Breeding and Genetics	3	0	5
7	Animal Nutrition	2	0	5
8	Veterinary Pharmacology & Toxicology	0	0	5
9	Veterinary Public Health	2	0	5
10	Veterinary Parasitology	0	1	5
11	Livestock Product Technology, Dairy Science	1	0	6
12	Animal Husbandry Extension	1	2	2
13	Veterinary Surgery & Radiology	2	1	4
14	Veterinary Clinical Medicine, Preventive Medicine	2	1	8
15	Animal Reproduction	0	0	7
16	Veterinary Clinical Complex	2	0	7
17	ILFC (Poultry, Nutrition, AGB, LPM, CM/ PM, OG)	3	0	5
18	Poultry Science & CAS Poultry	1	0	4

19	Statistics	0	0	1
20	Physical Education	0	0	1
		26	**9**	**95**
	Total	**130**		

i. External Aided Projects (**Ongoing):**

Name of the Project	Funding agency	Name of PI	Activities undertaken
Outreach Programme on Ethno veterinary Medicine	ICAR	Dr. Usha Narayana Pillai	Invitro-Invivo Anti-inflammatory activity of *Achalypha indica* leaf methanolic extract and essential oil extracted from leaves of *Artemisia japonica* and its combinations. Ointment preparation and its topical Anti-inflammatory studies of *Achalypha indica* leaf methanolic extract and essential oil extracted from leaves of *Artemisia japonica* and its combinations on rat models.
Outreach programme on zoonostic diseases	ICAR	Dr. B. Sunil	Screening of *Campylobacter* spp. From meat and clinical samples
Identification and development of novel antimicrobial peptides to tackle antimicrobial resistance	DST-SERB	Dr. Varuna P. Panicker, Assistant Professor	Identification of genes
Role of parkin mediated mitophagy in metastatic melanoma in the in vivo mouse and in vitro anoikia models	DST-SERB	Dr. Leena Chandrasekhar	Project Sanctioned by SERB. Initiation of paperwork.
RKVY project – Construction of Twin mode Climate Chamber facility for large animal research	RKVY	Dr. V Beena	Civil works completed Tendering of equipments finished
ICAR-AICRP on Goat Improvement	ICAR	Dr .R.Thirupathy Venkatachalap-athy	Recording of growth, reproduction, milk production parameters at different clusters. Distribution of breeding bucks, feed, feed supplements and medicines to farmers.
Evaluation of inactivated and subunit vaccines against riemerellosis among ducks in Kerala	NABARD	Dr. Priya P.M.	Seed culture for the vaccine was revived Ducklings were hatched out in UPDF, CVAS, Mannuthy The process of vaccine preparation, sterility and purity checking ongoing

Sodium dodecyl sulphate-polyacrylamide gel electrophoresis (SDS-PAGE) profiling of urinary proteins in pyometra affected dogs for potential prognostic markers	KSCSTE	Dr. Hiron M. Harshan	Sample collection initiated
RKVY-"Health care Management for Augmenting Production in small scale and marginal cattle farms of Kerala"	RKVY	Dr. Ajithkumar S	1. Purchased diagnostic and laboratory equipment and established laboratory for molecular diagnosis and for hormonal assay. 2. Purchased chemicals and standardized techniques in laboratory including molecular laboratory
Bioactivity guided fractionation and isolation of bioactive compounds from *Thespesia populnea* medicinal plant with anticancer potential against triple negative breast cancer	National Medicinal Plants Board (NMPB)	Dr. Bibu John Kariyil	Successive solvent extraction of bark of *Thespesia populnea* using Soxhlet apparatus Methanolic extraction of bark of *Thespesia populnea* using Soxhlet apparatus Isolation of terpenes from chloroform fraction of methanolic extract of bark of *Thespesia populnea*
Sustainable parasite management in goats using Anaemia Eye card	NABARD	Dr. K Syamala	Technical and administrative sanction received Identified sampling areas
ICAR-Field Progeny Testing Scheme	ICAR	Dr. Anilkumar K.	Provision of semen, veterinary services, and supply of inputs like dewormers, feed/ feed supplements and expert advice of scientists to dairy farmers
Utilisation of anti oxidative peptides from fermented whey for the shelf life extension of dairy products	State Govt.	Dr. K Radha & Dr. R Geetha	Peptides with anti- oxidative activity have been isolated form fermented Whey The anti oxidant activity of whey fermented with different lactic acid bacterial cultures were estimated
Investigation of calf rearing practices to evolve better replacement heifers for Kerala.	AHD	Dr.Manju Sasidharan	Survey on calf rearing practices conducted in 2 districts. Reared 36 calves in the post monsoon season and serum biochemical parameters and growth rate were studied in three treatment groups. Digestability trials were conducted.

Bioactivity guided fractionation and isolation of bioactive compounds from Thespesia populnea medicinal plant with anticancer activity against triple negative breast cancer	National Medicinal Plants Board, Government of India	Dr. Bibu John Kariyil	Bioactivity guided fractionation Isolation of bioactive compounds
Effect Of The Natural Ingredients On Physico-Chemical, Microbiological And Organoleptic Quality Of Fresh Beef And Beef Sausage Under Chilled (4^{o}C) Storage	AVT Naturals Ltd	Dr. V.N Vasudevan	
Molecular characterisation, antibiogram and geospatial analysis of leptospiral isolates from Kerala	ICMR	DR. AMBILY R.	• Obtained administrative and technical sanction from DAR • Procedures for posting of Research Assistant in progress. Walk-in-interview fixed on 11/03/2022

ii. External Aided Projects (Completed):

Name of the Project	Funding agency	Name of PI	Activities undertaken
Anatomical causes of infertility in crossbred dairy cows of Kerala – Structural and molecular studies	AHD	Dr. K. M.Lucy	The information gathered by this study will provide insights to the extent and causes of infertility among crossbred cattle of Kerala. Biochemical analysis of follicular fluid is a potent tool for assessing reproductive status. The candidate gene *wnt7a* can be used for genome-wide scans of anatomical abnormality in bovine species at early stages itself so that the route cause can be eliminated by culling of such animals. The findings will also be useful for diagnosing and minimizing the anatomical causes of reproductive disorders so that conception rate of the herd can be increased thus reducing economic loss to the farmers.

Addressing the Production Challenges of Native Goat Breeds of Kerala through Genomic Approach	AHD	Dr. Marykutty Thomas	Identification of potential breed specific markers for native goat breeds of Kerala Genomic diversity and population structure analysis of native goat breeds of Kerala Identification molecular markers in prolificacy related genes in native goats
Outreach Programme on zoonotic diseases	ICAR	Dr. B. Sunil	Studied the prevalence of Campylobacteriosis, Listeriosis and Taeniosis across the state Survivability studies of *Campylobacter* spp. and *Listeria* spp Biofilm studies on Listeria and Campylobacter Effect of natural extracts on the aforesaid organisms
Effect of Supplementation of natural antioxidant (curcumin) and omega 3 in broiler feed on chicken meat quality	Arjuna naturals Pvt ltd	Dr. Sathu T	Carcass characteristics analysis Proximate analysis Storage study (pH,TBARS, Microbiological analysis)

iii. KVASU Research Projects (Ongoing):

Name of the Project	Name of PI	Activities undertaken
Morphometric and histomorphological studies on the hoof of crossbred cattle and buffaloes	Dr N S Sunilkumar	Started collecting specimens, prepared requirements of chemicals
Hands on training on the preparation of milk based snack foods	Dr. K. Radha	Not yet started. As the training programme is a hands on training it cannot be conducted through online mode. It will be started soon through offline mode.
Project proposal for definitive diagnosis of common swine and canine diseases including canine tumours	Head, Department of Veterinary Pathology, CVAS, Mannuthy	Sample collection and standardization of the procedures involved
Strengthening of Speciality Surgical Facilities for excellence in Clinical Teaching and delivery of surgical care	Dr. John Martin K.D.	AS received Fund for first phase requestred

Spatial modeling of Leptospirosis and antimicrobial resistance of food borne pathogenic bacteria from beef and milk samples in central Kerala	Dr. C. Latha	Purchase of consumables in progress
Strengthening of NABL accredited quality control lab	Dr. Sethulekshmi C.	Funds will be used to calibrate the equipments in NABL lab
Strengthening of School	Dr. K. Vrinda Menon	Will conduct programmes – International Webinar on 3rd and 4th August 2021
Assessment of antibacterial activities of lactoferrin conjugated silver nanoparticles	Uma R.	Isolation of total RNA from milk somatic cells Synthesis of cDNA Amplification of lactoferrin N terminal region
Characterization of rooster seminal plasma proteins as biomarkers of fertility	Divya P.D.	Setting up of lab, procurement of reagents Physical evaluation of semen from different breeds of chicken
Comprehensive health care management of animals and birds under field condition	Professor & Head, UVH &TVCC Mannuthy	Ambulatory Clinical Service to rural farmers Advanced training to Veterinary Under graduate students in the field level Health and infertility camps conducted for cattle at village level in thrissur Technical help to Animal Husbandry department for conducting camps and for tackling difficult clinical cases Specific identification of haemoparasites and haemorickettsiales in infected animals and birds using CPR
Universal Veterinary Health Coverage for optimizing productivity of livestock"	Professor & Head, UVH &TVCC Mannuthy	Diagnosis and treatment of production diseases in cattle and goats like postpartum metabolic and infectious diseases Strengthening of inpatient facility to treat animals which require continuous treatment and care like downer cows Timely maintenance of diagnostics equipments Strengthening of casuality services to provide better service in emergency situations there by prolonging the longevity of costly animals Availability of rare medicines and advanced diagnostic services to farmers.

Livestock advisory based on weather forewarning	Dr.V.Beena	Maintenance of surface observatory Routine research and teaching activities of CAADECCS
Comprehensive health care of farm and pet animals	Dr. Usha Narayana Pillai	Diagnosis and treatment of various diseases in large and small animals
Establishment of a training hall for livestock farmers, entrepreneurs, veterinarians and para veterinarians	Dr Arun George	
Strengthening of Goat and Sheep Farm	Dr K A Bindu	Purchased and installed a pressure washer for cleaning the goat sheds Steps haves been initiated for the purchase of a desktop computer and printer for office use Installed 7 CCTV camera in the farm and its premises
Conservation of Malabari and Attapady Black goats	Dr K A Bindu	Advance amounts paid to M/s Nucleome for transcriptome analysis (2 samples) and to M/s Clevergene Bangalore for ddRAD analysis (20 samples)
Evaluation of candidate genes on production and reproduction traits in cattle and goats of Kerala	Dr Naicy Thomas	Characterization and expression analysis of candidate genes affecting production and reproduction traits in Kerala
Enhancing milk production potential of genetically superior cows through scientific intervention for producing better progenies	Dr Jamuna Valsalan	Selection of superior animals based on milk production potential
Conservation Centre for Vechur and Kasargode Cattle	Dr Elizabeth Kurian	Maintenance of nuclear breeding stock of Vechur and Kasargode Cattle Transcriptome analysis of Milk and Blood samples at peak production in Vechur (samples sent for analysis) Supply of female breeding animals to interested farmers to initiate homestead conservation units and nonbreeding animals for zero budget farmers at cull rate Providing support for research students for their sample and data collection

Maintenance of Germplasm Repository of domestic animals of Kerala	Dr Elizabeth Kurian	Supply of chilled/ frozen semen to the field units, NGOs Maintenance of germplasm repository of Vechur and Kasargode bulls for future use Gene expression studies in fresh and frozen semen
"Development of multiplex polymerase chain reaction assays for the diagnosis of common bacterial and viral agents associated with respiratory infections in goats and dogs"	DR. AMBILY R.	Polymerase chain reaction standardised for bacterial and viral agents associated with repiratory infections in goats
Plan Project 2021– 22 – "Evaluation of adulterants, pesticides and antibiotic residues in milk and assessment of their effect on cell culture	Dr. V. Ramnath	Standardized the procedure for adulterants, pesticides and antibiotic residues in milk
Surveillance of infectious diseases, their management and seromonitoring of vaccination in farm animals	Dr. K.Vijayakumar	Surveillance of farm animals for theileriosis, mastitis. Study of post vaccinal sero conversion against FMD. Studies on therapeutic management on infectious diseases
Hatchery waste disposal and its effective utilization	Dr.Vimal Antony Muttathettu	Ongoing
Forecasting weather parameters and effects of disease outbreaks in Kerala	Head, Department of Statistics	Data has been collected. Modeling and analysis being carried out.
Formulation of low-cost plant-based nanoparticle incorporated hydrogel with antibacterial, wound healing activities for the treatment of wounds in animals	Dr. Nisha A R	Preparation and characterization of hydrogel Preparation of Borneol incorporated hydrogel and estimation of wound healing activity
Detection and molecular characterisation of genes associated with drug resistance in nematodes and ticks affecting livestock of Kerala	Dr Asha Rajagopal	Tick collection from dogs, standardiastion of bioassay for amitraz, faecal sample collection from cattle of organized farms, faecal culture for isolation of strongyle larvae in cattle,

Chancellors award project- Multi-omic approach in elucidating the higher disease resistance, heat tolerance and robust reproductive health of indigenous cattle of Kerala'	Dr. T.V. Aravindakshan	Proteomic analysis to elucidate the protein markers for disease resistance, heat tolerance and reproductive health in native cattle of Kerala
Comprehensive approach to address the production challenges of small holder Rabbit farming in Kerala	Dr. Marykutty Thomas	Installed rabbit cage system with automatic drinking system Furnished training facility at Rabbit Breeding Station
Indicator based analysis of potentials and developing strategies for improving the livestock economy of the state (RSP/21-22/III-2).	Dr. Joseph Mathew	Survey conducted in four districts of Kerala. Mineral mixture distributed to Farmers.
Performance evaluation and need based intervention for enhancing production and productivity of Livestock enterprise (Entsp/21-22/14).	Dr. Joseph Mathew	Survey conducted in Four districts of Kerala. Mineral mixture and Vitamin E powder distributed.
Indicator based analysis of potentials and developing strategies for improving the livestock economy of the state (RSP/21-22/III-2).	Dr. Joseph Mathew	Survey conducted in four districts of Kerala. Mineral mixture distributed to Farmers.

iv. KVASU Research Projects (Completed):

Name of the Project	Name of PI	Activities undertaken
Morphometric and histomorphological studies on the hoof of crossbred cattle and buffaloes	Dr N S Sunilkumar	A morphological and morphometric study on the hoof of crossbred cattle and buffalo was undertaken in the work. The morphometric values were determined following standard procedures and protocols. Toe length, toe height, toe angle, sole length, sole width, heel bulb length, heel bulb height and heel bulb width were recorded separately for each claws of forelimb and hindlimb. The proximate analysis of the hoof was also carried out to assess the biochemical properties of hoof.

Anatomical studies on wild birds	Dr. Sumena K.B.	The study was envisaged to form a basis for future research especially to the wild life researchers. The findings will also be useful to understand the species specific features of the bones which are of archaeological significance and help to identify the species of wild birds fossils recovered by the paleontologists.
Strengthening of Farmer Research Linkages for enhancement of competitiveness and promotion of entrepreneurship among buffalo and dairy farmers of Thrissur district	Dr Reeja George P	Training need analysis completed Farmer training programmes conducted
Molecular Characterisation of genes associated with drug resistance in ticks in cattle goat and goats of Kerala	Dr Bindu Lakshmanan	Bioassays to detect deltamethrin resistance in *Rhipicephalus sanguines, R,microplus* and *Haemaphysalis* spp. in Thrissur and Palakkad Amitraz resistance assessment in *Haemaphysalis* Molecular characterization of deltamethrin resistance in *Rhipicephalus* Procured Tissue homogenizer Provided 60 days employment to RA
Real time PCR based detection and quantification of benzimidazole resistance polymorphisms in *Haemonchus* sp. of goats	Dr Asha Rajagopal	Standardised real time PCR for simultaneous detection and quantification of benzimidazole resistance polymorphisms at codons 167, 198 and 200 of isotype 1 β – tubulin gene in *Haemonchus* sp. in goats. The study indicated high frequency of resistance polymorphism at codon 198 in organized goat farms in Thrissur district. The technique was found to be a rapid and easier method for assessment of gene frequency of benzimidazole resistance polymorphisms in pooled larval samples.
Strengthening of School of Zoonoses Public Health and Pathobiology	Dr K. Vrinda Menon	Development of short videos on bat zoonoses, water purification, pet bird handling and management and collection of samples during PM
Molecular Investigation of Coxiellosis among goats with reproductive disorders under SZPHPB	Dr C. Sethulekshmi	Purchased Consumables and standardization of PCR protocol for detection of genus specific gene of *Coxiella burnetti*

Assessment of antibiotic resistance and foodborne pathogenic bacteria from beef and milk samples in central Kerala	Dr C. Latha	Purchased Consumables and standardization of PCR protocol for detection of AMR genes
Strenghtening of NABL quality control laboratory	Dr C. Latha	Purchase of pH meter and consumables for food and water testing
Spatial Analysis of environmental risk factors of leptospirosis in Kerala- Dept. of VPH	Dr K. Vrinda Menon	Collection of data on the prevalence of leptospirosis in humans across the state for the last five years for analysis of trend
Strengthening of School of Zoonoses Public Health and Pathobiology	Dr K. Vrinda Menon	Development of short videos on bat zoonoses, water purification, pet bird handling and management and collection of samples during PM
Strenghtening of NABL quality control laboratory	Dr C. Latha	Purchase of pH meter and consumables for food and water testing
Utilization of Anti oxidative peptides from fermented whey for the shelf life extension of Dairy Products (06/07/21-18/08/21)	1.Dr. K Radha 2.Dr. R Geetha	To determine the anti-oxidative activity of whey fermented with different lactic acid bacterial cultures To find out the efficacy of these peptides as anti-oxidants in dairy products
Surveillance of Toxo-plasmosis and Psittacosis among pet birds	Dr. P V.Treasamol	
Project proposal for definitive diagnosis of common swine and canine diseases including canine tumours	Head, Department of Veterinary Pathology	1. Molecular identification of diseases in animals using IHC 2. Identification of biomarkers in canine mammary and superficial tumours using IHC and PCR
Utilization of Anti oxidative peptides from fermented whey for the shelf life extension of Dairy Products	1.Dr. K Radha 2.Dr. R Geetha	To determine the anti-oxidative activity of whey fermented with different lactic acid bacterial cultures. Freeze drying of starter culture Sub culturing

v. Ph D Research Projects (Ongoing and Completed)

Name of the Scholar	Title of thesis	Research activities undertaken
Alphine Joseph (2019-DVM-02)	Comparative histomorphology and ultrastructure of the skeletal muscle of broiler and Kuttanad ducks	1. Investigate the histomorphology and ultrastructure of the skeletal muscle in broiler and Kuttanad ducks 2. Estimate the percentage of red fibres in selected muscles of broiler and Kuttanad ducks using histochemical methods 3. Compare physical, chemical and mechanical properties of the muscle in broiler and Kuttanad ducks
Dr. N.S.Sunilkumar	Structural integrity of digital cushion and its relevance as a predictor of claw horn disruption lesions in crossbred dairy cattle of Kerala	Prepared and submitted synopsis to PC group, started collecting review of literature
Dr. G. Vijayakumar	Antimicrobial use and prescribing behaviour of veterinarians in large animal practice in Kerala	Review of literature and preparation of statements for interview guides
Dr. Shreyansh Hosure	Institutionalized livestock service delivery system in Kerala	Research work
Dr. L. Arun	Impact of Kerala flood 2018 on the milk production and socio-economic status of dairy farmers in Ernakulam and Thrissur districts	Research work
Dr Benjamin E. D.	Efficacy of oestrous synchronization on breeding performance of pigs	
Dr P. B. Giridas	Evaluation of internal and external factors of stress responses in captive Asian elephants (Elephas maximus)	
Dr. Deepak Mathew D K	Nutrient recycling potential of fly larvae for bio waste management	

Dr. Manju Sasidharan	Evaluation of calf rearing practices to develop new strategies for producing healthy replacement heifers	
Dr. Sahana M	Predictive potential of physio-biochemical parameters for peri-parturient production diseases in crossbred dairy cows	
Dr. Sunitha Thomas	Responses of Malabari and Attapady Black goats to multiple stressors	
Dr. Sarika N.	Comparative efficacy of different tests for antemortem diagnosis of bovine tuberculosis	55 samples (40 farm samples and 15 slaughter house samples) collected and processed for isolation and identification, gamma interferon assay and molecular analysis. 3 isolates of MTC obtained
Dr Shyju O	Antineoplastic effect of *Semecarpus anacardium* nut milk extract an *Tinospora cordifolia* stem extract in tumor induced mouse model	Preparation for the start of Laboratory Animal experiments in progress
Dr Lekshmi Bhai K. (ongoing)	Fertility of cryopreserved Malabari buck semen on post-thaw supplementation of goat seminal plasma	The research work has started in which selection of animals is over.
Dr Amritha Aravind	Follicular dynamics and expression profile of B-cell lymphoma-2 gene in Malabari doelings supplemented with Moringa (*Moringa oleifera*) leaves	Studies undertaken to compare the age of puberty, daily dry matter intake, follicular dynamics and oocyte quality in Malabari doelings fed with total mixed ration supplemented with and without Moringa *oleifera* leaves. Haemato-biochemical and hormonal evaluation was also carried out in these two groups. Expression pattern of *BCL-2* gene in granulosa cells of ovarian follicles was also studied. Analysis and correction of thesis going on.

Dr Magnus Paul. K (ongoing)	Assessment of myometrial contractility, gene expression of hormone receptors in uterus and foeto-maternal velocity indices in canine uterine inertia	Completed data collection, compilation and tabulation of data undergoing. Started preparing the research report
Dr Niyas E (Ongoing)	Influence of season on follicular development and oocyte competence in crossbred dairy cattle	Research work has started. Selected animals and started ultrasonographic examination
Dr Revathy M.Murali	*In vitro* embryo production by supplementing oocyte maturation medium with follicular fluid exosomes	Prepared synopsis and collected literature
Dr Sophia Xavier	Isolation and characterisation of the seminal plasma protein PDC-109 in Vechur bull and its effect on sperm fertility and cryopreservability	Prepared synopsis and collected literature
Dr Arun George	Clinicobiochemical and molecular investigations of haemolytic anaemia in dogs	Research on infectious and non- infectious causes of haemolytic anaemia with emphasis on oxidative stress and erythrocyte membrane stability
Dr Ambili V R	Clinico- therapeutic and ultra- structural studies on canine atopic dermatitis with special reference to filaggrin gene polymorphism	Screening of dogs for canine atopic dermatitis Scoring of clinical signs associated with CAD
Dr Sindhu K Rajan	Profiling of non- classical renin angiotensin aldosterone system in cardiac diseases in dogs	Standardisation work and Data Collection has been started
Dr Rupalee Ghag Sunil (Completed)	Diagnosis and management of cardiovascular and renal–axis disorders sub type – H in dogs	Evaluation of subtype H in cardiovascular and renal disorders in dogs

Dr. Devi S. S.	Histomorphological, immunohistochemical and molecular studies on desmoplastic reactions of stroma in malignant canine mammary tumours	Histomorphological characterization of cancer associated stroma in malignant mammary tumors of dogs along with localization of stromal proteins associated with tumor progression and metastasis like MMP9, stromal derived factor, fibroblast activation factor
Dr.Preethy john	Antineoplastic effects of baicalein and piperlongumine nanoparticles	Green synthesis of silver nano particle done was performed by using Baicalein and piperlongumine and significant antineoplastic activity was identified by piperlongumine nanopaticles in Daltons lymphoma ascites
Dr Aswathy P U	Toxicity, toxicokinetics and residue analysis of indoxacarb in chicken	Acute toxicity studies
Dr. Aathira K K	Evaluation of a topical formulation of selected essential oil constituent in the mitigation of multidrug resistant Staphylococcus aureus infected wound.	Antibiogram of S. aureus
Laiju M Philip	Autologous platelet rich plasma for treatment of sole lesions and expression profile of associated biomarkers in dairy cattle	Standardized the procedure for preparation of the platelet rich plasma Completed 18 clinical evaluation and treatment of sole ulcer and treatment with platelerich plasma Completed standardization of mRNA isolation and cDNA preparation for gene expression profiling.
Ashok R Unni	Multimodal evaluation of healing of critical sized long bone defects in rats treated with biphasic Hydroxyapatite and β-Tricalcium Phosphate bioceramic scaffolds	Standardized procedure for handling, management and housing of research animals. Standardized anesthesia protocol for surgical procedure in rats. Standardized the surgical procedure for implant placement in femur.
T. Giggin	Evaluation of cutaneous wound healing in captive Asian Elephant (*Elephas maximus*)	Permission to collect samples from captive elephants obtained from Kerala Forest and Wildlife Department. Procured necessary equipment and test kits. Started wound tissue sample collection.

Soumya Ramankutty	Multimodal analgesic protocols as an adjunct to balanced anaesthesia for management of somatic and visceral pain associated with soft tissue surgery in dogs: a comparative evaluation	Synopsis submitted
Udharwar Sanjaykumar Vithalrao	Tiletamine- zolazepam and tiletamine- zolazepam - isoflurane anaesthesia in xylazine/dexmedetomidine and butorphanol premedicated goats: A comparative study	Synopsis submitted
Charlotte Coretta Rodricks	Expression profiling and molecular characterisation of Bone morphogenetic protein 4, Kit Ligand and Homeobox A10 genes in native goat breeds of Kerala	Collection of blood samples and DNA isolation from 300 Malabari and 100 Attappady goats
Dr. Vandana C M	Transcriptomic and proteomic profiling of peripheral blood mononuclear cells of Vechur and crossbred cattle of Kerala challenged with Theileria annulata	Standardized pbmc culture, RNA and protein extraction from culture. Standardized Ground up tick supernatant preparation and DNA extraction from GUTS. Standardized PCR for detection of Theileria from GUTS.
Rojan, P.M.	Detection of selection signatures, single nucleotide variants and functional candidate genes for production traits based on whole genome re-sequencing of indigenous goat breeds of Kerala	Collection of blood samples Recording of litter size and production parameters

Dr. Binsy Mathew (Completed)	Detection of drug resistant and biofilm forming foodborne pathogenic bacteria in broiler chicken and mitigation using plant extracts	➢ The prevalence of *E. coli, Salmonella* spp. and *Campylobacter* spp. from retail chicken of Kerala was 54.17, 14.33 and 17.17 per cent, respectively. ➢ The highest per cent of resistance was detected to nalidixic acid in *E. coli* and to tetracycline in *Salmonella* spp. and *Campylobacter* spp. ➢ The aqueous cold extract of *C. guianensis* was found to have good antibacterial property against drug resistant *E. coli*, *Salmonella* spp. and *Campylobacter* spp.
Dr. Deepa Jolly (Completed)	Occurrence and molecular characterization of campylobacter spp in sea foods and associate environment of Kerala and control of biofilm formation	➢ Occurrence of *Campylobacter* spp. in seafoods was 12.24 per cent, 11.76 per cent, 13.51 per cent in marine fishes, crustacean and molluscs respectively. ➢ The *C. jejuni* NCTC 11168, and *C. coli* survived for 150 days in autoclaved water at 25°C. ➢ Sanitisers like hot water, chitosan, bleaching powder and aqueous extract of *Eichhornia crassipes* (water hyacinth) were effective on biofilms of the *C. jejuni* and *C. coli* at various combination treatments
Dr. Vivekanandan R (Ongoing)	Efficacy of campylophages and selected phytochemicals in the control of Campylobacter biofilms	Ethanolic, methanolic and aqueous extract of citrus peel was prepared Campylophage isolation from sewage and fecal samples Done MIC and MBIC studies with trans cinnamonaledehyde, carvacol, eugenol and citrus extracts Biofilm genes *fla*, *ped*, *lux* genes were standardised by PCR
Dr Chendu Bharat Prasad	Development and evaluation of Helix loop mediated Amplification assay for detection of Listeria monocytogenes in milk and meat	Standardising Isolation protocol of *Listeria monocytogenes*

Divya P.D.	Analysis of differential expression of micro RNA in lipopolysaccharide challenged lymphocytes of Vechur and crossbred cattle of Kerala	Standardization of protocols for PBMC isolation and culture of PBMCs Next generation sequencing of micro RNAs from PBMCs after treatment with lipopolysaccharide
Dr. Vasudhar Bhat S. V.	Evaluation of anticancer property of recombinant goat lactoferrin	Standardisation of expression of goat lactoferrin
Chinnu M.V.	Investigation of free circulating replication-competent circular DNA in cattle and its presence in canine mammary tumour	
Anisha J..Perumbilly	Serum proteome analysis for the assessment of heat stress response in crossbred and vechur cattle	Identification of differentially expressed proteins and biological pathyways associated with heat stress response in heat stressed crossbred and vechur cattle
Megha P. S. (20-DVM-16)	Physiological effects of soybean isoflavones as estrogen agonists on ovarian receptor dynamics of layer birds	Procurement of essential chemicals and reagents Conduct of chromatographic standardisation procedures
Dr Jasmine Rani K (2018-DVM-05)	Improving efficiency of production in early lactating dairy cows through augmentation of rumen biomass production	*Thesis submitted*
Krupa Rose Jose	Clinico-therapeutic studies of pyoderma in dogs and *in vitro* efficacy of green synthesised silver nanoparticles using *Azadirachta indica* against *Staphylococcus epidermidis* isolates	Synopsis approved by FRC
Dr. S. Sankaralingam	Transcriptome analysis of pectoral muscle among Pekin and Kuttanad ducks	Ongoing

Dr.Sabitha Antony	Diversity analysis of Chara and Chemballi varieties of Kuttanad ducks	Ongoing
Dr.Vimal Antony Muttathettu	Effect of *in ovo* and post-hatch oral supplementation of nano copper and nano zinc on growth and immune response in broilers	Ongoing
Dr. Safeer M. Saifudeen (ongoing)	Prediction of protein coding genes in rumen metagenomic reads of cattle with machine learning based approach	Formulation of machine learning based model for prediction of genes from metagenomic sequence reads
Dr. Haritha B Pillai (ongoing)	Comparison of whole blood transcriptome profiles of Vechur cattle and high and low milk producing crossbred cattle of Kerala	Synopsis approved by FRC Data collection of cows for selection for transcriptome sequencing
Dr Manju K Mathews	Not yet ready	
Dr Umesh G	Not yet ready	
G. Vijayakumar 19-DVM-05	Antimicrobial use and prescribing behaviour of veterinarians in large animal practice in Kerala	Data collection and analysis

vi. MVSc Research Projects (Ongoing and completed)

Name of the Scholar	Title of thesis	Research activities undertaken
Lhingneivah Doungel	Histomorphology and physico-chemical evaluation of raw and decellularised tunica vaginalis of buffalo as a promising biomaterial in regenerative medicine	1. Conduct gross anatomical, histological and ultrastructural studies on tunica vaginalis of buffalo 2. Standardization of procedure for maximum removal of cellular components of tunica vaginalis 3. Investigate the histomorphological, ultrastructural and physico-chemical characteristics of the developed decellularised matrix

Abhin Raj K.P. 18- MVM- 25	Structural and physico-chemical evaluation of raw and decellularized porcine tunica vaginalis as a novel acellular matrix	Acellular matrix could be developed from porcine tunica vaginalis. Parietal layer of tunica vaginalis (PTV) collected from the testes of adult healthy pigs slaughtered at the Meat Technology Unit, College of Veterinary and Animal Sciences, Mannuthy were used for the development of the acellular matrix. PTV was decellularised by two protocols using aqueous solution of bovine bile and Trypsin-EDTA. Assessment of the efficiency of decellularisation by these two methods indicated that decellularisation using Trypsin-EDTA was better. Present study revealed that tunica vaginalis which is being discarded from local meat industry can be turned into a biomaterial. Further animal studies are needed to prove the suitability of this acellular matrix as a biologically and medically valuable product.
Dr. Chithra S	Assessment of the Livestock Biodiversity Management System under Selected Local Self Governments of Kerala	Thesis submitted on 28.05.2021
Dr. Rashmi Ravindranth	Commercial dog breeding ventures of Thrissur and Ernakulam districts of Kerala – A multidimensional analysis of economic viability and determinants of profitability.	Thesis writing
Dr.Baddam Akhila	Role performance and Capacity Need Assessment of field extension functionaries of Dairy Development Department, Kerala	Synopsis submitted
Dr Saravanan M.	Assessment of the impact of Kerala flood-2018 on the livestock farming systems of Pariyaram panchayath in Thrissur district of Kerala	
Dr Sachin B. Patil	Impact of Kerala floods 2018 on milk production and socio-economic status of dairy farmers in Ernakulam and Thrissur districts	
Dr Pravee kumar N. B.	Effectiveness of illuminated fly trap for the control of dipteran biting fly annoyance in dairy farms	

Dr Vishnu Dev R. S.	Impact of enrichment of grazing meadow with automated water trough on the welfare of crossbred cattle	Completed
Dr Livinraj V. L.	Behavioural and physiological response of captive macaque to stressors	Completed
Dr Rekha A	Effect of feeding Black soldier fly (*Hermetia illucens*) larvae meal as protein source in the performance of meat type Japanese quail-	
Greeshma Raju	Stansrutsrudardisation of diagnostic assays to detect riemerellosis in ducks in Kerala	Dot ELISA was standardized for riemerellosis in ducks
Sruthy Chandran B.	Genotypic characterisation of infectious bronchitis virus from Kerala	77 samples were collected. PCR revealed 9 samples as positive for infectious bronchitis virus. Characterisation going on.
Akhila Joy	Isolation and characterisation of infectious bursal disease virus from Kerala	40 samples were collected. PCR revealed 3 samples as positive for infectious bursal disease virus. Isolation and characterisation going on.
Dr Princy Johnson	Foeto-maternal haemodynamics and combined thickness of uterus and placenta for canine obstetric management	Prepared synopsis and collected literature
Dr Nikhila E S	Assessment of fertility and fecundity in female dogs by sonographic, hormonal and genomic studies	Data collection is going on
Dr Arya Theres (Ongoing)	Follicular fluid exosome supplementation on *in vitro* maturation competence of heat stressed bovine oocytes	Prepared synopsis and collected literature
Dr Anjitha K.	Comparative study on the cryotolerance of *in vitro* matured and vitrified bovine oocytes supplemented with L-carnitine and niacin	Cryopreservation of *in vitro* matured bovine oocytes using cryoloop is being carried out. Studies need to be undertaken on effect of supplementing niacin and L- carnitine in maturation media on cryotolerance of bovine oocytes and its development *in vitro.*
Dr Swathish V. S.	Preservability of boar cauda epididymal sperm incubated with specific seminal plasma fractions	Training of boars for gloved hand method of semen collection. Standardisation of SDS-PAGE analysis of seminal plasma proteins
Dr Bareera Vallikkadan	Oestrus induction using long and short term progesterone based protocols in anoestrous goats	Prepared synopsis and collected literature

Dr. Kodange Omkar Tukaram	Immunohistochemical localisation of progesterone, oestrogen and Ki-67 receptors in genital tract tumours of female dogs	The research work is going on and would positively be completed in time.
Dr. Anzeena Hind P.	Uterine fluid clearance and uterine artery haemodynamics as early indicators of cystic endometrial hyperplasia- pyometra in subfertile female dogs	Prepared synopsis and collected literature
Dr Neelakanta Nikshepa Nithish H	Intrauterine ozone treatment for subclinical endometritis in cross bred dairy cows	Assessment of the efficacy of intrauterine ozone therapy with and without PGF2α analogue in the treatment of subclinical endometritis in cross bred dairy cows is progressing.
Dr Gautam Malakar	Oestrus induction in dogs using Cabergoline and sustained release GnRH agonist at different stages of inter-oestrus period	Prepared synopsis and collected literature
Dr Aja Taj Nazer	Clinical and laboratory evaluation of response to chemotherapy in canine transmissible venereal tumour	Prepared synopsis and collected literature
Dr Rinu Thomas	Accuracy of whelping prediction based on maternal and foetal parameters in late gestation	Prepared synopsis and collected literature
Reshmi Raveendran	Genetic analysis of host resistance to gastro- intestinal nematode infection among native goat breeds of Kerala	Sample collection and quantitative assessment of intensity of parasitism n goats.
L.M. Thamil bharathi	Development of copro polymerase chain reaction for detection of economically important strongyles in goats	Copro-PCR was standardised to detect strongyle infections of economically importance in goats . Multiplex copro-PCR was standardised to detect multiple infections in faecal samples.
Shaik Nikhat Reena 20-MVM-48	Characterization of amitraz resistance in *Rhipicephalus sanguineus*	Collection of ticks, Tick colony maintenance, Bioassay for assessment of resistance
Merin Das V. J. (20-MVM-47)	Evaluation of benzimidazole resistance in gastrointestinal nematodes of cattle	Faecal Sample collection from calves and standardization of Egg Hatch Assay
Anaz. S. R	Suitability of saline, adenine, glucose, mannitol additive in citrate, phosphate, dextrose, adenine for storing packed red blood cells of goats	Completed Storage lesion studies of packed RBC was completed

Anjaly. M. V	Clinicopathological investigations on thrombocytopenic dogs with hemostatic disorders	Ongoing
Ashi. R. Krishna	Management of feline lower urinary tract disease	Ongoing
Gouree Krishna. U	Storage lesion and post transfusion studies of canine packed red blood cells using saline, adenine, glucose, mannitol additive in citrate, phosphate, dextrose, adenine solution	Ongoing
Rohini B G	Evaluation of renal resistive index in dogs with acute and chronic renal diseases	Clinical studies continuing
Parvathy J	Clinico-therapeutic studies on non-regenerative anaemia in dogs with special reference to Babesia gibsoni infection	Clinical studies continuing
Lakshmi Mohanan	Oxidative stress and antioxidant status in oriental theileriosis and its therapeutic management in crossbred cows	Clinical studies continuing
Anjaly Francis	Evaluation of point of care tests for the detection of subclinical ketosis in early postpartum cows	Clinical studies continuing
Kamalu S Kumar	Comparative evaluation of Fluralaner and Doramectin for therapeutic management of canine demodicosis	Clinical studies continuing
Dr. Neethu Balakrishnan (ONGOING)	Evaluation of oxidative stress in stage III chronic kidney disease in dogs and its management	Evaluation of oxidative stress in chronic kidney disease
Dr. Remya Krishna U.S. (ONGOING)	Electrocardiographic evaluation and therapeutic management of ventricular tachycardia in dogs without cardiac structural abnormalities	Assessment of arrhythmia and management of ventricular tachycardia without cardiac structural abnormalities
Anugraha Mercy Easaw-Completed	Molecular detection of virulence factors in Staphylococcus aureus associated with bovine mastitis	Samples were collected, isolation and antibiotic sensitivity studies were done, PCR protocols standardised
Vincy P.-Ongoing	Occurrence of gastrointestinal and haemoparasitic infections in domestic cats	Collection of samples

Neeraja E. S.- Ongoing	Aetiopathology and clinic-therapeutic studies on Enteric protozoal infection in cats	Various aetiological agents of feline diarrhea were identified
Christy Margrat Joy	Immunohistochemical analysis of p7056 kinase protein in mammary tumours of dogs	Histological classification and grading of canine mammary tumors Immunohistochemical analysis of p70 S6 kinase protein in canine mammary tumors
Shabeeba P M	Immunohistochemical analysis of p7056 kinase protein in superficial tumours of dogs	Histological classification and grading of canine superficial tumors Immunohistochemical analysis of p70S6 kinase protein in canine superficial tumors
Megha K G	Evaluation of omentum-based extracellular matrix scaffolds for soft tissue repair	Evaluation of omentum based extracellular matrix scaffolds for soft tissue repair Cellular and tissue responses to omental bioscaffold grafts in a rat abdominal regeneration model
Navya E S	Implication of tumour associated macrophages, M2 phenotype in the pathology of canine mammary tumours	Immunohistochemical localization of M2 macrophages in canine mammary tumours using CD 163 marker
Dr. Navya Elizabeth Sajeev	Immunohistochemical localisation of M2 macrophages in canine mammary tumours using CD163 marker	Grading of canine mammary tumours (CMTs) based on histopathology Immunohistochemical localisation of M2 macrophages using CD 163 marker and correlation with the grade of the tumour
Dr Blessy John	Immunohistochemical evaluation of eukaryotic translation initiation factor 4E-binding protein 1, phosphorylated eukaryotic translation initiation factor 4E-binding protein 1 and eukaryotic translation initiation factor 4G in canine mammary tumour	Grading of canine mammary tumours (CMTs) based on histopathology Immunohistochemical localisation of eukaryotic translation initiation factor 4E-binding protein 1 (eIF4EBP1), phosphorylated eIF4EBP1 (p-eIF4EBP1) and eukaryotic translation initiation factor 4G (eIF4G) with respect to the grades of CMTs
Dr. Keerthana Santhosh	Histomorphological evaluation of stromal collagen and immunohistochemical analysis of Heat shock protein 47 in canine mammary tumours	Gross and histopathological evaluation of canine mammary tumours (CMTs) with special reference to cancer associated stroma and stromal collagen 2. Immunohistochemical detection of Heat shock protein 47 (Hsp47) in CMTs
Dr. Arya Nair M L	Immunohistochemical evaluation of the expression of calcium calmodulin dependent kinase 2 alpha in the brain of rabies affected dogs	Sample collection and histopathologic evaluation Standardization of IHC protocol

Dr. P Nikhithasree	Immunohistochemical evaluation of the expression of glutamate ammonia ligase in the brain of rabies affected dogs	Sample collection and histopathologic evaluation Standardization of IHC protocol
Dr. Jessil Joseph	Pathological evaluation of central nervous and reproductive systems of porcine circovirus-2 infected pigs	Molecular detection of porcine circovirus-2 (PCV-2) from tissues using polymerase chain reaction (PCR) Gross and histopathological evaluation of central nervous and reproductive systems in PCV-2 infected pigs
Dr. Arathy P.S.	Evaluation of host cellular behaviours to decellularised extracellular matrix based porcine tunica vaginalis scaffolds in rat model	Evaluate host response to decellularised porcine tunica vaginalis scaffolds in rat model Evaluate the expression of M1 (CD86) and M2 (CD206) macrophage sub population in retrieved implants Evaluate the expression of regulatory T cells (forkhead box protein P3, FOXP3+) in retrieved implants
Dr.Arya Mohan	Comparative study of berberine and capsaicin as efflux pump inhibitors in quinolone resistant Staphylococcus aureus isolates from bovine mastitis	Ongoing
Dr.Keerthika V	Antineoplastic activity of silver nanoparticles biosynthesised from seeds of Sesamum indicum (Sesame) in Dalton's lymphoma ascites	Ongoing
Dr Haima J S	Wound healing activity and dermal pharmacokinetics of borneol incorporated κ-carrageenan hydrogel in diabetic wound model in rat	Research completed and submitted the thesis for evaluation
Akshay Rajkumar Dabholkar	Cytotoxic, carcinogenic and genotoxic effects of carbosulfan in cultured mammalian cells	Work completed, thesis submitted
Adheena Xavier	Evaluation of protective effect of lemongrass oil and citral on fatty liver disease in rats	Standardisation on going
R. Poonghuzhali	Evaluation of *in vitro* acaricidal activity and safety of *Cyclea peltata* (Padal)	Research work going on

Pranjali Kirde	Protective effect of aqueous fraction of alcoholic extract of *Tamarindus indica* seed coat on acetaminophen induced hepatotoxicity in rats	Work completed, thesis submitted
Dr. Archana Raj Ongoing	Sub-acute toxicity of Indoxacarb and its reversal with hesperidin and ascorbic acid in rats.	Alternate animal model study with *Daphnia magna* for acute toxicity of Indoxacarb.
Dr. R. Shankar Ongoing	Antineoplastic potential of *Magnolia champaca* (chembakam) and *Epipremnum aureum* (Money plant) leaves in MCF 7 cell line.	Preparation of methanolic extracts of *Magnolia champaca* (chembakam) and *Epipremnum aureum* (Money plant) leaves. Qualitative phytochemical analysis of the extracts.
Sharat Joshi	Management of fracture of long bones using string of peals plating technique in dogs	Clinical, heamatological, Biochemical and radiographically evaluate nine clinical cases of long bone fracture using string of pearls platting technique in dogs. Evaluated string of peals plating technique for long bone fractures in dogs'
Deny Jennes	Autologous platelet rich plasma for the treatment of canine superficial corneal ulcers: A comparison between subconjunctival and topical application	Synopsis submitted
Aiswrya	Comparison of multimodal anaesthesia protocols with isoflurane and sevoflurane maintenance in geriatric canine patients.	Synopsis approved AS/TS received.
Aleena Thomas	Sonological features of mammary gland neoplasms and its correlation with surgical margins and malignancy in dogs	Synopsis approved AS/TS received.
Reni Raj	Management of long bone fractures in cats by external skeletal fixator with intramedullary pin tie-in configuration using epoxy putty	The study has been started and three cats with femur fracture and two cats with humerus fracture underwent external skeletal fixation with intramedulary pin tie-in fixation with epoxy putty and recovered well. The data were collected.
Shakir S. N	Supracutaneous locking compression plating for the management of long bone fractures in dog	Evaluated Supracutaneous locking compression plating technique in four fracture cases and results analysed
Abhiram M. J.	Homologous platelet rich plasma gel for treatment of sole lesions in dairy cattle	Synopsis submitted

Ashlin Michael	Clamp-rod internal fixator for management of diaphyseal fractures in dogs.	Synopsis submitted
Aswathy Mohan A.	Decellularised porcine cornea as an acellular scaffold graft for the management of corneal ulcers in dogs	Synopsis submitted
Jayakrishnan V	Clinical evaluation of a multimodal anaesthetic protocol using butorphanol-dexmedetomidine-idazolam-ketamine-isoflurane and lignocaine continuous rate infusion in bovines	Synopsis submitted
Rahul B.	Evaluation of dexmedetomidine - butorphanol - zolazepam – tiletamine anaesthesia for elective surgery in cats	Synopsis submitted
Shubham W. Raut	B-mode ocular ultrasonography for diagnosis and treatment evaluation in management of glaucoma in dogs.	Synopsis submitted
Tamaraiselvi P	Minimal invasive percutaneous cystostomy using paediatric suprapubic catheters for management of urethral obstructions in tom cats.	Synopsis submitted
Afsal S (Completed)	Cloacal carriage and antimicrobial resistance profiling of extended spectrum beta-lactamase producing *Escherichia coli* and *Salmonella* Enteritidis in broiler chicken	• Collected 200 cloacal samples from broiler chicken from Kottayam and Kollam district (Total sample size: 400) • Isolated *Salmonella* and *E. coli* • Genus specific and AMR genes standardised • Studied Antimicrobial resistant genes in the isolates • Positive isolates were checked by ABST.

Athulya T R(Completed)	Occurrence of *Campylobacter* spp. In duck, quail, backyard chicken and associated environmental samples	Collected cloacal swabs from duck (100% sample size), quail (100% sample size) and backyard chicken (100% sample size) Collected environmental samples- Water samples and soil samples (100% of total sample size collected) Isolated *Campylobacter* colonies in mCCDA agar Done molecular characterization of 10% of the colonies positive in mCCDA agar Antibiogram of positive isolates were done
Murugavelu M.(Completed)	Detection of pathogenic Leptospires in slaughtered cattle of Thrissur	Blood, urine and kidney samples were collected from Municipal slaughter house, Kuriachira, Thrissur and Meat Technology Unit , KVASU and subjected to DFM, MAT, Isolation and PCR Blood samples (25) of slaughterhouse workers collected from both slaughterhouse *16S* rRNA, *secY* , *lipl 32* gene and *G1/G2* primer standardised Prevalent serovars in cattle and slaughterhouse workers detected. Gross morphological lesions also observed in collected kidney samples
Sruthi C(Completed)	Isolation and molecular characterization of *Escherichia coli* pathotypes in drinking Water and identification of the possible sources of contamination	100 water samples were subjected to analysis by MPN method (100% of sample size) for detection of coliform and E coli Soil samples, infant feacal samples, poultry feacal samples, cattle and goat feacal sample were also analysed were subjected to isolation of various pathotypes of *E coli.* Positive isolate were screened by PCR and ABST.

Swetha P.T (Completed)	Isolation and characterisation of Extended Spectrum Beta Lactamase (ESBL) producing *K. pneumonia* and *Salmonella* spp. From environmental sample	A total of 420 samples – pond water (60), river water (60) and paddy field water (60) • Along with soil samples- pond, rive banks and paddy field (60 each)S collected • Isolation and identification of were carried out from collected samples • Positive samples were screened by PCR and using Kirby Bauer diffusion test was carried out to determine the antibiotic resistance profile.
Radikha A. N.(Ongoing)	Detection of colistin and quinolone from poultry processing line	Collection of 60 samples from one processing line Isolation of *Salmonella* spp. Confirmed the isolates by PCR Standerdised PCR for *iro*B gene detection
Pravitha C.P	Isolation and detection of antimicrobial resistance of thermophilic *Campylobacter* from layer farms and chicken processing lines	Collected 60 cloacal swabs of layer birds and 60 environmental samples from an organised layer farm in Thrissur. 130 samples were collected from the slaughterline Standardised Campylobacter genus specific lpxA gene
Sheelu N Lakshmanana	Public Health Significance Of Canine Brugian Filariosis In Endemic Areas Of Kerala	Screened dog blood samples from Thrissur, Ernakulam and Alapuzha for the presence of Brugian Filariosis by wet film, Giema staining, Histochemical staining and PCR
Sriiji A. P	Epidemiological investigation of risk factors associated with occurrence of leptospirosis in dairy cattle	Post monsoon serum samples (100) were subjected to Microscopic Agglutination Test(MAT) Fifty urine samples(post monsoon) in Pananjery were subjected to PCR targeting 16SrRNA gene
Devika D. Sunil	Antibiotic resistance in enteropathogenic *Escherichia coli* and *Campylobacter* spp. from beef and raw cow milk	Preparation of synopsis
D PremKumar	An exploratory study on the determinants of occupational hazards among veterinarians of Kerala	Preparation of synopsis

Jisna Jamal P.P	Occurrence of enrofloxacina and tetracycline resistant *Klebsiella pneumoniae* and *Salmonella* spp. in beef and cow milk	Preparation of synopsis
Kavya A	In vivo efficacy of garlic and chitosan for control of *Campylobacter* spp. in meat type chicken	Preparation of synopsis
Miyada Yoosuf	Phytocontrol strategies using silver nanoparticles and activated charcoal against coliforms in water	Preparation of synopsis
M Bindhu pushpa	Detection of *Coxiella brunetii* in milk and vaginal swabs of goat with history of reproductive disorders	Preparation of synopsis
Mukul C. G.	Antineoplastic activities of lactoferrin from Malabari goat	• Isolation and characterization of goat lactoferrin from colostrum • Standardization of induction of experimental tumors in mice • Thesis writing+
S. Sreejisha	Assessment of the effect of β hydroxy butyrate on bovine neutrophil function *in vitro*	Thesis writing
Nimna Ajay	Characterization of acid soluble collagen from Daggertooth pike conger (Muraenesox cinereus) and its application in wound healing	
Akshara B Venu	Expression profiling of micro RNA in lipopolysaccharide challenged peripheral blood mono nuclear cells	
Radhika R. (20-MVM-57)	Evaluation of vitamin and mineral status in chronic skeletal disorders in dogs	Preparation and submission of synopsis
G. Srujana Sai (20-MVM-58)	Evaluation of vitamin and mineral status in dermatological disorders in dogs	Preparation and submission of synopsis

Dr C. A. Dharamshaw (Completed)	Molecular characterisation and expression profiling of Vasorin gene in native goats of Kerala	Molecular characterization revealed the two single nucleotide polymorphisms (SNPs) in Vasorin gene (*VASN*) in Malabari and Attapady Black goats. Association studies of the genotypes of *VASN* were analysed for association with the growth traits such as body weight, body length, height at withers and chest circumference. The various traits of Attapady black goats showed no significant difference between the genotypes. A significant association with body length and height at withers was observed for the sample population. Relative expression of the *VASN* in reproductive tissues like ovary, uterus and fallopian tubes of Malabari goats was studied
Dr Kiyevi G. Chishi (Completed)	Genetic variability of Toll Like Receptor 4 and Beta Defensin 4 genes and their association with somatic cell score in crossbred cattle of Kerala	Molecular characterization Toll Like Receptor 4 gene (*TLR4*) and Beta Defensin 4 gene (*DEFB4*) in crossbred cattle of Kerala was done. *TLR4* and *DEFB4* polymorphisms were associated to with somatic cell score (SCS). Prediction of breeding value based on 305 days milk yield and SCS was attempted

Dr Katam Divya (Completed)	Expression profiling of candidate genes affecting post -thaw sperm parameters in Vechur cattle of Kerala	The relative expression of the target genes *HSP90AA1* and *PRDX6* showed significantly decreased expression from the fresh semen group to good freezability semen (GFR). Also, there was significant downregulation of the target genes in Poor freezability semen in comparison to GFR and fresh. But the relative expression *SOD1* revealed no significant difference in the fresh and GFR groups. But there was significant (0.05) downregulation of the gene in the semen collected from PFR group of bulls from fresh and GFR. Characterisation and sequence analysis of *SOD1* revealed presence of two single nucleotide polymorphisms (SNPs) g.1992G>A and g.2097A>T in intron 1 and exon 2, respectively. The exonic SNP was non-synonymous with a change of isoleucine to phenylalanine but using polyphen tool this SNP showed neutral effect.
Potu Hemanth (Completed)	Association of Butyrophilin gene polymorphisms with milk yield and fat per cent in crossbred cattle of Kerala	Genetic variability of butyrophilin (BTN1A1) gene among crossbred cattle of Kerala was investigated and a total of 17 single nucleotide polymorphisms (SNPs) were detected while 13 being novel. Among the SNPs detected three polymorphisms G21A, A465G and G506A were selected for detailed analysis using high resolution melt (HRM) curve analysis and two genotypes GG (0.86) and GA (0.14) were revealed for G21A polymorphism, while KK (0.25) and KL (0.75) for A465G transition and MM (0.25) and MN (0.75) with respect to G506A polymorphism. General linear model-univariate analysis was carried out by considering herd, season of calving and parity as non-genetic factors and trait as a dependent variable and found that milk production traits (305-day milk yield, fat yield, SNF yield, fat per cent and SNF per cent) were significantly associated with SNPs in BTN1A1 gene.

Akhila M R (ongoing)	Characterisation of bovine integrin beta 6 gene and analysis of its expression with reference to foot and mouth disease	SNP analysis in exon 1, 2 and 14 of integrin beta 6 gene in crossbred and Vechur cattle. Expression study of integrin beta 6 in crossbred and Vechur cattle
Aishwary Vibhuti 19-MVM-02	Expression profiling of *Ecto-NOX Disulfide-Thiol Exchanger 2* (*ENOX2*) gene in response to heat stress in goats	Expression profile of *ENOX2* gene in response to heat stress in Malabari and Attapaddy Black goats of Kerala. Identification of single nucleotide polymorphisms (SNPs) in *ENOX2*
Dr. Saranya S.K. (2018-MVM-55)	Analysis of *Gonadotropin releasing hormone receptor* (*GNRHR*) gene polymorphism and its association with multiple births in native goat breeds of Kerala	Characterization of *GNRHR* in native goats of Kerala Association analysis of *GNRHR* variants with litter size trait in native goats of Kerala
Dr. Teenu Thomas (2019-MVM-04)	Association of *mucin6* genotypic variants with gastro-intestinal parasitic resistance traits in Malabari goats of Kerala	Identification of *mucin6* variants
Tarra Malleswari-Completed	Antifungal resistance of dermatophytes isolated from dogs	Various dermatophytes causing disease in dogs were identified and antimicrobial sensitivity studies done
Navya E.-Completed	Aetiopathology of canine diarrhea caused by enteropathogens	Various aetiological agents of canine diarrhea were identified, treatment protocols proposed
Alphiya Joseph-Ongoing	Molecular characterization of canine adenovirus infection and its pathology in dogs	Collection of samples
Anaina S.-Ongoing	Evaluation of biofilm formation and antimicrobial resistance profiling of coagulase negative staphylococci isolated from bovine subclinical mastitis	Collection of samples
Himadri Biswas-Ongoing	Molecular differentiation of Anaplasma spp. And therapeutic studies of anaplasmosis in goats	Collection of samples
Dr. Ratna Supriya	Comparative efficacy of fermented soybean meal, probiotics and organic acids on growth performance in broilers.	Ongoing

Dr. Nimmi P	Polymorphism of intron 2 of *Growth hormone* gene and its association with growth and carcass traits in Kuttanad and White Pekin ducks	Ongoing
Dr. Samir Nagib Habib Hakkim	Effect of feeding black soldier fly (*Hermetia illucens*) larvae meal on performance of meat type ducks	Ongoing
Dr. Shajini S	Effect of chitosan and L-carnitine supplementation on growth performance and carcass fat deposition in broiler chicken	Ongoing
Dr. Akshay D	Semen quality and preservability in Aseel, Kadaknath and native chicken of Kerala	Ongoing
Dr. Abhilash A M	Development and standardisation of flavoured egg drink	Ongoing
Dr. Archana S	Enrichment of chicken egg by dietary inclusion of flaxseed oil, fish oil and their combination	Ongoing
Dr. Arundhathi U	Effect of fermented cottonseed meal on growth performance, gut microflora and carcass traits in broilers	Ongoing
Dr. Reshma Raveendran	Effect of probiotics in corn replaced rice based diet in broiler chicken	Ongoing
Sethulekshmi MJ	Undergoing course work	NA
Nikitha Shajan	Undergoing course work	NA
Athira CP	Undergoing course work	NA
M. Priyadarshini (17-MVM-07) (completed)	Assessment of sire evaluation methods in crossbred cattle of Kerala	Evaluated various statistical models for sire selection for crossbred cattle of Kerala
Arya Gopal (completed)	Evaluation of candidate genes associated with canine mammary tumor	The variants in *Breast cancer 1 and 2* genes were evaluated and identified -1173C>T in *BRCA1* gene as the major marker for early diagnosis of mammary tumor in canines

Dr V.N. Sahana 20-MVM-03	Genetic variability of growth hormone gene and its association with growth and carcass traits in native ducks of Kerala	Preparation for the start of rearing of native ducks in University poultry and duck farm in progress (on going)
Michelle Elizabeth Roy (on going)	Genome-wide scan for selection signatures in Ankamali pigs and its genomic comparison with other pig breeds	1. Analysis of genetic diversity of Ankamali pigs and their Genome-wide comparison with other established breeds 2. Identification of genomic selection signatures in Ankamali pigs 3. Gene annotation and gene enrichment analysis of selective sweep region
Ansalna Ali	Development of functional yoghurt incorporated with Hibiscus rosa sinensis flower extract - Ongoining	Functional yoghurt was developed by incorporating Hibiscus rosa sinensis flower extract The anti- oxidant activity was determined
Ramesh S	Assessment of udder skin surface temperature changes in relation to mastitis and micro-climatic variables in crossbred dairy cows in three climate zones in Kerala	Approved by FRC and research work about to start
Arya Krishnan S (20-MVM-13)	Medical management of canine pyometra with prostaglandin E1 analogue and progesterone receptor antagonist	Research in progress
Urmila S (20-MVM-18)	Freezability and in vitro fertility of Malabari buck semen cryopreserved in liposome-based extender	Research in progress
Dr.Avinash Nilugonda	Evaluation of production performance of Gramasree hens by feeding black soldier fly larvae as a protein replacer	Completed
Dhanya Suresh (19- MVM-016)	Assessment of performance of pre-ruminant crossbred calves maintained on different feeding strategies	Writing thesis
Nikhila Mohan (19- MVM-035)	Dietary supplementation of selected essential amino acids in Large White Yorkshire piglets	Writing thesis
Nimmy Michael (19- MVM-037)	Effect of supplementation of exogenous fibrolytic enzymes in early lactating crossbred dairy cows	Writing thesis

P. Satish Reddy (19- MVM-042)	Assessment of nano zinc Supplementation in Malabari kids fed on complete ration with different energy levels	Writing thesis
Dr. Krishna Nath M.R. (ONGOING)	Evaluation of oxidative stress and efficacy of antioxidant therapy along with plasma transfusion in haemorrhagic enteritis in dogs	Assess the efficacy of anti oxidants and plasma transfusion in reducing mortality of dogs with haemorrhagic enteritis
Dr. Greeshma J (ONGOING)	Clinicopathological investigations on mucocutaneous lesions in dogs	Evaluation of oxidative stress in chronic kidney disease
Dr. Remya Krishna U.S. (ONGOING)	Electrocardiographic evaluation and therapeut management of ventricular tachycardia in dogs without cardiac structural abnormalities	
Dr. Athulya Gopal (ONGOING)		Assessment of clinic- pathological and trichographic features associated with mucocutaneous lesions in dogs Assess the correlation of coagulation parameters and the echocardiographic findings
ArunKumar	Synopsis not yet ready	
Majitha Farzana	Synopsis not yet ready	
Sonaa M	Synopsis not yet ready	
Athira Sajeendran	Synopsis not yet ready	
Dr. Sule Pratik Yashodhan	Development and evaluation of chicken chips by using extrusion technology	• Standardised the formulation of chicken chips by using extrusion technology • Standardised the frying temperature of chicken chips • Assessed the effect of different flavours on chicken chips • Studied the shelf-stability of the standardised product under ambient temperature

Dr. Rintu Joseph	Abattoir sludge as substrate for biomass productivity of Black Soldier Fly Larvae	• Optimized the proportion of substrate and co-substrate for Black Soldier Fly Larvae (BSFL) rearing • Identified the optimum amount of substrate and co-substrate required for maximum biomass production • Assessed nutritional qualities and substrate reduction properties of BSFL reared on abattoir sludge
Dr. Ann Theres John	Development and evaluation off chicken meat spread	• Standardised the formulation of chicken meat spread with incorporation of mayonnaise • Assessed the physicochemical properties and sensory characteristicsof the developed meat spread • Evaluated the shelf- life of the developed meat spread
Dr. Jishnu P	Ultrasonic measurement of backfat thickness and Loin eye area in crossbred pigs and their correlation with meat yield and fatty acid profile	• Determined the backfat thickness at different body locations and at loin eye area in live market pigs using ultrasound imaging • Correlated the ultrasonic measurements of backfat thickness at different body locations and loin eye area with direct measurements of back fat thickness and loin eye area made in pig carcasses after slaughter • Correlated the ultrasound and carcass measurements of back fat and loin eye area with attributes related to meat yield and fatty acid profile
Dr. Manasa M	Development and quality evaluation of organic briquettes incorporating slaughter house waste and sewage sludge	Ongoing
Dr. Hridhya Vijay C	Effect of repeated freezing and thawing on meat quality of spent cattle and buffalo meat	Ongoing
Baddam Akh-ila 20- MVM- 31	Role performance and capacity need assessment of field extension functionaries of Dairy Development Department, Kerala	Questionnaire construction and Review of literature- going on
GREESHMA. S.M 21-MVM-35		

Sruthy Chandran B (Ongoing)	Gentotypic characterisation of Infectious bronchitis virus isolates from Kerala	RT-PCR was standardised for S1 subunit of S gene, N and M genes of Infectious bronchitis virus and the representative positive samples from Northern, central and south zones of Kerala were sequenced, which showed variations among the different isolates obtained from different parts. Also, RFLP was standardised for S1 subunit of S gene, which showed similar patterns with respect to the different isolates
Lina Kunjamma Mathews (Ongoing)	Assesment of immunogenic potency of inactivated vaccine against riemerellosis in breeder ducks	Prepared the inactivated vaccine against riemerellosis
Ashtamy M G (Ongoing)	Antibiotic resistance profiling of bacteria isolated from corneal ulcers in dogs	Started sample collection. Standardisation of tests going on
Vidya P. (Ongoing)	Molecular detection and characterisation of Chicken anaemia virus from Kerala	Started sample collection. Standardisation of PCR for VP2 gene carried out. Among the 9 sample processed, one sample was positive in PCR
Roshni Moses (Ongoing)	Assessment of seroprevalence and molecular diagnosis of leptospirosis in cats	Research not started as she discontinued last semester (21/06/2021 to 03/11/2021)
Sriiji A. P	Epidemiological investigation of risk factors associated with occurrence of leptospirosis in dairy cattle	• Collected serum samples of cattle of Thrissur district and performed MAT • Did PCR for urine and water samples targeting 16srRNA gene
Devika D. Sunil	Antibiotic resistance in enteropathogenic *Escherichia coli* and *Campylobacter* spp. from beef and raw cow milk	• Collected milk samples (from Ayyappankavu milk society Thrissur) and one meat sample for pilot study for the isolation of *Escherichia coli* and *Campylobacter* spp
Dr. Navya Elizabeth Sajeev	Immunohistochemical localisation of M2 macrophages in canine mammary tumours using CD163 marker	1. Grading of canine mammary tumours (CMTs) based on histopathology 2. Immunohistochemical localisation of M2 macrophages using CD 163 marker and correlation with the grade of the tumour
Dr. P Nikhithasree	Immunohistochemical evaluation of the expression of glutamate ammonia ligase in the brain of rabies affected dogs	1. Sample collection and histopathologic evaluation 2. Standardization of IHC protocol

vii. MSc Research Projects (Ongoing and Completed)

Ms. Savitha	Morphological and morphometric studies on the hoof of hog deer	Studies the morphology and morphometry of hoof in hog deer with specimens collected from State museum and zoo, Thrissur

Amrutha. E. A	Study of feather pattern and physical properties of feather in different species of fancy birds	1. Study of feather pattern in different fancy birds 2. Study of physical properties of feather in different fancy birds
Megha	Evaluation of anti-bacterial potential of peptides in whey from fermented goat milk	Completed
Theertha	Detection of antifungal agents in fermented dairy products and their impact on product quality	Completed
Sivani KT	Evaluation of lactic acid bacterial isolates from natural sources for the preparation of curd	Completed
Athira Anil	Development and quality evaluation of synbiotic yoghurt prepared with *Lactobacillus rhamnosus* GG and flour of *Cicer arietinum*	Ongoing
Athira VC	Development and evaluation of enrobed buffalo milk paneer	Ongoing
Bency Rose	A study on efficiency of detergents and their application in dairy sector.	Ongoing
Chandini Sivaganga	Effect of L-threoine on glyA gene expression in *Streptococcus thermophilus*	Ongoing
Ansalna Ali	Development of functional yoghurt incorporated with *Hibiscus rosa-sinensis* flower extract	ongoing
Dhanya Prasad	Ethogram of Duck on the enrichment of ponds with Azolla	

Rubihayo Solomon	Anand Pattern Cooperative Society (APCOS) model and traditional dairy cooperatives in Kerala: A comparative analysis on structure, conduct and performance	
Amrutha M. S.	Detection of biofilm forming strains of *Escherichia coli* and *Staphylococcus aurues* associated with canine pyometra	
Karishma P. S.	Isolation and antibiogram of *Corynebacterium pseudotuberculosis* from goats	
Nisha B. V.	Isolation of infectious bursal disease disease virus in embryonated chicken eggs	
Ajomol Joy	Isolation, identification and antibiogram of bacteria from gastrointestinal tract infections in chicken	
Albin Mathew	Identification of bacteria isolated from surgical sites employing aseptic protocols during surgical procedure in companion animals	
Alphy Sabu	Antibiogram of pathogenic bacteria associated with respiratory tract infections in poultry	
Amrutha K.U.	Isolation of *Escherichia coli* from canine clinical samples and characterisation of antibiotic resistance genes in the isolates	
Hemanth Ajayan	Pathology of Riemerellosis in Ducklings and identification of virulence associated biotin gene among the *Riemerella anatipestifer* isolates	
Nasreen P.A.	Isolation and molecular detection of infectious laryngeotracheitis virus from chicken	

Bisty P Johnson (18-MSVM-17)	Autoregressive Integrated Moving Average (ARIMA) model for forecasting production of milk, egg and meat.	Report preparation
Delna Rose K. D. (18-MSVM-18)	Forecasting rainfall in Thrissur district of Kerala using Artificial Neural Network.	Report preparation
Nandu Mohanan (18-MSVM-19)	Comparison of Auto Regressive Integrated Moving Average (ARIMA) and Multigene genetic programming models for temperature prediction in Thrissur district of Kerala.	Report preparation
Aravind (18-MSVM-16)	Effect of flood on the Livestock sector in kadukutty panchayath of Thrissur district.	Report preparation
Vishnupriya Balakrishnan (18-MSVM-20)	Developing model for Lactation curve in Malabari goats.	Report preparation
Abdul Fathah (19-MSVM-29)	Modelling and forecasting the spread of COVID-19 in Kerala	Data collection and analysis
Aby Mathew (19-MSVM-30)	Development of time series model for forecasting red meat price in Kerala	Data collection and analysis
Amrutha Davis (19-MSVM-31)	Forecasting the price of poultry meat in Kerala	Data collection and analysis
Ayana Babu (M.Sc. Biochemistry and Molecular Biology)	Green synthesis of silver nano particles using Nalpamaram and Assessment of its antibacterial potential	Synthesized silver nano particles using nalpamaram Thesis writing
Dhaniyel M.G. M.Sc. (Biochemistry and Molecular Biology)	Assessment of Antibacterial potential of silver nano particle biosynthesized using Trikatu	Analysed antibacterial potential of silver nano particle biosynthesized using Trikatu Thesis writing
Abhijith R. Nair M.Sc. (Biochemistry and Molecular Biology)	Green Synthesis of silver nano particles using Triphala and Assessment of its antibacterial potential	Assessed antibacterial potential of silver nano particles using Triphala Thesis writing
Kavia V. M.Sc. (Biochemistry and Molecular Biology)	Green Synthesis of silver nano particles using Dashmula Churna and Assessment of its antibacterial potential	Analysed antibacterial potential of silver nano particle biosynthesized using Dashmula Churna Thesis writing

Sruthi Unnikrishnan M.Sc. (Biochemistry and Molecular Biology)	Camparitive Analysis of antibacterial activity of vechur and crossbred cow milk conjugated silver nano particles	Analysed antibacterial activity of vechur and crossbred cow milk conjugated silver nano particles Thesis writing
Akshath G Nath M.Sc. (Biochemistry and Molecular Biology)	Fatty acid composition of Vechur cow milk	Analysed Fatty acid composition of Vechur cow milk using HPLC Thesis writing
Vidhya KT M.Sc. (Biochemistry and Molecular Biology)	Fatty acid composition of milk of crossbred cows	Analysed Fatty acid composition of crossbred cow milk using HPLC Thesis writing
Ardra T S M.Sc. (Biochemistry and Molecular Biology)	Species identification and evolutionary analysis of Columba livia domestica (Pigeon) and Dromaius movaehollandiae (emu) using mitochondrial 12S rRNA and 16s rRNa gene.	Isolation and identification of DNA from Pigeon & Emu Thesis writing
Modi Syriac M.Sc. (Biochemistry and Molecular Biology)	Characterization of genes encoding 23k Da and 14- 3- 3 membrane proteins of *Schistosoma spindale*	Characterized of genes encoding 23k Da and 14- 3- 3 membrane proteins of *Schistosoma spindale* Thesis writing
Binusree Babu A M.Sc. (Biochemistry and Molecular Biology)	Detection of polymorphisms in chicken bone morphogenetic protein 15 (BMP-15) gene associated with egg production traits	Isolation and identification of polymorphisms in chicken bone morphogenetic protein 15 (BMP-15) gene associated with egg production traits Thesis writing
Malavika Menon K M.Sc. (Biochemistry and Molecular Biology)	Quantification of benzimidazole resistance polymorphisms in *Haemonchus contortus* in goats by real time PCR.	Analysis of benzimidazole resistance polymorphisms in *Haemonchus contortus* in goats by real time PCR Thesis writing
Adarsh P.S. Admission No 19-MSVM -17	Investigation on the correlation between milk components and serum beta hydroxy butyrate (BHBA) during early lactation in dairy cattle	Submitted dissertation

Adithian M. S. Admission No 19-MSVM-18	Differential expression of angiopoietin 2 in ovarian follicles of cross bred Malabari goats	Submitted dissertation
AkshayAnilkumar Admission No. 19-MSVM -19	Microbiological and physicochemical characterisation of Ultra High Temperature (UHT) milk available in Kerala at different storage conditions	Submitted dissertation
Alisha Bhanu P.A. 19-MSVM-20	Antineoplastic effect of Malabari goat lactoferrin on Daltons Lymphoma Ascites cells	Submitted dissertation
Anfas M. V. Admission no 19-MSVM-21	Comparison of serum electrophoretic patterns of Vechur and crossbred cattle	Submitted dissertation
Bimitha Benny Admission No 19-MSVM-22	Cytotoxicity and modulation of oestrogen and progestrone secretion by methanolic extract of leaves of *Mallotus phillippensis* in MCF-7 cell lines	
Madhurima C.V. 19-MSVM-23	Serum protein electrophoretogram of Malabari goats	Submitted dissertation
Neena K.S. 19-MSVM-24	Effectiveness of tertiary butyl hydroquinone as an antioxidant on repeatedly heated edible oils	Submitted dissertation
Pooja, J. S. Admission No 19-MSVM-25	Profiling of milk protein and study the effect of fermentation on antioxidant and antipathogenic activities of milk from Vechur and Kasargod Dwarf breeds of cattle.	Submitted dissertation
Sandra Maria John 19-MSVM-26	Evaluation of effectiveness of Vechur cow milk based semen extender for the refrigerated preservation of chicken semen	Submitted dissertation
Shaza Rahman 19-MSVM-27	Molecular characterisation of cytochrome b gene in *Babesia gibsoni*	Submitted dissertation
Sreeshma T. S. 19-MSVM-28	Antibacterial and antibiofilm activities of cinnamon bark oil and thyme oil against clinical isolates of multidrug resistant *Staphylococcus aureus*	Submitted dissertation

Sandesh Krishna	Cytotoxicity and modulation of oestrogen and progesterone by methanolic extract of seed coat of *Tamarindus indica* in MCF-7 cell lines	Submitted dissertation

Total no. of Ph.D. scholars: 54

Total no. of M.V. Sc scholars:162

Total no. of M.Sc Scholars: 53

viii. Research Papers/ Articles /Books Published in approved format:

Books:-

1. M.K. Narayanan, S. Maya, A.P. USha, K.M. Syam Mohan, Sreeranjini A.R., Sunilkumar N.S., Irshad A. Senthilkumar R., Unnikrishnan M.P., Sujith S., Uma R., Sumena K.B., Vidya P., Ajith K.S. , Justin Davis and Surjith K.P. 2021. *Varshakaala Munnorukkangalum Mrugasamrakshanavum.* Published Director of Entrepreneurship, Kerala Veterinary and Animal Sciences University. ISBN: 978-93-5493-173-4.
2. M.K. Pratheepkumar, V.K.P. Mohankumar, S. Maya, N. Mohanan, S. Nandakumar, Haroon Abdul Rasheed, Deepthi S., Shibukumar S., Shaji Rehman S., Sneharaj R.K., Muraleedharan K., Irshad A., Sunilkumar, N.S. 2021. *VETERINARIAN RESPONSE TO THE COVID-19 CRISIS.* Published General Secretary, Indian Veterinary Association, Kerala. ISBN: 978-93-5473-810-4.
3. M.K. Pratheepkumar, V.K.P. Mohankumar, S. Maya, N. Mohanan, S. Nandakumar, Haroon Abdul Rasheed, Deepthi S., Shibukumar S., Shaji Rehman S., Sneharaj R.K., Muraleedharan K., Irshad A., Sunilkumar, N.S. 2021. *COVID KALAVUM MRUGASAMRAKSHANAVUM.* Published General Secretary, Indian Veterinary Association, Kerala.
4. K P Sudheer and Bindu Lakshmanan, (Eds),2021. Safety and Quality in food supply chain-A farm to fork approach . (NIPA,Delhi and CRC Press)CRC ISBN: 978-10-32007-045
5. K P Sudheer and Bindu Lakshmanan(Eds).2021 Safety and quality assurance in food supply chain-Emerging technologies and challenges (NIPA,Delhi and CRC Press) CRC ISBN 978-10-32007-281
6. 1. S. Maya, K.M. Lucy, Indu V. Raj, Sreeranjini A.R., Ashok N., RAjani C.V., Leena Chandrasekhar, Sunilkumar N.S., Sumena K.B., Patki Harshad Sudhir and Surjith K.P. 2020. Introduction to Anatomy of Domestic animals and aves. Published Director of Entrepreneurship, Kerala Veterinary and Animal Sciences University. ISBN: 978-93-91716-02-8.
7. 2. S. Maya, K.M. Lucy, Indu V. Raj, Sreeranjini A.R., Ashok N., RAjani C.V., Leena Chandrasekhar, Sunilkumar N.S., Sumena K.B., Surjith K.P. and Patki Harshad Sudhir 2020.

Anatomy of the forelimb in domestic animals and aves. Published Director of Entrepreneurship, Kerala Veterinary and Animal Sciences University. ISBN: 978-93-91716-03-5.

8. 3. S. Maya, K.M. Lucy, Indu V. Raj, Sreeranjini A.R., Ashok N., RAjani C.V., Leena Chandrasekhar, Sunilkumar N.S., Sumena K.B., Patki Harshad Sudhir and Surjith K.P. 2020. Anatomy of the head and neck in Domestic animals and aves. Published Director of Entrepreneurship, Kerala Veterinary and Animal Sciences University. ISBN: 978-93-91716-04-2.
9. 4. S. Maya, R. Ambily, A. Irshad, Sunilkumar N.S., Sreeranjini A.R., C.S. Suja, Justin Davis K., Vishnudev R.S. 2021. Proceedings of the thirteenth Kerala Veterinary Science Congress-2021. Published by Indian Veterinary Association Kerala. ISSN-2394-255X.
10. 5. Dr. Prasanna. K.S. 2021.*Pevishabadhayum samaana rogangalum Valarthu Mrugangalil*-ISBN 978-93-91716-05-9
11. Usha N. P., Maya S., Narayanan, M.K., Sreeranjini, A.R., Nisha, A.R., Deepa, J., Sujith, S., Uma, R., Sunilkumar, N.S., Udayasree, V.J., Sangeetha, S.G., Arya, M. and Shabeeba, P.M. 2022. Current Concepts of Methodology in Research. Directorate of Entrepreneurship, Kerala Veterinary and Animal Sciences University. ISBN: 978-81-951776-3-9.
12. Prejit, Binsy Mathew, Sethulekshmi, C. Vrinda, K. M. and Deepa Jolly. 2021. Glimpses of Important Zoonotic Diseases (1 st Edn). Department of Veterinary Public Health, College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala and Professor and Head, Centre of Excellence in Meat Science and Technology, Kerala Veterinary and Animal Sciences. University

Chapter

1. Menon, V.K. and Lekshmanan, B. 2021.Biological and chemical hazards in meat and meat products. In : Safety and quality assurance in food supply chain- Emerging technology and challenges Published by NIPA, New Delhi.

Articles:

1. Aiswarya, N., Mani, B. K., Mini, M., Sankar, S. and Unnikrishnan, M. P. 2021. Conventional and molecular diagnosis of Campylobacteriosis associated with bovine abortion. 52 (2):117-124.
2. Amrutha Anand, Bindu Lakshmanan, Kajal TA, Siju Joseph and T.V. Aravindakshan.2021. Deltamethrin resistant alleles predominate in *Rhipicephalus sanguineus sensu lato* in South India. Exp.Appl. Acarol. https://doi.org/10.1007/s10493-021-00627-1.
3. Annie, V.R., Lucy, K.M., Ashok, N., Maya, S., Hiron, M.H. and Sathu, T. 2021. Scanning electron microscopy of ovary and oviduct of crossbred dairy cows with ovarian hypoplasia. *J. Vet. Anim. Sci.* 52(2): 187-190.
4. Annie, V.R., Lucy, K.M., Ashok, N., Maya, S., Hiron, M.H. and Sathu, T. 2021. Histo-morphology of genitalia in crossbred dairy cows with kinked cervix. *J. Vet. Anim. Sci.* 52(2): 191-195.

5. Anvitha, H., Nair, S.S., Chinnu,M.V., Narayanan, M.K. and John Martin, K.D. 2021. Fourier Transform Infrared Spectrophotometer with attenuated total reflectance (FTIR-ATR) for analysis of Uroliths in caprine species. J. Vet. Anim. Sci. 52(2): 125-130. DOI: https://doi.org/10.51966/jvas.2021.52.2.125-130.

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7. Chaudhary AK, Dimiri U, Joshi V, Ajith Y (2021) Standardization of Pro-Inflammatory Cytokines (IL-1 & TNF-α) and Haematological Biomarker as an Early Assessment of Health Status in Adult Healthy Pigs. J Vet Sci Ani Husb 9(1): 104

8. Chithra, S., Jiji, R.S., Senthilkumar, R., George, A. and Radhika, G. 2021. Personal profile of members in Biodiversity Management Committees of Kerala. Approved for publication in *JVAS*

9. Deepa, K.P., Sreeranjini, A.R., Soumya, C.B., Maya, S., Sunilkumar, N.S. and Sumena, K.B. 2021. Comparative histological studies on the renal medulla in broiler chicken and broiler duck. *Int. J. Vet. Sci. Anim. Husb.* 6:11-14

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11. Devi, S.S., George, A.J., Mathew, R., Sajitha, I.S., Sreeranjini, A.R. and Priya, P.M. 2021. Occurrence of osseous metaplasia in association with Avian lymphoid leukosis. – A case report. *Indian J. Vet. Pathol.* 45: 59-62.

12. Dr Prasad A., Chapter published in the e-book Climate smart dairying in the context of global warming, published by KVASU and MANAGE, Hyderabad (ISBN: 978-81-950446-9-6)

13. Dr S Harikumar, Chapter published in the e-book Climate smart dairying in the context of global warming, published by KVASU and MANAGE, Hyderabad (ISBN: 978-81-950446-9-6)

14. Faslu Rahman, A.T., Preena, P., Asif M. Ashraf, Saminathan, M., Anoopraj, R., Sharun, K., Dhananjai, M.P., Sivaprasad, M.S., Manjusha, K.M., and K.P. Singh. 2021. A Rare Case of Multiple Digital Squamous Cell Carcinoma of Nail-bed Epithelium in a Spitz Dog. Haryana Veterinarian. 60(1): 142-145.

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16. Jolly, D. Sunil, B, Latha, C. Vrinda, KM, Mini, M and Aravindakshan, T.V.2021. Antibacterial

effect of aqueous cold leaf extract of *Eichhornia crassipes* on *Campylobacter jejuni* NCTC 11168. *Pharm.Innov*. 10(5): 1338-1343

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21. Mohan, S.K. and George, P.R. 2021. SWOT analysis and strategies to optimize the buffalo rearing system of the *Kole* lands of Trissur district, Kerala The Pharma Innovation Journal 5S 10:263-268

22. Niyas, E., Simon, S., Harshan, H. M., Jayakumar, C. Deepak, J. and Reshma, S. 2021. Ultrasonographic detection of abnormal allantoic fluid accumulation secondary to embryonic death in a crossbred cow. *Haryana Vet.* **60**: 137-140.

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24. Prakash, K.P., Suja R.S., Kariyil, B.J., Nisha, A.R. and Raji, K., 2021. Toxicity evaluation of aqueous soluble fraction of Tamarindus indica seed coat extract in albino wistar rats. *Journal of Pharmacognosy and Phytochemistry*, *10*(3), pp.94-99.

25. Preena, P., Sarangom, S. B., Kumar, K. R., Seeja, S., & Rajalekshmi, S. 2021. Hematological alterations in large Babesia species infection in dogs of Kannur District of Kerala. Journal of Parasitic Diseases, 1-6.

26. Sudharsan, C., Murugan, S.S., Chacko, B., Juliet, S., Nair, S.N., Bency, A. and Muneer, A.K., 2021. Influence of dietary substitution of palm oil by rapeseed oil at different levels on growth performance and economics of broilers. *Indian Journal of Animal Research*, *1*, p.6. (April 2021)

27. Sudheesh S Nair, Deny Jennes, Soumya Ramankutty,., Anoop, S. and John Martin, K.D., Feline pyometra and its surgical management: a case report. Journal of Indian Veterinary Association 19(1). Pp 81-85

28. Syamala K., Devada K., Bindu L., Raji K., Thirupathy V.R. and Lucy Sabu.2021. Impact of climatic variables on the epidemiology of strongylosis in goats of Kerala.JIVA 19:75-80

29. P. V. Tresamol, Rathish, R. L. , Aaron Jacob and Saseendranath. M. R. 2021. Prevalence and Etiology of Subclinical Mastitis in Dairy Cattle *Int. J. Curr. Microbiol. App. Sci* (2021) 10 (06): 666-670

30. Vrinda, K. M., Sunil, B. and Latha, C. 2021. Prevalence and antibiotic resistance profile of *Listeria* spp. Associated with seafoods from fish catchment areas in Kerala. Vet. World. 14(3): 777-783.

31. Maya S, Anitha P, Aravindakshan T.V, Ashok N, Lucy K.M, Indu V.R, Sreeranjini A.R, Leena C, Sunilkumar N.S and Sumena K.B. 2021. Lectin histochemical studies on chicken embryos. *JIVA*. 19(2): 112-118.

32. N.M. Rajashailesha, R.V.Prasad, N.S.Sunilkumar, M H Girish, S. Ganga Naik, M K Vinuthan and K V Jamuna. 2021. Cytoarchitecture of medial cuneate nucleus in the buffalo (*Bubalus bubalis)*. *The Pharma Innovation Journal.* 10(1S): 171-174.

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34. Alphine Joseph, K.M. Lucy, S. Maya, K.B. Sumena, V.N. Vasudevan and C. Sunanda. 2021. Histological and Physico-Chemical Characterization of Skin Dermis in Broiler and Kuttanad Ducks. *Indian J. Vet. Anat*. 33 (1): 48-50.

35. Lhingneivah Doungel, Indu VR, Lucy KM, Vasudevan VN, Sunilkumar NS, Justin Davis and Gleeja VL. 2021. Physico-chemical properties of decellularised tunica vaginalis of buffalo. *The Pharma Innovation Journal.* SP-10(10): 1342-1346.

36. Sharat Joshi, Syam K. Venugopal, Sudheesh S. Nair, Sunilkumar N.S., John Martin K.D. 2021. Management of Fracture of Long Bones Using String of Pearls (SOP) Plating Technique in Dogs. *International Journal of Science and Research.* 10(10): 1086-1091. DOI: 10.21275/SR211021112128.

37. Lavanya, B., Syam K. V., John Martin, K. D., Soumya R. and Sreeranjini, A.R. 2021. B-mode ultrasonographic biometry of cataractous eyes in dogs. *J. Vet. Anim. Sci.* 52(4): 377-382. DOI: https://doi.org/10.51966/jvas.2021.52.4.377-382

38. Debia Yamin.,V. Beena., B. Ramnath., R. Thirupathi Venkatachalapathy and Aziz Zarina 2021. Association of temperature humidity index during summer with haematological parameters in native and crossbred goats of Kerala.. *J.Vet.Anim.Sci.* 52(3) : 222-227

39. 'Dr. Udayasree V. J. & Dr. Usha Narayana Pillai - Romakkuppayakkarkku Rogam Vannal". 2021. Karshakasree-November 2021.

40. Dr. Sangeetha S. Gireesh, Dr. Usha Narayana Pillai and E. S. Neeraja. 2021. " A case report on feline infectious peritonitis: significance in present covid pandemic situation". Kerala Veterinary Science Congress-2021 compendium

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42. Neethu Balakrishnan, P. Vincy, K. Justin Davis, Usha N.Pillai. 2021. "Management of hypoalbuminemia as sequalae of intestinal parasitism in a male Pitbull pup". Kerala Veterinary

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44. Anjali Francis, Usha Narayana Pillai, S. Anoop, V. Jayakrishnan. 2021. "Diagnosis and therapeutic management of masticatory muscle myositis in a dog". Kerala Veterinary Science Congress-2021 compendium

45. Kamalu S Kumar, Anugraha Mercy Easaw, Usha N.Pillai. 2021. "Successful management of canine pyoderma associated with multidrug resistant *Staphylococcus aureus*. Kerala Veterinary Science Congress-2021 compendium

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47. Rohini B.G., Arun George, Usha N.Pillai, Madhavan Unny N., Ambily R. 2021. "Acute renal failure associated with viper bite in a dog". Kerala Veterinary Science Congress-2021 compendium

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63. Chemotherapeutic effect of cisplatin and plumbagin on cancer stem cells in REM 134 canine mammary carcinoma cell lineKrithiga, K., Arathi Rajan, Geetu Rose Varghese, Neetha,R.L., Neethu Krishnan, Dipyaman Patra, Arathy V. Warrier and Priya Srinivas. International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry held at Rajasthan University of Veterinary and Animal Sciences, Bikaner from 17 to 19 Dec, 2021

64. Bindu Lakshmanan. 2021. Lead paper presented during the XXXth National Congress of Veterinary Parasitology and National Symposium on "Fundamentals of integrated Parasite Management and its relevance in One Health" College of Veterinary Science, Parbhani, 14th-16th, Dec 2021: pp.177

65. K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, Lucy Sabu and V.R. Thirupathy 2021. Combined targeted selective treatment-A sustainable solution for management of parasitism with limited chemotherapy" 30th NCVP and National symposium on "Fundamentals of Integrated Parasite Management and its relevance in One Health" at CVS, Parbhani, Maharashtra (14-16. Dec 2021).

66. K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, Lucy Sabu and V.R. Thirupathy2021. Body Condition Score –A parasitological indicator in targeted selective approach for effective and sustainable goat worm management" in International conference on convergence of technology and policy for sustainable meat production organized by AMST, held online from October 25th to 28th 2021.

67. K. Syamala, K. Devada, Bindu Lakshmanan, K Raji and V. Thirupathy. 2021. Detection of rare polymorphiosms in isotype 1 B tubulin gene of *Haemonchus contortus* in goats of Kerala. Conference on Microbial technology, Amity University, Rajasthan held on Dec. 01-02, 2021

68. K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, and V.R. Thirupathy.2021. Anaemia eye colour chart for detecting clinical anaemia in goats of Kerala" at the Kerala Veterinary Science Congress 2021 held on 13-14November,2021 at CVAS Mannuthy.

69. Shaik Nikhat Reena, Bindu Lakshmanan, Radhika R., Reshmi R., Merin Das V. J., Anjali V. 2021. Occurrence of *Joyeuxiella* spp. in household cats (Felis catus) in Thrissur, Kerala. Kerala Veterinary Science Congress,13-14th November,2021, CVAS ,Mannuthy

70. Merin Das V. J., Bindu Lakshmanan, Priya M. N., Reshmi R., Shaik Nikhat Reena. 2021. Concurrent infection of *Spirometra* spp. and *Sarcocystis* spp. in a household kitten (*Felis catus*). Kerala Veterinary Science Congress,13-14th November,2021, CVAS ,Mannuthy

71. Reshmi Raveendran ,VJ Merin Das, Shaik Nikhat Reena, Bindu Lakshmanan,S Anoop, SN Sudheesh, Soumya Ramankutty, KD John Martin, T Giggin, P Thamaraiselvi, K S Ann Mary, PP Fathima Jamal, B Aswanui Raj.2021. Report on verminous ophthalmia associated with *Setaria digitata* in Kerala. Kerala Veterinary Science Congress,13-14th November,2021, CVAS ,Mannuthy

72. Reshmi Raveendran, Dharamshaw CA, Merin Das V J, Nikhat Reena Shaik, Syamala K, Bindu Lakshmanan.2021. Variability in faecal egg count of Strongyle infection to native goat breeds of Kerala under Semi intensive system. XXXth National Congress of Veterinary Parasitology and National Symposium on "Fundamentals of integrated Parasite Management and its relevance in One Health" College of Veterinary Science, Parbhani, 14th-16th, Dec 2021

73. Asha R, Lucy Sabu, Radhika R. 2021. Standardisation of Larval Development Assay using discriminating dose criterion in a conference on Advances in Microbial Technologies (AIMT-2021) organised by AMITY INSTITUTE of Microbial technology, amity University, Rajasthan

held on Dec. 01-02, 2021.

74. Priya,M. N., Bindu Lakshmanan,2021.Seroprevalence of intestinal schistosomosis among cattle in different agro-ecolological zones of Kerala) in a conference on Advances in Microbial Technologies (AIMT-2021) organised by AMITY INSTITUTE of Microbial technology, amity University, Rajasthan held on Dec. 01-02, 2021

75. Marykutty Thomas, Radhika Gopalakrishnan, Thirupathy Venkattachalapathy and Aravindakshan Thazhathuveetil . The Genomic Dissection of Diversity among Native Goats of Kerala Farmed under Small Holder Production System 34th Kerala Science Congress, Feb-2022

76. Jamuna Valsalan, Tina Sadan, K Anilkumar and TV Aravindakshan. Genetic evaluation of crossbred cattle of Kerala for fertility and production performances. 34th Kerala Science congress, Feb-2022

viii. Seminar / Workshop / Training Programme (Conducted/Attended- mention specifically):

Sl No.	Name of Faculty	Programme	Date and Venue
1	Dr. K.M. Lucy	Online training programmee on Climate smart dairying in the context of Global warming on May 4th to 7 th 2021.	04.05.2021 to 07.05.2021
2	Dr. S. Maya Dr N S Sunilkumar Dr.Sumena K.B.	Workshop on NAAC Accreditation Process	22.06.2021 and 23.06.2021 (Online) Institute for Academic Excellence, Hyderabad - 500029, Telangana
3	Dr. S. Maya, Dr. Sreeranjini A.R and Dr. N.S. Sunilkumar	Organized International conference on "Relevance of Veterinary Profession during Covid-19 pandemic" under the banner of Indian Veterinary Association, CVAS Mannuthy unit and KVASU	On 7th and 8Th May 2021
4	Dr. Lucy K.M, Dr. S. Maya, Dr. Sreeranjini A.R and Dr. N.S. Sunilkumar	Participated in International conference on "Relevance of Veterinary Profession during Covid-19 pandemic"	On 7th and 8Th May 2021
5	Dr. Sreeranjini A.R.	Organised eight days-long online lecture series and workshop for NSS volunteers/ students of all colleges of KVASU along with all NSS units of KVASU	From 5th to 12 th June 2021

6	Dr. S. Maya, Dr. Sreeranjini A.R and Dr. N.S. Sunilkumar	Organised 14 days-long online farmer-friendly lecture series "Karshakarodoppam Orudivasam" under the banner of Indian Veterinary Association, CVAS Mannuthy unit and KVASU	From 5th to 18th May 2021
7	Dr. S. Maya, Dr. Sreeranjini A.R, Dr. N.S. Sunilkumar and Dr. Sumena K.B.	Organized on behalf of " Academic Staff College and Directorate of Entrepreneurship, KVASU, a Farmer friendly online lecture series 2021 "	24.05.2021 to 11.06.2021
8	Dr. S. Maya, Dr. Sreeranjini A.R, Dr. N.S. Sunilkumar and Dr. Sumena K.B.	Participated in CVE 3- General Management and Treatment of Elephants - IVA Mannuthy	On Apr 11, 2021
9	Dr. S. Maya, Dr. Sreeranjini A.R, Dr. N.S. Sunilkumar and Dr. Sumena K.B.	Members in the organizing committee of 11th University day celebrations 2021- **'SAMANWAYAM'**	14.06.2021
10.	Dr R Geetha, Asst. Professor	Manuals preparation to document ISO 45001 :2018 occupational health and safety management system	15 May 2021 Online training Programme
11	Dr. C.T. Sathian, Professor	FDP on Digital teaching techniques by ICT Academy of Kerala	16-6-21 to 23-6-21 Online training
12	Mrs. Viji, K.S., Teaching assistant	-Do-	-Do-
13	Dr. Mridula Stephen, Teaching assistant	-Do-	-Do-
14	Dr. Reeja George P	Training for dairy farmers of Manamangalam and Chempankandom milk societies	Conducted on April 3, 2021, Department of Vet and AH Extension, CVAS Mannuthy
15	Dr. Jiji R S	IP Schemes and Incentives for Startups and SMEs	Attended on June 16, 2021 by ASSOCHAM INDIA
16	Dr. Jiji R S	Patent Litigation in India	Attended on May 28, 2021, Turnip Innovations Pvt. Ltd.
17	Dr. Jiji R S	My LOFT User Orientation Training	Attended on 25-05-2021, KVASU Library

18	Dr. Jiji R S	Modernization of MSMEs	Attended on May 24, 2021 by ASSOCHAM INDIA
19	Dr. Anu George	Webinar on '"Basics of IPR" jointly organised by NaaViC and KSTA	Attended on 29th April 2021
20	Dr. Anu George	National online Workshop on yoga for Holistic Health	Attended on 21st June 2021
21	Dr Justin Davis	Theoretical foundation of educational technology (MOOC), NAARM, Hyderabad	01-30, June 2021
22	Dr Justin Davis	Climate Smart Dairying in the Context of Global Warming, KVASU and MANAGE, Hyderabad	4 days (04-07, May 2021)
23	Dr Manju Sasidharan	Climate Smart Dairying in the Context of Global Warming, KVASU and MANAGE, Hyderabad	4 days (04-07, May 2021)
24	Dr Deepak Mathew D K	Climate Smart Dairying in the Context of Global Warming, KVASU and MANAGE, Hyderabad	4 days (04-07, May 2021)
25	Dr Deepak Mathew D K	Promotion of FPO in livestock sector-oppertunities and challenges	13 days (5-17 June 2021)
26	Dr Prasad A	workshop on "Towards Knowledge Economy & Innovation Society - Role of Professional Education Institutions in Kerala (Animal Husbandry and Dairy)"	1 day 17.06.2021
27	Dr Magnus Paul K	**Conducted** Pasukalile prathudpadanam-karshakar sredhikkenda karyangal	
28	Dr R S Abhilash	**Co chair,** Online poster presentation International conference on 'Relevance of veterinary profession during Covid-19 pandemic	
29	Dr. Hiron M. Harshan	**Attended** Online Training Programme on "New Horizons of Canine Disease Diagnostics and Therapeutics"	
30	Dr. Shibu Simon	**Presented** paper on "Medical management of Cystic endometrial hyperplasia-pyometra In a white tiger With a combination of Mifepristone, misoprostol, cloprostenol, cabergoline and antibiotics, at the "Virtual National Symposium on management of large felids in zoos and protected areas" under the 'Health management & interventions in captive large felids'.3 & 4 June 2021	

31	Dr. Shibu Simon	**Attended** Online Training Programme on "New Horizons of Canine Disease Diagnostics and Therapeutics"	
32	Dr. Shibu Simon	**Expert speaker** in National Training Program on 'Common reproductive disorders in canines and medical management' in the National Training Program on "New Horizons of Canine Disease Diagnostics and Therapeutics'	
33	Dr. Shibu Simon	**Online discussion** with elite farmers	
34	Dr. Jayakumar C	**Resource person** for Three months departmental obligatory training of Assistant Directors from Animal Husbandry Department, Government of Kerala	
35	Dr. Jayakumar C	Attended Project Information Management System (**PIMS**) under the National Agricultural Higher Education Project's byICAR – Indian Agricultural Statistics Research Institute (IASRI).	
36	Dr.Bindu Lakshmanan, Dr K. Syamala	Handled sessions to 3 months training programme for Assistant directors ,AHD Batch II, III	Accademic staff College and DE,KVASU on 7-4-21 and 21-5-21
37	Dr K. Syamala & Dr Bindu Lakshmanan	Handled session in Farmer oriented training programme –mazhakkala munnorukkangal paradapradirodhanathinu	28-5-21 organized by DE,KVASU
38	Dr Bindu Lakshmanan	Attended Online training Climate smart dairying in the context of global warming",	4-7th May,2021 by CAADECS,KVASU &MANAGE,Hyderabad
39	Dr K. Syamala	Attended Online training "New horizons of canine disease diagnostics and therapeutics –	22nd -26th June 2021 Post graduate institute of Vet and Ani. Sciences, Akola, Maharashtra
40	Dr K. Syamala	Attended Online webinar "Safe food now for a healthy tomorrow"	7th and 8thJune 2021, Online
41	Dr K. Syamala	Handled session in Farmers training programme online class –Current trends in management of parasitism in domestic animals	May 6th online farmer oriented class organized by IVA
42	Dr K. Syamala	Handled session in Management of parasitic disease in rabbits- hands on training programme	16/4/21- organized by University Rabbit farm, Mannuthy

43	Dr K. Syamala	AIR talk on management of parasitism in domestic animals through limited chemotherapy	FIB live 2/6/2021
44.	Udayasree V. J.	Online certification of Latex conducted by ICFOSS, Kerala	Online
45.	Udayasree V. J.	New horizon of canine disease diagnostics & therapeutics	Online 22-06-21-to 26-06-21
46	Udayasree V. J.	Enhancing teaching and managerial skills among the faculty of SAU & SVU	28-06-21 to 30-06-21
47	Udayasree V. J.	Theorectical foundation of Educational Technology, NAAM	1-06-21 to 30-06-21
48	Madhavan Unny N.	Theorectical foundation of Educational Technology, NAAM	1-06-21 to 30-06-21
49	Udayasree V. J.	FDP on Digital teaching Techniques organized by ICT Acdemy	5 days
50	Dr Preethy John	Conducted "Hands on training on lab animals as experimental models"	April 15-20 Dept. of Vet. Pharmacology and Toxicology,CVAS,Mannuthy
51.	Dr. Gleeja V. L.	Transformation Through NAAC Accreditation Process, A National Level Workshop for Higher Educational Institutions"	
52	Dr Sudheesh S Nair	5-day Virtual Faculty Development Program and Virtual Workshop on "Digital Teaching Techniques" Information and Communication Technology Academy-Kerala	16-June-2021 to 23-June-2021 Online mode
53	Dr Sudheesh S Nair	3 Day- Online training programme "Enhancing Teaching and Managerial skills among the Faculty of SAU/SVUs" organized by MANAGE Hyderabad	28-30 June 2021 Online mode
54	Dr. Laiju M Philip	Climate Smart Dairying in the Context of Global Warming Organized by CAADECCS, Kerala Veterinary and Animal Sciences University, in collaboration with MANAGE Hyderabad	4-5 May, 2021. Online mode
55	Dr. C. Latha	World Health day on 7th April in Collaborative seminar in association with Kerala University of Health Sciences on One Health and Control of zoonoses - a veterinary perspective!	7/4/21

56	Dr. C. Latha	World Veterinary day on 30th of April presented paper in an IVA Seminar on Emerging Zoonoses with Special Reference to Covid 19	30/4/21
57	Dr. C. Latha	Three months training- class on Climate change and vector borne zoonoses	30/4/21
58	Dr. C. Latha	International eSymposium on 'One Health Concept: Opportunities and Perspectives in Present Scenario' & XVII Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Centre for One Health, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana (Punjab	28/05/21 to 29/05/21
59	Dr. C. Latha	Webinar on Safe food now for a healthy tomorrow organized by Meat Technology Unit, Mannuthy, SZPHPH, KVASU, AFST Thrissur Chapter and ICAR-CIFT	8/06/21
60	Dr. C. Latha	OIE Virtual Workshop for Veterinary Education Establishments (VEEs) in India In association with Department of Animal Husbandry & Dairying, Govt of India and Veterinary College, Bengaluru, Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU), Bidar	9/06/21
61	Dr. C. Latha	Burden of foodborne diseases: how can we estimate it and why do we need it? Confirmation	29/06/21
62	Dr. C. Latha	International Workshop on Scientific writing	23/06/21 and 24/06/21
63	Dr. B. Sunil	Organised International Webinar on 'Safe food now for a healthy tomorrow' organized by Meat Technology Unit, Mannuthy, School of Zoonoses, Public Health and Pathobiology, Kerala Veterinary and Animal Sciences University, Association of Food Scientists & Technologists (India), Thrissur Chapter and ICAR-Central Institute of Fisheries Technology (CIFT)	8/6/21
64	Dr. K Vrinda Menon	Three months training for AD of AHD- Lecture on Food laws	29/4/21

65	Dr. K Vrinda Menon	Training Attended on Academic Management System	19/5/21 to 21/5/21
66	Dr. K Vrinda Menon	Chemical Residue Analysis" organized under ICAR-NAHEP-CAAST Project entitled "Centre of Excellence for Advanced Research on Animal Food Safety	4/5/21 to 6/5/21
67	Dr. K Vrinda Menon	International eSymposium on 'One Health Concept: Opportunities and Perspectives in Present Scenario' & XVII Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Centre for One Health, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana (Punjab)	28/05/21 to 29/05/21
68	Dr. K Vrinda Menon	International Webinar on 'Safe food now for a healthy tomorrow' organized by Meat Technology Unit, Mannuthy, School of Zoonoses, Public Health and Pathobiology, Kerala Veterinary and Animal Sciences University, Association of Food Scientists & Technologists (India), Thrissur Chapter and ICAR-Central Institute of Fisheries Technology (CIFT)	8/6/21
69	Dr. K Vrinda Menon	Lecture on Zoonotic Diseases- Police Academy Thrissur on	17/6/21
70	Dr. K Vrinda Menon	Participated in panel discussion organised By Kerala Shastriya Parishad – Arogya Vision Samiti Congress	23/6/21
71	Dr. K Vrinda Menon	WHO webinar: Burden of foodborne diseases: how can we estimate it and why do we need it?"	29/6/21
72	Dr. Sethulekshmi C.	Three months training for AD of AHD- Lecture on Quality control of water and foods of animal origin	30/4/21
73	Dr. Sethulekshmi C.	Farmers friendly lecture series talk on Zoonosis prevention and control and drinking water purification	27/05/21

74	Dr. Deepa Jolly	International eSymposium on 'One Health Concept: Opportunities and Perspectives in Present Scenario' & XVII Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Centre for One Health, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana (Punjab)	28/5/21 and 29/5/21
75	Dr. Deepa Jolly	MOOC course on "Theoretical Foundations of Educational Technology"- By ICAR-NAARM	1-6-2021 to 30-06-2021
76	Dr. Deepa Jolly	Webinar on Safe food now for a healthy tomorrow organized by Meat Technology Unit, Mannuthy, SZPHPH, KVASU, AFST Thrissur Chapter and ICAR-CIFT	8/6/21
77	Dr. Binsy Mathew	Three months training for AD of AHD- Lecture on Antimicrobial resistance	29/4/21
78	Dr. Binsy Mathew	International Conference on 'Relevance of Veterinary Profession during Covid-19 pandemic	7/05/21
79	Dr. Binsy Mathew	International eSymposium on 'One Health Concept: Opportunities and Perspectives in Present Scenario' & XVII Annual Conference of Indian Association of Veterinary Public Health Specialists (IAVPHS) organized by Centre for One Health, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana (Punjab)	28/5/21 and 29/5/21
80	Dr. Binsy Mathew	Webinar on Safe food now for a healthy tomorrow organized by Meat Technology Unit, Mannuthy, SZPHPH, KVASU, AFST Thrissur Chapter and ICAR-CIFT	8/06/21
81	Dr. Binsy Mathew	International Workshop on Scientific writing	23/6/21 and 24/06/21
82	Dr. Binsy Mathew	Burden of foodborne diseases: how can we estimate it and why do we need it? Confirmation	29/6/21
83	Dr. K. Raji	MOOC on Theoretical Foundations of Educational Technology	1/06/2021 to 30/06/2021
84	Dr. K. Raji	Journal Citation Reports (JCR) Certification Series 2021	15/06/2021 and 17/06/2021

85.	Dr. Ajith Y	Continuing Veterinary Education on 'Comprehensive Approach in Management of Goats' by Indian Veterinary Association Kerala	30/05/2021 Online Webinar
86	Dr.P.V.Tresamol	OIE Virtual Workshop for Veterinary Education Establishments (VEEs) in India In association with Department of Animal Husbandry & Dairying, Govt of India and Veterinary College, Bengaluru, Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU), Bidar	07-09 june 2021

Sl No.	Name of Faculty	Programme	Date and Venue
1.	Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar	As a part of World rabies day, on Sept. 28th 2021, IVA, Mannuthy unit in association with NSS unit, CVAS, Mannuthy conducted a talk on "Ariyam, prathirodhikkam, pevishathe" by Dr. K. Vijayakumar, Professor and Head, Dept. of Veterinary Epidemiology and Preventive Medicine, CVAS, Mannuthy.	28.09.2021 Online
2.	Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar	Indian Veterinary Association, CVAS Mannuthy Unit & National Service Scheme Units, College of Veterinary and Animal Sciences, Mannuthy jointly organized a workshop on the topic "REBOOT Your Life" on 5th September 2021 at 5.00 P.M. in online mode by Mr. Harish C., JCI trainer.	05.09.2021 Online
3.	Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
4.	Dept. of ARGO, CVAS, Mannuthy & Pookode	International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" (Organized by the Indian Society for Study of Animal Reproduction, Kerala chapter & KVASU)	27th to 29th December, 2021, CVAS, Mannuthy, Thrissur, Kerala – India (Online mode)
5	Dr K Vinodkumar	Class to pet parents on health care of dogs conducted by LMTC, Athavanad	Online
6	Dr. K. Vijayakumar Dr.Justin Davis K Dr. Preena P	TV Programme on Rabies and its symptoms	01/10/2021 TCV Thrissur

7	Dr. K.Vinodkumar	Conducted class on Therapeutic management of haemoparasitic diseases in livestock	11/11/21 Online
8	Dr. K. Vinodkumar	Conducted class on Trends in small animal treatment by IMG, Kudapanakunnu	15/12/21 Online
9	Dr. K. Vinodkumar	Conducted class on Feline Diseases Class to Vets by KGVOA,	16/12/21 Palakkad
10	Dr. Suja C.S	Conducted class on 'Commercial layer rearing" organized by the Poultry training institute, Central Hatchery Chengannur	05-08-2021(online)
11	Dr. Beena C Joseph	Conducted class on 'Turkey rearing" organized by the LMTC Aluva	28-08-2021(online)
12	Dr. Suja C.S	Conducted class on "Commercial broiler rearing"organized by the Duck training and hatchery institute, Manjady, Thiruvalla	9-09-2021(online)
13	Dr. Suja C.S	Conducted class on 'Commercial layer rearing" organized by the Poultry training institute, Central Hatchery Chengannur	16-09-2021(online)
14	Dr. Suja C.S	Conducted class on 'Commercial layer rearing 'organized by the Poultry training institute, Central Hatchery Chengannur	11-10-2021(online)
15	Dr. Suja C.S	Conducted class on 'Poultry diseases and their control 'organized by the Duck training and hatchery institute, Manjady, Thiruvalla	13-10-2021(online)
16	Dr. C.T Sathian	Handled a session on Udder Health and Milk Quality on 28/10/2021 Online faculty development programme on Buliding Sustainable and resilient Food security and Food processing systems, FDP by CFDT, Koduveli, Chennai	25/10/21- 29/10/21 online
17	Dr Joseph Mathew	Training on waste management for Kerala Institute of Local Administration (KILA) at Eco Farm	November 19-26, 2021 December 01-03, 07-10, 2021
18	Dr Justin Davis	LEDP training programme for self help groups in Thrissur district	27.12.2021 Sanghameshwara NSS English medium school, Irinjalakuda
19	Dr Prasad A	Housing interventions to reduce thermal stress in various livestock	SAMETI, Thiruvananthapuram 17.12.2021

20	Dr Justin Davis	Advances in swine farming	SAMETI, Thiruvananthapuram 18.12.2021
21	Dr. Sathu T – handled session	Introduction to Food Safety Management System (For farm instructors, conducted by MANAGE and DE, KVASU)	7/10/2021
22	Dr. Sathu T- handled session	Food packaging and food safety (conducted by Manage and DE, KVASU)	8/10/2021
23	Dr. Sathu T - handled session	Training class to Pig Farmers	15/10/2021
24	Dr. B. Sunil - handled session	International workshop on antimicrobial resistance organized by Kalinga Institute of Technology, Odissa	11-12-2021
25	Dr. B. Sunil- handled session	Workshop on alternative proteins organized by Maharashtra Animal and Fisheries Sciences University	24-12-2021
26	Dr. Irshad A - handled session	Online training program on product processing, value addition, marketing and exporting conducted by state agriculture management and extension training institute	21-12-2021
27	Dr. Irshad A- handled session	Online Session on product processing, value addition, marketing and exporting conducted DIC, Kottayam	23/11/2021
28	Dr. Irshad A- handled session	Online Session on value addition, marketing of meat and Meat Products conducted DIC, Pala	28/11/2021
29	Dr. Irshad A- handled session	Offline session at Kodungallur NSS Unit for Self Help Group	06/12/2021
30	Dr. Irshad A- handled session	Offline Session at Kerala Agro Food Pro 2021	18/12/2021
31	Dr. Irshad A	Handled a session at Refresser Course organized by KVASU & Manage	05-10-2021
32	Dr. V.N Vasudevan	Online training program on product processing, value addition, marketing and exporting conducted by state agriculture management and extension training institute	21-12-2021
33	Dr. V.N Vasudevan	Mrigasamrakshanavum ulpanna samskaranavum, samrambhakathva saadhyathakalum organised by Kerala Pravasi sankham	31/12/2021

34	Dr. C. Latha, Dr. B. Sunil, Dr. Vrinda Menon, Dr. Sethulekshmi C, Dr. Deepa Jolly and Dr. Binsy Mathew (Conducted)	A two day international webinar on Ecohealth paradigm: towards sustainability and Global Health was organized by the departments of Veterinary Public Health, Livestock Products Technology, College of Veterinary and Animal Sciences, Mannuthy and Pookode, Centre for One Health Education Advocacy Research and Training and the School of Zoonoses Public Health and Pathobiology on	3rd and 4 th August 2021
35	Dr. Vrinda Menon, Dr. Sethulekshmi C, Dr. Deepa Jolly and Dr. Binsy Mathew (Conducted)	The School of Zoonoses Public Health and Pathobiology and the Institutional biosafety Committee, CVAS, Mannuthy jointly organized a one day Workshop on Culture of Responsibility - Biosafety in Laboratories through online mode for faculty and post graduate scholars of the College of Veterinary and Animal Sciences Mannuthy.	August 10 th 2021
36	Dr. Vrinda Menon	Given a lecture on Impacyt of residues in milk on public health in a Refresher course on quality challenges in Dairy sector for dairy instructors	4-7 Oct 2021
37	Conducted: Dr. Nisha A R (Organizing Secretary) Dr. Suresh N Nair (Co-Organizing Secretary) Dr. Sujith S (Co-ordinator) Dr. Suja Rani S(Co-ordinator) Dr. Bibu John Kariyil (Co-ordinator)	Digital colloquium on "Avenues for Veterinarians in Pharma Industries: Drug development and Validation"	14th to 18th September, 2021

38	Conducted: Dr. Nisha A R (Implementing Officier) Dr. Sujith S (Course Director)	III Revolving fund training programme on Lab animal as experimental models.	22nd to 26th November, 2021.
39	Conducted: Dr. Nisha A R (Implementing Officier) Dr. Bibu John Kariyil (Course Director)	IV Revolving fund training programme on Lab animal as experimental models.	29th November, 2021 to 3rd December, 2021.
40	Dr.V.Ramnath	Research techniques used in Veterinary and Allied Sciences	16/12/21 to 29/12/21 Central Instruments Laboratory

Sl No.	Name of Faculty	Programme	Date and Venue
1. 1.	Dr. T.V. Aravindakshan	14 days skill development training on molecular biology and bioinformatic tools for advanced life science research	8-2-2022 to 21-2-2022, SAAPBT, Mannuthy
2. 1	Dr. S. Maya, Dr. Leena Chandrasekhar, Dr. K.B. Sumena- (Organized)	Rrefresher training on "Advances in Analytical Techniques" organized by Academic Staff College, DoE, KVASU	05.01.2022 to 18.01.2022 CVAS, Mannuthy
3. 2	Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar- (Organized)	Web based training on "Current concepts of methodolory in research" organized by Academic Staff College, DoE, KVASU	12.01.2022 to 25.01.2022 Online
4. 3	Dr. S. Maya (Organized)	Web based training on "Current concepts in dairy production and processing" organized by Academic Staff College, DoE, KVASU	17.01.2022 to 29.01.2022 Online
5. 4	Dr. K. M. Lucy, Dr. S. Maya, Dr A. R. Sreeranjini, Dr. Leena Chandrasekhar, Dr. N. S. Sunilkumar, Dr. K.B. Sumena- (Organized)	Web based refresher course on "Veterinary Anatomy on Multidisciplinary Mindscape" organized by Department of Veterinary Anatomy, Academic Staff College, DoE, KVASU	16.02.2022 to 01.03.2022 Online

6. 5	Dr. K. M. Lucy, Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar- (Organized)	Workshop with the stake holders on "Package of Practices and recommendations 2022" organized by Directorate of Entrepreneurship, KVASU	17.02.2022 and 18.02.2022 Academic staff College, DoE, KVASU (Hybrid mode)
7. 6	Dr. S. Maya, Dr. N. S. Sunilkumar- (Organized)	Departmental Obligatory Three months Training for Assistant Directors of Animal Husbandry Department, Kerala organized by Directorate of Entrepreneurship, KVASU	01.12.2021 to 28.02.2022 CVAS, Mannuthy
8. 7	Dr. S. Maya, Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar- (Organized)	5th Orientation Programme on "Strategic Reflections on Transformation against a changing academic landscape" organized by Academic Staff College, DoE, KVASU organized by Academic Staff College, DoE, KVASU	23-02-2022 to 15-03-2022 Academic staff College, DoE, KVASU (Hybrid mode)
9. 8	Dr. N. S. Sunilkumar, Dr. K.B. Sumena (Attended)	Web based training on "Current concepts of methodolory in research" organized by Academic Staff College, DoE, KVASU	12.01.2022 to 25.01.2022 Online
10. 9	Dr. K. M. Lucy, Dr. S. Maya, Dr A. R. Sreeranjini, Dr. Leena Chandrasekhar, Dr. N. S. Sunilkumar, Dr. K.B. Sumena- (Attended)	Web based refresher course on "Veterinary Anatomy on Multidisciplinary Mindscape" organized by Department of Veterinary Anatomy, Academic Staff College, DoE, KVASU	16.02.2022 to 01.03.2022 Online
11. 10	Dr A. R. Sreeranjini, Dr. N. S. Sunilkumar (Attended)	One-Week National Faculty Development Program on "Relearning softskills related to personality development of teachers in higher education institutions" organized by Institute of Law, Rabindranath Tagore University , Bhopal, MP	01.02.2022 to 07.02.2022 Online
12. 1	Dr. K Radha	Hands on training on the preparation of milk based snack foods (RF Scheme)	12th and 13th January 2022 Dept. of Dairy Science
13. 2	Dr. K Radha	"Current concepts in dairy production and processing" –Refresher course for 14 days	17-01-2022 to 30-01-2022 Online training

14. 1	Dr. Joseph Mathew	KILA-Centre for good governance, Extension Training Centre-Organic waste management and methods of compost and vermicompost	25 (04.01.2022) 25 (05.01.2022) 25 (06.01.2022) 25 (07.01.2022) 25 (13.01.2022) 25 (14.01.2022)
15. 2	Dr. Manju Sasidharan	Dairy Calf Management	10.1.2022
16. 3	Dr. A Prasad	Skills for Entrepreneurship in AH Dairy Sector	17.1.2022
17. 4	Dr. A Prasad	Summer Management of Cows	07.01.2022
18. 5	Dr. A Prasad	Present Scenario of Dairy Farming in India	31.01.200
19. 6	Dr. N.Geetha	Successful dairy farm-an entrepreneurial perspective	27.01.2022
20. 7	Dr. Justin Davis	Various interventions required for increasing productivity of dairy farm	11.01.2022
21. 8	Dr. Justin Davis	Popular breeds of cattle and Buffalo in India	25.01.2022
22. 9	Dr. Justin Davis	First aid measures for animals in emergency conditions	25.01.2022
23. 10	Dr. Justin Davis	First aid measures for animals in emergency conditions	21.01.2022
24. 11	Dr. Justin Davis	Popular breeds of Cattle and Buffalo-GVHSS, Ayyanthole, Thrissur	12.02.2022
25. 12	Dr. Justin Davis	Popular breeds of Cattle and Buffalo-GVHSS, Malampuzha, Palakkad	16.02.2022
26. 13	Dr. Joseph Mathew	Introduction to Livestock Production Management	16.02. 2022
27. 14	Dr.Anil.K.S	Project formulation	16.02. 2022
28. 15	Dr.Kannan.A	Advanced swine production Management & integrated farming systems	16.02. 2022
29. 16	Dr.Prasad.A	Application of animal welfare science in veterinary practice Wild life forensic and identification of wild animals	17.02.2022
30. 17	Dr.Biju S	Wildlife forensic and identification of wild animals	17.02.2022
31. 18	Dr.Manju Sasidharan	Transition of digestion in calves	17.02.2022
32. 19	Dr.N.Geetha	Intervention in bedding systems for comfort of dairy cattle	17.02.2022
33. 20	Dr. A. Prasad	DFE Expert Interaction	28/02/2022
34. 21	Dr. A. Prasad	Ice breaking section	23/02/2022

35. 1	Dr. C. Jayakumar	Veterinary Anatomy in multidisciplinary mindscape	Attended; 16th Feb to 1st March 2022, Academic staff college, Mannuthy
36. 1.	Dr. Vimal Antony Muttathettu	Training on Advances in analytical techniques by Academic Staff College, Mannuthy	5-01-2022 to 18-01-2022 Academic Staff College, Mannuthy
37. 2.	Dr. Suja C.S	Current concepts of methodology in research	12-01-2022 to 25-01-2022 Academic Staff College, Mannuthy (online)
38. 3.	Dr. Binoj Chacko	Departmental obligatory three month training for assistant directors of animal husbandry department (Recent trends in poultry farming)	27-01-2022, Academic Staff College, Mannuthy
39. 4.	Dr. Vimal Antony Muttathettu	Departmental obligatory three month training for assistant directors of animal husbandry department (Hatchery Management)	27-01-2022, Academic Staff College, Mannuthy
40. 5.	Dr. S. Sankarlingam	Departmental obligatory three month training for assistant directors of animal husbandry department (Poultry Economics)	27-01-2022, Academic Staff College, Mannuthy
41. 6.	Dr. Suja C.S	Broiler rearing	11-02-2022, LMTC Thaliparambu (online)
42. 1	Dr Dipu MT Dr Jith John Mathew Dr Ajith K. S	Farmers training- Kalitheetanirmanathile noothanapravanathakal	9-2-22 to 11-2-2022 Animal Nutrition Department
	Sangeetha S Gireesh	Fifth Orientation Programme on " Strategic reflections on transformation against a changing academic landscape"	23-02-2022 to 15-03-2022 Academic Staff College , CVAS, Mannuthy
43. 1	Dr. V.N Vasudevan	Class on Avenues for research funding in India conducted by Academic Staff College, Kerala Veterinary and Animal Sciences University	22-01-2022, online mode
44. 2.	Dr. V.N Vasudevan	Young innovators program road show- Conducted by KSDIC (Class on Thematic presentation in innovation in animal husbandry sector)	28-01-2022, online mode

45. 3	Dr. Irshad A	Current concepts in dairy production and processing conducted by Academic Staff College, Kerala Veterinary and Animal Sciences University	21-01-2022, Online mode
46. 4.	Dr. Irshad A	Class on Hygienic Slaughter and Dressing of Food Animals organised by Centre for Human Resource Development In Meat Science And Technology	4-01-2022, Meat Technology Unit
	Dr. Jiji. R.S.	District Resource Centre meeting on annual plan in Biodiversity management realm for LSGs - Participated	District Planning Office Collectorate, Thrissur on 05-01-2022
	Dr. Jiji. R.S.	LMTC- Exam Board meeting	CVAS, Mannuthy 03.02.2022
	Dr. Jiji. R.S.	Workshop on Package of Practices and Recommendations 2022- Presented session on Livestock Entrepreneurship	17th and 18th of February 2022 at Academic Staff College, Mannuthy
	Dr. T.S. Rajeev	Workshop on Package of Practices and Recommendations 2022- Panel member-session on Livestock Entrepreneurship	17th and 18th of February 2022 at Academic Staff College, Mannuthy
	Dr. Anu George	Workshop on Package of Practices and Recommendations 2022- attended session on Livestock Entrepreneurship	17th and 18th of February 2022 at Academic Staff College, Mannuthy
	Dr. Jiji. R.S.	Workshop for members of District Resource Centre on annual plan of Local Self Governments (14th five-year plan)	KILA, Mulakunnathukavu, Thrissur on 07-03-2022
	Dr. T.S. Rajeev	Workshop for members of District Resource Centre on annual plan of Local Self Governments (14th five-year plan)	KILA, Mulakunnathukavu, Thrissur on 07-03-2022
47. 1	Dr. K. Vinodkumar	Haemoparasitic diseases in canines and felines	Conducted for vets IVA, Kollam
48. 1	Dr. K. Vinodkumar	Haemoparasitic diseases in canines and felines	Conducted for vets IVA, Kollam
49. 1	Dr. K. Vinodkumar	Haemoparasitic diseases in canines and felines	Conducted for vets IVA, Kollam

	Dr. Prasanna K. S	National online training program on Postmortem examination: Gross description, Report writing and challenges in Forensic Pathology	Handled a session on "Necropsy techniques and characteristic pathomorphological descriptions in important diseases of sheep and goat" on 11/02/2022 in the Online training conducted by Maharashtra Animal and Fishery Sciences University, AKOLA
	Dr. K. S. Prasanna Dr Sajitha I S Dr Dhanush Krishna B Dr Devi S S Dr. Divya C	Workshop on Package of Practices and recommendations 2022	17-18 February 2022
	Dr Sajitha I S Dr Devi S S	Web based training on "Entrepreneurship and opportunities in Veterinary Biologicals and diagnostics"	25 to 26 February, 2022 Organized by BRTC and DE, KVASU
50. 1	Dr. K. Vinodkumar	Haemoparasitic diseases in canines and felines	Conducted for vets IVA, Kollam
	Dr. Binsy Mathew	Certificate course on E waste Managment	Feb14 to Mar 6 th 20222
	Dr. Vrinda Menon K	National workshop on statistical analysis of biological data	Jan17 to Fe21st 2022
	Dr. Deepa Jolly	National workshop on statistical analysis of biological data	Jan17 to Fe21st 2022

a. **Seminar / Workshop / Training Programme (Attended)**

Sl No.	Name of Faculty	Programme	Date and Venue
1.	Dr. Sumena K.B.	Faculty Development programmeon Learning Management System(moodle) and course design by faculty development centre, KSHEC, TVM.	01/09/2021 to 6/09/2021
2	Dr. K. M. Lucy	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
3	Dr. S. Maya	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy

4	Dr A. R. Sreeranjini	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
5	Dr. Leena Chandrashekhar	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
6	Dr. N. S. Sunilkumar, Dr. K.B. Sumena	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
7	Dr. K.B. Sumena	Kerala Veterinary Science Congress- 2021	13.11.2021 and 14.11.2021 CVAS, Mannuthy
8.	Dr. K.M. Lucy	"Novel Knowledge, Innovative Practices and Research in Theriogenology". The seminar organized by the Dept. of Animal Reproduction, Gynaecology and Obstetrics under the aegis of KVASU and ISSAR.	26.12.2021 to 28.12.2021 Online
9.	Dr. Leena Chandrasekhar	Application of Anatomy for clinical practice and forensics organized by College of Veterinary Science and Animal Husbandry, Durg	05.10.2021 to 12.10.2021 Online
10.	Dr. Leena Chandrasekhar	21 days Online International Training cum Orientation Programme entitled "Immunology – A Tool for Disease Management" organized by Department of Veterinary Microbiology, College of Veterinary Science & Animal Husbandry, Mhow (M.P.)	11.10.2021 to 31.10.2021
11.	Dr. V. Beena	MOOC on Digital Teaching Techniques	1/12/2021 to 31/12/2021
12	Dr. Madhavan Unny N.	CPD on Canine Cardiology, SAVAK	DEC 19 Radisson Blu, Kochi
13	Dr Udayasree V J	KSVC	NOV 13-14, CVAS , Mannuthy
14	Dr Udayasree V J	CPD on Canine Cardiology, SAVAK	DEC 19 Radisson Blu, Kochi
15	Dr Sangeetha S Gireesh	KSVC	NOV 13-14, CVAS , Mannuthy
16	Dr Sangeetha S Gireesh	CPD on Canine Cardiology, SAVAK	DEC 19 Radisson Blu, Kochi
17	Dr Ambily V R	KSVC	NOV 13-14, CVAS , Mannuthy

18	Dr. R. Geetha	A Collaborative On line Training Programme on Refresher Course on "Quality Challenges in Dairy Sector" for Dairy Farm Instructors of Dairy Development Department, Govt. of Kerala jointly organized by KVASU, Wayanad, & MANAGE, Hyderabad	04/10/2021 - 07/10/21 Online
19	Dr. R. Geetha	Acted as rapporteur in a scientific session titled " Byproduct utilization & waste management" held in connection with Conference On "Convergence of Technology and Policy for Sustainable Meat Production "organized by AMST	
20	Dr. Marykutty Thomas (attended)	ISAGB National Conference (hybrid mode)	December 17-18, 2021 NBAGR, Karnal
21	Dr, Marykutty Thomas (attended)	Kerala Veterinary Science Congress- 2021	12th to 14th November 2021, CVAS, Mannuthy
22	Dr. Marykutty Thomas (attended)	Association of Meat Scientists & Technologists (AMST) conference	25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala
23	Dr Naicy Thomas (attended)	International symposium on Novel knowledge, Innovative practices and research in Theriogenology- organized by ISSAR and Dept of ARG&O, Mannuthy	27-29th December,2021 (online mode)
24	Dr Elizabeth Kurian (attended)	International symposium on Novel knowledge, Innovative practices and research in Theriogenology- organized by ISSAR and Dept of ARG&O, Mannuthy	27-29th December,2021 (online mode)
25	Dr.R.Thirupathy Venkatachalapathy	International Training on Bayesian Method of Estimating Genomic Breeding Value – BAIF, Pune, online	December 23-25

26	Dr.N.Geetha	Lab animals as Experimental Models	Department of Veterinary Pharmacology and toxicology, College of Veterinary and Animal Sciences, Mannuthy, Kerala Veterinary and Animal Sciences University from 22.11.2021 to 26.11.2021.
27	Dr Justin Davis	National conference on Convergence of technology and policy for sustainable meat production	Association of Meat Scientists and Technologists. Meat Technology Unit, Mannuthy. 25-28, October 2021
28	Babitha V	NPTEL Online Certification Course on Animal Physiology	July-Oct 2021
29	Dr. K. Karthiayini	International e-training cum orientation programme on Physiological and Biotechnological Interventions for the improvement of production, reproduction and health status in animals	16-11.21 to 6.12.21 Dept. of Veterinary Physiology and Biochemistry, College of Veterinary Science and Animal Husbandry, Mhow
30	Dr. Babitha V	International e-training cum orientation programme on Physiological and Biotechnological Interventions for the improvement of production, reproduction and health status in animals	16-11.21 to 6.12.21 Dept. of Veterinary Physiology and Biochemistry, College of Veterinary Science and Animal Husbandry, Mhow
31	Dr. Aziz Zarina	International e-training cum orientation programme on Physiological and Biotechnological Interventions for the improvement of production, reproduction and health status in animals	16-11.21 to 6.12.21 Dept. of Veterinary Physiology and Biochemistry, College of Veterinary Science and Animal Husbandry, Mhow

32	Dr. Aziz Zarina	7 days online training on "Recent advances in diagnosis and therapeutics management of farm and companion animals"	September 22 to 28, 2021 organized by Department of Veterinary Medicine, College of Veterinary Science and Animal Husbandry, Mhow
33	Dr. Sreekumar T.R.	International course on' flow cytometry and its applications in biosciences	September 1-4, 2021
34	Dr. Ancy Thankachan	International e-conference on "An integrated approach to prevent Rabies in Animals and Humans: The best possible one health strategy" by Madras Veterinary College, Chennai	28/09/21 and 29/09/21 Online
35	Dr. P Anitha	13th Kerala Veterinary Science Congress	13-14th November 2021, College of Veterinary and Animal Science, Mannuthy
36	Dr. S. Sankarlingam	13th Kerala Veterinary Science Congress	13-14th November 2021, College of Veterinary and Animal Science, Mannuthy
37	Dr. Suja C.S	13th Kerala Veterinary Science Congress	13-14th November 2021, College of Veterinary and Animal Science, Mannuthy
38	Dr. Suja C.S	AICTE training and learning (ATAL) Academy online elementary FDP on Building Sustainable and resilient food security and food processing systems	25/10/2021-29/10/2021 (Online mode)
39	Dr. John Martin K D	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy

40	Dr. S Anoop	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy
41	Dr. Sudheesh S Nair	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy
42	Dr. Laiju M Philip	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy
43	Dr. Soumya Ramankutty	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy
44	Dr. Nijin Jos B M	ISSAR- International symposium on novel knowledge and research in Theriogenology	27-29 December 2021 College of Veterinary and Animal Sciences Mannuthy
45	Dr. Laiju M Philip	Kerala Veterinary Science Congress 2021 12th to 14th November 2021	College of Veterinary and Animal Sciences, Mannuthy, Thrissur
46	DrPreena P	CPD programme on ABCDs of canine cardiology	From 19th December 2021 and Kochi
47	Dr. C. Latha	ICT tools for knowledge management and control of emerging zoonosis and Animal Health Threats	20-23 Sep 2021
48	Dr. Sethulekshmi C	ICT tools for knowledge management and control of emerging zoonosis and Animal Health Threats	20-23 Sep 2021
49	Dr. Deepa Jolly	ICT tools for knowledge management and control of emerging zoonosis and Animal Health Threats	20-23 Sep 2021

50	Dr. Binsy Mathew	ICT tools for knowledge management and control of emerging zoonosis and Animal Health Threats	20-23 Sep 2021
51	Dr. Binsy Mathew	Lab Animals in Biomedical Research	21-27 Sep 2021
52	Dr. C. Latha	International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU	25-28 OCT. 2021
53	Dr. Sethulekshmi C	International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU	25-28 OCT. 2021
54	Dr. Vrinda Menon	International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU	25-28 OCT. 2021
55	Dr. Deepa Jolly	International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU	25-28 OCT. 2021
56	Dr. Binsy Mathew	International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU	25-28 OCT. 2021
57	Dr. C. Latha	Keral Veterinary Science Congress	12-14 Nov 2021
58	Dr. Sethulekshmi C	Keral Veterinary Science Congress	12-14 Nov 2021
59	Dr. Deepa Jolly	Keral Veterinary Science Congress	12-14 Nov 2021
60	Dr. Binsy Mathew	Keral Veterinary Science Congress	12-14 Nov 2021
61	Dr. Vrindha M. K	Worshop on AMR India	15-16 Dec 2021
62	Dr. Deepa Jolly	Worshop on AMR India	15-16 Dec 2021
63	Dr. Suresh N Nair	Online training programme on “Statistical Techniques for Data analysis in agriculture” organized by ICAR-Indian Agricultural Statistics Research Institute	04.10.2021 to 13.10.2021
64	Dr. Nisha A R	Online training program on “ICT tools for knowledge management and control of emerging zoonoses and Animal Health Threats” organized by KVASU (COHEART), Kerala and MANAGE, Hyderabad.	20-23 September, 2021.

65	Dr. Suja Rani S	Online training program on "ICT tools for knowledge management and control of emerging zoonoses and Animal Health Threats" organized by KVASU (COHEART), Kerala and MANAGE, Hyderabad.	20-23 September, 2021.
66	Dr Sajitha I S	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner
67	Dr. Krithiga. K	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner
68	Dr Dhanush Krishna B	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner
69	Dr Devi S S	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner
70	Dr. Divya C	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner
71	Dr.K.S.Prasanna	International Symposium on "Advances in Veterinary Pathology for Diagnosis and Control of Emerging and Re-emerging Diseases of Livestock, Wild Animals and Poultry" (Online)	17 to 19 Dec, 2021 Organized by Rajasthan University of Veterinary and Animal Sciences, Bikaner

72	Dr Sajitha I S	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
73	Dr. Krithiga. K	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
74	Dr Dhanush Krishna B	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
75	Dr Devi S S	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.

76	Dr. Divya C	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
77	Dr.K.S.Prasanna	Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" (Online)	20-29th September, 2021 Organized by College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
78	Dr Sajitha I S	Recent Advances in Disease Diagnosis & Vaccines" (Online)	July 27 - August 16, 2021 Organized by College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.)
79	Dr Dhanush Krishna B	Recent Advances in Disease Diagnosis & Vaccines" (Online)	July 27 - August 16, 2021 Organized by College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.)
80	Dr Devi S S	Recent Advances in Disease Diagnosis & Vaccines" (Online)	July 27 - August 16, 2021 Organized by College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.)

81	Dr. Divya C	Recent Advances in Disease Diagnosis & Vaccines" (Online)	July 27 - August 16, 2021 Organized by College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.)
82	Dr.K.S.Prasanna	Recent Advances in Disease Diagnosis & Vaccines" (Online)	July 27 - August 16, 2021 Organized by College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.)
83	Dr Sajitha I S	ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats" (Online)	20-23 September, 2021 Organized by National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad
84	Dr Dhanush Krishna B	ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats" (Online)	20-23 September, 2021 Organized by National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad

85	Dr Devi S S	ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats" (Online)	20-23 September, 2021 Organized by National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad
86	Dr. Divya C	ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats" (Online)	20-23 September, 2021 Organized by National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad
87	Dr.K.S.Prasanna	ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats" (Online)	20-23 September, 2021 Organized by National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad
88	Dr Sajitha I S	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health"	3rd and 4th August 2021 Organized by KVASU
89	Dr Dhanush Krishna B	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health"	3rd and 4th August 2021 Organized by KVASU

90	Dr Devi S S	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health"	3rd and 4th August 2021 Organized by KVASU
91	Dr. Divya C	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health"	3rd and 4th August 2021 Organized by KVASU
92	Dr. Krithiga. K	Novel approaches for controlling parasitic diseases with special reference to integrate parasite management	20th September to 01st October 2021. Organized by Department of parasitology, College of Veterinary Science and Animal Husbandry, Mhow(M.P)
93	Dr.K.S.Prasanna	Novel approaches for controlling parasitic diseases with special reference to integrate parasite management	20th September to 01st October 2021. Organized by Department of parasitology, College of Veterinary Science and Animal Husbandry, Mhow(M.P)
94	Dr. Krithiga. K	Recent approaches in Forensic Pathology	1st -14th September 2021 Organized by Department of Veterinary Pathology, College of Veterinary Science and A.H., Jabalpur
95	Dr.K.S.Prasanna	Recent approaches in Forensic Pathology	1st -14th September 2021 Organized by Department of Veterinary Pathology, College of Veterinary Science and A.H., Jabalpur

96	Dr Asha R	21days online training course entitled "Recent Advances in Disease Diagnosis & Vaccines" organized by Department of Veterinary Microbiology, College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.) from. Nanaji Deshmukh Veterinary Science University Jabalpur (M.P.)	July 27-August16,2021
97	Dr. Priya MN	21days online training course entitled "Recent Advances in Disease Diagnosis & Vaccines" organized by Department of Veterinary Microbiology, College of Veterinary Science & Animal Husbandry, Jabalpur (M.P.) from. Nanaji Deshmukh Veterinary Science University Jabalpur (M.P.)	July 27-August16,2021
98	Dr Asha R	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health" jointly organized by Department of Veterinary Public Health and Livestock Products Technology, KVASU, Centre for One Health Education Advocacy, Research & Training and School of Zoonoses, Public Health & Pathobiology	3rd and 4th August 2021
99	Dr. Priya M N	International Webinar on "Eco Health Paradigm: Towards Sustainability & Global Health" jointly organized by Department of Veterinary Public Health and Livestock Products Technology, KVASU, Centre for One Health Education Advocacy, Research & Training and School of Zoonoses, Public Health & Pathobiology	3rd and 4th August 2021
100	Dr Asha Rajagopal	One week FDP on Learning Management and course design by KSHEC, Thiruvananthapuram	9th -13th,August,2021
101	Dr. M.N Priya	One week FDP on Learning Management and course design by KSHEC, Thiruvananthapuram	9th -13th,August,2021
102	Dr. Reshmi Raveeendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena	Dr. Reshmi Raveeendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena	Dr. Reshmi Raveeendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena

103	Dr Bindu L, Dr Asha R, Dr Priya MN, Dr. Reshmi Raveendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena	National workshop on KVASU@ 2025 : The Definitive Plan	07-08-2021, Online
104	Dr Asha R	11 days online training program entitled "Novel approaches for controlling parasitic diseases with special reference to integrated parasite management" organized by Department of Veterinary Parasitology, College of Veterinary Science and Animal Husbandry, Nanaji Deshmukh Veterinary Science University Jabalpur (M.P.)	20th September to 1stOctober 2021.
105	Dr. Priya MN	11 days online training program entitled "Novel approaches for controlling parasitic diseases with special reference to integrated parasite management" organized by Department of Veterinary Parasitology, College of Veterinary Science and Animal Husbandry, Nanaji Deshmukh Veterinary Science University Jabalpur (M.P.)	20th September to 1stOctober 2021.
106	Dr Asha R	KVASU (COHEART) Wayanad, Kerala & MANAGE, Hyderabad collaborative online Training Program on ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats	20-23 September 2021
107	Dr. Priya MN	KVASU (COHEART) Wayanad, Kerala & MANAGE, Hyderabad collaborative online Training Program on ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats	20-23 September 2021
108	Dr. K. Syamala	International conference on convergence of technology and policy for sustainable meat production	October 25th to 28th 2021
109	Dr. Reshmi Raveendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena	Attended 21 days advanced national training programme (ANTP - 2021) on "Strategies for one health approach to parasitic diseases"	9-11-2021 to 29-11-2021, Online
110	Dr. K. Syamala Dr. Reshmi Raveendran, Dr. Merin Das V. J. and Dr. Shaik Nikhat Reena	Kerala Veterinary Science Congress 2021	13-11-2021 to 14-11-2021, CVAS, Mannuthy, KVASU.

111	Dr. K. Syamala Dr Reshmi Raveendran	25th national Convention of Society of Pharmacognosy and International conference on News Horizon of Natural Products and AyushRemedies	November 27th to 28th 2021
112	Dr Asha R	Advances in Microbial Technologies (AIMT-2021) organised by AMITY INSTITUTE of Microbial technology, amity University, Rajasthan	Dec. 01-02, 2021
113	Dr. Priya MN	Advances in Microbial Technologies (AIMT-2021) organised by AMITY INSTITUTE of Microbial technology, amity University, Rajasthan	Dec. 01-02, 2021
114	Dr. K. Syamala	Online 21 days training on Strategies for One Health Approach to Parasitic Diseases, Jabalpur	December 9th to 21st 2021
115	Dr. Bindu L.	30th NCVP at CVS Parbhani, MAFSU	December 14th – 15th 2021
116	Dr. K. Syamala	30th NCVP at CVS Parbhani, MAFSU	December 14th – 15th 2021
117	Dr. R. Radhika	30th NCVP at CVS Parbhani, MAFSU	December 14th – 15th 2021
118	Dr Bindu L	MOOC on "Digital Learning Techniques, NAARM	December 1st – 31st, 2021
119	Dr MN Priya	MOOC on "Digital Learning Techniques, NAARM	December 1st – 31st, 2021
120	Dr Asha R	MOOC on "Digital Learning Techniques, NAARM	December 1st – 31st, 2021

ix. Patents :

x. Outstanding achievements, technologies developed, awards and other distinctions obtained by Institutions, scientists and staff

1. Technology Release: Anaemia eye colour chart to identify goats in need of anthelmintic treatment- Department of parasitology
2. Dr. K.M. Lucy, received the Kerala Veterinary and Animal Sciences University Best Teacher Award -2016 on 26.04.2021.
3. Dr C Latha received the Dr AT Sherikar Outstanding Public Health Veterinarian award at XVII IAVPHS E conference conducted by GADVASU on May 28-29
4. Dr Binsy Mathew got first prize in poster presentation at XVII IAVPHS E conference conducted by GADVASU, on May 28-29
5. Dr Deepthi Vijay got first prize in oral presentation and essay competition at XVII IAVPHS E conference conducted by GADVASU, on May 28-29

6. **Dr. K.M. Lucy** bagged Best paper presentation- poster in BOVINE GYNAECOLOGY AND OBSTETRICS session as part of "Novel Knowledge, Innovative Practices and Research in Theriogenology"- The seminar organized by the Dept. of Animal Reproduction, Gynaecology and Obstetrics under the aegis of KVASU and ISSAR from 26.12.2021 to 28.12.2021.

7. **Dr.Sumena K.B.** bagged Third prize for the Best paper in session IV in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala

8. **Dr. Ambily V.R**. bagged first prize in poster presentation in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala

9. **Dr. Sangeetha S. Gireesh** –- bagged 3rd prize in oral presentation in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala

10. **Dr. Marykutty Thomas**. Best poster presentation in Kerala Veterinary Science Congress-2021, held 12th to 14th November 2021, CVAS, Mannuthy

11. **Dr. Marykutty Thomas**, Best oral presentation in Association of Meat Scientists & Technologists (AMST) conference held from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala

12. **Dr.N.Geetha**-Awarded Best paper with First prize in session 5: Livestock and Poultry production (Oral presentation category) in the 13th Kerala Veterinary Science Congress with the theme 'One health-A strategic imperative for Veterinary profession in fight against the pandemic' organized by Indian Veterinary Association, Kerala during 13th and 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala.

13. **Dr. Irshad A** received three best paper awards at the International Symposium on The Holistic Approach to The Meat Food Quality and Safety in Continuum with Farm to Fork, organized by the Indian Meat Science Association and the Department of Livestock Products Technology, College of Veterinary and Animal Sciences, SVPUAT, Meerut

14. **Dr. Irshad A** received Junior Faculty Excellence Cleaver Award from Association of Meat Scientists and Technologists for the year 2021

15. **Dr. Irshad A** – Best Teacher award by Indian Veterinary Association -2021

16. **Dr. Irshad A** received International Teaching Excellence Award 2021 in Animal Science from Center for Professional Advancement, at Global Annual Education & Research Summit 2021 on 16th December 2021.

17. **Dr. Silpa Sasi**- Best paper award (poster presentation) with second prize in Byproduct Utilisation and Waste Management Session in international conference on convergence of

technology and policy for sustainable meat production, organized by Association of Meat Scientists And Technologists and Meat Technology Unit and Department of Livestock Products Technology, KVASU in association with AFST(I) Thrissur chapter and IDA Kerala chapter from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala.

18. **Dr. Amritha Aravind**, Best paper presentation, SMALL RUMINANT AND SWINE REPRODUCTION ; International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" , 27th to 29th December, 2021, CVAS, Mannuthy, Thrissur, Kerala

19. **Dr. R. S. Abhilash**, Best paper presentation, REPRODUCTIVE BIOTECHNOLOGY; International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" , 27th to 29th December, 2021, CVAS, Mannuthy, Thrissur, Kerala

20. **Dr. Magnus Paul K**, Best paper presentation, COMPANION ANIMAL REPRODUCTION; International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" , 27th to 29th December, 2021, CVAS, Mannuthy, Thrissur, Kerala

21. **Dr. Magnus Paul K**, Best paper presentation - poster, COMPANION ANIMAL REPRODUCTION; International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" , 27th to 29th December, 2021, CVAS, Mannuthy, Thrissur, Kerala

22. **Dr. Suja C.S**- Best paper with first prize in Session 5- Livestock and poultry production (poster presentation category)- Production performance of long term selected pure White Leghorn strains authoured by Beena C Joseph, Suja C.S, P Anitha, Harikrishnan S and Devavratha S.

23. **Dr. Suja C.S**- Best paper with third prize in Session 5- Livestock and poultry production (oral presentation category)- Comparative evaluation of production performance of six generations of Tellichery chicken breed of Kerala authoured by Suja C.S, Beena C Joseph, P Aniath, Harikrishnan S and Devavratha S.

24. **Dr.S.Sankaralingam**- Best paper with third prize in Session 5- Livestock and poultry production (oral presentation category)- Pre- incubation storage and its effect on fertility and hatchability of Kuttanad duck eggs authoured by" S. Sankaralingam, P.Anitha

25. **Dr. Soumya Ramakutty** second best paper award National online clinical Case Presentation, MAFSU, PGIVAS, Akola, Maharastra.

26. **Dr Varuna P. Panicker**: Alwar memorial best article award for the article in journal of parasitology

27. **Dr Varuna P Panicker**-Best poster award in Kerala Veterinary Science congress2021

28. **Dr. Binsy Mathew** Second best Oral Presentation award at the International conference on Convergence of Technology and policy for sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU on 25-28 Oct 2021

29. **Dr. Binsy Mathew** Second Best Oral Presentation award at Kerala Veterinary Science Congress on 12-14 Dec 2021.

30. **Dr. Nisha A R.** was selected for Global senior scholar exchange program by Society of Toxicology (SOT), USA

31. **Dr. Dhanush Krishna B.,** Assistant Professor has successfully completed 10th Certification examination conducted by the Indian College of Veterinary Pathologists (ICVP) held on December 11-12, 2021 at the Department of Veterinary Pathology, Nagpur Veterinary College, MAFSU, Nagpur, Maharashtra and is now eligible to use the title Diplomate, ICVP(DICVP

32. **Dr Bindu Lakshmanan:** IAAVP Best women scientist award during 30th NCVP and National symposium on "Fundamentals of Integrated Parasite Management and its relevance in One Health" at CVS, Parbhani, Maharashtra (14-16. Dec 2021).

33. **Dr K Syamala.** IAAVP best PhD thesis award during 30th NCVP and National symposium on "Fundamentals of Integrated Parasite Management and its relevance in One Health" at CVS, Parbhani, Maharashtra (14-16. Dec 2021).

34. **Dr K Syamala.** Best Oral Presentation Award for the paper entitled "Combined targeted selective treatment-A sustainable solution for management of parasitism with limited chemotherapy" authored by K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, Lucy Sabu and V.R. Thirupathy awarded on 14.12.2021 at the 30th NCVP and National symposium on "Fundamentals of Integrated Parasite Management and its relevance in One Health" at CVS, Parbhani, Maharashtra (14-16. Dec 2021).

35. **Dr K Syamala** Best oral presentation award for the paper entitled " Detection of rare polymorphisms in isotype 1-β tubulin gene of *Haemonchus contortus* populations of Kerala" authored by K. Syamala, K. Devada, Bindu Lakshmanan ,K Raji and V Thirupathy, in conference on " Advances in Microbial Technologies -2021 organised by Amity Institute of Microbial technology, Amity University, Rajasthan held online during Dec 01-02,2021

36. **Dr K Syamala.** Best poster Presentation for the paper entitled "Body Condition Score –A poarasitological indicator in targeted selective approach for effective and sustainable goat worm management" authored by K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, Lucy Sabu and V.R. Thirupathy International conference on convergence of technology and policy for sustainable meat production organized by AMST, held online from October 25th to 28th 2021.

37. **Dr K Syamala**: Best oral presentation award for the paper on "Development of "Anaemia eye colour chart for detecting clinical anaemia in goats of Kerala" authored by K.Syamala, K.Devada, Bindu Lakshmanan, K Raji, and V.R. Thirupathy at the Kerala Veterinary Science Congress 2021 held on 13-14November,2021 at CVAS Mannuthy

38. Dr. M. Mini received the Indo-Asian Research Excellence Award 2022 in Veterinary Microbiology instituted by Ratna Prasad Multidisciplinary Research and Education Society

xi. Awards by students

1. **Abhin Raj K.P.,** student of Dr. Sreeranjini A.R. received second best oral presentation award for "Morpholoical and morphometrical studies on the testes of Large White Yorkshire boars (*Sus scrofa domesticus*)" authored by., Abhin Raj K.P Sreeranjini A.R., Maya S., Vasudevan

V.N. and Sunilkumar N.S. in Basic Veterinary Sciences session, in the Post-graduate student category in the International conference on "Relevance of Veterinary Profession during Covid-19 pandemic" Organized by Indian Veterinary Association, CVAS Mannuthy unit and KVASU.

2. **Sridevi P.,** student of Dr. Sreeranjini A.R. received **second best poster presentation award** for "Characterization of Anatomical development and AFP gene expression changes in liver of embryonic and Day-old turkey poults" authored by Sridevi P., Sreeranjini A.R., Radhika G., Lucy K.M., Ashok N., Maya S., Sumena K.B, and Sunilkumar N.S. in Basic Veterinary Sciences session, in the faculty and others category in the International conference on "Relevance of Veterinary Profession during Covid-19 pandemic" Organized by Indian Veterinary Association, CVAS Mannuthy unit and KVASU.
3. Dr Rekha A., MVSc scholar in LPM, First prize in poster presentation. International conference on relevance of veterinary profession during Covid-19 pandemic organized by IVA, Mannuthy
4. 2nd best poster award for Dr. Arya Mohan, World veterinary day celebrations,2021.Internatioanl conference on Relevance of veterinary profession during covid 19 pandemic, May,2021
5. Dr Swetha PT and Dr Murugavelu received second prize in poster presentation at XVII IAVPHS E conference conducted by GADVASU, on May 28-29
6. Dr Chendu Bharat Prasad got first prize in oral presentation at XVII IAVPHS E conference conducted by GADVASU, on May 28-29
7. **Dr. Alphine Joseph** bagged second prize in the Review Article Writing Competition organized by the Indian Veterinary Association, Kerala, Kerala Veterinary and Animal Sciences University & IVA, College of Veterinary and Animal Sciences, Mannuthy
8. **Dr. Annie V. Raj.** bagged First prize for the Best paper in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala
9. **Krishna Nath M.R**. bagged First prize for the best oral presentation in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala
10. **Rohini B.G.** bagged 2ndprize for the best oral presentation in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala
11. **Parvathy J.** bagged First prize for in poster presentation in the Kerala Veterinary Science Congress 2021 organized with focal theme of "One health-A strategic imperative for veterinary profession in fight against the pandemic" during 12th to 14th November 2021 at College of Veterinary and Animal Sciences, Mannuthy, Thrissur, Kerala.
12. **Rahi Krishna** bagged gold medal in M.Sc Dairy Science, at University Level during the third

convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

13. **Riya K. B.** bagged gold medal in M.Sc Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

14. **Sivani K. T.** bagged gold medal in M.Sc Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

15. **Theertha Vijayan** bagged gold medal in M.Sc Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

16. **Sahla A.** bagged gold medal in Diploma in Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

17. **Divya P.** bagged gold medal in Diploma in Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

18. **Neethu T. S.** bagged gold medal in Diploma in Dairy Science, at University Level during the third convocation ceremony of Kerala Veterinary and Animal Sciences University conducted on 07/10/21

19. **Dr. Saranya**. Best oral presentation in student category in Kerala Veterinary Science Congress-2021, held 12th to 14th November 2021, CVAS, Mannuthy

20. **Dr Katam Divya**. Best poster presentation 2021. In scientific session on Reproductive Biotechnology-International symposium on Novel knowledge, Innovative practices and research in Theriogenology- organized by ISSAR from 27-29th December,202

21. **Dr. Rintu Joseph**- best paper award with first prize in food processing technologies session in international conference on convergence of technology and policy for sustainable meat production, organized by Association of Meat Scientists And Technologists and Meat Technology Unit and Department of Livestock Products Technology, KVASU in association with AFST(I) Thrissur chapter and IDA Kerala chapter from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala

22. **Dr. Sule Pratik Yashodhan**- best paper award with second prize in food processing technologies session in international conference on convergence of technology and policy for sustainable meat production, organized by Association of Meat Scientists And Technologists and Meat Technology Unit and Department of Livestock Products Technology, KVASU in association with AFST(I) Thrissur chapter and IDA Kerala chapter from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala.

23. **Dr. Hridhya Vijay C** - best paper award (poster presentation) with second prize in Food Safety

and Quality session in international conference on convergence of technology and policy for sustainable meat production, organized by Association of Meat Scientists And Technologists and Meat Technology Unit and Department of Livestock Products Technology, KVASU in association with AFST(I) Thrissur chapter and IDA Kerala chapter from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala.

24. **Dr. Anjitha Jose K** - best paper award (poster presentation) with first prize in Food Safety and Quality session in international conference on convergence of technology and policy for sustainable meat production, organized by Association of Meat Scientists And Technologists and Meat Technology Unit and Department of Livestock Products Technology, KVASU in association with AFST(I) Thrissur chapter and IDA Kerala chapter from 25th to 28th October 2021 at Meat Technology Unit, Thrissur, Kerala.

25. **Dr. Hridhya Vijay C** - best paper award with first prize in session- livestock in poultry production- poster presentation category in the 13th Kerala Veterinary Science Congress with the theme "One health -A Strategic Imperative for Veterinary Profession in Fight Against Pandemic" organized by Indian Veterinary Association Kerala during 13th and 14th November 2021 at College of Veterinary and Animal Sciences , Mannuthy, Kerala.

26. **Dr. Anjitha Jose K** - best paper award with third prize in session- livestock in poultry production- poster presentation category in the 13th Kerala Veterinary Science Congress with the theme "One health -A Strategic Imperative for Veterinary Profession in Fight Against Pandemic" organized by Indian Veterinary Association Kerala during 13th and 14th November 2021 at College of Veterinary and Animal Sciences , Mannuthy, Kerala.

27. **Dr. Manasa M**- best paper award with second prize in session- livestock in poultry production- poster presentation category in the 13th Kerala Veterinary Science Congress with the theme "One health -A Strategic Imperative for Veterinary profession in Fight Against Pandemic" organized by Indian Veterinary Association Kerala during 13th and 14th November 2021 at College of Veterinary and Animal Sciences , Mannuthy, Kerala.

28. **Dr. Ambily K. G**. Best Young Scientist Award- (2021) for the Poster Presentation entitled "Fractionation and supplementation of sds in cryopreservation extender improves cryopreservability of boar semen" co-authored by Hiron M. Harshan, C. Jayakumar, M. P. Unnikrishnan, A. P. Usha and S. Selvaraju, presented in the scientific session on SMALL RUMINANT AND SWINE REPRODUCTION in the International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology "held at CVAS, Mannuthy from 27th to 29th December, 2021

29. **Dr. Swathish V.S** Best Poster Presentation Award- - Second (2021) for the research paper entitled "Resolution of postpartum uterine prolapse in guinea pig (cavia porcellus) by hydropropulsion technique followed by surgical management" which was presented in the scientific session on EQUINE, CAMEL AND WILD ANIMAL REPRODUCTION in the International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology " held at CVAS, Mannuthy from 27th to 29th December, 2021

30. **Dr. Arya Krishnan S**. - Best Young Scientist Award- (2021) for the Poster Presentation entitled

"Feline mucometra a case report" co-authored by Niyas E., Lekshmi Bhai K, Urmila S, Hemanth Ajayan which was presented in the scientific session on CLINICAL CASE PRESENTATION in the International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology " held at CVAS, Mannuthy from 27th to 29th December, 2021

31. **Krupa Rose Jose** – First prize in Farm Animal Health session of 'Kerala Veterinary Science Congress' held at CVAS, Mannuthy on November 2021

32. **Dr.Ratna Supriya**, MVSc Scholar, Dept. of Poultry Science, CVAS, Mannuthy and authored by " Ratna Supriya, Binoj Chacko, P.Anitha, Suja C S and Priya PM has been selected as the best paper with 2nd prize in Session 5: Livestock in Poultry Production (Oral Presentation Category) in the 13th Kerala Veterinary Science Congress. For the pper The paper " Effect of fermented soybean meal, probiotics and organic acids on intestinal morphology, PH and microbial count in broilers

33. **Dr. Samir Nagib Habib Hakkim**, MVSc Scholar, Dept. of Poultry Science, CVAS, Mannuthy and authored by " Samir Nagib Habib Hakkim, S. Sankaralingam, ,P.Anitha and Binoj Chacko has been selected as the best paper with 3rd prize in Session 5: Livestock in Poultry Production (Oral Presentation Category) in the 13th Kerala Veterinary Science Congress for The paper "Evaluation of growth of black soldier fly larvae (Hermetia illucens) in three different substrates"

34. **Dr. Athulya T.R**.(MVSc. Scholar) secured first prize for poster presentation on the topic Antimicrobial susceptibility profiles and genotypic resistance pattern of *Campylobacter jejuni* isolates from backyard chicken rearing facilities at the International Webinar on Ecohealth paradigm: towards sustainability and Global Health on 3rd and 4th of August 2021

35. **Dr. Sruthi C** (MVSc. Scholar) secured third prize for poster presentation on the topic Detection of Extended Spectrum Beta Lactamase (ESBL) producing enterotoxigenic (ETEC) and enteroaggregative *E. Coli* (EAEC) isolates from drinking water, human, animal and environmental sources the International Webinar on Ecohealth paradigm: towards sustainability and Global Health on 3rd and 4th of August 2021

36. **Dr. Vevekanandhan R.** (PhD Scholar) Second Best Oral Presentation award at the International conference on Convergence of Technology and policyfor sustainable meat production organized by AMST, Meat Technology unit and Dept. of LPT, KVASU on 25-28 Oct 2021

37. **Dr. Archana Raj,** I prize for best oral presentation in 13th Kerala Veterinary Science Congress, 13th and 14th November, 2021

38. IAVP- Prof. P.K.R. Iyer memorial Best MVSc thesis award- **Dr. Kavya M** (Advisor- Dr. Sajitha I.S.)

39. **Ashna Sulaiman**., has been awarded **Professor MK Shingatgeri Memorial Young Scientist Award** for the research work entitled "CD4+ and CD8+ T- cells determine the biocompatibility outcome in biomaterial mediated tissue repair in tissue engineering applications" during the Eighth Conference of Society of Toxicologic Pathology- India 'Toxicologic Pathology of Medical Devices' held during October 22-24, 2021. (Advisor- Dr. Dhanush Krishna B.)

40. **Karthika R,** Devada K, Bindu Lakshmamnan, Syamala K, Vijayakumar K and Pooja G Mankani

bagged Second best poster presentation award for the poster entitled "Molecular detection of Toxoplasma gondii in aborted fetuses of goat in Thrissur, Kerala" at the 30th NCVP(14-16. Dec 2021). at CVS, Parbhani, Maharashtra

41. **Karthika R**,Devada K, Bindu Lakshmamnan, Syamala K, Vijayakumar K and Pooja G Mankani **Best Oral Presentation Award** for the paper entitled "First report on molecular detection of Neospora caninum in aborted goat faetuses in Thrissur, Kerala" at the 30th NCVP (14-16. Dec 2021).at CVS, Parbhani, Maharashtra
42. Dr. Alphine Joseph bagged the student excellence award- 2021 of Indian Veterinary Association, College of Veterinary and Animal Sciences Mannuthy Unit.
43. Divya Rajaselvi, 2nd prize in oral presentation in BICPAC -22 conducted by Department of Biotechnology & Bioinformatics, Bishop Herber College, Tiruchirapalli
44. Dr. Kavya A, MVSc. Scholar Department of Veterinary Public Health bagged the Padma shree Dr. B. V. Rao Research grant for Postgraduate studies 2021-22 for her MVSc. Research work on *Invivo* efficacy of garlic and chitosan for control of *Campylobacter* spp. in meat type chicken.

xii. Consultancy Services:

Sl. No.	Department	Services provided	Date/ no. of sample	Income generated
1	Dairy science	Consultancy services to Dairy Farmers		
		Testing Quality of Milk & Dairy Products	05/04/21(Milk testing)1 Sample	30
			08/04/21(Milk culture)1x50/-	50
			13/04/21(Milk culture)1x50/-	50
			03/05/21(Milk Culture) 1x50/-	50
			03/06/21(milk testing 1 sample)	50
			21/06/21(milk testing) 1 sample	30
			23/06/21(milk culture)1x50/-	50
			Total	310
2	Livestock Production Management	Farm management and entrepreneurship	15 persons	Nil

		Establishment of ASWASA (Thermal Stress Alleviation Controller)in dairy farms	3	Rs 28,500
		A video has been developed for school students to develop their interest in Animal Husbandry activities		
3	Gynaecology	Clinical services and referral services		
		KALF – Advisory services as expert		
4	Veterinary Parasitology	Sample examination	20	220
5	Pathology	Post-mortem examination of large and small animals	34	4250
		Post-mortem examination of birds	136	1360
		Post-mortem examination of wild animals	2	2000
		Post-mortem examination of fishes	6	300
		Rabies diagnosis	30	7500
6	Veterinary Surgery & Radiology	Conducted Surgeries and Radiography services through Revolving Fund Project on 'Comprehensive surgical care	Radiography: 480 Surgeries: 34	1,67,750.00
7	VPH	Evaluation of quality of water, milk and milk products, meat and meat products, livestock and poultry feeds for the public	34	25,500/-
Sl. No.	Department	Services provided	Date/ no. of sample	Income generated
1.	CAADECCS	Livestock advisory services based on weather-Kerala Agriculture University		
2	Dairy science	Milk sample adulteration testing	06/08/21/ 1 sample	70/-
3	Dairy science	Curd culture sale	17/08/21	50/-
4	Dairy science	Milk sample adulteration testing	16/09/21 1 sample	70/-
5	Dairy science	Curd culture sale	25/08/21	50/-
6	Dairy science	Curd culture sale	03/09/21	50/-
7	Dairy science	Milk sample testing	14/09/21 1 sample	30/-

8	Dairy science	Milk sample adulteration testing	15/9/21 1 sample	70/-
9	Dairy science	Curd culture sale	17/09/21	50/-
10	Dairy science	Curd culture sale	22/09/21	50/-
11	Dairy science	Curd culture sale	05/10/21	50/-
12	Dairy science	Curd culture sale	16/10/21	50/-
13	Dairy science	Curd culture sale	27/10/21	50/-
14	Dairy science	Milk sample testing	10/11/21 12 sample	330/-
15	Dairy science	Curd culture sale	10/11/21	50/-
16	Dairy science	Milk sample testing	17/11/21	30/-
17	Dairy science	Milk sample testing	23/11/21 8 sample	240/-
18	Dairy science	Curd culture sale	24/11/21	50/-
19	Dairy science	Curd culture sale	17/12/21	50/-
20	Dairy science	Preservation of milk & preparation of value added products	16-08-2021	
21	Dairy science	Establishment of yoghurt manufacturing unit	10-09-2021	
22	Dairy science	Crystallisation of ghee	25-10-2021	
23	Dairy science	Value added product unit	26-10-21	
24	Dairy science	Milk testing	10-11-2021	
25	Dairy science	Curd setting	17-12-21	
26	LPT & MTU	In Plant Training to Food Technology Students, Pathanamthitta	31/12/2021 9 Students	45,000/-
27	LPT & MTU	In Plant Training to Food Technology Students, Vimala College, TCR	7 Students	1,05,000/-
28	LPT & MTU	In Plant Training to Food Technology Students, Karunya College of Food Science and Technology	5 Students	75,000/-
29	Veterinary Microbiology	Blood smear examination	58	1740
30	Veterinary Microbiology	Culture and sensitivity	86	9460
31	Veterinary Microbiology	Culture	2	100
32	Veterinary Microbiology	RBPT	10	100

33	Feed analysis laboratory, Animal Nutrition	Feed and Fodder testing		1.67750 Lakhs
34	SABS	Sale of Animals		1.81020 Lakhs
35	RF feed mill	Sale of feed		5.1626729 crores
36	Surgery and Radiology	Major Surgical Procedures in Farm and Pet Animals Radiology Services Surgical services at UVH, Kokkalai	Total- 250 X rays- 2219	Rs. 4,19,700 Rs. 4,32,850
37	VPH	Water and food testing	From Aug 2021-Dec 2021(231 samples)	Rs. 78, 350
38	Veterinary Pathology	Postmortem examination 1. Cow 2. Goat 3. Kid 4. Pig 5. Dog 6. Cat 7. Poultry 8. Rabbit 9. Calf 10. Fish 11. Elephant 12. Bison	 5 24 17 16 19 13 366 20 3 6 1 1	 1250 3600 1700 1600 3800 1300 3660 1000 450 300 1000 500
39	Veterinary Pathology	Rabies Diagnosis	94	23500
40	Veterinary Pathology	Histopathology	9	1350
41	Veterinary Pathology	Cytology	40	800
42	Veterinary Parasitology	Examination of Blood Smears/ Faecal Samples/Others	588	17230/-

Sl. No.	Department	Services provided	Date/ no. of sample	Income generated
1	Dairy science	Consultancy services to Dairy Farmers		
		Testing Quality of Milk & Dairy Products	05/04/21(Milk testing)1 Sample	30

			08/04/21(Milk culture)1x50/-	50
			13/04/21(Milk culture)1x50/-	50
			03/05/21(Milk Culture) 1x50/-	50
			03/06/21(milk testing 1 sample)	50
			21/06/21(milk testing) 1 sample	30
			23/06/21(milk culture)1x50/-	50
			Total	310
2	Livestock Production Management	Farm management and entrepreneurship	15 persons	Nil
		Establishment of ASWASA (Thermal Stress Alleviation Controller)in dairy farms	3	Rs 28,500
		A video has been developed for school students to develop their interest in Animal Husbandry activities		
3	Gynaecology	Clinical services and referral services		
		KALF – Advisory services as expert		
4	Veterinary Parasitology	Sample examination	20	220
5	Pathology	Post-mortem examination of large and small animals	34	4250
		Post-mortem examination of birds	136	1360
		Post-mortem examination of wild animals	2	2000
		Post-mortem examination of fishes	6	300
		Rabies diagnosis	30	7500
6	Veterinary Surgery & Radiology	Conducted Surgeries and Radiography services through Revolving Fund Project on 'Comprehensive surgical care	Radiography: 480 Surgeries: 34	1,67,750.00

7	VPH	Evaluation of quality of water , milk and milk products, meat and meat products, livestock and poultry feeds for the public	34	25,500/-
Sl. No.	**Department**	**Services provided**	**Date/ no. of sample**	**Income generated**
1.	CAADECCS	Livestock advisory services based on weather-Kerala Agriculture University		
2	Dairy science	Milk sample adulteration testing	06/08/21/ 1 sample	70/-
3	Dairy science	Curd culture sale	17/08/21	50/-
4	Dairy science	Milk sample adulteration testing	16/09/21 1 sample	70/-
5	Dairy science	Curd culture sale	25/08/21	50/-
6	Dairy science	Curd culture sale	03/09/21	50/-
7	Dairy science	Milk sample testing	14/09/21 1 sample	30/-
8	Dairy science	Milk sample adulteration testing	15/9/21 1 sample	70/-
9	Dairy science	Curd culture sale	17/09/21	50/-
10	Dairy science	Curd culture sale	22/09/21	50/-
11	Dairy science	Curd culture sale	05/10/21	50/-
12	Dairy science	Curd culture sale	16/10/21	50/-
13	Dairy science	Curd culture sale	27/10/21	50/-
14	Dairy science	Milk sample testing	10/11/21 12 sample	330/-
15	Dairy science	Curd culture sale	10/11/21	50/-
16	Dairy science	Milk sample testing	17/11/21	30/-
17	Dairy science	Milk sample testing	23/11/21 8 sample	240/-
18	Dairy science	Curd culture sale	24/11/21	50/-
19	Dairy science	Curd culture sale	17/12/21	50/-

20	Dairy science	Preservation of milk & preparation of value added products	16-08-2021	
21	Dairy science	Establishment of yoghurt manufacturing unit	10-09-2021	
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37	VPH	Water and food testing	From Aug 2021-Dec 2021 (231 samples)	Rs. 78, 350

38	Veterinary Pathology	Postmortem examination		
		1. Cow	5	1250
		2. Goat	24	3600
		3. Kid	17	1700
		4. Pig	16	1600
		5. Dog	19	3800
		6. Cat	13	1300
		7. Poultry	366	3660
		8. Rabbit	20	1000
		9. Calf	3	450
		10. Fish	6	300
		11. Elephant	1	1000
		12. Bison	1	500
39	Veterinary Pathology	Rabies Diagnosis	94	23500
40	Veterinary Pathology	Histopathology	9	1350
41	Veterinary Pathology	Cytology	40	800
42	Veterinary Parasitology	Examination of Blood Smears/ Faecal Samples/Others	588	17230/-

xiii. Any other Relevant Activities:

Anatomy

Additional duties handled by the faculties of department

Dr K.M. Lucy

1. Nodal officer, AMS, NAHEP.
2. Nodal officer, Endowment awards for faculty, KVASU.

Dr. S Maya :

1. Director, Academic Staff College
2. Professor I/C PG Academics, CVAS, Mannuthy
3. Nodal officer, AISHE

Dr. A R Sreeranjini :

3. Programme Officer NSS unit, CVAS, Mannuthy
4. Director Board Member, KAU Employees cooperative Society.

5. Editorial Board Member of Journal of Indian Veterinary Association.

Dr. N S Sunilkumar :

6. Vice patron, ARIS Cell & the Students' Computer Club
7. Associate Editor, Journal of Veterinary and Animal Sciences

Dairy Science

1. Comprehensive examination of M.Sc. (2019) programme of the Department was conducted (16.4. 2021)
2. Dr R Geetha is acting as a member of College level Send-off committee (CV &AS, Mannuthy)
3. Dr. C.T. Sathian holding Charge of Professor Academic cell-2
4. Dr. C.T. Sathian was chairman for Project Coordination group(Cattle & Buffalo) meetings
5. Final Viva voce of M.Sc. (2018) batch students held on 15-6-2021

Extension

1. Additional Charges of faculty
   - Dr. Jiji R.S, Coordinator of IPR cell
   - Dr. Jiji R.S, Convenor, HoD meeting
   - Dr. Jiji R.S, Member, Project Coordination Group on Extension. Economics and Statistics
   - Dr. Jiji R.S, Member, Examination Board Meeting for Livestock Inspector Training held on 19.05.2021.
   - Dr. Jiji R.S, Co-chairman, Documentation and Souvenir Committee-11th University Day 2021- 'SAMANUAYAM' on 14.06.2021
   - Dr. Rajeev, T.S. Director of Students Welfare, KVASU
   - Dr. Rajeev, T.S. Chairman, Publicity Committee-11th University Day 2021- 'SAMANUAYAM' on 14.06.2021
   - Dr. Rajeev, T.S. Project Leader, Center for elephant Studies
   - Dr.Reeja George P. Language Editor, Journal of Veterinary and Animal Sciences, KVASU
   - Dr. Reeja George P., Nodal Officer, KVASU, Video Conference of Vice Chancellors with H.E. Governor of Kerala on Impact of Covid 19
   - Dr. Reeja George, P. Member, Editorial Committee, Package of Practices, KVASU
   - Dr. Reeja George, P. Member, Technical Committee, Online Collaborative Training Programme on Climate Smart Dairying in the context of Global Warming, CAADECCS and MANAGE, 4-7 May, 2021.
   - Dr. Reeja George, P. Member, Project Coordination Group-Goats and Rabbits
   - Dr. Anu George, Principal Investigator, TISC Mannuthy

- Dr. Anu George, Department Academic Management System Officer
- Dr. Anu George, Member, Compiler of Malayalam Documents of the College
- Dr. Anu George, Member, Publicity Committee-11th University Day 2021 on 14.06.2021
- Dr. Subin.K.Mohan, Assistant Warden, Men's Hostel, Mannuthy
- Dr. Subin.K.Mohan, Member, Publicity Committee-11th University Day 2021 on 14.06.2021

Gynaecology

1. Reviewed article for Journal of Indian Veterinary Association (JIVA) NAAS score – 3.84
2. Reviewed article for Journal of Veterinary and Animal Sciences (JVAS) NAAS score – 4.15

Parasitology

1. Conducted Annual Board Examination of 2015 batch (old syllabus), final examination of MVSc and first internal assessment of 2018 BVSc &AH students in online mode
2. External examiner for MVSc thesis evaluation at TANUVAS
3. Co-ordinating a self sustaining diploma course on "Lab Techniques"
4. The farmer advisory service on "Monsoon management of parasitism" was published through FIB in AIR news

Pharmacology

Conducted a 5 day hands on training on Laboratory animals as Experimental models from April 15 to 20, 2021 in the Department of Veterinary Pharmacology and Toxicology, College of Veterinary and Animal Sciences, Mannuthy

1. Department of Clinical Veterinary Medicine
   - Blood transfusion for large and small animals
   - Research on Ethnoveterinary medicine

1. Department of Animal Nutrition
   - Farmer's training conducted "Newer trends in cattle feed production" on 17-12-21- (21 farmers participated)

2. Department of Veterinary Public Health
   - Dr. Vrinda Menon-Visited rendering units in Palakkad district as a part of District Level Facilitation and Monitoring Committee for poultry waste disposal

Department of Veterinary Parasitology

- Department co ordinated the Foundation day celebration of CVAS Mannuthy on 1st August, 2021
- Dr Bindu Lakshmanan was the external examiner for MVSc qualifying voiva voce examination

of PG students of Veterinary college, Bangalore on 9/8/21

- Dr Bindu Lakshmanan was the member of final internship evaluation committee on 25-31st August, 2021
- Dr Bindu Lakshmanan was the external examiner for one PhD student of TANUVAS on 22/10/21
- Dr Bindu L, Dr Asha R and Dr M N Priya- were the question paper setters for MVSc and PhD programmes of TANUVAS during Dec, 2021
- Dr K Syamala, handled classes for field vetas and student, in an e learning platform of Alembic on 25/8/2021
- Conducted comprehensive examination of MVSc student Reshmi Raveendran in this department on 5/11/21

COLLEGE OF VETERINARY & ANIMAL SCIENCES
POOKODE

1. Academic Excellence



College of Veterinary & Animal Sciences, Pookode is the second Veterinary College of the state of Kerala. The campus is sprawled over 100 acres in the scenic hilly terrain of Wayanad. It was started as a constituent college of Kerala Agricultural University and was operating in Mannuthy campus, since 28thOctober 1998. Later on, the college started functioning in the Pookode campus on 11thDecember 2004. Subsequent to the formation of Kerala Veterinary and Animal Sciences University (KVASU), College of Veterinary and Animal Sciences, Pookode became a constituent college of the new University. The college which is barely 10 years old has state of the art facilities for undertaking academic, research, extension and entrepreneurship activities in livestock and allied sectors.

MANDATES

The faculty headed by the Dean is striving for the attainment of following mandates

1. To impart quality veterinary education
2. Technology innovation, generation and dissemination through research, teaching and extension activities
3. Strengthen animal health for sustainable livestock production
4. To function as a national referral centre in the area of tropical animal production and veterinary medicine

2. Admission Excellence

(Detailed information of admission procedure, courses, departments, staff strength, student strength)

ADMISSION PROCEDURE

* Selection of students for admission to B.V.Sc. & A.H. Degree Course is on the basis of merit through NEET exam. 85% students allotted through CEE GoK and remaining 15% through VCI.
* Selection of students for admission to MVSc & PhD course are based on merit through entrance exam conducted by ICAR and KVASU separately.
* Selection of students for admission to Diploma in Dairy Science, BSc PPBM and MVSc Wildlife is on the basis of merit through entrance exam conducted by KVASU

DETAILS OF STUDENTS

Details of Students-Fresh Admission				
2021 Admission	**State**	**VCI**	**Lakshadweep**	**Total**
BVSc& AH	85	14	1	100
MVSc	36	7		43
PhD	9	0		9
Diploma	22	0		22

COURSES

1. BVSc & AH
2. MVSc
3. Phd (Veterinary)
4. Phd (Biosciences)
5. Diploma in Dairy Science
6. BSc PPBM
7. MSc Wildlife

STAFF STRENGTH

Sl. No.	Department	Professor	Assoc. Professor	Asst. Professor
1	Veterinary Anatomy & Histology	02	01	02
2	Animal Reproduction, Gynaecology & Obstetrics	01	01	02
3	Animal Nutrition	0	02	02
4	Animal Genetics & Breeding	0	01	05
5	Veterinary Microbiology	01	0	02
6	Veterinary Physiology	0	01	03

7	Veterinary Epidemiology & Preventive Medicine	0	02	02
8	Veterinary Biochemistry	0	0	04
9	Livestock Production and Management	01	01	03
10	Livestock Products Technology	01	0	01
11	Dairy Science	0	0	01
12	Veterinary And Animal Husbandry Extension Education	0	0	02
13	Veterinary Public Health	0	01	03
14	Veterinary Clinical Medicine, Ethics & Jurisprudence	01	01	03
15	Poultry Science	0	0	04
16	Veterinary Parasitology	01	01	02
17	Veterinary Pathology	01	0	03
18	Veterinary Pharmacology & Toxicology	01	0	02
19	Surgery & Radiology	01	01	05
20	Biostatistics			
21	Physical Education	0	0	02
22	Instructional Livestock Farm Complex	0	0	01

STUDENTS STRENGTH

	Course	Male	Female	Total
1	BVSc & AH Programme	112	182	294
2	MVSc Programme	24	58	82
3	PhD Programme	9	7	16
Total				**392**

3. Myriad of Learning pathways: Diverse courses and departments (courses, departments, staff strength, student's profile)

Departments offering PG Diploma/MSc./BSc./Diploma/certificate courses

1. Veterinary Public Health- PG Diploma in One Health
2. Centre for Wildlife sciences- MSc.(Wild life studies)
3. Poultry Science- BSc. (poultry production and Business management)
4. Dairy Science- Diploma in Dairy Science
5. TVCC- Certificate programme in Veterinary nursing

DETAILS OF STUDENTS

	Course	Male	Female	Total
1	Ms/Msc Programme	0	0	0

2	BSc Programme	30	15	45
3	Diploma Programme	15	29	44
Total				**89**

4. **Tapestry of expertise and desiccation: empowering faculty** (Faculty details, capacity building programmes, faculty achievements, outstanding faculty)

FACULTY DETAILS

Sl No	Name	Designation
1	Dr Radhika G	Professor
2	Dr Lali F Anand	Assistant Professor
3	Dr Muhammed E M	Assistant Professor
4	Dr Muhasin Asaf V N	Assistant Professor
5	Dr Rojan PM	Assistant Professor(On study leave)
6	Dr Bimal C B	Assistant Professor(On leave)
7	Dr Indu V. Raj	Professor & Head
8	Dr Rajani C.V.	Associate Professor
9	Dr Patki H.S.	Assistant Professor
10	Dr. Surjith K.P.	Assistant Professor
11	Dr. Biju Chacko	Associate Prof. & Head
12	Dr. S. Senthil Murugan	Assistant Professor
13	Dr. Deepa Ananth	Assistant Professor
14	Dr. Ani Bency Jacob	Assistant Professor(On deputation to Govt. of India)
15	Dr Shynu M	Professor
16	Dr Lijo John	Assistant Professor
17	Dr Renjith Sebastian	Assistant Professor
18	Dr S Ajith kumar	Professor and Head
19	Dr Vinu David P	Associate Professor
20	Dr Biju P Habeeb	Assistant Professor
21	Dr Sindhu O K	Assistant Professor
22	Dr Umesh C G	Assistant Professor (on PhD deputation at CVAS, Mannuthy)
23	Dr Manju K Mathew	Assistant Professor (on PhD deputation at CVAS, Mannuthy)
24	Dr. R. Senthilkumar	Professor and Head
25	Dr. Bimal P. Bashir	Assistant Professor
26	Dr. Anjali K. Babu	Assistant Professor
27	Dr. Renuka Nayar	Professor & Head
28	Dr. Kavitha Rajagopal	Assistant Professor
29	Dr. Magna Thomas	Assistant Professor
30	Dr. Reghu Ravindran	Professor

31	Dr. Ajith Kumar K.G.	Associate Professor
32	Dr. Deepa C.K.	Assistant Professor
33	Dr. Anju Varghese	Assistant Professor
34	Dr.Ajith Jacob George	Professor and Head
35	Dr.Pradeep M	Assistant Professor
36	Dr.Anoop raj R	Assistant Profesor
37	Dr.HamzaPalekkodan	Assistant Professor(On study leave)
38	Dr.Sanis Juliet	Professor & Head
39	Dr.Preethy John	Assistant Professor
40	Dr.Ranjith D	Assistant Professor(On Study leave)
41	Dr.Shiji S. Saju	Assistant Professor
42	Dr.Rejitha Joseph	Assistant Professor
43	Dr.Pratheesh M. D.	Assistant Professor
44	Dr. K. Raji	Associate Professor
45	Dr Beena C Joseph	Assistant Professor
46	Dr Aswathi P B	Assistant Professor
47	Dr Abdul Muneer K	Assistant Professor
48	Dr Simi	Assistant Professor(on deputation for PhD)
49	Dr. Deepa. P.M	Associate Professor and Head
50	Dr.Bipin. K.C	Associate professor
51	Dr. Janus. A	Assistant Professor
52	Dr.Ratish R L	Assistant Professor
53	Dr.Dinesh P.T	Assistant professor and Head (i/c)
54	Dr.S.Sooryadas	Assistant professor
55	Dr.Georgechandy	Assistant professor (On WA at CWS)
56	Dr.Jineshkumar	Assistant professor
57	Dr.Remya.V	Assistant professor (on WA at TVCC
58	Dr Koshy John	Professor & Head
59	Dr Chintu Ravishankar	Professor
60	Dr Rajasekhar R.	Assistant Professor
61	Dr Sumod K.	Assistant Professor
62	Dr Prejit	Associate professor and Head i/c
63	Dr Vinod V K	Asst prof
64	Dr Jess Vergis	Asst prof
65	Dr Asha K	Asst prof

Capacity building programmes attended

Sl. No.	Name and designation of the Scientist	Title of the Programme	Duration From To	Place	Approx. cost involved
1	Dr Lali F. Anand	DST SERB TARE project 'Genomic approach for genetic improvement and conservation of important aquaculture species, *Etroplussuratensis* and *Trachinotusblochii* under changing climate scenario'	12-04-2021 to 10-07-2021	ICAR CMFRI, Kochi	-
2	Dr. Biju Chacko Associate Prof. & Head	Participated in the Faculty Development Programme (FDP) on Best Practices for Online Teaching: Classrooms, Courseware and Tools conducted by the Faculty Development Centre of the Kerala State Higher Education Council, Thiruvananthapuram, through online mode for the faculty members of the State Universities and affiliated Colleges	One week from 8th to 14th July 2021	Online	NIL
3	Dr. Deepa Ananth, Assistant Prof.	Climate Smart Dairying in the Context of Global Warming organize by CAADECCS-KVASU & MANAGE, Hyderabad at CVAS. Mannuthy	4-7th May 2021	Online	NIL
4	Dr. Deepa Ananth Assistant Prof.	Participated in 5 days training programme organized by KVASU (COHEART), Wayanad, Kerala & MANAGE, Hyderabad, a Collaborative Online Training Program on" ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats"	20-23 September, 2021	Online	NIL

5	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	Online workshop on "KVASU@2025. The definitive plan organized by Teacher's Organization of Veterinary University Kerala (TOVUK),	7th august, 2021	Online	
6	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	Training on "Learning management system (Module) and course designing- FDP organized by KSHEC	1st to 6th September 2021		
7	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	One week online national workshop on "Basis to advanced quantitative data analysis" organized by human behavtics, Pvt. Ltd.	27th to 31st August 2021		
8		Online training on "Current concept of methodology in research" held on 12-01-2022 to 25-01-2022 organized by DOE, KVASU.			
9	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode & Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	4-Week Induction/ Orientation Programme for "Faculty inUniversities/ Colleges/ Institutesof Higher Education organized by Teaching LearningCentre, Ramanujan College University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching	16th April - 15th May, 2021	Online	
10	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	International Webinar on 'Safe food now for a healthy tomorrow'	8th June 2021	Online	

11	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	One-week National TrainingProgramme on "Statistical Tools in Research and Data Analysis"organized by Maharashtra Animal and Fisheries Science University, Nagpur, College of Veterinary and Animal Sciences, Parbhani	9th to 14th 2021		Online	
12	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	`IntellectualProperty Rights in Academics and Research' organized under the aegis of IPR Cell, IPRICK-KVASU and Department of Veterinary andAnimal Husbandry Extension, CVAS, Mannuthy,	23rd to 26th March 2022		Online	
13	Dr Reghu Ravindran Professor	Two days' workshop on "Package of practices and recommendations 2022"	17-02-2022	18-02-2022	DE KVASU	nil
14	Dr Reghu Ravindran Professor	Expert consultation on the sustainable management of parasites in livestock challenged by the global emergence of resisitance Virtual meeting on the topic "Parasite control in livestock for enhanced food security"	9-11-21	10-11-21	Food and Agriculture Organization of United Nations, (online)	nil
15	Dr Reghu Ravindran Professor	Cell biology: Cellular organization, division and processes (8 weeks course	February 2021	Apri 2021	NPTEL Online certification (Ministry of HRD, Govt. of India	nil
16	Dr Reghu Ravindran Professor	Cell Culture Technologies (8 weeks course)	June 2021	Sep-tem-ber, 2021	NPTEL Online certification (Ministry of HRD, Govt. of India (FDP	nil

17	Dr Reghu Ravindran Professor	Genetic Engineering: Theory and Applications (12 weeks course).	July2021;	Octo-ber, 2021	NPTEL Online certification (Ministry of HRD, Govt. of India (FDP)	nil
18	Dr DEEPA C.K. Assistant Professor	FDP programme on best practices for online teaching: class rooms, courseware and tools	08-07-2021	14-07 -2021	The Kerala state Higher Education Council (Online)	Nil
19	Dr DEEPA C.K Assistant Professor	Current concepts of Methodology in Research	12.01. 2022	25.01. 2022	Academic Staff College KVASU	Nil
20	Dr. Ajith Kumar K.G Associate Professor	Intellectual Property Rights (Online Mode)" from 21-27 April, 2021.	21-04-2021	27-04-2021	Electron-ics & ICT Academy IIT Guwahati, Assam (An Initiative of Ministry of Electronics & Information Technology (MeitY), Gov-ernment of India	NIL
21	Dr. Hamza Palekkodan	PhD	1/1/2022 to31/12/20224		KVASU	
22	Dr. Pradeep M	Kerala Veterinary Science Congress	13-14th November 2021		CVAS, Mannuthy	
23	Dr Preethy John	Web-based training on 'Current Concepts of Methodology in Research'	12- 01-2022 to 25-01-2022		online	
24	Dr. Shiji S Saju	Three days faculty induction programme	03.03.2021 to 05.03.2021		Academic Staff College, KVASU, Mannuthy	
25	Dr. Shiji S Saju	Four-week Induction/ Orientation Programme for Faculty in Universities/Colleges/ Institute of Higher Education	16.04.2021 to 15.05.2021		Online	Rs. 3000/-

26	Dr.Shiji S Saju	International webinar on Safe Food now for healthy tomorrow	07.06.2021 to 08.06.2021	Online	
27	Dr. Shiji S Saju	International virtual conference on Emerging Challenges to Veterinary Profession	19.06.2021 to 20.06.2021	Online	
28	Dr. Shiji S Saju	Physiological and Biotechnological Interventions for the Improvement of Production, Reproduction And Health Status in Animals	16.11.2021 to 06.12.2021	Online	Rs. 800/-
29	Dr Rejitha Joseph	CAADECCS-KVASU & Manage, Hyderabad, Collaborative online training Program on "Climate Smart Dairying in the context of global warming"	04-07 May 2021	Online	
30	Dr Rejitha Joseph	International e training cum orientation programme "Physiological and Biotechnological interventions for the improvement of production, reproduction and health status in animals"	16th Nov - 06th Dec, 2021	Online	
31	Dr Rejitha Joseph	Refresher training- Advances in analytical techniques	5th Jan - 18th Jan 2022	Academic staff college, Mannuthy	
32	Dr. K. Raji	NPTEL online certification- Animal Physiology		Ministry of HRD, India- Online Offered by IIT Kanpur	
33	Dr. K. Raji	The Science of stem cells	July 2021	Coursera-online-American Museum of Natural History	

34	Dr. K. Raji	Physiological and biotechnological interventions for the improvement of production, reproduction and health status in animals	November 16 to December 06- 2021	Nanaji Deshmukh Veterinary Science University, Jabalpur-online	
35	Dr. K. Raji	Relevance of veterinary profession during covid-19 pandemic	7th and 8th May 2021	Indian Veterinary Association-Kerala	
36	Dr. Abdul Muneer.K	ATAL Online elementary FDP on "Ensuring safety of poultry meat and their products in domestic market.	23/8/21 to 27/8/21	Conducted by College of Poultry Production and Management, Hosur, Tamil Nadu	NIL

FACULTY ACHIEVEMENTS

Sl No	Faculty	Award/ Honour
1	Dr. Biju Chacko	Won the 1st prize for the paper titled, "Strategic Interventions for the Revival of the Dairy Sector of India, in the Post Covid Scenario" by ORAL PRESENTATION in Online Mode in SESSION-II of the International Conference on Recent Advances in Agriculture, Engineering and Biotechnology for Food Security held from 25th to 26th September, 2021, organized by the Mahima Research Foundation and Social Welfare 194, Karaundi, Banaras Hindu University, Varanasi-221005 and sponsored by CSIR and DBT and held at Ludhiana, Punjab.
2	Dr Vinu David P	Reviewer excellence Award for the year 2021 from Agricultural research communication centre
3	Dr. K. Raji	Best oral presentation- CoAuthor-"Detection of rare polymorphisms in isotype 1 β tubulin geneof Haemonchuscontortus populations in goats of Kerala"- AIMT 2021 at Amity University, Rajasthan
4	Dr. K. Raji	Best paper-poster presentation-CoAuthor-" Body condition score-a parasitological indicator in Targeted selective treatment approach for effective and sustainable goat worm management"
5	Dr. K. Raji	Best oral presentation, 13th Kerala Veterinary Science Congress-CoAuthor- Polymorphisms in 3'untranslated region of gonadotropin releasing hormone receptor gene and its association with multiple births in Malabari goats
6	Dr. K. Raji	Oral presentation 3rd prize-14th Kerala Veterinary Science Congress-CoAuthor-Evidence of heterozygote advantage in Malabari gats
7	Dr. K. Raji	Oral presentation 3rd prize-14th Kerala Veterinary Science Congress-CoAuthor-Colustrum immunoglobulin on health of calves reared on different feeding strategies in Kerala.

8	Deepa PM	Outstanding Scientist National Award 2022 by Kamarajar Institute of Education and Research (KIER), Madurai Road. Theni

5. Prospering university life: Vibrant campus experiences (Sports, games, co-curricular activities, union, travel, performing arts and aesthetic developments)

SPORTS AND GAMES

A well implemented, comprehensive sports and games programme is an essential component for the development of health, fitness and wellness. Presently, the College of Veterinary and Animal Sciences, Pookode has the following facilities for games/events. Athletic Track (200 mts), Basketball Concrete Court, Cricket & Football Field, Volleyball Court (2), Cricket Nets, Badminton Court (outdoor), Table Tennis Board - 5 Nos.







6. Exploring Library trends (details from college administration)

CVAS POOKODE LIBRARY 2021-22

The primary mission of the library is to support the educational and research programs of the Kerala Veterinary and Animal Sciences University by providing physical and intellectual access to information, consistent with the present and the anticipated educational and research functions of the institute. We serve as a resource center for the scholars and scientific community of the arena of Veterinary and Animal Husbandry . This library offers Web-oriented services, Remote login services, Online and Offline content searches, Reference and Referral Services, Circulation Service including Inter Library Loan and Document Delivery Service, CAS & SDI display of recent additions of periodicals and books, Literature search, Internet Browsing, Consultancy Service , User guidance & education etc.

Library timings :

- All working days : 9 AM - 7 PM

- Holidays (Sundays & Second Saturdays) : 9 AM -3 PM

Circulation (Issue/Return) :

- 9 AM - 6 PM

  Login to Library web portal through the link:

  https://covas-opac.l2c2.co.in/ or by browsing the QR Code

SCAN TO OPEN ON SMARTPHONE

Services and Facilities

- The CoVAS , Pookode Library has implemented *the International Library Management System* ***KOHA*** *on cloud with following web-based facilities:*

  - 24 x7 Web based online public access catalogue (WEB-OPAC)
  - Online renewal of Library documents
  - Current Awareness Service (CAS)/ SDI (Selective Dissemination of Information)
  - New Arrival alert services
  - Document Delivery Request System (DDR)

- Implemented the RFID based services and security surveillance system with the CCTV monitoring.
- The library has been proving full text access to 2922 national/international-journals and 1140 e-books through the CeRA (Consortium for e-Resources in Agriculture), the ICAR Consortium.
- The library has DELNET Membership. DELNET-Developing Library Network is a major resource sharing library Network in India connecting more than 8100 institutions in 28 states and 6 union territories in India and few other countries comprising of Universities, Colleges, R&D organisations, medical hospitals, etc. It helps the members to access the Discovery Portal, Knowledge Gainer Portal and Vision Portal (Video Lectures). The single window discovery layer which encourages the users to explore the networked library/knowledge resources offered through DELNET in a feature-rich environment.

- Member in KALNET (Kerala Academic Library Network), which is a shared platform for academic resources of libraries, has come into being in the State. Developed by the Kerala State Higher Education Council (KSHEC). The platform brings together 15 lakh titles of 11 universities and 147 libraries and offers a single, unified catalogue to search for items across the collections of different academic libraries in Kerala. In addition to books, other library resources such as journals/periodicals, PhD theses, postgraduate dissertations, Daisy Digital talking books (audio books) and various reports are also indexed.
- Library offers regular orientation programmes to the newly joined members
- Resource sharing and document delivery facilities established with the Kerala Agricultural University (KAU) and the Kerala University of Fisheries and Oceanography (KUFOS) .
- The responsibility of plagiarism checking as a part of instituting academic honesty has been done by the Librarian by using the UGC recommended Plagiarism checking software "Original (Urkund)".
- Subscribed to the MyLOFT application. MyLoFT is the remote login integrated website platform through which members can access library e-resources as well as the required websites in a single platform. It allows the members to access, organize, share and read online/ offline all the e-contents any time anywhere even with their mobile phones.

Total Thesis/dissertation etc. uploaded to Krishikosh as on 30/03/2022	737 nos.
Availability of Wi-Fi Entire library premises	
Internet facility	Provided through 35 workstations
Digital Library and Language Lab facility Language **Lab RazPlus**	
e-journals other than CeRA	24
e-books other than CeRA	467
Books	13152
Print journals	9
News papers	6
Registered members as on 30/03/2022	810
Daily visitors	100-150

Staff Position in the Library

Name of Post	Sanctioned	Name	Filled	Vacant
Assistant Librarian& Head	01	Dr.Mohanlal E K	01	0
Reference Officer	01	Smt.Nisa Y M	01	0

Reference Assistant	02	1. Dhanya 2.Emina	(Temporary)	01 01
Office Attendant	04		04	0

EDUCATION, STUDENTS WELLBEING, ENRICHMENT ACTIVITIES

1. **Infrastructure created**
2. **Scholarships**

Sl. No.	Name of the Scholarships	Course	Number of students receiving scholarships
1	E-grantz	BVSc, DDS, MVSC, BSc PP&BM, PhD	341
2	National Scholarships -(MCM)	BVSc	61
3	National Scholarships -Post matric scholarships for students with disabilities	BVSc	1
4	National Scholarships- Prime Ministers scholarships scheme for central armed police forces & assam rifles	BVSc	1
5	Competency Stipend (Internship allowance)	BVSc	243
6	Merit Scholarships (KVASU)	BVSc	52
7	Merit Cum Means scholarships (KVASU)	BVSc	7
8	Assistantship	MS Wild Life	3
9	South India Study Tour allowance	BVSc	
10	All India Study Tour allowance	BVSc	
11	Senior Research Fellowship (SRF)	PhD	3
12	Junior Research Fellowship (JRF)	MVSc	54
13	Residency Fellowship	MVSc	5
14	Research Grant	PhD, MVSc	37
15	ICAR NTS	BVSc, MVSc	30
16	ICAR JRF	MVSc	2
17	ICAR MCM	BVSc	32
18	ICAR Veterinary Internship	BVSc	118

3. **Hostel and housing**

MH

Hostel	Strength
Main Hostel	108 (42rooms)
Game villas (Total 3- 1 isolation)	16
PG hostel above Clinics (2 room)	10
Old Vythiri	4 (pg)
Quarters (new)	14 (3PhD & 11PG)
Kalpetta	36 (28 Iyears + 8 BSc PPBM))

LH

Hostel	Strength
Main Hostel	200 (Capacity 170)
Annex	76 (Capacity 80)
Thushara	63 (Capacity 110)



Men's Hostel



Ladies Hostel

4. **Outreach programme**

5. **Sports, Physical education and co-curricular activities Photos, brief description, union activities**

Activities of the Department of Physical Education

- **Physical Fitness Training:** Physical Fitness Training for I year, II year and III year B.V.Sc students at 4.30 pm to 6.00 pm. This will help the students to improve their physical fitness components, motor abilities and to maintain good health.
- **Specific Training Programme:** The Specific training programme for selected students in various disciplines like Athletics, Football, Volleyball, Shuttle Badminton, Cricket, Chess and Table Tennis. The training is giving scientific and systematic manner for preparation of sportsperson for

the highest level of sports performance.

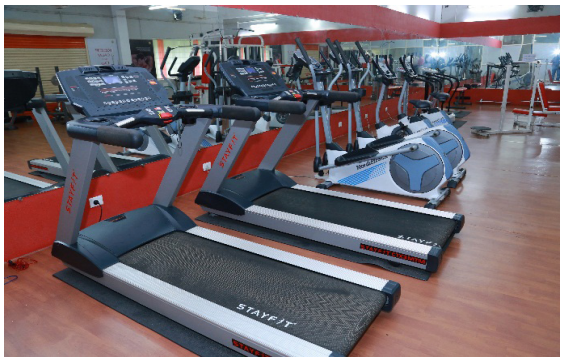
- **Interclass Competitions:** Every year inter class competitions was conducted in various events. The events conducted for men Football, Volleyball, Shuttle Badminton, Cricket, Chess, Table Tennis and Athletics. The events conducted for women Volleyball, Shuttle Badminton, Chess, Table Tennis and Athletics.
- **Intercollegiate Competitions:** Every year Inter Collegiate competitions was conducted in the following events. Football (M), Cricket (M), Volleyball (M&W), Shuttle Badminton (M&W), Chess (M&W), Table Tennis (M&W) and Athletics (M&W).
- Our college secured KVASU overall championship in athletics consecutively for four years 2016-17, 2017-18, 2018-19 and 2019-20. Secured runner up in the years 2015-16 and 2022-23. Every year many of our college students secured positions in All India Inter Agricultural Universities sports and games meet.
- **Health club:** College of Veterinary and Animal Sciences Fitness Centre is functioning in the ground floor of kabani auditorium. This facility is open to all staff and students. Expert's consultation was available to guide the men and women.
- The fitness centre focuses its attention on maintaining and developing physical fitness, weight reduction and body building. Fitness Centre has wide range of fitness machine, most of them were motorized. Modern weight training like 12 station multi gym are available for exercising various parts of the body. Other equipments like Tread Mill, Bicycle Ergometer, elliptical cross trainer, free weights etc., are also available to develop the overall fitness. The centre is functioning on all working days. The working hours are 6.30 am to 8.30 am in the morning and 4.00 pm to 7.00 pm in the evening.
- **Yoga:** Yoga training programme is conducted by our faculty members to the students and the staffs. The training is coordinated by the Department of Physical Education.











Achivements in the year 2021-2022

- Wayanad District Athletic Meet 2021: CVAS, Pookode secured the Championship in Men Section in Wayanad District Athletic Meet 2021. We secured 4 First positions, 4 Second Positions and 2 Third Positions.
- Wayanad District Table Tennis Tournament: S. Devika of 2021 Batch participated in wayanad district and got selection to participate in state level tournament
- KVASU Inter Collegiate Games 2021 – 2022: CVAS, Pookode secured the following positions in the KVASU Inter collegiate games.

Badminton (M)	- Winners
Chess (W)	- Winners
Table Tennis (M)	- Runner up
Table Tennis (W)	- Runner up

6. **NSS/NCC**

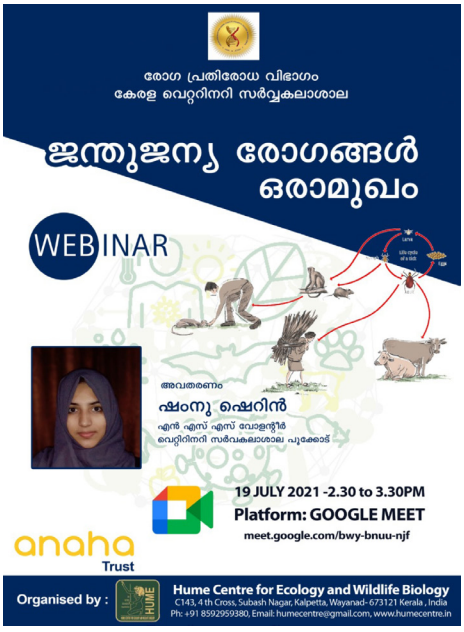
- In association with College Of Veterinary and Animal Sciences Pookode NSS Unit, an awareness class was conducted aiming school students on the topic “Introduction to Zoonoses” associated with World Zoonoses Day.
- A class was conducted on 14/07/2021, 5pm for students as a part of Bharat Scout and Guides Unit Meeting of Meenangadi Govt. Higher Secondary School. Dr. Arun Prakash addressed the meeting and spoke to the students. 25 students took part in the meeting.

- An awareness class was conducted on 14/7/21, evening 7pm as a part of Bharat Scout and Guides Meeting of Lourdu Matha HSS, Pallikkunnu. ArunK.(19 batch, BVSc. & AH) presented the topic “Zoonoses and Preventive Measures”. 29 students had participated in the class.
- A class on the topic “Introduction to Zoonoses” was organised on 16/07/2021 5pmassociated with CMS ARAPETTA, BHARATH SCOUT AND GUIDE unit meeting.Neelima S (2018 batch BVSc&AH) addressed and enlightened the students. About 25 students participated in the class.
- A class was conducted on the topic “An introduction to Zoonoses” by ShamnuSherin(18 batch BVSc & AH Student) which was organized by Hume centre for Ecology and Wildlife Biology for Budding Scientist Students on 19/07/2021, 2.30pm









NSS DAY (24 SEPT 2021)

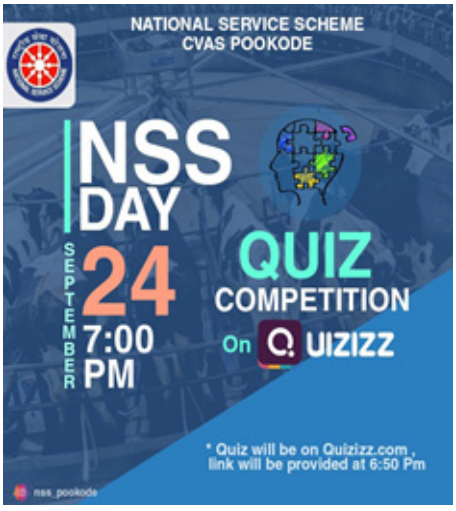
- As a part of National Service Scheme Day celebrations, a Talk was arranged on the topic “Being a future-ready Vet: Catering the modern Dairy Industry” by the NSS Unit of College of Veterinary and Animal Sciences, Pookode.
- The NSS anthem was sung by Jincy(19 batch), the welcome speech was done by Muhammed Yasir P (NSS Unit Student Coordinator).
- DrRathish R L(NSS Progtam Officer) introduced our Guest Speaker of the day
- Our special guest and speaker for the programme, Sri. Prakash M (Retd. Joint Director, Dept. Of Dairy Development, Govt. Of Kerala) enlightened our students on the topic “Being a future-ready Vet: Catering the modern Dairy Industry”
- Akhil U S(19 batch) presented the Vote of thanks at the end of the event.
- A general quiz was also organized as a part of National Service Scheme Day celebrations.
- Students who claimed the prize are as follows:

  1st prize - Louye Mary Y(18 batch)

  2nd prize - Harsha T K(18 batch)

  3rd prize - SnehaSasi(18 batch)





WORLD RABIES DAY (28 SEPT 2021)

- In commemoration with the World Rabies Day, a stray dog survey was carried out in College of Veterinary and Animal Sciences, Pookode campus.

COLLEGE OF VETERINARY AND ANIMAL SCIENCES,
POOKODE, WAYANAD

Dog survey conducted by NSS UNIT
29/09/2021

Sl.no	Area of the campus	Male dog No.	Female dog No.	Total Number
1.	Chandragiri	6	1	7
2.	Eco Farm	2		2
3.	College canteen	2		2
4.	College Ground	1	1	2
5.	University Head Quarters	1	1	2
6.	Pig Farm	2		2
7.	Cattle Farm	6	3	9
8.	Men's Hostel	1		1
9.	Ladies Hostel	4	1	5
10.	Clinical complex	2	1	3
	Total	**27**	**8**	**35**

The Dog Survey Conducted by the NSS Unit of CVAS, Pookode, mainly focused on the number of stray dogs which are seen within the campus boundary. This survey is only a rough estimate collected by the NSS Volunteers under the leadership of NSS Program officers **Dr. Rathish RL**

BLOOD DONATION CAMP

The blood donation camp was organized on 20th December 2021 by College of Veterinary and animal sciences, Pookode NSS unit with the help of IMA Blood Bank, Sultan Bathery. The students, the teaching and the non-teaching staffs of CVAS, Pookode actively participated and donated blood. There were more than50 donors. The blood donation camp was inaugurated by Dr. Balusami C, Associate Dean CVAS, Pookode . Blood donation camp started at 9.30AM and was closed at 2.00pm. The donors were taken a good care and provided with refreshments.

Other regular activities

"Fit India Programme" was started in August 15, 2020 to provide online fitness coaching to students and staff of CVAS Pookode is continuing. Online sessions are being done every Tuesday and Friday 5:00 PM to 6:00 PM. Dr. R. Kanthanathan, Head (i/c) Physucal Education Dept. handled the session. The sessions were successfully conducted on a weekly basis till April 2021.

The Online Hobby Corner aimed at showcasing the talents of the volunteers and to express their creativity during the lockdown continues to function with regular uploads. The hobby corner can be accessed using the Instagram handle @nss_pookode.

7. Awards in curricular, extra- curricular activities/co- curricular

1. Dr. Amritha. A. - Awarded Best (First) Poster Presentation for the paper Effect of dietary methionine supplementation on carcass yield of meat type ducks, co-authored by Amritha A. - Senthil Murugan and other authors in International Conference on Convergence of Technology and Policy for Sustainable Meat Production Organized by Meat Technology Unit and Kerala Veterinary and Animal Sciences University and Association of Meat Scientists and Technologists
2. Dr. Sudharsan C. - Awarded Best (First) Oral Presentation for the paper Carcass composition of broiler chicken supplemented with poly-unsautrated fatty acid rich Rapeseed oil, co-authored by Sudharsan C., Senthil Murugan and other authors in International Conference on Convergence of Technology and Policy for Sustainable Mea Production Organized by Meat Technology Unit and Kerala Veterinary and Animal Sciences University and Association of Meat Scientists and

Technologists

3. Dr. Sreeja. S. J. - Won the 3rd prize for the paper titled, "Effect of partial replacement of soybean meal with spent brewer's grains on carcass traits, sensory attributes and techno – economics of broiler chicks" co-authored by Sreeja. S. J, Biju Chacko and six other authors in Session – IV titled, "Sustainability and Policy in Food Production Systems" the International Conference on "Convergence of Technology and Policy forSustainable Meat Production" organized by Association of Meat Scientists and Technologists (AMST) and Meat Technology Unit (MTU), LPT, KVASU and held online from 25th to 28th October 2021.

4. Dr. Merin Sneha C. T. - Won the 2nd prize for the paper titled, "Evaluation of carcass characteristics in broilers supplemented with Chlorella vulgaris extract as feed additive" co-authored by Merin Sneha C. T, Surej Joseph Bunglavan, Biju Chacko and five other authors in Session – IV titled, "Sustainability and Policy in Food Production Systems" the International Conference on "Convergence of Technology and Policy for Sustainable Meat Production" organized by Association of Meat Scientists and Technologists (AMST) and Meat Technology Unit (MTU), LPT, KVASU and held online from 25th to 28th October 2021.

5. Dr. Sabarinath. E. - Won the 2nd prize for the paper titled, "Egg shell powder as a free choice calcium source for Gramasree male birds" co-authored by Amritha. A, Senthil Murugan, S, Biju Chacko and two other authors in Scientific Session titled, "Equine, Camel and Wild Animal Reproduction" the International Symposium on "Novel Knowledge, Innovative Practices and Research in Theriogenology" organized by the Animal Reproduction, Gynaecology and Obstetrics, CVAS, Mannuthy of KVASU and held online from 27th to 29th December 2021

8. **Students Union/Hostel/sports day celebrations**

- The man, who was running a workshop in Vythiri, was unable to walk due to a serious injury to his legs in a car accident. He had to undergo a costly surgery right next to him. On Palliative Day, the Mithra Students' Union raised a handful of donations from students to help him
- Mithra Students' Union conducted A Talk on "Indian constitution-an over view" by Dr. N L Saji Kumar who is an associate professor at the Government Law College, Trivandrum
- Conducted a film review competition with regards to republic day. Conducted an online quiz competition with regards to republic day.
- ConductedaClassinassociationwithTechnologyBusinessIncubationCentre(TBIC),KVASU on Yip taken By Wayanad, PROGRAM EXECUTIVE (KDIC), Anu Joseph, through Google meet platform
- Launched official website of MITHRA STUDENTS UNION 21-22 https://sucvaspkd.com/. Features: Complaint box with real-time status tracker,Class notes(3rd year,4th year Bvsc and other course notes upload pending and will be updated soon, News section,Events section,Live chat feature for assistance FEB 14
- Conducted Programs on Valentine's day(letter writing, sticky notes) Conducted a random dating program with regards to valentines day.

- Conducted a Campus bird count program in association with Ratufa nature club and Centre for Wildlife studies, KVASU

9. **Students exchange programme**

NIL

10. **Students' counseling and placement services**

- Conducts routine counseling sessions by Counselling Psychologist twice a month
- Runs a platform to inform the students on various job opportunities in Govt. and private sector

11. **Corporate relations**

- An international collaborative project on avian respiratory viruses entitled "Surveillance and molecular epidemiology of especially dangerous respiratory viruses in commercial and backyard poultry and migratory waterfowl in India" funded by the Defence Threat Reduction Agency (DTRA), USA, was implemented under the supervision of Dr. Chintu Ravishankar, Associate Professor, Department of Veterinary Microbiology, College of Veterinary and Animal Sciences, Pookode, KVASU. The University of Minnesota, USA, is the lead centre and Pennsylvania State University, USA; Lala LajpatRai University of Veterinary and Animal Sciences (LUVAS), Hisar; and Orissa University of Agriculture and Technology (OUAT), Bhubaneswar; along with KVASU are the collaborating centres.
- Dr.S.Senthil Murugan, Associate Professor, Department of Animal Nutrition, CVAS, Pookode conducted industrial research as Principal Investigator at Department of Animal Nutrition, CVAS, Pookode tilted "Evaluation of dietary supplementation of exogenous fibrolyitc enzyme on in-vitro nutrient digestibility for ruminants" in collaboration with Ms. Kemin Industries South AsiaLtd, Chennai

12. **Alumni relation**

13. **Students' performance**

14. **Students' intake details**

Details of Students-Fresh Admission				
2021 Admission	**State**	**VCI**	**Lakshadweep**	**Total**
BVSc& AH	85	14	1	100
MVSc	36	7		43
PhD	9	0		9
Diploma	22	0		22

DEPARTMENT PROFILES

1. Exploring Research Frontiers- Past Achievements and Current Ventures

Sl No.	Project Title	Funding agency	Investigators	Financial Outlay (in lakhs)
1	Lion-tailed Macaque (*Macaca silenus*): Feeding ecology and management of an endangered species in captivity	Dept. of Science & Technology (DST) - Woman Scientist Scheme-A	MONISHA. V (PI) S. Senthil Murugan (Mentor)	19.72 lakhs
2	Evaluation of dietary supplementation of exogenous fibrolytic enzymes on in vitro nutrient digestibility for ruminants	Dr.S. Senthil Murugan	M/s. Kemin Industries, Chennai	6.96 lakhs
3	*Establishment of state of the art laboratories for diagnosis, research, teaching and demonstration facilities in the field of tick and tick-borne diseases for the mitigation of economic losses to the livestock farmers*" (KE/ RKVY-ANHB/2019/1422)	RKVY-RAFTAAR	1. PI: Dr. Ajith Kumar K.G Co-PI: 1.Dr. Reghu Ravindran 2. Dr Deepa C.K 3. Dr. Anju Varghese	224
4	Exploiting encapsulated nanoparticle conjugated phytochemicals to combat antimicrobial resistance in poultry	NASF, ICAR	Dr. Jess Vergis Dr.Sanis Juliet Dr. Lijo John	41.227
5	Invitro evaluation of phytocompounds on wound healing and antimicrobial activities	KCSTE	Dr.Bibu John Kariyil	0.01
6	Exploiting encapsulated nanoparticle conjugated phytochemicals to combat antimicrobial resistance in poultry	ICAR- NASF	Dr. Jess Vergis	41.22476
7	Green recovery pathway for India: transitioning towards a green and resilient COVID-19 recovery" Name of the PI: Duration: 2021-2022 Funding Agency: Outlay: Rs. Lakhs	UNDP, India	Dr. Prejit	45.54

2. Noteworthy attainments in Science and Technology (in 2-3 bullet points)
3. Academic Manuscripts, Investigative Pursuits, Widely-read articles, Literary Volumes and Technical Documents, Details of Research papers published.

Sl. No	Article	Authors	Details of publication
VETERINARY BIOCHEMISTRY			
1.	Sequence and phylogenetic analysis of the thrombospondin-related adhesive protein gene of Babesia gibsoni isolates in dogs in South India.	Bora, C.A.F., Varghese, A., Deepa, C.K., Nandini, A., Malangmei, L., Kumar, K.G.A., Raina, O.K., John, L., Prasanna, P., Asaf, M. and Kumar, G.S.	*Parasitology International*, 2022; *86:* p.102477.
2	Prevalence of Anti-Toxocara canis Antibodies in Dogs Detected with Recombinant Cathepsin L-1 and TES-26 Antigens in Three States of India.	Nandini, A., Varghese, A., Bora, C.A.F., Deepa, C.K., Malangmei, L., Raina, O.K., Verma, M.R., Kumar, K.G.A., John, L., Asaf, M. and Kumar, G.S.	Acta Parasitologica, 2022; 67(1): 523-529.
3	Assessment of free radical scavenging activity of Mangosteen (Garcinia mangostana L.) fruit peel anthocyanin pigment obtained through different extraction methods	Netravati, Saji Gomez, Berin Pathrose, Mini Raj N, Meagle Joseph,Shynu M and Suma A	The Pharma Innovation Journal, 2022; 11(9): 1333-1336
4	Qualitative and quantitative analysis (GC-MS) of methanol extract of Crataeva nurvalastem bark	Aathira, K. K., Bibu, J. K., Dhanusha, G., Haima, J. S., Sujith, S., Shynu, M. and Nisha,A. R.	J. Vet. Anim. Sci. 2021; 52(2): 135-141
VETERINARY CLINICAL MEDICINE, ETHICS AND JURISPRUDENCE			
5	Ceruminous gland cystomatosis in an eleven-month old himalayan cat : a case report.	Anusree T.,Theertha C. N., Sherin B. Sarangom, Umesh C. G.,Varsha Mary Mathai and Seeja Sundaran,	*JIVA,* 19 (2): 136-140
6	Non- invasive blood pressure monitoring in an anaesthetized calf- A case report**.**	J. S. Souljai, S Sooryadas, Dinesh P T, George Chandy and Sindhu O K. 2021	*J. Vet. Anim. Sci*. 52(2): 204-207.
7	Diagnosis and therapeutic management of malasseziosis in Dogs.	Daniel, A. K., David, V. P., Ravishankar, C., Sindhu O. K. and Ajithkumar, S.	*J. Vet. Anim. Sci*. 52(3): 262-266
8	*Chorioptes texanus* causing mange in goats: comparison of two therapeutic protocols.	Chaithanya, C., Biju, P. H., Sindhu, O. K., Janus, A., Reghu Ravindran, Ajith Kumar,K.G. and Ajithkumar, S.	*J. Vet. Anim. Sci*. 52(4): 357-361.
9	Screening of cattle milk for the presence of antibiotic residues in selected districts of Karnataka.	Vinu David P	*JIVA.*19(2):98-104.

10	Effect of storage on biochemical parameters of packed red blood cells of goats in citrate phosphate dextrose adenine/ saline adenine glucose mannitol	S.R.Anaz, N. Madhavanunny, Usha N. Pillai, Arun George and R. Thirupathy Venkatachalapathy	*.J Vet. Anim.Sci.*52:251-261
11	Evaluation of therapeutic efficacy of oxytetracycline against caprine respiratory mycoplasmosis using clinical score card method	K. S. Sumith, C. G. Umesh, Chintu Ravishankar, K. Mathew Manju and S. Ajithkumar5	*J. Vet. Anim. Sci. 52(4): 331-334*
12	A case study on therapeutic management of a cross-bred downer cow	Subham, D., Biju, P. H., Umesh C. G., , Ajithkumar S., and Jinesh Kumar N. S	*J. Vet. Animal. Sci.* 52(2): 208-210
ANIMAL NUTRITION			
13	Evaluating Effect of Paddy Straw plus Non-Forage Fibre Sources Based Complete Feeds with Different Levels of Neutral Detergent Fibre levels on occurrence of Sub- Acute Runminal Acidosis (SARA) in Lactating Dairy Cows	Biju Chacko, K. M. Syam Mohan, K. Ally and K. Shyama.	Special Issue on Veterinary Clinical Nutrition, IntasPolivet (2021) Vol. 21(2): 388-400.
14	Complete ration – A tool for Precision Animal Nutrition for dairy cattle during COVID – 19 pandemic	Biju Chacko, Raseel, K. and Rasanath, K.	J. Indian Vet. Assoc. (JIVA). 2021. 19(1): 15-32.
15	Precision Animal Nutrition (Pan) as a Tactical Intervention for the Post Covid Upliftment of the Dairy Sector in India	Biju Chacko.	Indian Journal of Agriculture and Allied Sciences. 2021. 7(4): 64-72.
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88	Genome-wide scan for selection signatures for litter size in goat breeds of Kerala	Marykutty Thomas, G Radhika, TV Aravindakshan, R Thirupathy, **K Raji**, M Shynu	Indian Journal of Small Ruminants.2021;27 (1):11-18
89	Physiological implications of COVID-19 in reproduction: angiotensin-converting enzyme 2 a key player. 2.	Sharma GT, Chandra V, **Pratheesh M.**D, Thirupathi Y, Swain DK, Pillai H, Patel SK, Pathak M, Guttula S.	*Reprod Fertil Dev*. 2021 Apr;33(6):381-391. doi: 10.1071/RD20274. PMID: 33731252.
90	The preclinical and clinical implications of fetal adnexa derived mesenchymal stromal cells in wound healing therapy.	**Pratheesh M.**D, Ramesh ST, Thirupathi Y, Mohandas PS, Chandra V, Sharma T**G**	*Wound Repair Regen.* 2021 May;29(3):347-369. doi: 10.1111/wrr.12911. Epub 2021 Mar 15. PMID:33721373**.**
SURGERY & RADIOLOGY			
91	Contrsat enhanced ultrasonography of the gastrointestinal tract using polyehtlene glycol electrolyte solution for the diagnosis of intestinal obstruction and its surgical management in a dog	Vipin P.J.S., Jinesh K.N.S.,. Dinesh P.T., Sooryadas S., Bipin K C and Remya V.	
92	Evaluation of oral mucosa for the presence of minor salivary gland and its application for management of dry eye in six pugs	Gisha G nair., S.Sooryadas., C.V.rejani., P.T.Dinesh and N.S Jinesh Kumar	
93	Incidence of Hoof lesions in dairy cattle- a prospective study	Anees R., Dinesh P.T., Sooryadas S., Jinesh kumar N.S., Nithin C.J and Vinu David P.	
94	Healing oif cutaneous wounds using GaAs laser in diabetic rat model	P.Nekha Krishnan., P.T.Dinesh., S. Soorydas., Reji Vargheese and M.Pradeep	

95	Tube cystostomy made easy using a customised cystotomy canula	Sooryadas S., Jinesh Kumar N.S., Remya V., Dinesh P.T., Vipin Prakash J.S and seesma Subrahmaniyan	
96	Ocular affections in dogs- A short study	Gayathri Satheesh., Gisha G. Nair., Sooryadas S., Dinesh P.T Jinesh Kumar N.S and Reji Vargheese	
97	Successful utilization of triphasic silica containing Ceramic coated hydroxyapatite(HASi) for the treatment of comminuted tibial fracture in a goat: a case report	Rahul Rao., P.T.Dinesh., S.Sooryadas., george Chandy and Manju Mathew.	
VETERINARY MICROBIOLOGY			
98	Prevalence of Newcastle disease and associated risk factors in domestic chickens in the Indian state of Odisha	Niranjana Sahoo, Kashyap Bhuyan, Biswaranjan Panda, Nrushingha Charan Behura, Sangram Biswal, Lipismita Samal, Deepika Chaudhary, Nitish Bansal, Renu Singh, Vinay G Joshi, Naresh Jindal, Nand K Mahajan, Sushila Maan, Chintu Ravishankar, Ravindran Rajasekhar, Jessica Radzio-Basu, Catherine M Herzog, Vivek Kapur, Sunil K Mor, Sagar M Goyal	PLoS One, 2022; 17(2): e0264028
99	Prevalence of Newcastle disease virus in commercial and backyard poultry in Haryana, India	Vinay G Joshi, Deepika Chaudhary, Nitish Bansal, Renu Singh, Sushila Maan, Nand K Mahajan, Chintu Ravishankar, Niranjana Sahoo, Sunil K Mor, Jessica Radzio-Basu, Catherine M Herzog, Vivek Kapur, Parveen Goel, Naresh Jindal, Sagar M Goyal	Frontiers in Veterinary Science, 2022: 8:725232
100	Genetic variability in VP1 gene of infectious bursal disease virus from the field outbreaks of Kerala, India	Deorao C.V., Rajasekhar R., Ravishankar C., Nandhakumar D., Sumod K., Palekkodan H., John K., Chaithra G.	Trop Anim Health Prod. (2021). 53(3):407. doi: 10.1007/s11250-021-02852-7.
101	Isolation and identification of emergent multidrug-resistant Stenotrophomonas maltophilia from skin ulcers of Sarcoptes-infested pigs	Anusree T., Rithu C., Rajasekhar R., Ravishankar C. and Jishnu H.P.	Vet Rec. Case Report (2022). e312. https://doi.org/10.1002/vrc2.312
102	Genetic analysis of VP1 gene reveals involvement of vvIBDVs in disease outbreaks in vaccinated flocks of Kerala	Deorao, C.V., Rajasekhar R., Nandhakumar D., Ravishankar, C., Sumod K., Palekkodan, H. and Chaithra G.	The Pharma Innovation Journal 2022; 11(5): 2380-2383.

103	Impact of cell seeding density and serum starvation on VEGF expression in canine adipose tissue derived mesenchymal stromal cells	Jamda H., Rajasekhar R., Beena V., Karthiyayini K., and Pratheesh M.D.	The Pharma Innovation (2021). 10(9): 776-783
VETERINARY EPIDEMIOLOGY AND PREVENTIVE MEDICINE			
104	Haemato biochemical changes in tuberculosis infected and healthy Asian elephants (Elephas maximus) from South Asia	Ranjini. M., Deepa.P.M., Vijayakumar. K, Janus, A and Karthiyani . K.	J. Vet. Anim. Sci.,52(4):345-349. (NAAS 4.15)
105	Galactosylgalactosylxylosylprotein 3-beta-glucuronosyltransferase—a potent biomarker for the diagnosis of tuberculosis in elephants	R Manuel, PM Deepa, RU Ashok, Rajeshkumar… -	European Journal of Wildlife Research, 2022
106	Epidemiological study of bacterial dermatitis in dogs of Wayanad distric	G. P Nair, P.M Deepa , A. Janus R.Chintu and K. Vijayakumar	JVAS 53(2) 143-147
107	Chorioptestexanus causing mange in goats: comparison of two therapeutic protocols.	Chaithanya, C., Biju, P. H., Sindhu, O. K., Janus, A., Reghu Ravindran, Ajith Kumar, K.G. and Ajith kumar, S. 2021.	J. Vet. Anim. Sci. 52(4): 357-36
108	Field diagnosis of paramyxoviral infection in psittacines	M.T.Rani, P.M. Deepa., K. Vijayakumar., Prejith.(2021).	Journal of Veterinary and Animal Sciences.52(1): 105-106.
109	African swine fever; An overview	K. Sariga, P.M.Deepa .(2021).	Indian J. Anim. Health. 60(1): 16-22.
110	Gross and histopathological lesions associated with tuberculosis in two sloth bears(Melursus ursinus) in India	N. Gowri Menon, K.C. Bipin, P.M. Deepa, R.L. Rathish, M. Pradeep and A. Sha Arun.(2021).	J.Vet. Anim. Sci.52(2):161-165.
111	Haemato biochemical changes in tuberculosis infected and healthy Asian elephants (*Elephas maximus*) from South Asia.	Ranjini. M., Deepa.P.M., Vijayakumar. K, Janus, A and Karthiyani . K. (2021).	J. Vet. Anim. Sci., 52(4):345-349.
112	The antioxidant antidiabetic effects of *Terminalia chebula* and *Withaniasomnifera* in subclinically diabetic dogs	Devi Gopinath, UmeshDimri, Y.Ajith, P.M.Deepa, M.I.Yatoo, Gopalakrishnan, A. and E. Madhesh.(2021).	Ind. J. Anim. Res., 1:1-9.
113	Identification and antibiogram of mastitis pathogens isolated from bovine and caprine clinical mastitis in Wayanad District, Kerala.	Ranjini Manuel and Deepa PM (2022).	Acta Scientific Veterinary Sciences,4(3): 121-126.
VETERINARY PUBLIC HEALTH			

114	Occurrence of Bovine Coxiellosis in Small Livestock Farms of Uttar Pradesh	Vinod, V.K., Malik, S.S., Parmar, N., Sivaprasad, M.S., Malik, C., Sahu, A., Barbuddhe, S.B. and Rawool, D.B	India. J. Anim Res, 12(1), pp.147-154.
115	Invitro Antimicrobial activity of Piperine…….SalmonellaSpp	V.Unni,P.Abishad,S.Juliet,L,-John,P,Nambiar,C.Latha,V.K.Vinod,K,Asha,J,Vergis	The Haryana VetJournal
116	Assessment of post-harvest contamination of…… Kerala,India	Anjusha,K,M,Prejit ,Hariharan,-J,Vergis,Asha,Vinod,V.K, and Prasanna,K.S	Pharma Innovation

4. Technological Advancements Crafted and Transmuted

- Transfer of Technologies
- Disseminations of Innovations to society and institutions

5. **Consultancy and Public Advocacy**

- Dr.S.Senthil Murugan - Technical consultant to Brahmagiri Development Society for implementation of Kerala Chicken Project from ‘2020
- Dr. Bimal P Bashir- reviewer of Journal of Veterinary and Animal Sciences, KVASU. Pookode for the year (2021-22 financial year)
- Dr. Bimal P Bashir- reviewer of International Journal of Livestock Research, for the year (2021-22 financial year)
- Dr.Alimuseen S., MVSc Scholar, Dept. of Veterinary and AH Extension- Associate Editor in AgriGate e magazine
- Expert member of District level Facilitation and Monitoring Committee of Poultry waste Rendering Units of Wayanad district- Dr. Renuka Nayar
- FreeDiagnostic consultancy to Vets of AHD, Forrest Department and Health Departments.
- Acted as expert committee member for renovating /reconstructing poultry sheds of regional poultry farm, Chathamangalam, Kozhikode on 12/04/2021

6. **Patents**

a. Inventor: **John Abraham**, Applicants: John Abraham, Dhalin D, & Jippu Jacob. No. IN355171 (3533/CHE/2013)-Bicycle type milking machine for dairy cows. Date of Grant:01/01/2021

b. Inventor: **John Abraham**& Ramesh Saravanakumar.2014. Applicant: Tamil Nadu Veterinary and Animal Science University. No. IN 371344 (219/CHE/2014)-Bio-diesel production from rendered chicken oil, Date of Grant: 07/07/2021

7. Unveiling Human Resources: Unlocking Potential and Pursuits

- **Seminars/ Workshops/ Summer Institutes/ Symposium/ Winter School**

Sl. No.	Name and designation of the Scientist	Title of the Programme	Duration		Place	Approx. cost involved
			From	To		
1	Dr Lali F. Anand	DST SERB TARE project 'Genomic approach for genetic improvement and conservation of important aquaculture species, *Etroplussuratensis* and *Trachinotusblochii* under changing climate scenario'	12-04-2021 to 10-07-2021		ICAR CMFRI, Kochi	-
2	Dr. Biju Chacko Associate Prof. & Head	Participated in the Faculty Development Programme (FDP) on Best Practices for Online Teaching: Classrooms, Courseware and Tools conducted by the Faculty Development Centre of the Kerala State Higher Education Council, Thiruvananthapuram, through online mode for the faculty members of the State Universities and affiliated Colleges	One week from 8th to 14th July 2021		Online	NIL
3	Dr. Deepa Ananth, Assistant Prof.	Climate Smart Dairying in the Context of Global Warming organize by CAADECCS-KVASU & MANAGE, Hyderabad at CVAS. Mannuthy	4-7th May 2021		Online	NIL
4	Dr. Deepa Ananth Assistant Prof.	Participated in 5 days training programme organized by KVASU (COHEART), Wayanad, Kerala & MANAGE, Hyderabad, a Collaborative Online Training Program on" ICT Tools for Knowledge Management and Control of Emerging Zoonoses and Animal Health Threats"	20-23 September, 2021		Online	NIL
5	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	Online workshop on "KVASU@2025. The definitive plan organized by Teacher's Organization of Veterinary University Kerala (TOVUK),	7th august, 2021		Online	
6	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	Training on "Learning management system (Module) and course designing- FDP organized by KSHEC	1st to 6th September 2021			

7	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode	One week online national workshop on "Basis to advanced quantitative data analysis" organized by human behavtics, Pvt.Ltd.	27th to 31st August 2021			
8		Online training on "Current concept of methodology in research" held on 12-01-2022 to 25-01-2022 organized by DOE, KVASU.				
9	Dr. Bimal P. Bashir Assistant Professor CVAS, Pookode & Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	4-Week Induction/ Orienta-tionProgramme for "Faculty in Universities/ Colleges/ Institutes of Higher Education organized by Teaching LearningCentre, Ramanujan College University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching	16th April - 15th May, 2021		Online	
10	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	International Webinar on 'Safe food now for a healthy tomorrow'	8th June 2021		Online	
11	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	One-week National TrainingProgramme on "Statistical Tools in Research and Data Analysis"organized by Maharashtra Animal and Fisheries Science University, Nagpur, College of Veterinary and Animal Sciences, Parbhani	9th to 14th 2021		Online	
12	Dr. Anjali K. Babu Assistant Professor CVAS, Pookode	`IntellectualProperty Rights in Academics and Research' organized under the aegis of IPR Cell, IPRICK-KVASU and Department of Veterinary andAnimal Husbandry Extension, CVAS, Mannuthy,	23rd to 26th March 2022		Online	
13	Dr. Reghu Ravindran Professor	Two days' workshop on "Package of practices and recommendations 2022"	17-02-2022	18-02-2022	DE KVASU	nil

14	Dr. Reghu Ravindran Professor	Expert consultation on the sustainable management of parasites in livestock challenged by the global emergence of resisitance Virtual meeting on the topic "Parasite control in livestock for enhanced food security"	9-11-21	10-11-21	Food and Agriculture Organization of United Nations, (online)	nil
15	Dr Reghu Ravindran Professor	Cell biology: Cellular organization, division and processes (8 weeks course	February 2021	Apri 2021	NPTEL Online certification (Ministry of HRD, Govt. of India	nil
16	Dr Reghu Ravindran Professor	Cell Culture Technologies (8 weeks course)	June 2021	Sep-tember, 2021	NPTEL Online certification (Ministry of HRD, Govt. of India (FDP	nil
17	Dr Reghu Ravindran Professor	Genetic Engineering: Theory and Applications (12 weeks course).	July 2021	Oc-tober, 2021	NPTEL Online certification (Ministry of HRD, Govt. of India (FDP)	nil
18	Dr DEEPA C.K. Assistant Professor	FDP programme on best practices for online teaching: class rooms, courseware and tools	08-07-2021	14-07 -2021	The Kerala state Higher Education Council (Online)	Nil
19	Dr DEEPA C.K Assistant Professor	Current concepts of Methodology in Research	12.01. 2022	25.01. 2022	Academic Staff College KVASU	Nil
20	Dr. Ajith Kumar K.G Associate Professor	Intellectual Property Rights (Online Mode)" from 21-27 April, 2021.	21-04-2021	27-04-2021	Electronics & ICT Academy IIT Guwahati, Assam (An Initiative of Ministry of Electronics & Information Technology (MeitY), Government of India	NIL
21	Dr.Hamza Palekkodan	PhD	1/1/2022 to 31/12/20224		KVASU	
22	Dr. Pradeep M	Kerala Veterinary Science Congress	13-14th November 2021		CVAS, Mannuthy	

23	Dr Preethy John	Web-based training on 'Current Concepts of Methodology in Research'	12- 01-2022 to 25-01-2022	online	
24	Dr.Shiji S Saju	Three days faculty induction programme	03.03.2021 to 05.03.2021	Academic Staff College, KVASU, Mannuthy	
25	Dr.Shiji S Saju	Four-week Induction/ Orientation Programme for Faculty in Universities/ Colleges/Institute of Higher Education	16.04.2021 to 15.05.2021	Online	Rs. 3000/-
26	Dr.Shiji S Saju	International webinar on Safe Food now for healthy tomorrow	07.06.2021 to 08.06.2021	Online	
27	Dr.Shiji S Saju	International virtual conference on Emerging Challenges to Veterinary Profession	19.06.2021 to 20.06.2021	Online	
28	Dr.Shiji S Saju	Physiological and Biotechnological Interventions for the Improvement of Production, Reproduction And Health Status in Animals	16.11.2021 to 06.12.2021	Online	Rs. 800/-
29	Dr Rejitha Joseph	CAADECCS-KVASU & Manage, Hyderabad, Collaborative online training Program on "Climate Smart Dairying in the context of global warming"	04-07 May 2021	Online	
30	Dr Rejitha Joseph	International e training cum orientation programme "Physiological and Biotechnological interventions for the improvement of production, reproduction and health status in animals"	16th Nov - 06th Dec, 2021	Online	
31	Dr Rejitha Joseph	Refresher training- Advances in analytical techniques	5th Jan - 18th Jan 2022	Academic staff college, Mannuthy	
32	Dr. K. Raji	NPTEL online certification- Animal Physiology		Ministry of HRD, India- Online Offered by IIT Kanpur	
33	Dr. K. Raji	The Science of stem cells	July 2021	Coursera-online-American Museum of Natural History	

34	Dr. K. Raji	Physiological and biotechnological interventions for the improvement of production, reproduction and health status in animals	November 16 to December 06-2021	Nanaji Deshmukh Veterinary Science University, Jabalpur-online	
35	Dr. K. Raji	Relevance of veterinary profession during covid-19 pandemic	7th and 8th May 2021	Indian Veterinary Association-Kerala	
36	Dr. Abdul Muneer.K	ATAL Online elementary FDP on "Ensuring safety of poultry meat and their products in domestic market.	23/8/21 to 27/8/21	Conducted by College of Poultry Production and Management, Hosur, Tamil Nadu	NIL

- **Training Program / short courses/ Any other program organized (details from each department separately)**

1. Introduction to Basic Bioinformatics Tools – Two trainings – Training 1 (01-12-2021 to 02-02-2021) and Training 2 (03-12-2021 to 04-12-2021)
2. Goat farming for improving livelihood security of Scheduled Caste Clusters of Wayanad, Kerala as part of ICAR SC-SP 20-21. Dr.S.Senthil Murugan. 5 days (April 21)
3. Monsoon series online Training for Goat Farmers 18th to 19th and 21st to 24th June 2021- Course director Dr. R. Senthilkumar, Training coordinators Dr. Bimal P Bashir, Dr Anjali K Babu
4. Monsoon series online Training for Dairy Farmers conducted on 25th, 26th, 28th June and 3rd July, 2021- Course director Dr. R. Senthilkumar, Training coordinators Dr. Bimal P Bashir, Dr Anjali K Babu
5. Monsoon series online Training for Buffalo calf rearing for meat purpose conducted from 5th to 7th July, 2021- Course director Dr. R. Senthilkumar, Training coordinators Dr. Bimal P Bashir, Dr Anjali K Babu
6. Monsoon series online Training for Pig Farmers conducted from 8th to 14th July, 2021- Course director Dr. R. Senthilkumar, Training coordinators Dr. Bimal P Bashir, Dr Anjali K Babu
7. Dr. Bimal P Bashir & Dr. Anjali K. Babu-, Assistant Professor- Co-ordinator for the "Three months obligatory training programme for the Assistant Directors of Animal Husbandry Department, GoK organized by Directorate of Entrepreneurship, KVASU from 4th April to 2nd July 2022.
8. Dr. Bimal P Bashir & Dr. Anjali K. Babu- Training coordinator- Conducted and coordinated training class and farm visit for ATMA beneficiaries from Kannur, Peravoor on 20-12-2021.
9. Dr. Bimal P Bashir & Dr. Anjali K. Babu- Coordinator for the conduct of KSCSTE sponsored

training programme entitled Intellectual Property Rights in Academics and Research' organized under the aegis of IPR Cell, IPRICK-KVASU and Department of Veterinary and Animal Husbandry Extension, CVAS, Mannuthy, Thrissur during 23rd March to 26th March 2022.

10. Dr.Rejitha Joseph and Dr.Shiji S Saju acted as members in organizing the training programme "Climate Smart Dairying in the Context of Global Warming" conducted by CAADECcS, COVAS Mannuthy

8. Strategic Resources additions- New/ innovative achievements

9. **Awards and Honors/ Endowments (each departments wise detailing)**

Sl No	Faculty	Award/ Honour
1	Dr. Biju Chacko	Won the 1st prize for the paper titled, "Strategic Interventions for the Revival of the Dairy Sector of India, in the Post Covid Scenario" by ORAL PRESENTATION in Online Mode in SESSION-II of the International Conference on Recent Advances in Agriculture, Engineering and Biotechnology for Food Security held from 25th to 26th September, 2021, organized by the Mahima Research Foundation and Social Welfare 194, Karaundi, Banaras Hindu University, Varanasi-221005 and sponsored by CSIR and DBT and held at Ludhiana, Punjab.
2	Dr Vinu David P	Reviewer excellence Award for the year 2021 from Agricultural research communication centre
3	Dr. K. Raji	Best oral presentation- CoAuthor-"Detection of rare polymorphisms in isotype 1 β tubulin geneof Haemonchuscontortus populations in goats of Kerala"- AIMT 2021 at Amity University, Rajasthan
4	Dr. K. Raji	Best paper-poster presentation-CoAuthor-" Body condition score-a parasitological indicator in Targeted selective treatment approach for effective and sustainable goat worm management"
5	Dr. K. Raji	Best oral presentation, 13th Kerala Veterinary Science Congress-CoAuthor-Polymorphisms in 3'untranslated region of gonadotropin releasing hormone receptor gene and its association with multiple births in Malabari goats
6	Dr. K. Raji	Oral presentation 3rd prize-14th Kerala Veterinary Science Congress-CoAuthor-Evidence of heterozygote advantage…….in Malabari gats
7	Dr. K. Raji	Oral presentation 3rd prize-14th Kerala Veterinary Science Congress-CoAuthor-Colustrum immunoglobulin on health of calves reared on different feeding strategies in Kerala.
8	Deepa PM	Outstanding Scientist National Award 2022 by Kamarajar Institute of Education and Research (KIER), Madurai Road. Theni

10. **Distinguished Visitors in departments**

- Sujeet Kumar Singh, Director National Centre for Disease Control (NCDC), attended and delivered keynote address on "One Health Field Epidemiology Training Programme for Frontline Veterinary Workforce of Kerala from March 19th to 23rd 2022

11. Beyond the Horizons: Exploring other activities

12. Other Academic activities

13. Other Research activities

14. Other Extension activities

1	Dr Sindhu O K, Online Kerala PSC crash course programme, Speaker of a session, July 2022
2	Dr Vinu David P – Coordinator, Dept. of Clinical Veterinary Medicine, Three-month obligatory training programme to Assistant directors of AHD
3	Dr Umesh C.G., Online Kerala PSC crash course programme, Speaker of a session, July 2022
4	Dr Umesh C.G., on Recent trends on Animal Welfare/Wellbeing – Cow confort on 26.01.2022 for students of GVHSS, Kalpetta as part of expert interaction.
5	Dr Umesh C.G. – A session on Veterinary Ethics and Jurisprudence for veterinary doctors of Malappuram District on 22/06/2021 connection with Animal Welfare Webinar 2021-22 conducted by Animal Husbandry Department, Kerala through online mode
6	Dr Umesh C.G. – Diseases in Goats on 01.09.2021 as part of training programme organized by State Agriculture Management & Extension Training Institute, (SAMETI) on "Goat Rearing-Various Aspects" to the officers of Department of Animal Husbandry
7	Dr Umesh C.G. – Fluid therapy and blood transfusion in large animals on June 26, 2021 for veterinary doctors of Wayanad District, Animal Husbandry Department, Kerala
8	Dr Biju P Habeeb: handled a session on Animal pet breeding, marketing and pet shop rules organised by AHD, Wayanad district at 30/03/2022
9	Dr Vinu David-Acted as resource person for the webbased training on Vterinary Anatomy on multidisciplinary mindscape conducted from 16/02/2022 to 01/03/2022
10	Dr. Anjali K. Babu, Assistant Professor, handled online class for farmers on Goat farming at Livestock Management Training Centre, Vagamon on 27.10.2021
11	Training programme on "Turkey Rearing" for farmers organized by Livestock Management Training Centre, Aluva, Ernakulam on 28/08/2021 -Dr Beena C Joseph
12	Handled Livestock Inspectors training programme organized by Animal Husbandry Department -Wayanad at Livestock Management Training Center on 15-04-2021 Dr Abdul Muneer K
13	Handled class on Poultry Science for Public Service Commission examination under the aegis of ROOF on 16-07-2021 Dr Abdul Muneer K
14	Online training on "Quail farming" organized by Poultry Training Institute, Centralhatchery, Chengannur on 26-08-2021 Dr Abdul Muneer K
15	Online training on "Quail farming" organized by Livestock Management Training Center, Athavanad, Malappuram on 5-8-2021 Dr Abdul Muneer K
16	Online training on "Modern layer farming" organized by SAMETI- State Agriculture Management Extension Training institute- Thiruvananthapuram on 29-9-21 Dr Abdul Muneer K

17	Evaluator of Preliminary evaluation of young innovators programme-2020 (YIP-2020)-K-DISC on 02-12-2021 Dr Abdul Muneer K
18	Handled class in Entrepreneurship meet at Veterinary Polyclinic,Vadakara organized by Animal Husbandry Department , Kozhikode on 4-12-2021 Dr Abdul Muneer K
19	Handled online farmer training for veterans under rehabilitation scheme of department of military welfare on 7-12-2021 Dr Abdul Muneer K
20	Handled Animal husbandry skill training organized by community development society, Thirunelly Grama Panchayat on 15-12-2021 Dr Abdul Muneer K
21	Handled Animal husbandry skill training organized by community development society, Mananthavady Municipality on 16-12-2021 Dr Abdul Muneer K
22	Goat nursery and satellite farms were established among Scheduled caste clusters in Kalpetta municipality, Padinjarathara and Perunthatta clusters by Dr. S. Senthil Murugan, Principal Investigator of ICAR SC SP 20-21 project
23	Male buffalo calves satellite farms were established in tribal hamlets, Thirunelly, Kattikulam Panchayat by Dr. S. Senthil Murugan, Principal Investigator of ICAR TSP 20-21 project.

VERGHESE KURIEN INSTITUTE OF DAIRY AND FOOD TECHNOLOGY

1. Academic Excellence

Verghese Kurien Institute of Dairy and Food Technology, formerly known as College of Dairy Science and Technology Mannuthy have been instrumental in contributing quality manpower to the dairy and allied industries in India and abroad for the past three decades. College of Dairy Science and Technology Mannuthy, the first of its kind in the state, offering four-year graduate programme in Dairy Technology was established in the year 1993. The college witnessed its dream of an independent building as Verghese Kurien Institute of Dairy and Food Technology (VKIDFT) amidst the celebration of its successful completion of 25 years in 2019. B. Tech Food Technology programme started in 2015 at College of Food Technology, Thumburmuzhy under the aegis of the Kerala Veterinary and Animal Sciences University. In August 2018, Thumburmuzhy Cattle Breeding Farm adjacent to the College and the College premises were badly affected by the flood and hence the College was shifted to KVASU Mannuthy campus. In 2021, College of Food Technology got merged with College of Dairy Science and Technology Mannuthy and the institute was renamed as Verghese Kurien Institute of Dairy and Food Technology Mannuthy. The institute now offers four-year graduate professional programs in Dairy Technology & Food Technology and Post graduate and Doctoral programs in Dairy Technology, Dairy Chemistry and Dairy Microbiology. The course curricula for B. Tech (Dairy Technology& Food Technology) are prepared as a unique job-oriented degree programme which leads to a total development of graduates and make them capable to face varied situations in their field of work. Additionally, the graduates get acquainted with various facts of professionally managed industries which include production management, raw material purchases, personnel management, sales and marketing by virtue of industrial in-plant training. The aim of the institute is to provide quality education of the highest standard in the field of Food and Dairy to cater the need of professionals in the field of Dairy and Food processing in the country. The B.Tech Dairy Technology course has got the accreditation of both ICAR & AICTE. The M. Tech Dairy Technology, Dairy Microbiology and Dairy Chemistry have also got accreditation from ICAR. This really manifests the quality of students graduating from our college.

2. Admission Excellence

The college is offering four year professional B.Tech Programme (4 years) in Dairy Technology and Food Technology, M.Tech (2 years) and PhD in Dairy Technology, Dairy Microbiology and Dairy Chemistry. Candidates admitted to B. Tech (Dairy Tech.& Food Tech.) programme are selected through the Common Engineering Entrance Examination conducted by Govt. of Kerala. The candidates who have passed the Higher Secondary Examination, Kerala or examinations recognized as equivalent thereto, with minimum 50% marks in Mathematics separately, and 50% marks in Mathematics, Physics and Chemistry put together are eligible for admission. The college also admits students from ICAR quota for the UG programme. The admission to M. Tech and Ph.D programmes is done through the Entrance examination conducted by the University.

One seat in the M. Tech course is earmarked for student admitted under the Senior Residency programme.

3. Myriad of Learning Pathways: Diverse courses and Departments

Courses Offered:

Sl. No.	Title of the Programme	Level	Duration (Yrs)	Year of Starting	Sanctioned annual intake
1	B.Tech (DairyTechnology)	UG	4	1993	40
2	B.Tech (Food Technology)	UG	4	2015	22
3	M.Tech (Dairy Technology)	PG	2	2012	2regular+ 1resident
4	M.Tech (Dairy Chemistry)	PG	2	2017	2 regular + 1resident
5	M.Tech (Dairy Microbiology)	PG	2	2017	2 regular + 1resident
6	PhD (Dairy Technology)		3	2019	1
7	PhD (Dairy Chemistry)		3	2019	1
8	PhD Dairy Microbiology)		3	2019	1

Departments:

Sl. No.	Department
	Dairy Technology
1	Dairy Technology
2	Dairy Engineering
3	Dairy Microbiology
4	Dairy Chemistry
5	Dairy Business management
6	Dairy Extension
7	Dairy Husbandry
	Food Technology
8	Food Process Technology
9	Food Process Engineering
10	Food Safety and Quality Assurance
11	Food Business Management
12	Basic Sciences and Humanities
13	Food Plant Operations
14	Basic Engineering

Course Curriculum:

UG programme

Department-Wise Distribution of Courses for B.Tech (Dairy Tech) degree programme

No.	Name of the Department	Credit Hours
1	Dairy Technology	33 (21+12)
2	Dairy Engineering	34 (21+13)
3	Dairy Business Management Dairy Extension & Dairy Husbandry	27 (20+7)
4	Dairy Microbiology	17 (11+6)
5	Dairy Chemistry	17 (11+6)
	Total	**128**

Non-Credit Courses			
No.	**Catalogue No. of course**	**Name of the course**	**Credit Hours**
1	SREV 1201	Students READY Exposure Visit I -7 days	5 (0+5) *
2	SREV 2201	Student READY Exposure Visit – II -23 days	5 (0+5) *
3	DT 4112	Student READY In-Plant Training	20(0+20)
4	DT 4113	Student READY experiential Learning Module	10(0+10)
		Total	**40 (0 + 40)**

* - Non credit course (not included in the credit load)

** - Non credit optional course (not included in the credit load)

Total Class room credits (upto VIIth semester) = 128

Total credits for work experience = 30

Total credit load (excluding non credit courses) = 128

Total credits for Non credit courses = 40

Department-Wise Distribution of Courses for B. Tech (Food Tech.) degree programme

No.	Name of the Department	Credit Hours
1	Food Process Technology	43(28+15)
2	Food Process Engineering	32(22+10)
3	Food Business Management	16(11+5)
4	Food Safety and Quality Assurance	31(20+11)
5	Basic Science and Humanities	8(7+1)

6	Food Process Engineering	36(0+36)
7	Basic Engineering	15(7+8)
	Total	**181(95+86)**

No.	Name of the course	Credit Hours
1	Physical Education (Non-Credit Course)	1(0+1)
2	NCC/NSS (Non-Credit Course)	1(0+1)
	Total	**2(0+1)**

Total Class room credits (uptoVIIth semester) = 91

Total credits for work experience = 86

Total credit load (excluding non credit courses) = 181

Total credits for Non credit courses = 02

PG programme

M.Tech (Dairy Technology, Dairy Microbiology and Dairy Chemistry) Course Structure – at a Glance

Major	20
Minor	09
Supporting	05
Seminar	01
Research	20
Total Credits	**55**

+Non credit compulsory courses – 06

PhD programme

PhD (Dairy Technology, Dairy Microbiology, DairyChemistry) Course Structure – at a Glance

Major	17
Minor & Supporting	11
Seminar	02
Research	45
Total Credits	**75**

+Non credit compulsory courses – 04, if not taken for masters' programme

Student Strength (as on 31.03.2022):

Total Student Strength	**275**	
UG Students (2021-2022)	DT: 173	FT: 74
	Total: **247**	
PG Students (2021-2022)	**20**	
Dairy Technology	5+1	
Dairy Microbiology	6+1	
Dairy Chemistry	6+1	
PhD Students (2021-2022)	**8**	
Dairy Technology	3	
Dairy Microbiology	3	
Dairy Chemistry	2	

Staff Strength (as on 31.03.2022):

Sl No	**Department**	**Present Status**				
		Prof	**Asso. Prof**	**Asst. Prof.**	**TA**	**Total**
1	Dairy Technology	1	0	3(1 AP –Deputation)	5	9
2	Dairy Engineering	0	0	1 AP (Dairy Plant)	6	7
3	Dairy Chemistry	0	0	3	2	5
4	Dairy Microbiology	1	0	2	2	5
5	Dairy Husbandry	0	0	1	0	1
6	Dairy Business Management	0	0	0	3	3
7	Dairy Extension	0	0	0	0	0
8	Food Process Technology	0	0	1 (Deputation)	2	3
9	Food Process Engineering	0	0	0	1	1
10	Food Safety and Quality Assurance	0	0	2 (1-LWA)	3	5
11	Food Business Management	0	0	0	1	1
12	Basic sciences and Humanities	0	0	0	0	0
13	Food Plant Operations	0	0	0	0	0
14	Basic Engineering	0	0	0	0	0
15	Physical Education	0	0	1	0	1
	Total	**2**	**0**	**14**	**25**	**41**

Administrative Status (as on 31/03/2022)

Category	Sanctioned	Permanent	Temporary	Vacant	Total	Remarks
Administrative Officer	1	1	-	-	1	
Section Officers	2	2	-	-	2	
Office superintendent (HG)	-	-	-	-	-	
Office superintendent	1	1	-	-	1	
Assistants	6	6	-	-	6	
Computer Assistant	1	-	1	-	1	
Clerical Assistant	3	3	-	-	3	
LDV Driver	1	-	1	-	1	
Class IV	6	3	3	-	6	
Total	**21**	**16**	**5**	**-**	**21**	

4. Tapestry of Expertise and Dedication: Empowering Faculty

Faculty Profile:

VERGHESE KURIEN INSTITUTE OF DAIRY AND FOOD TECHNOLOGY, MANNUTHY

DEAN Dr. S. N. RAJAKUMAR

Ph: 9495882953

E mail: deancdstmty@gmail.com, rajakumar@kvasu.ac.in

Sl No	DEPARTMENT	NAME	DESIGNATION	Contact No.	E mail ID
I	**DAIRY TECHNOLOGY**				
1	Dairy Technology	Dr. S. N. Rajakumar	Professor & Head	9495882953	rajakumar@kvasu.ac.in nageshrajakumar@yahoo.co.in
2	Dairy Technology	Dr. Dinker Singh	Assistant Professor	9539449016	dinker.bhu@gmail.com
3	Dairy Technology	Ms. Divya K B	Assistant Professor	9495796738	kbdivya2002@gmail.com
4	Dairy Technology	Ms. Rashmi K.G	Assistant Professor (Deputation)	9895245661	rashmikg85 @gmail.com
5	Dairy Technology	Ms. Jithu Rappai	Teaching Assistant	9605331462	jithurappai@gmail.com
6	Dairy Technology	Ms. Vandhana P S	Teaching Assistant	9747544997	Vandhu1693@gmail.com

7	Dairy Technology	Ms. Gloria Jacob	Teaching Assistant	9744925057	gloriakjacob@gmail.com
8	Dairy Technology	Mr. Mohammed Riyas	Teaching Assistant	8157059197	riyaskottukkara950@gmail.com
9	Dairy Technology	Ms. Haritha C	Teaching Assistant	9446064366	harithacherungottil@gmail.com
II	**DAIRY ENGINEERING**				
10	Dairy Engineering	Er. Aswin S Warrier	Assistant Professor KVASU Dairy Plant	7559067959	aswinswarrier @kvasu.ac.in
11	Dairy Engineering	Er. Amulya P R	Teaching Assistant	9400608878	amulyapr45@gmail.com
12	Dairy Engineering	Dr. Antony P Pallan	Teaching Assistant	9995351137	antony.paulpallan@gmail.com
13	Dairy Engineering	Er. Gritty P T	Teaching Assistant	9496125855	grittypt@gmail.com
14	Dairy Engineering	Er. Ajish T N	Teaching Assistant	9605337227	tnu.ajish@gmail.com
15	Dairy Engineering	Er. Sourabhya P C	Teaching Assistant	7907764937	sourabhyapc1234@gmail.com
16	Dairy Engineering	Ms. Janice E J	Teaching Assistant	9496418831	jani0087@gmail.com
III	**DAIRY MICROBIOLOGY**				
17	Dairy Microbiology	Dr. A K Beena	Professor & Head	9446293686	akbeena@kvasu.ac.in
18	Dairy Microbiology	Dr. Lijimol James	Assistant Professor	9567086007	lijimoljames @kvasu.ac.in ligi11@rediffmail.com
19	Dairy Microbiology	Dr. Aparna. Sudhakaran V	Assistant Professor	7558067959	aparna@kvasu.ac.in aparna.asv@gmail.com
20	Dairy Microbiology	Dr.Vinod Viswanath	Teaching Assistant	9895367266	vinodkomattil@gmail.com
21	Dairy Microbiology	Ms. Syama Mohan	Teaching Assistant	9349812789	Syama82@gmail.com
IV	**DAIRY CHEMISTRY**				
22	Dairy Chemistry	Dr. Divya M P	Assistant Professor	9895424209	divya@kvasu.ac.in

23	Dairy Chemistry	Ms. Indu B	Assistant Professor	9400503677	indubthayyil @ gmail.com
24	Dairy Chemistry	Ms. Smitha J Lukose	Assistant Professor	9495866742	smitha.lukose @ kvasu.ac.in
25	Dairy Chemistry	Ms. Anumol Devassykutty	Teaching Assistant	9847772617	jijoanumol@gmail.com
26	Dairy Chemistry	Ms. Anjumol Jacob	Teaching Assistant	8281850472	anjujacob1995kpl@gmail.com
V	**DAIRY BUSINESS MANAGEMENT**				
27	Dairy Business Management	Ms. Bincy T.J	Teaching Assistant	8304808287	bincythattil@gmail.com
28	Dairy Business Management	Ms. Asha Alphonse	Teaching Assistant	9633994990	aachu1985@gmail.com
29	Dairy Business Management	Dr. Neethu Lazar	Teaching Assistant	9633003010	neethu.lazar@yahoo.co.in
VI	**DAIRY HUSBANDRY**				
30	Dairy Husbandry	Dr. Yancy Mary Issac	Assistant Professor	9440027590	dryancymaryissac@gmail.com
VII	**FOOD QUALITY ASSURANCE**				
31	Food Safety and Quality Assurance	Dr. Athira S.	Assistant Professor (LWA) 9497888348		athira05dairy@gmail.com
32	Food Safety and Quality Assurance	Ms. Aysha C. H.	Assistant Professor 9605373428		chaysha@gmail.com, aysha@kvasu.ac.in
33	Food Safety and Quality Assurance	Ms. Ritty Kuriakose	Teaching Assistant 8589837371		rittykuriakose@gmail.com
34	Food Safety and Quality Assurance	Ms. Minu Thomas	Teaching Assistant 9526462840		minstom86@gmail.com
35	Food Safety and Quality Assurance	Ms. Beenu Toms	Teaching Assistant 9496709077		beenuelsytom@gmail.com
VIII	**FOOD PROCESS TECHNOLOGY**				
36	Food Process Technology	Mr. Faisal I	Assistant Professor (Deputation) 9947039755		ismailfaisal90@gmail.com

37	Food Process Technology	Dr. Arya K Salu	Teaching Assistant 9526287694	aryaksalu@gmail.com
38	Food Process Technology	Mr. Ajay R	Teaching Assistant 9895732516	ajaykarthika.ajayr077@gmail.com
IX	**FOOD PROCESS ENGINEERING**			
39	Er. Sasmila Bai S. M.	Food Processing Engineering	Teaching Assistant 8281016352	sasmila@gmail.com
X	**FOOD BUSINESS MANAGEMENT**			
40	Ms Radhika K S	Food Business Management	Teaching Assistant 9048375488	radhikasobhanan@gmail.com
XI	**PHYSICAL EDUCATION**			
41	Physical Education	Dr. Jose Mathew	Assistant Professor 9448743373	josemthew@kvasu.ac.in

Capacity building programs:

Name & Designation	Name of event	Venue	Date
Dr. Jose Mathew Assistant Professor Physical Education	International Webinar on Sports Science, Physical Fitness and Yoga During Covid 19 Pandemic	Sports Authority of India-LNCPE	16/04/2021
Dr. Jose Mathew Assistant Professor Physical Education	International Sports Webinar on Targetball	GLA University UP	25/04/2021
Dr. Jose Mathew Assistant Professor Physical Education	International Webinar on Yoga in Physical Education for School Children and Social Growth	Batangas State University	26/04/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	One day Training programme on "Traditional Dairy Products:Profitable business models for Dairypreneurship"	Organized by AIC-SRS-ICAR, NDRI, Bangalore	30/04/2021
Dr. Jose Mathew Assistant Professor Physical Education	National Webinar on Managing Health and Stress During Covid 19	College of Community and applied Sciences, Rajasthan	03/05/2021
Dr. Divya M.P. Assistant Professor Dairy Chemistry	International Web-Workshop on the topic titled "Recent advances in design and emerging applications in lateral flow assay" organized by NDRI, NAHEP.	Online	18/05/2021 to 21/05/2021

Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	National level online workshop on "Using SPSS for Data Analysis" conducted by Eigen Data Analytics Services	Online	27/05/2021 to 29/05/2021
Dr. Jose Mathew Assistant Professor Physical Education	Faculty Development Programme on Promoting Excellence in Physical Education and sports Through Innovation in Teaching and Learning ICT Professional Approach	University of Delhi	27/05/2021 to 02/06/2021
Dr. Divya M.P. Assistant Professor Dairy Chemistry	Webinar on "Dairy Processing and Value Addition: Entrepreneurial Opportunities and Strategies" by NaaViCAgri Business Incubation Centre ICAR-NIVEDI	Online	28/05/ 2021
Er. Aswin S Warrier, Assistant Professor Dairy Engineering	E-learning program on 'Sustainable diet: One Planet, One Health'.	Online, organized by UNITAR, UNCC and Danone	28/05/2021
Er. Aswin S Warrier, Assistant Professor Dairy Engineering	Online course on 'Nature based solutions for disaster and climate resilience'.	Online, organized by UNEP and PEDRR	28/05/2021
Er. Aswin S Warrier, Assistant Professor Dairy Engineering	Webinar on 'Managing COVID 19 using mathematical modelling'	Online, organized by Department of Business Administration, St. Joseph's Engineering College, Mangalore	28/05/2021
Dr. Ligimol James Assistant Professor Dairy Microbiology	MOOC on Theoretical Foundations of Educational Technology conducted by NAARM	NAARM	01/06/2021 to 30/06/2021
Dr. Aparna Sudhakaran V Assistant Professor Dairy Microbiology	MOOC on Theoretical Foundations of Educational Technology conducted by NAARM	NAARM	01/06/2021 to 30/06/2021
Dr. Jose Mathew Assistant Professor Physical Education	One Week National Workshop on Mental Health and Physical Well Being	Soundarya Institute of Management and Science, Bangalore	10/06/2021 to 16/06/2021
Dr. Divya M.P. Assistant Professor Dairy Chemistry	AMS (Academic Management System) training organized by KVASU, Pookode	Online	15/06/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	International seminar on Journal Citation Reports (JCR) Training & Certification Program 2021 by clarivate web of science	Online	15/06/2021
Er. Aswin S Warrier, Assistant Professor Dairy Engineering	National Workshop on 'Yoga for Holistic Health'	Online, organized by CDST, KVASU and IDA	21/06/2021

Dr. Jose Mathew Assistant Professor Physical Education	National Webinar on The Influence of Yoga and Physical Activity Towards the Betterment of Human Health	MES College, Malapuram Kerala	21/06/2021
Dr. Jose Mathew Assistant Professor Physical Education	7 Days National Level Training Workshop on Yoga for Health Happiness and Harmony	Karnataka State NSS Cell and Bangalore University &Surana College, Bangalore	21/06/2021 to 27/06/2021
Ms. Divya K. B, Assistant Professor Dairy Technology **Ms. Smitha J Lukose** Assistant Professor Dairy Chemistry	International workshop on "Scientific Writing" organized under aegis of IDP-NAHEP project of ICAR-NDRI, Karnal	Online: ICAR-NDRI, Karnal	23/06/2021 & 24/06/2021
Dr. Jose Mathew Assistant Professor Physical Education	International Conference on Innovation and Practices of Modern Sports Science and Traditional Yoga	Physical Education Foundation of India and International association of Physical Education and Sports	25/06/2021 to 27/06/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	JCR certification series	Clarivate	08/07/2021
Dr. Divya M.P. Assistant Professor Dairy Chemistry **Dr. Jose Mathew** Assistant Professor Physical Education	Faculty Development programme on "Best Practices for Online Teaching: Classrooms, Courseware and Tools"	Kerala State Higher Education Council (KSHEC) Thiruvananthapu-ram	08/07/2021 to 14/07/2021
Dr. Ligimol James Assistant Professor Dairy Microbiology	International virtual conference on 'Recent Trends and Innovations in Microbiology' organized by Department of Microbiology, MohanlalSukhadia University, Udaipur	Online	15/07/2021
Ms. Divya K B Assistant Professor Dairy Technology	Webinar on 'Entrepreneurial Opportunities in Food Processing Sector'	Department of Food Engineering, NIFTEM(online)	15/07/2021
Dr. Jose Mathew Assistant Professor Physical Education	Certificate Course in Sports Nutrition	KristuJayanti College, Bangalore	27/07/2021 to 23/10/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	National conference on "Implementing strategies to achieve Food Security and Food Sustainable Partnership: Progress(online)	Organized by College of Food and Dairy Technology, Koduveli, Chennai	29/07/2021 & 30/07/2021

Dr. A .K. Beena Professor and Head Dairy Microbiology	International Webinar on 'Ecohealth paradigm: Towards Sustainability and Global Health, Organized by Department of Veterinary Public health and Livestock Products Technology, Centre for one health Education Advocacy, Research and Training and School of zonooses, public health and pathology.	Online	03/08/2021 & 04/08/2021
Dr. Divya M.P. Assistant Professor Dairy Chemistry	Short Term course on "Research Ethics and Methodology"	UGC-HRDC	11/08/2021 to 17/08/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	Online Training and Learning Faculty Development Programme (ATAL-FDP) on "Novel Technological Approaches for Utilization of Food Industry Waste"	AICTE	13/09/2021 to 17/09/2021
Dr. Jose Mathew Assistant Professor Physical Education	Refresher Course in Physical Education	UGC-HRDC, Lakshmibai National Institute of Physical Education, Gwalior, MP	14/09/2021 to 27/09/2021
Dr. A.K. Beena Professor and Head Dairy Microbiology **Dr. Ligimol James** Assistant Professor Dairy Microbiology **Dr. Aparna Sudhakaran V.** Assistant Professor Dairy Microbiology	International conference on 'Convergence of technology and policy for sustainable meat production', 5th Convention of Association of Meat Scientists and Technologists	Online mode, Meat Technology Unit, Mannuthy	25/10/2021 to 28/10/2021
Dr. Ligimol James Assistant Professor Dairy Microbiology **Dr. Aparna Sudhakaran V.** Assistant Professor Dairy Microbiology	International e-symposium on 'Probiotics, Prebiotics and Gut Microbiome:Key regulators for Human and Animal Health organized by Department of Dairy Microbiology, CDST, Guru Angad Dev Veterinary and Animal Sciences University	Online	11/11/2021
Ms. Rashmi K.G. Assistant Professor Dairy Technology (On Deputation)	Webinar on 'Overview of Intellectual property Rights'	NIFTEM-Thanjavur	24/11/2021
Dr. Jose Mathew Assistant Professor Physical Education	National Webinar on Implementing of Physical Education sports & Yoga Under National Education Policy Information Source 2020	Government of Karnataka, Department of Collegiate Education, Government First Grade College Gundlupet	30/11/2021

Dr. Dinker Singh Assistant Professor Dairy Technology	MOOC on 'Digital Teaching Techniques'	ICAR-National academy of Agricultural research Management	01/12/2021 to 31/12/2021
Dr. A.K. Beena Professor and Head Dairy Microbiology **Dr. Aparna Sudhakaran V.** Assistant Professor Dairy Microbiology	MOOC on 'Digital Teaching Techniques'		From 09/12/2021
Ms. Divya K B Assistant Professor Dairy Technology **Ms. Smitha J Lukose** Assistant Professor Dairy Chemistry	High-End Workshop on Non-thermal food processing technologies for preservation and quality enhancement	NIFTEM-Thanjavur	13/12/2021 to 18/12/2021
Ms. Smitha J Lukose Assistant Professor Dairy Chemistry	Training programme on "Advances in Analytical techniques'	Academic Staff College, Mannuthy	05/01/2022 to 18/01/2022
Ms. Divya K B Assistant Professor Dairy Technology	Online Training programme on "Functional fermented Dairy foods for Management of Health and Disease"	Dairy Technology division ICAR-NDRI,Karnal	01/02/2022 to 03/02/2022
Dr. Dinker Singh Assistant Professor Dairy Technology	Online Training programme on "Critical Pedagogy"	National Institute of Technical Teachers training and Research, Chennai	07/02/2022 to 11/02/2022
Dr. Dinker Singh Assistant Professor Dairy Technology	National Virtual symposium on "Doubling farmers income by revitalizing Agri Business Ecosystem"	RAFTAAR Agri Business incubator Kerala Agricultural University	01/03/2022 to 02/03/2022
Dr. Dinker Singh Assistant Professor Dairy Technology **Ms. Rashmi K.G.** Assistant Professor Dairy Technology (On Deputation)	International webinar on "Innovations in fermented dairy products"	NAHEP-Innovation grant faculty of Dairy Technology West Bengal University of Animal and Fishery sciences, Mohanpur, West Bengal	10/03/2022 to 12/03/2022

Ms. Divya K B Assistant Professor Dairy Technology	Training programme entitled 'Intellectual property rights in academics and research'	IPR Cell, IPRICK-KVASU Dep of Veterinary and Animal Husbandary Extension,CVAS Mannuthy	23/03/2022 to 26/03/2022
Ms. Divya K B Assistant Professor Dairy Technology **Ms. Rashmi K.G.** Assistant Professor Dairy Technology (On Deputation) **Ms. Jithu Rappai** Teaching Assistant Dairy Technology **Ms. Smitha J Lukose** Assistant Professor Dairy Chemistry **Dr. A.K. Beena** Professor and Head Dairy Microbiology **Dr. Ligimol James** Assistant Professor Dairy Microbiology **Dr. Aparna Sudhakaran V.** Assistant Professor Dairy Microbiology	National webinar "Probiotics-A Remedial approach for improving quality of life"	Dep. Dairy Microbiology VKIDFT Mannuthy,Kerala	24/03/2022 to 25/03/2022

Faculty Achievements:

- Dr. Jose Mathew, Assistant Professor, Department of Physical Education Completed Certificate Course on Sports Nutrition from 27th July to 23rd October 2021 organized by Kristu Jayanti College, Bangalore

- Ms..Archana Chandran., Dr. A.K.Beena, Professor & Head, Department of Dairy Microbiology- **Best poster** in International Webinar on 'Ecohealth paradigm: Towards Sustainability and Global Health, Organized by Department of Veterinary Public health and Livestock Products Technology, Centre for one health Education Advocacy, Research and Training and School of zonooses, public health and pathology on 3rd and 4th August, 2021

- Dr.Divya M.P, Assistant Professor, Department of Dairy Chemistry acted as a resource person and handled a session on "Chemical quality control for milk and milk products" on 05-10-2021 at Collaborative Online Training Program on "Refresher Course On Quality Challenges In Dairy Sector" for officers of Dairy Development Department, Govt. of Kerala jointly organized by Kerala Veterinary and Animal Sciences University & MANAGE, Hyderabad from 04th to 07th October, 2021

- Dr.A.K.Beena, Professor & Head, Department of Dairy Microbiology, acted as resource person in International conference in 'Convergence of technology and policy for sustainable meat production' conducted from 25th to 28th October, 2021and handled a session on the topic 'Multifunctional roles of lactic acid bacteria in dairy industry'

- Dr. Aparna Sudhakaran V., Assistant Professor, Department of Dairy Microbiology- **Best poster award** in the International e-symposium on'Probiotics, Prebiotics and Gut Microbiome:Key regulators for Human and Animal Health conducted on 11th November, 2021

- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as Rapporteur for a technical session in International e-symposium on 'Probiotics, Prebiotics and Gut Microbiome:Key regulators for Human and Animal Health organized by Department of Dairy Microbiology, CDST, Guru Angad Dev Veterinary and Animal Sciences University on 11/11/2021

- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as a speaker for webinar on "Clean Milk Production and Hygienic Milk Processing Practices" on 03/12/2021organized by College of Dairy Technology, Udgir, Latur, Maharashtra

- Dr.Divya M.P., Assistant Professor, Department of Dairy Chemistry acted as a resource person for the online refresher course on "Current concepts in Dairy production and Processing," organized by Academic staff college, KVASU, Mannuthy from January 17-29, 2022

5. Prospering University Life: Vibrant Campus Experience

Verghese Kurien Institute of Dairy and Food Technology, Mannuthy is known for its vibrant campus life, hosting a variety of cultural and technical events throughout the year. College is the home to several active communities, which cater to a wide range of interests. Students can actively engage in activities such as arts, sports, NSS activities and celebrations such as World Milk Day, National Milk Day, World Food Safety Day, World Food Day and many others. These programmes not only provide avenues for knowledge-sharing and skill development but also contribute to the personal and professional growth of students. The college takes immense pride in the achievements of its students, with many of them earning national-level recognition and awards. These accolades are a testament to the quality of education and opportunities provided by the college. Sports also play a significant role in the college's vibrant atmosphere. The sports team at VKIDFT comprises talented individuals, including university and state players. Students excel in a wide range of sports, including, football, cricket, Shuttle Badminton and many others. The college encourages physical fitness and promotes the importance of a well-rounded education that extends beyond academics. In conclusion, VKIDFT, offers a holistic educational experience. With its rigorous academic curriculum, strong industry connections, excellent placement opportunities, vibrant campus life, and dedicated faculty, the college nurtures the talents of its students and prepares them for successful careers in the field of engineering. The combination of academic excellence, extracurricular activities, and a supportive environment makes VKIDFT a prime choice for aspiring students.

6. Exploring Library Trends

Literary Activities

New Arrivals and Information Systems

Library Report

EDUCATION, STUDENTS WELLBEING, ENRICHMENT ACTIVITIES

1. Infrastructure created (2021-22)

Sl No.	Financial Year	Facilities
1	2021-22	Setting up of Standard Basketball Fixed post with tube painting at VKIDFT Basket Ball court.
2	2021-22	Setting up of sick room at Dairy Engineering Department.
3	2021-22	Construction of 2nd floor of VKIDFT, Auditorium and Establishment of Farmers Facilitation Centre
4	2021-22	Installation of Basketball court of international standard
5	2021-22	Setting up of Interactive Display Board at Academic Cell
6	2021-22	Implementing language lab software at VKIDFT Library
7	2021-22	Implementing solar panel system at VKIDFT Library
8	2021-22	Installation of Various Equipment at Laboratories
9	2021-22	Installation of Desktops and Printers at various departments

2. Scholarships

Sl No	Name of scholarship Number of Students	Number of Students 2021-22
1	Central sector scholarship	12
2	KVASU Merit cum means Scholarship	3
3	KVASU Merit scholarship	8
4	Other Scholarships	Nil

3. Hostel and Housing

- **Ladies' hostel:**

  Ladies' hostels of the institute are located at five different sites inside the campus. A total of 161 students can be accommodated in these facilities. Hostel facilities are extended to Ph.D., M.Tech. and B.Tech. Food Technology and Dairy Technology students.

- **Men's Hostel:**

  Men's hostel of the institute is located at two different building inside the campus. A total of

57 students are accommodated in these facilities. Hostel facilities are provided to B.Tech. Food Technology and Dairy Technology students. College Hostel offers comfortable accommodation for male students with modern amenities such as high-speed internet, TV. Room, Reading Room, Drinking water facilities and recreation facilities

4. Outreach Program

Internship:

Dairy Technology

2017 Admission In plant Training Training Period - 03.05.2021 - 23.07.2021		
1	MRCMPU (Milma)	17
2	ERCMPU	02
3	TRCMPU (Milma)	01
4	VERKA	03
5	HATSUN	03
6	DAIRY PLANT, MANNUTHY	02
	Total	**27**

2017 Admission Farm Training Training Period - 03.05.2021 - 23.07.2021		
1	ULF Farm, Mannuthy	27
	Total	**27**

Food Technology

2017 admission In-plant training Training period - 8/9/2021 to 8/12/2021		
1	Bell foods	6
2	Meat products of India, Koothatukulam	6
3	University meat plant	6
	Total	**18**

Remarks: Each batch of students did their internship for one month in each company and took a rotation for next month.

Hands-on-training:

Dairy Technology

- As a part of final year course work of 2017 admission B. Tech Dairy Technology students, Hands

on Training programme on preparation of various milk products was conducted from 28/01/2022 to 31/01/2022 through online mode. 100 farmers/entrepreneurs from different parts of Kerala participated in the programme. Classes and demonstration on preparation of various products such as Paneer, paneer pickle, set curd and ghee was carried out as part of the training.

Food Technology

- As part of the course requirement of 2017 admission students (B. Tech Food technology programme), Three-day online Food product training was conducted from 20/01/2022 to 22/01/2022. The training had a participation of 60 people from different parts of the state. Classes as well as demonstrations on the preparation of various food products were offered during the training programme.

5. Sports, Physical Education and co- curricular activities

To maintain the health of the students, various indoor games, outdoor games, fitness centre and recreation facilities are available. The students are trained for inter-collegiate, inter-university, state level and national level competitions in various sports and games events. The practice and coaching sessions are conducted from 06:30 to 08:00 am and 4.30 to 6.30 pm. Recreation facilities are arranged in the college to encage the students during the leisure time. Every year, the students are divided into four groups and interclass sports and games including Badminton, Chess Cricket, Football, Table tennis, Volley ball and Athletics are conducted.

Health and Fitness Programme:

Considering the importance of health and fitness aspects of the whole community of the college, a health and fitness centre that houses modern equipment is set up in the college premises. The facilities are made available to students and faculty during all working days from 6.00 am to 9.00 am in the morning and 4.30 pm to 7.00 pm in the evening.

Sports activities &Achievements:

- Chandrakiran V (2018-BDM-11) participated Senior National Sepaktakraw Championship held from 21st to 25th November 2021 at Chandigargh
- Four Students are participated South Zone Inter University Football Men Tournament hosted by M G university from 05th to 09th January 2022
- Students participated KVASU intercollegiate games (Badminton, Table Tennis & Chess) for both men & women held on 13th& 14th 2022 at CVAS Mannuthy
- Four Students are participated in the All India Inter University Sepak Takrew Tournament held at MJP Rohikhand university, Bareilly Uttatpradesh from 22nd to 26th March 2022

6. NSS/ NCC

NSS

The National Service Scheme unit 4 of Verghese Kurien Institute of Dairy and Food Technology, Mannuthy, has been functioning well with so many activities furnishing development of the volunteers as well as the community. There is one unit with 100 volunteers functioning in the

college. Volunteers are enrolled from the first- and second-year students. A student volunteer who has completed 240 Hrs of work, and has attended a special camp during the course of two years, is eligible for N.S.S. certificate from the Kerala Veterinary and animal Sciences University. This certificate gives weightage to higher studies, and is an additional qualification for appointment in public service.

The Programme Officer Dr. Jose Mathew gives his best with the support of the Dean, Dr S.N Rajakumar and other faculties of the college. The NSS Unit has successfully completed one more year with more meaningful and community involvement programmes.The programmes are mainly aimed to inculcate the spirit of voluntary work among the volunteers through sustained community interactions and promote personality development. The activities and programmes are focused to identify the needs and problems of campus and community.

Special Camp

Sl.No	Date	Programme	No.of Volunteers
1	25/03/2022	Village adoption and farmer –student interaction camp at Kongampara, Mattampuram, Thrissur on 25/03/2022. The volunteers visited 50 households in the village, learned about the milk production and management and awareness class and practices conducted about the milk and milk products	50

NCC

The 1(Kerala) Remount and Veterinary Squadron NCC unit located in the Veterinary College, Mannuthy campus is one of its kind in the state. B.Tech (Dairy Technology) students can get trained in this unit for equestrian events. The interested students voluntarily join NCC through university system.

***Training*:** All the cadets of NCC have to undergo training in a session for 40 days in the evening at Mannuthy units. The NCC training is the part time course and is of two years duration for Senior Division and Junior Division Cadets. After two years of training and attending one camp, the cadet is eligible to appear in B certificate examination with 75 % parade attendance. After the 3rd year the cadet is eligible for C certificate examination, if he/she has passed the B-certificate exam and has attended two camps.

***The NCC camps*:** Camps are generally held including:

• Combined Annual Training Camp

• Army Attachment Camp

• NIC Camp etc.

7. Awards in curricular, extra-curricular/ co- curricular activities

- Sheba Sunny (B. Tech Food Technology) secured First prize in Label Me Competition in Bueno festab trio 21 celebration by IIPM, Bengaluru on 08/05/2021
- MariyaDivanshi A.S., M.Tech.Scholar, Department of Dairy Microbiology, VKIDFT, Mannuthy -

First prize-Oral presentation, International conference on 'Convergence of technology and policy for sustainable meat production'25th to 28th October, 2021.

- Mariya Divanshi A.S., M.Tech. Scholar, Department of Dairy Microbiology, VKIDFT, Mannuthybagged Best poster second - Optimization of cadmium biosorption by lactic acid bacteria isolated from neonatal faecal sample in the "International Virtual Conference on RecentTrends and Innovations in Microbiology" organized by Department of Microbiology, Mohanlal Sukhadia University, Udaipur on July 15, 2021.
- Chandrakiran V (B. Tech 2018 batch) participated as a player in the Kerala State Senior Men Sepaktakraw Team in the 31st Senior National Sepaktakraw Championship held at Lovely & Professional University, Chandigarghon from 21 to 25 November, 2021.
- Six students of VKIDFT Mannuthy- Anagha K E, Anit Rose Antony, Abdulla N A, Keerthana K V, Sandhrima M P, & Aysha Sherin K (B. Tech Food Technology) got District level selection in Young Innovators Program (YIP 20) by Kerala Development and Innovation Strategic Council (2 teams – each comprising 4 members) – 09/12/2021
- Ajmal N (19- BDM- 02), Sinin P (20- BDM- 30), Muhammed Ziyad N. K (17- BFT- 14) &Brahmadath O. J (17- BFT- 07) of Verghese Kurien Institute of Dairy and Food Technology Mannuthy represented Kerala Veterinary and Animal Sciences University in the South Zone Inter University Football (Men) Tournament 2021-22organized by the Association of Indian Universities hosted byMahatma Gandhi University, Kerala atMar Athanasius College, Kothamangalam, Ernakulam, Keralafrom 05/01/2022 to 09/01/2022 Team led by Mr. Sree Vishnu Rajmohan T. (M.Tech. scholar, Department of Dairy Microbiology) got short listed for the final round of evaluation, KRITGAYA AGTECH HACKATHON, NHEP- 18/01/2022
- Ms. Amrutha T A (PhD Dairy Microbiology 2021 admission) cleared UGC NET- February 2022

Details of Student performance in ICAR Entrance National Level Entrance Exams- 2021

Sl.no.	Name of the Student	Batch	Achievement
1	Ms. Amrutha T A	M. Tech 2017 Admission	ICAR PhD Entrance Examination Dairy Microbiology AIR: 3 Category rank: OBC-1
2	Ms. FarzanaBeegum M. A	M. Tech 2017 Admission	ICAR PhD Entrance Examination Dairy Microbiology AIR: 7 Category rank: OBC-2
3	Mr. Sharath S	M. Tech 2017 Admission	ICAR PhD Entrance Examination Dairy Chemistry AIR: 11 Category rank: ST-1
4	Ms. Ayana Surendran	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy Technology AIR: 11 Category rank: SC-1
5	Mr. Ron Roy	B. Tech 2015 Admission	ICAR PG Entrance Examination Dairy Technology AIR: 18 Category rank: EWS-3

6	Ms. Sandra Wilson	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy Technology AIR: 24
7	Ms. Rifana Sherin A	B. Tech 2016 Admission	ICAR PG Entrance Examination Food Science Technology AIR: 25 Category rank: OBC-13
8	Ms. Anjana M	B. Tech 2015 Admission	ICAR PG Entrance Examination Dairy Sciences AIR: 34
9	Ms. Ammu S	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy Science AIR: 59 Category rank: OBC-24
10	Ms. Farha P. T	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy SciencesAIR: 61 Category rank: OBC-25
11	Ms. Fidha T. P	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy SciencesAIR: 77 Category rank: OBC-32
12	Ms. Athira K J	B. Tech 2016 Admission	ICAR PG Entrance Examination Food Science TechnologyAIR: 78 Category rank: OBC-37
13	Ms. Archana K	B. Tech 2016 Admission	ICAR PG Entrance Examination Food Science Technology AIR: 79
14	Ms. Gopika Gopan	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy Sciences AIR: 87
15	Mr. Nidawanbiang Najiar	B. Tech 2016 Admission	ICAR PG Entrance Examination Dairy Technology AIR: 125 Category rank: ST-6UPS- 1
16	Ms. Theertha S	B. Tech Food Technology	ICAR PG Entrance Examination Food Science Technology AIR: 21 Category rank: OBC-12
17	Ms. Neethu Saji	B. Tech Food Technology	ICAR PG Entrance Examination Food Science Technology AIR: 22
18	Ms. Annet Mary Anto	B. Tech Food Technology	ICAR PG Entrance Examination Food Science Technology AIR: 42
19	Ms. Anupriya B R	B. Tech Food Technology	ICAR PG Entrance Examination Food Science Technology AIR: 48 Category rank: OBC-24
20	Mr. Janish C	B. Tech Food Technology	ICAR PG Entrance Examination Food Science Technology AIR: 98 Category rank: OBC-50
21	RifanaSherin A	B. Tech Dairy Technology	Pondichery University Entrance Examination MSc Food Science and Nutrition Rank: 6
22	Shafna Ashraf	B. Tech Dairy Technology	Pondichery University Entrance Examination MSc Food Science and Nutrition Rank: 20
23	Sandra Rose Wilson	B. Tech Dairy Technology	KUFOS PG Entrance Examination MSc Food Science and Technology Rank: 1
24	Ayana Surendran	B. Tech Dairy Technology	KUFOS PG Entrance Examination MSc Food Science and Technology Rank: 5
25	Vrindha P R	B. Tech Dairy Technology	KUFOS PG Entrance Examination MSc Food Science and Technology Rank: 14

26	Adila C K	B. Tech Dairy Technology	KUFOS PG Entrance Examination MSc Food Science and Technology Rank: 15
27	Archana	B. Tech Dairy Technology	KUFOS PG Entrance Examination MSc Food Science and Technology Rank: 25
28	Sandra Rose Wilson	B. Tech Dairy Technology	CFTRI PG Entrance Examination MSc Food Science and Technology

8. Students Union/ Hostel/ Sports Day Celebrations

The college is working towards the overall development of the student community. The focus is not merely on the academic development, but the students' physical, mental and social wellbeing are taken care through various organized forums and committees functioning under the College Students Union and with the able guidance of the Dean of the Institute.The Students Union provides the opportunity for every student to learn, express and develop their talent and skill in various arts/cultural and literary, debating as well as sports events. Each of these activities is performed under the banner of various clubs/committees/forums viz., literary &debating, arts club, nature club, sports committee etc. Every forum is led by an elected student representative who has interest, skill and exposure in the relevant field. The students themselves are given opportunity to organize various programmes to express their talents and they are also supported well in participating in the events organized outside the campus, which includes competitions organized at University, District, Regional and State level.

A detailed report of various activities carried out by the Student's Union is given below:

- **Webinar on 'Graduation in Dairy/ Food Technology: Admission, Course highlights and Career prospects'**

  College of Dairy Science and Technology Mannuthy in association with IDA, Kerala Chapter organized a Webinar on 'Graduation in Dairy/ Food Technology: Admission, Course highlights and Career prospects' on 15/04/2021. Sri. G. R Jayadevan, Asst. Professor, College of Dairy Science and Technology Trivandrum handled the session

- **IPL 2021 prediction competition**

  Student's Union 2020-'21 conducted an IPL 2021 prediction competition in May 2021.

- **World Milk Day Celebrations**

  College of Dairy Science and Technology Mannuthy and IDA Kerala Chapter jointly organized the Word Milk Day programmes 2021 on 01.06.2021. World Milk Day message was given by Prof. (Dr.) M. R. Saseendranath, Hon. Vice Chancellor, KVASU. Different sessions were handled by Ms. Archana Chandran, (Asst. Professor, CDST Pookode), Sri. Subin Jose (Asst. General Manager, International Key Accounts Sales with Symega Food Ingredients) and Smt. Lilly Mathew (Managing Director, Lillys Farm, Wayanad, Kerala).

- **World Food Safety Day – *'Food Salvatio -21'***

  College of Food Technology under the aegis of Kerala Veterinary and Animal Sciences University celebrated the World Food Safety Day – ***'Food Salvatio -21'*** on 7th of June 2021 in association with IDA Kerala Chapter and AFST (I) Thrissur Chapter with the theme*Safe Food*

Now for a Healthy Tomorrow. Various competitions were conducted among students like Flash Talk**,** Cartoon competition on 3rd of June with the theme 'Eat to Live or Live to Eat', Slogan competition 4th of June and topic was provided on the spot as 'Role of Food Safety in Pandemic Situation', Photography competition was conducted on the theme 'Homely Food, and short video making competition.

- **World Environment Day celebrations**

  In connection with World Environment Day, NSS unit and Student's Union 2019-'20 of the College organised a 'Best out of waste challenge' and 'Plant a life' challenge. NSS unit and Student's Union 2019-'20 of CDST Mannuthy volunteered the programmes on 06/06/2021 as part of the World Environment Day celebrations conducted by KVASU from 05/06/2021 to 12/06/2021.

- **National workshop on 'Yoga for holistic health'**

  NSS unit and Physical Education Department of CDST Mannuthy in association with IDA Kerala Chapter organized a National workshop on 'Yoga for holistic health' in connection with 7th International Yoga Day on 21/06/2021. Sri. Prashanth Yogavantha, Banglore (International Yoga Demonstrator) handled the session.

- **Webinar on 'Recent Advances in Food Regulations'**

  College of Dairy Science and Technology Mannuthy in association with IDA, Kerala Chapter organized a Webinar on 'Recent Advances in Food Regulations' on 14/07/2021. Ms. Dhanya K. N, Deputy Director, FSSAI, Cochin, handled the session.

- **Letter Writing Competition in connection with National Doctors Day**

  In connection with National Doctors Day on July 1st, a letter writing competition- 'LETTER TO DOCTOR'- was conducted by Students Union. Alan MariyaShaju of 2019 batch secured First prize in the competition. Athira MK (2018), MalavikaMahadevan (2020) and Mohammed Asla (2020) won the Second prize & Livia Mathew (2019) and Akshaya.K. Sudheer (2018) won Third prize. In connection with the programme, a video was created as a tribute to doctors and was posted on official Students Union pages.

- **Webinar on 'Use of Electronic Resources and Services with Special Reference to KVASULIS'**

  College of Dairy Science and Technology Mannuthy organized a Webinar on 'Use of Electronic Resources and Services with Special Reference to KVASULIS' on 08/07/2021. Dr. E. K Mohanlal (Librarian & Head, KVASU Library & Information System) handled the session.

- **Demonstration video on paper bag making**

  As part of paper bag day on July 12th, a demonstration video on paper bag making was made. The students made paper bags and exhibited it as part of the programme.

- **Webinar on 'Recent Advances in Food Regulations'**

  College of Dairy Science and Technology Mannuthy in association with IDA, Kerala Chapter organized a Webinar on 'Recent Advances in Food Regulations' on 14/07/2021. Ms. Dhanya K. N, Deputy Director, FSSAI, Cochin, handled the session

- **National youth skills day**

  National youth skills day was celebrated on July 25thby conducting a reels contest to exhibit the skills of students of the college.

- **Virtual Chess Competition on International Chess Day**

  A Virtual Chess Competition was conducted in connection with International Chess Day on 20th July 2021. SidhantSagarJha of 2020 admission was the winner of the competition.

- **Saplings Challenge in connection with Nature Conservation Day**

  As part of Nature Conservation Day on July 28th, a "Sapling challenge" was conducted via Students Union Instagram page. Students of the college actively participated in the challenge.

- **Onam Celebration- 2021**

  The programmes in connection with Onam Celebration was conducted by Students Union on virtual mode. Different competitions such as photo recreation, Instagram reels competition and e- pookkalam competition was conducted as part of the celebrations. All students of the college actively participated in different competitions conducted.

- **Webinar on 'Dairy Entrepreneurial behaviour and Ecosystem in Kerala'**

  In connection with Birth Centenary Celebrations of Dr. Verghese Kurien, Indian Dairy Association (Kerala Chapter) and College of Dairy Science and Technology Mannuthy jointly organised a webinar on 'Dairy Entrepreneurial behaviour and Ecosystem in Kerala' on 14/08/2021 via Google meet. The session was handled by Sri. ShyamSuraj S. R. (Assistant Professor, Dairy Extension, College of Dairy Science and Technology Mannuthy).

- **Milk Products Preparation & Demonstration for farmers and entrepreneurs in connection with Farmers Day Celebrations**

  College of Dairy Science and Technology Mannuthy in association with Indian Dairy Association (Kerala Chapter) jointly organised Milk Products Preparation & Demonstration for farmers and entrepreneurs in connection with Farmers Day Celebrations on 17/08/2021 via Google meet. The programme as led by Department of Dairy Technology,College of Dairy Science and Technology Mannuthy.

- **Webinar on "Fermented Dairy Foods: Prospects and Challenges"**

  In connection with Birth Centenary Celebrations of Dr. Verghese Kurien, Indian Dairy Association (Kerala Chapter) and College of Dairy Science and Technology Mannuthy jointly organised a webinar on "Fermented Dairy Foods: Prospects and Challenges" on 15/09/2021 via Zoom platform. The session was handled by Dr. Sreeja V, Assistant Professor& Head, Dairy Microbiology Department, SMC College of Dairy Science, Gujarat.

- **NSS Day celebration**

  In connection with NSS Day on September 24th, NSS unit of the College organised a slogan exhibition on the topic 'SHE- The powerful wing'

- **Webinar on 'Physical and Chemical aspects of different Whey products'**

  College of Dairy Science and Technology Mannuthy in association with Indian Dairy Association (Kerala Chapter) conducted a webinar on the topic 'Physical and Chemical aspects of different Whey products' on 16/10/2021. The session was handled by Dr. Suneeta V. Pinto, Professor& Head, Dairy Technology Department, SMC College of Dairy Science, Gujarat.

- **State Level Quiz competition in connection with National Milk Day- 2021**

  In connection with National Milk Day Celebrations, Students Union of College of Dairy Science andTechnology Mannuthy in association with CDST Graduates Association organized a State Level Quiz Competition- "Palarivu 2.0" foremployees of Dairy Cooperative Societies on 26/11/2021. Dr. S. N. Rajakumar (Dean CDST Mannuthy) inaugurated the function. Dr. Aswin. S. Warrier (Head, University Dairy Plant, KVASU) was the quiz master.

- **Freshers Day- 2020**

  Freshers Day for the 2020 batch was conducted by Students' Union on 4th of December, 2021. Dr. A. K. Beena (Professor& Head, Department of Dairy Microbiology) inaugurated the function.

- **National Constitution Day**

  In connection with National Constitution Day, NSS unit organised National Constitution Day campaign from 15th December to 31st December 2021. Students from various batches took the Oath of Allegiance as part of the campaign.

- **Unveiling of the bust of Dr. Verghese Kurien**

  Bust of Dr. Verghese Kurien was unveiledat VKIDFT Mannuthy under the auspices of Graduates Association of the College- CDST Graduates Associationin connection with Birth Centenary Celebration of the Milk man of India, Dr. Verghese Kurien. The bust of Dr. Kurien, built by the famous sculptor Sri. Unni Kanayi was unveiled to the public by Smt. J Chinchurani (Honourable minister for Animal Husbandry, Dairy Development) on 20/12/2021.



- **Inauguration of Students Union 21- '22**

  The inauguration of Students' Union 21- 22 was conducted at VKIDFT Mannuthy on 6th January, 2022. The programme named 'Ekta" was inaugurated by film director Sri. Tom Emmatty. The

programme was addressed by Dr. S.N Rajakumar (Dean, VKIDFT Mannuthy) and Muhammed Jasim (President, Students Union 21- 22).

9. Students Counselling and Placement services

The college has a separate Career Guidance and Placement Cell to provide information to the students on various employment opportunities available. The cell also offers advice, guidance and opportunities available to the students in building up their career. The placement cell maintains a library with books for those aspiring for civil services examination and other competitive examinations organized by various Government, Public Sector and Sponsored Agencies. The cell regularly updates the employment opportunities available, opportunities available for oversees education and employment as well as self- employment opportunities to the students. The placement cell makes arrangements for campus interviews through which many students have secured campus placements in various companies/ organizations of repute in the country and abroad. Placement of students in various Non-Governmental Organizations functioning in the State is also duly taken care. The placement cell arranges for special lectures on Personality Development and Career Prospects for the outgoing student.

10. Corporate relations

Indeed, strong corporate relations can be highly beneficial for an educational institution like VKIDFT in finding Internships and Job Opportunities. Having good corporate relations can lead to opportunities for students to secure internships and jobs at prestigious multinational companies and cooperatives. This not only enhances the students' practical skills but also improves their employability. The outgoing batch has secured internships at prestigious multinational companies like Nestle, Abbott, Cargill, Delmonte, Symega, and Britannia as well as in co-operatives such as AMUL and MILMA. The collaboration with corporations allows the institute to stay updated on industry trends and requirements. This can lead to the development of a curriculum that is more closely aligned with the needs of the dairy industry, ensuring that students receive relevant and up-to-date education. The alumni who have a corporate background and who are experts in the field have joined VKIDFT by conducting guest lectures and workshops, exposing students to practical insights and knowledge beyond the classroom. Building relationships with corporations also means building a network of industry contacts. This network can be valuable for students seeking mentors, advice, or job connections after graduation. Collaborations with reputable companies can enhance the institute's reputation, making it more attractive to potential students, faculty, and future corporate partners. Overall, maintaining strong corporate relations can help VKIDFT in its mission to provide high-quality education and research in the dairy and food technology field, while also benefiting the industry through knowledge exchange and skilled graduates.

11. Alumni relation

The alumni of the college formed CDST Graduates' Association (CDSTGA) during 2003, providing a comprehensive platform to involve actively in the welfare of college alumni and work to support the milk producers and processors in the state. The alumni of the college are scattered across the globe. Some organizations where our alumni work include AMUL, NDDB, DFRL, Mother Dairy, Cadburys, Reliance Industries, Almarai, Milma etc. and Banking institutions such

as SBI, ICICI, HDFC, IOB, PNB, SIB etc. The alumni take active interest in the college and its activities. Activities undertaken during the year 2021-22 are:

- **Talk on Mental health- "It's ok to ask for help"**

Students Union 19- 20 in association with CDST graduates Association organized a talk session with Ms. Nisha K. R (Medical Officer, Pazhayannur) regarding mental health on 24th July, 2021. The programme named "It's ok to ask for help" was conducted via Google meet.

- **State Level Quiz Competition in connection with National Milk Day- 2021**

In connection with National Milk Day Celebrations, CDST Graduates Association and VKIDFT Students Union 21- 22 jointly organized a State Level Quiz Competition- "Palarivu$_{2.0}$" for employees of Dairy Cooperative Societies on 26/11/2021. National Milk Day Message was given by Dr. S. N Rajakumar (Dean, VKIDFT Mannuthy).

- **A Tribute to milk man of India- Unveiling the bust of Dr. Verghese Kurien**

As a Tribute to the milk man of India Dr.Verghese Kurien a bust was built Infront of the VKIDFT college by CDST-Graduates Association. The bust unveiling programme was held on 20th December 2021, inaugurated by Smt.J Chinchurani (Honorable minister of Animal Husbandry and dairy Development).

12. Students' Performance

Student Details	No. of students in the final year (2021-22)		No. of students passed out (2021-22)	
UG	**DT**	**FT**	**DT**	**FT**
Students admitted	27 (2017 Admn) + 1 (2015 Admn) + 2 (2016 Admn)	18	25 2017 Admn) + 1 (2015 Admn) + 2 (2016 Admn)	18
PG				
Students admitted	5		4	
PhD				
Students admitted	-		-	

13. Student intake details

Student Intake Details (2021 Admission)

Student Details	No. of students admitted (2021 admission)	
UG	**DT**	**FT**
Students admitted	29	19
PG		
Students admitted	6	
PhD		
Students admitted	3	

DEPARTMENT PROFILES

DEPARTMENT OF DAIRY TECHNOLOGY

1. Exploring Research Frontiers- Past achievements and current ventures

Research work for Master's degree M.Tech:

SI No	Name of the student	Admission No.	Name of project	Department
1	Aswathy M.R.	2019-MDM-01	Process Standardization for the development of fat replaced dietetic chhana kulfi	Dairy Technology
2	Haritha C	2019-MDM-02	Utilization of dairy by-products inthe development of dietetic GulabJamun	Dairy Technology
3	Ambili MV	2020-MDM-01	Development of fiberincorporated reduced calorie herbal rasamali	Dairy Technology

Ph.D. Research Projects

SI No	Name of the student	Admission No.	Name of project	Department
1	Ms. Beena R L	19-DDM-02	Process standardization of casein hydrolysate incorporated functional premix for women	Dairy Technology
2	Ms. Divya K B	2020-DDM-01	Instant Kaalan-Process optimisation and metabolomic studies	Dairy Technology

Research projects-External students:

Sl. No.	Name of the student & Institution	Title of project	Major Advisor	Department
1	Sniya Varghese	Development of whey incorporateddiabetic cookies.	Ms. Rashmi K G	Dairy Technology
2	Rajeswari A School of Health Science University of Calicut	Process Standardization for the development ofHerbal Paneer Spread	Ms. Beena R L	Dairy Technology

2. Noteworthy attainments in Science and Technology

- Development of a functional premix for women incorporating casein hydrolysate
- Development of reduced calorie herbal rasmalai incorporating fiber
- Development of fat replaced dietetic chhana Kulfi using inulin

- Development of dietetic Gulab Jamun using ghee residue, whey and butter milk powder

3. Academic Manuscripts, Investigative Pursuits, Widely- read articles, Literary Volumes and Technical Documents, Details of research papers published

Scientific Papers:

- **Rappai, J**., Beena, A.K., James, L. and Aparna, S.V. 2021. Process standardization for alginate encapsulation of potentially probiotic *Pediococcus pentosaceus* DM101. J.Vet. Anim. Sci. 52(2): 196-199. DOI https://doi.org/10.51966/jvas.2021.52.2.196-199

Poster presentation:

- **Ms. Rashmi K.G**. – e Poster presentation on "Effect of natural colorants obtained from Bougainvillea glabra on the sensorial properties of Probiotic Strawberry Shrikhand." in the International e – Symposium on 'Probiotics, Prebiotics & Gut Microbiome: Key Regulators for Human and Animal Health' organized by GADVASU and Probiotic Association of India on 11th November 2021

4. Consultancy and Public Advocacy

- In person -19
- Over telephone-49

5. Unveiling Human Resources: Unlocking Potential and Pursuits

- **Training Program/ Short courses/ Any other program organized (details from each department)**

- As a part of final year course work of 2017 admission B. Tech Dairy Technology students, online Hands- on Training programme on preparation of various milk products was conducted under the auspices Dairy Technology Department from 28/01/2022 to 31/01/2022. 100 farmers from different parts of Kerala participated in the programme. Classes and demonstration on preparation of various products such as Paneer, paneer pickle, set curd and ghee was carried out as part of the training.

6. Other Academic activities

External Examiner/ Question paper Setter:

- Dr. S. N Rajakumar, Dean, CDST Mannuthy – evaluated M Tech thesis entitled by "Development of Shrikand Enriched Moringa leaf Powder and Banana Pulp" by Rajmohamad (Dairy Science College, Hebbal, Bangalore)– April 2021
- Dr. S. N Rajakumar, Dean, CDST Mannuthy –evaluated PhD thesis entitled by "Assessment of functional properties in Cheddar Cheese made from the Milk of Deoni and Crossbred cows using Hydrolysed Cheese Slurry" by Mrs.Soumya Shree T C,NDRI,Bangalore- April 2021

Reviewer of journal:

- Dr. S. N Rajakumar, Dean, CDST Mannuthy-Storage studies on Pulsed Electric Field processed

Mother's Milk –Indian Journal of Veterinary and Animal Research, TANUVAS- 2021

7. Other Extension activities

- Ms. Divya K B, Assistant Professor, Dairy Technology-handled a session on the"preparation of quality milk products" in the farmers webinar organized as a part of World Milk Day, by KVK, Palakkad on 01/06/2021.
- Ms. Divya K B, Assistant Professor, Dairy Technology- Handled a session on the topic **"മൂല്യവർദ്ധന വ് പാലിനും നാടിനും"** in the farmers seminar conducted by KVASU as a part of institution day celebrations on 16/06/2021
- Dairy technology Department conducted demonstration on "Preparation of milk products" on farmers day on 17/08/2021 (online mode)
- Ms. Divya K B, Assistant Professor, Dairy Technology handled a session about "Fortification of Dairy Products" in a web-based refresher training on 'Current concept in Dairy production and processing'organised by Academic staff college, Directorate of Entrepreneurship, KVASU from 17/01/2022 to 30/01/2022

DEPARTMENT OF DAIRY ENGINEERING

1. Exploring Research Frontiers- Past achievements and current ventures

Completed past plan projects:

- Application of Solar energy for the Preparation of Heat DesiccatedTraditional Indian Milk Products
- Generation of fuel from Plastic Packaging Wastes from DairyIndustry
- Estimation of Thermal Properties of Milk and Milk Productsavailable in Kerala
- Strengthening of laboratories in Dairy Engineering Department

DEPARTMENT OF DAIRY CHEMISTRY

1. Exploring Research Frontiers- Past achievements and current ventures

Various research projects including State Plan, External aided projects and student research projects are being undertaken at the College. The department also offers facilities and guidance for students from other universities in research projects as part of their post graduate programme.

Past achievements:

- **Developed a Technique for Detection of presence of Cow milk in Goat milk**

  A rapid platform test was developed for the detection of presence of cow milk in goat Milk

- **Developed adulteration test strips for milk**

  Two different test strips were developed for the detection of neutralizers and glucose in milk

- Determination of safe extent of different cooking oils on repeated heating

Current ventures:

Details of research projects:

Name of Project	Funding Agency	Name of PI	Outlay (Rs.) lakhs
Strengthening of Postgraduate Laboratory/testing lab for the Department of Dairy Chemistry RSP/21-22/XIV-26	State Plan	Dr.Divya M.P.	15.00

Research work for Master's degree M.Tech:

SI No	Name of the student	Admission No.	Name of project	Department
1	Ms. Sana Jose K.	2019-MDM-04	Evaluation of physic chemical nutritional and bio functional characteristics of milk from Vechur and Kasargod dwarf breeds of cattle	Dairy Chemistry
2	Mr. Muhammed Arshad	2019-MDM-03	Effect of thermal stability of ghee added with curry leaf extract	Dairy Chemistry
3	Ms. Aiswarya V.G.	2020-MDM-03	Effect of differential heat treatments on biofunctional properties of biopeptides in fermented goat milk	Dairy Chemistry
4	Mr. Vysakh V.L.	2020-MDM-05	Extraction and characterization of essential oil from nutmeg fruit flesh for its utilization as an antimicrobial coating in paneer	Dairy Chemistry

Ph.D. Research Projects

SI No	Name of the student	Admission No.	Name of project	Department
1	Ms. Smitha J Lukose	2020-DDM-03	Formulation of hypoallergenic whey protein supplement with enhanced iron bioavailability	Dairy Chemistry

Research projects-External students:

Sl. No.	Name of the student&College	Name of Advisor	Title of project	Department
1	Najiya P., School of Health Sciences,University of Calicut	Dr. Divya M.P	Raw Mango Incorporated Whey Drink With Antioxidant and Medicinal Properties.	Dairy Chemistry

2	RasiyaThasni, School of Health Sciences,University of Calicut	Dr. Divya M.P	Development of modified peda with enhanced nutritional and fibre content	Dairy Chemistry
3	Ms. Alfiyanizar Ms. Athira Prasad Ms. Jiznababu Ms. Meenababu (CFT,Konni)	Dr.Divya M.P.	Enhancement of Antioxidant and Nutritional properties of Shrikhand by using Palm Jaggery and Black Grapes	Dairy Chemistry
4	Mr. Akshay Anilkumar (M.Sc Biochemistry and Molecular Biology, COVAS, Mannuthy)	Dr.Divya M.P.	Microbiological and Physicochemical characterization of UHT milk available in Kerala at different storage conditions	Dairy Chemistry

2. Noteworthy attainments in Science and Technology

- Fortification of milk and milk-based products to suit the nutritional needs of specific targeted population
- Development of test strips for the detection of adulterants in milk and milk products
- Modification of Milk fat/lipids to suit the consumer demands

3. Academic Manuscripts, Investigative Pursuits, Widely- read articles, Literary Volumes and Technical Documents, Details of research papers published

Research articles:

- Suresh*, V.,* James, L., Beena A.K.,Aparna S. V. and **Divya M.P.** Total viable, psychro trophic and thermoduric bacterial population of market samples of pasteurized milk. Milk Science International (74) 2021 P. 16-19 17 ISSN 2567-9538 https://doi.org/10.48435/MSI.2021.3
- Athulya Sojan, AthiraSurendran, **Smitha J Lukose** .2021. Effectiveness in Utilization of Ghee Residue in the Production of Cookies and Biscuit in an Industrial Level. 10 (4):1342-1348
- **Divya M.P**. 2021. Article on "Chemical quality control for milk and milk products"- E compendium- Jointly Published by Directorate of Entrepreneurship, KVASU & MANAGE, Hyderabad. pp 21-35

4. Consultancy and Public Advocacy

Department of Dairy Chemistry is providing Consultancy services to entrepreneurs and farmers in various areas of quality maintenance. Regular queries are answered by the experts of the department regarding chemical quality analysis of milk and milk products, calibration of laboratory glasswares as well as setting up of a quality control lab. Direct consultation as well as consultation over telephone is offered by the department.

5. Beyond the horizons: Exploring other activities

Department of Dairy Chemistry has a fully functioning milk testing lab which offers its service to

public for quality analysis of milk and milk products and calibration of laboratory glass wares.47 samples were analyzed during the reporting period.

6. Other Academic activities

External Examiner/ Question paper Setter:

- **Dr. Divya M.P**, Assistant Professor Dairy Chemistry- acted as external examiner for conducting the VHSE Dairy Technology practical Examination on 22/06/2021 at GVHSS Ayyanthole
- **Dr. Divya M.P**., Assistant Professor, Department of Dairy Chemistry- acted as External Examiner for VHSE DPEO Practical examination at GVHSS Ayyanthole on 17/12/2021

1. **Other Extension activities**

- **Dr. Divya M.P**., Assistant Professor, Department of Dairy Chemistry acted as a resource person in the Collaborative online program on "Refresher course on Quality Challenges in Dairy sector' for Dairy farm instructors on 05/10/2021.
- **Dr. Divya M.P,** Assistant Professor, Department of Dairy Chemistry acted as a Resource person for an online refresher course on "Current concepts in Dairy production and Processing"for faculty members and research scholars from 17th to 29thJanuary, 2022jointly organized by Department of Dairy Science and Academic Staff College, KVASU.

DEPARTMENT OF DAIRY MICROBIOLOGY

7. Exploring Research Frontiers- Past achievements and current ventures

Details of research projects:

Name of the project	Funding Agency	Name of PI	Out lay (Rs) Lakhs
Revolving fund project for expanding the starter Culture Sales"	KVASU revolving fund	Dr. A. K. Beena	0.5
Scaling up of stock of indigenous lactic acid bacteria to assure the supply of proven functional starters for small scale entrepreneurs – *Continuation project of 'Development of Starter culture centre'*	State plan	Head, Department of Dairy Microbiology	5.5
Assessment of stress resistance in food grade lactic acid Bacteria- *Continuation project of Strategy development to assure safe food for the public by combating microbial threats in the food chain*	State plan	Head, Department of Dairy Microbiology	2.5

Milk as a reservoir of multiple drug resistant bacteria – an assessment	KSCSTE, Student project	Dr. A. K. Beena	0.1
Microbiological quality profiling of pasteurized milk during refrigerated storage	KSCSTE, Student project	Dr. Aparna Sudhakaran V.	0.1
Post pasteurization contaminating bacteria as shelf-life determinants of pasteurized milk	KSCSTE, Student project	Dr. Ligimol James	0.1

Research work for Master's degree M.Tech:

Sl. No	Name of the student	Admission no	Name of the project	Department
1.	Sreevishnu RajmohanT. (On going)	2019-MDM-06	Effect of high carbon dioxide environment on the microflora of raw milk	Dairy Microbiology
2.	Ms. AnijaS. M. (On going)	2020-MDM- 07	Bio functional properties of flavoured fermented milk product developed using indigenous lactic acid bacteria.	Dairy Microbiology
3.	Ms. Silpa K Raj (On going)	2020-MDM-08	Study on post-fermentation acidification by dahi starter cultures	Dairy Microbiology

Ph.D. Research Projects:

SI No	Name of the student	Admission No.	Name of project	Department
1	Ms. Archana Chandran	19-DDM-01	Construction of region specific phageresistant dairy starter formulations forthe state of Kerala	Dairy Microbiology (On Going)
2.	Mr. Rejeesh R	2020-DDM-02	Rerouting of fermentative metabolism of Lactic acid bacteria to respiratory metabolism for improved performances as starter concentrates	Dairy Microbiology (Ongoing)

Research projects-External students:

Sl. No	Name of the student	Major Advisor	Name of the project	Department
1.	Arathi A Nair Government Arts and Science College, Kozhinjampara (Completed)	Dr A.K Beena	Textural analysis of dahi prepared using *Lactococcus lactis* isolated from Household curd	Dairy Microbiology

2.	Nasrin P SSGNST Arts and Science College, Manakkappady (Completed)	Dr A.K Beena	Isolation of Psychrophilic bacteria from milk	Dairy Microbiology
3	Thaslima Muhhammed GNST Arts and Science College, Manakkappady (Completed)	Dr. Ligimol James	Isolation of psychrophilic organisms from icecream	Dairy Microbiology

8. Noteworthy attainments in Science and Technology

- Development of well characterized starter cultures of industrial importance-Low acid producing Flavour producing and probiotic cultures
- Development of novel, innovative and value-added fermented milk products including frozen yoghurts and fermented beverages

9. Academic Manuscripts, Investigative Pursuits, Widely- read articles, Literary Volumes and Technical Documents, Details of research papers published

- Rappai, J., **Beena, A.K., James, L.** and **Aparna, S.V**. 2021. Process standardization for alginate encapsulation of potentially probiotic *Pediococcuspentosaceus* DM101. J. Vet. Anim. Sci. 52(2): 196-199. DOI: https://doi.org/10.51966/jvas.2021.52.2.196-199
- Suresh*, V.,* **James, L., Beena A.K.,Aparna S. V**. and **Divya M.P.** Total viable, psychro trophic and thermoduric bacterial population of market samples of pasteurized milk. Milk Science International (74) 2021 P. 16-19 17 ISSN 2567-9538 https://doi.org/10.48435/MSI.2021.3
- **Beena, A.K., James,L. and Aparna S.V**.2021. Multifunctional roles of lactic acid bacteria in dairy industry. International conference on 'Convergence of technology and policy for sustainable meat production', 25th to 28thOctober 2021
- MariyaDivanshi A.S., **Aparna S.V., Beena, A.K., James,L.,Aysha C.H. and Athira,S**. 2021. Bioremediation potential of lactic acid bacteria against cadmium and lead. International conference on 'Convergence of technology and policy for sustainable meat production'. 25th to 28th October, 2021
- Krishna, A.M., **James,L.,Beena, A.K**.,Rajakumar, S.N. and Mercey,K.A. 2021.Changes in microbiological parameters, pH and titratable acidity during the refrigerated androom temperature storage of dahi prepared from the milk of Vechur cows: an indigenous cattle breed of Kerala.J.Dairy.Res.1-4. doi:10.1017/S0022029921000868
- **Rejeesh,R**., **Beena, A.K**. and SudheerBabu P.2021.Yoghurt-Varathan allaveettukaran. Keralakarshakan, May 2021,51-52.
- **Rejeesh,R. and Beena, A.K**,Bhakshyasurakshayiludearogyam. Janayugam Newspaper dated 7th June,2021

10. Consultancy and Public Advocacy

- 64 (over Phone and in person)

1. **Unveiling Human Resources: Unlocking Potential and Pursuits**

- **Seminars/ Workshops/ Summer Institutes/ Symposium/ Winter School**

➢ **National webinar on 'Probiotics - a remedial approach to improve quality of life':**

Probiotic Association of India and Dairy Microbiology Department of VKIDFT Mannuthy jointly organized a National webinar on 'Probiotics - a remedial approach to improve quality of life' from 24/03/2022 to 25/03/2022 at VKIDFT Mannuthy

11. Awards and Honors/ Endowments (department wise)

- Ms. Mariya Divanshi, M.Tech scholar, Department of Dairy Microbiology Secured second prize in poster presentation for the topic entitled "Optimisation of cadmium biosorption by lactic acid bacteria isolated from neonatal faecal sample" ain the "International Virtual Conference on Recent Trends and Innovations in Microbiology" organized by Department of Microbiology, Mohanlal Sukhadia University, Udaipur on July 15, 2021.
- Ms.Archana Chandran., Dr.A.K.Beena,Professor& Head, Department of Dairy Microbiology- Best poster in International Webinar on 'Ecohealth paradigm: Towards Sustainability and Global Health, 3rd and 4th August, 2021, Organized by Department of Veterinary Public health and Livestock Products Technology, Centre for one health Education Advocacy, Research and Training and School of zonooses , public health and pathology
- Dr.A.K.Beena, Professor& Head, Department of Dairy Microbiology acted as resource person in International conference in 'Convergence of technology and policy for sustainable meat production', 25th to 28th October, 2021 on the topic 'Multifunctional roles of lactic acid bacteria in dairy industry'
- Ms. Mariya Divanshi, M.Tech scholar, Department of Dairy Microbiology Secured Best Poster (first prize) entitled "Bioremediation potential of lactic acid bacteria against cadmium and lead". International conference on 'Convergence of technology and policy for sustainable meat production'. 25th to 28th October, 2021
- DR. Aparna Sudhakaran V., Assistant Professor, Department of Dairy Microbiology- Best poster award – International e-symposium on'Probiotics, Prebiotics and Gut Microbiome:Key regulators for Human and Animal Health, 11th November, 2021
- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as Rapporteur for a technical session in International e-symposium on 'Probiotics, Prebiotics and Gut Microbiome: Key regulators for Human and Animal Health organized by Department of Dairy Microbiology, CDST, Guru Angad Dev Veterinary and Animal Sciences University on 11/11/2021
- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as a speaker for webinar on "Clean Milk Production and Hygienic Milk Processing Practices" on 03/12/2021organized by College of Dairy Technology, Udgir, Latur, Maharashtra

12. Beyond the horizons: Exploring other activities

Revolving Fund starter culture

- Starter culture sales-43.9875 liters
- External MSc Projects/Internship-Total 16 students

13. Other Academic activities

External Examiner/ Question paper setter:

- Dr. Aparna Sudhakaran V act as question paper setter for BIRSA Agricultural university – September 2021

Reviewer of Journal:

- Dr. A. K. Beena, Professor & Head, Dairy Microbiology– Reviewer of the Journal LWT Food Science and Technology- July, August 2021

2. **Other Research activities**

1	*Acinetobacter baumannii* strain DMSV01	MZ567200	Milk	Beena,A.K., James,L., S V,A., Viswanath,V., Rajmohan,S.V.T. and Nair,A.S.
2	*Halomonas aquamarina* strain DMS01	OK300096	Badam	Raj,S.K., Beena,A.K., James,L. and Viswanath,V.
3	*Weissella confusa* strain DMA01	OK300049	Chilly	Anija,S.M., Beena,A.K., James,L. and Rejeesh,R.
4	*Weissella confusa* strain JFMNTY 1	OK300043	Jackfruit	Beena,A.K., James,L., Mohan,S. and Cheriyan,A.M.
5	*Staphylococcus nepalensis* strain DMT01	OK448483	Ice cream	James,L., Beena,A.K., Nair,R.R., Muhammed,T. and Viswanath,V.
6	*Lactococcus lactis* strain DMAL01	OK448357	Household Curd	Beena,A.K., James,L., Nair,A.A., Mohan,S. and Joy,T.K.
7	*Tepidiphilus margaritifer* strain DMLT01	OK448419	Pasteurized milk	James,L., Aiswarya,S.R., Raj,S.K., Anija,S.M., Beena,A.K. and Viswanath,V.
8	*Acinetobacter baumannii* strain DMNS01	OK462970	Raw milk	Beena,A.K., James,L., Nasrin,P.S., Nair,R.R. and Viswanath,V.
9	*Pantoea dispersa* strain DMASM01	OM44307	Mobile phone	Anija,S.M., Beena,A.K., James,L., Aparna,S.V. and Viswanath,V.
10	*Lactococcus lactis strain DMASR/01*	OM442992	Tomato	Aiswarya,S.R., Beena,A.K., Nair,R.R., Aparna,S.V., James,L. and Viswanath,V.

11	*Enterococcus faecium strain DMSKR/01*	OM443076	Tulsi	Raj,S.K., Beena,A.K., James,L., Mohan,S.V., Mohan,S. and Joy,T.K.
12	*Weissella confusa* strain DMWC	OM250085	Turmeric	Joy,T.K., Mohan,S., Achuthan,S., Anandhu,S., Reji,A., Anjali,A., Nair,A.S., Beena,A.K., Aparna,S.V., James,L. and Nair,R.R.
13	*Acinetobacter baumannii* strain DMAB/1/22D	OM250104	Icecream	Mohan,S., Joy,T.K., Raj,A., Ashetha,S.T., Muhammed,M.,Hariprasad,P., NithinChand,H.,Rajalekshmi,V., Beena,A.K., James,L. ,Aparna,S.V. and Nair,R.R.

14. Other Extension activities

- Dr. Ligimol James, Assistant Professor, Dairy Microbiology- gave a talk on "പാലിന്റെ ഗുണമേന്മ അകിടുമുതൽ അടുക്കള വരെ" on 01/06/2021 in connection with the World milk day celebrations organized by KVK, Malappuram
- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as a speaker for webinar on "Clean Milk Production and Hygienic Milk Processing Practices" on 03/12/2021organized by College of Dairy Technology, Udgir, Latur, Maharashtra
- Dr. A. K Beena, Assistant Professor, Department of Dairy Microbiology acted as a Resource person for an online refresher course on "Current concepts in Dairy production and Processing" for faculty members and research scholars from 17th to 29thJanuary, 2022 by jointly organized by Department of Dairy Science and Academic staff college, KVASU
- Dr. Ligimol James, Assistant Professor, Department of Dairy Microbiology acted as a Resource person for an online refresher course on "Current concepts in Dairy production and Processing" for faculty members and research scholars from 17th to 29thJanuary, 2022 by jointly organized by Department of Dairy Science and Academic staff college, KVASU
- Dr. Aparna Sudhakaran V, Assistant Professor, Department of Dairy Microbiology acted as a Resource person for an online refresher course on "Current concepts in Dairy production and Processing" for faculty members and research scholars from 17th to 29thJanuary, 2022 by jointly organized by Department of Dairy Science and Academic staff college, KVASU

DAIRY BUSINESS MANAGEMENT

1. Other Academic activities

- Ms. Bincy T. J, Teaching Assistant, Department of Dairy Business Management is providing advice and support for the statistical analysis of both internal and external student projects using softwares such as MS Excel, SPSS etc.
- A computer lab is functioning under Dairy Business Management Department with 22 computers

and the facilities for taking printouts and photocopies. Software like SPSS, R, AutoCad are installed. Students can avail these facilities for their academic purposes. The lab is accessible to all the students and facultyof the college. The functioning of the computer club typically revolves around creating a vibrant and supportive community for students who share academic, extension and co- curricular activities. The club is usually led by an Executive committee which includesDean, Head of Dairy Business Management Department, facultyin charge of computer club and Students union members.

FOOD TECHNOLOGY

1. Academic Manuscripts, Investigative Pursuits, Widely- read articles, Literary Volumes and Technical Documents, Details of research papers published

Research articles:

- Febit K. Saji and **Arya K Salu**. 2021 , "Polyhydroxyalkanoates – Biological substitutes for plastics", International Journal of Bio-Technology and research, 11 (2), 75–84.

2. Unveiling Human Resources: Unlocking Potential and Pursuits

- **Seminars/ Workshops/ Summer Institutes/ Symposium/ Winter School**
- As part of World Food Day celebrations 2021, College of Food Technology in association with IDA, Kerala chapter organized a Webinar on 'Diet, Obesity and cancer- current challenges and therapeutic options' in October 2021
- **Training Program/ Short courses/ Any other program organized (details from each department)**- Nil

➢ As part of the course requirement of 2017 admission students (B. Tech Food technology programme), Three-day online Food product training was conducted from 20/01/2022 to 22/01/2022. The training had a participation of 60 people from different parts of the state. Classes as well as demonstrations on the preparation of various food products was offered during the training programme.

1. **Beyond the horizons: Exploring other activities**

➢ College of Food Technology in association with IDA, Kerala chapter and AFST(I) Thrissur chapter conducted FOODSALVATIO'21 on 07/06/2021 with the theme "Safe food now for a healthy tomorrow", AS PART OF World Food safety Day Celebrations 2021. Flash talk, Cartoon competition, Slogan Competition, Photography competition and short video making competition was conducted as part of the programme.

PHYSICAL EDUCATION

Department of Physical Education, the full-fledged department that manages physical education programmewas established with one Assistant Professor in 2015. Department conducts various tournaments which not only improve the sporting talent of the students, but also help them to

improve their organizational and leadership qualities. Department conducts extension activities for the benefits of students and society. The Department is fully dedicated to prepare promising sports persons and to mould physically fit, mentally sound, emotionally balanced and socially responsible youngsters for the society.

Major activities of the department:

To maintain the physical fitness of the students, various indoor games, outdoor games, fitness centre and recreation facilities are made available. The students are trained for inter-collegiate, inter-university, state level and national level competitions in various sports and games events. The practice and coaching sessions are conducted from 06:30 to 08:00 am in the morning and 4.30 to 6.30 pm in the evening. Recreation facilities are arranged in the college to engage students during the leisure time. Every year, the students are divided into four groups and interclass sports and games like Badminton, Chess Cricket, Football, Table tennis, Volley ball and Athletics are conducted.

Physical fitness training is provided to B.Tech students from 6.30 am to 8.00 am& 5.00 pm to 6.30 pm. This helps the students to improve their physical fitness components, motor abilities and to maintain good health.

The Department provides coaching to selected students of the College in various disciplines like athletics, volleyball, football, shuttle badminton, table tennis and cricket. The training is given in a scientific and systematic manner as to prepare students for the highest level of performance.

Health and Fitness facilities:

Considering the importance of health and fitness aspects of the whole community of the college, a health and fitness centre that houses modern equipment is set up in the college premises. The facilities are made available to students and faculty during all working days from 6.00 am to 9.00 am in the morning and 4.30 pm to 7.00 pm in the evening.

Facilities available:

The sports facilities in Mannuthy Campus are open to all students of the University and are as given below:-

Games & Sports	Equipment and Infrastructure	No.
Outdoor sport		
Athletics	400 mts Track and Field	1
Cricket	Cricket Field	1
Football	Football Ground	1
Volleyball	Volleyball Court, 2	2
	Cricket Nets	2
	Practice Area	-
Basketball	Basketball Court	1
Indoor sport		
Table Tennis	Table	2
Shuttle Badminton	Shuttle Badminton Court	2

Health and Fitness Centre (Gym)	Equipment Like Treadmill, Upright Cycle, Lat Pull with Mid Row, Lying Leg Curl, Leg Extension, Smith Machine, Ab Conditioner Ladder, Fid Bench 90 Degree Pro Style Dumbells-285kg, Olympic Weight Plates-290kg, Rods-7	1

COLLEGE OF DAIRY SCIENCE AND TECHNOLOGY- POOKODE
ANNUAL REPORT 21-22

1. Academic Excellence

India the largest milk producer in the world offers immense opportunities for dairy professionals across the nation. With a vision to achieve self-sufficiency in dairy sector, our state portrays a favourable scenario for the dairy aspirant's in the fields of production, processing and marketing of milk and milk products. Milk being an indispensable part of human diet, devising suitable techniques for the deliverance of quality assured dairy products requires competent dairy technologists in every processing unit. Comprehending this unceasing necessity for skilled personnel in this arena, the Dairy Technology programme has been designed accordingly to generate graduates proficient enough to address the rising concerns pertaining to various aspects involved in the dairy industry.

College of Dairy Science and Technology,Pookode established in 2015 is located in Kerala veterinary and animal sciences university headquarters campus at Pookode Wayanad. The pristine landscape and cool climate makes Wayanad one of the most ideal places for dairying in the state. The district is also popular for implementation of contemporary methods pertaining to dairy farming. Being situated in such supportive location; this institution guarantees both field and industrial levels of exposure to the students.

The college is following the curriculum and guidelines prescribed by the Indian Council of Agricultural Research (I.C.A.R) for B.Tech (Dairy Technology) programme. As per the curriculum, students would get exposure to the entire spectrum of operations taking place in professionally managed dairy processing units through which they acquire the required skills set and confidence to work as highly motivated professionals. The intake capacity for the B.Tech (Dairy Technology) programme is presently 20 seats owing to the shortage of infrastructure and manpower.

2. Admission Excellence

The candidates are selected through the Common Engineering Entrance Examination conducted by Government of Kerala. The candidates who have passed the qualifying Higher Secondary Examination, Kerala or examinations recognized as equivalent thereto, with 50% marks in Mathematics separately, and 50% marks in Mathematics, Physics and Chemistry put together are eligible for admission.

The college offers four year professional B.Tech Programme. Admission to the UG programme is done based on Entrance Examination conducted by the Commissioner of Entrance Examination, Govt of Kerala (KEAM).

Sl. No.	Title of the Programme	Level	Duration (Yrs)	Year of Starting	Sanctioned annual intake
1	B.Tech (DSc.&Tech.)	UG	4	2015	40 students (2016 September onwards it is 20 2020 onwards it is 22)

Departments

The College of Dairy Science and Technology has got the following five departments:

1. Department of Dairy Technology
1. Department of Dairy Engineering
2. Department of Dairy Business Management
3. Department of Dairy Chemistry
4. Department of Dairy Microbiology

Faculty Strength Details as on 31/03/22

2.1 Faculty Strength Details 2021-22

Sl No	Department	Present Status				
		Asso. Prof	Asst. Prof.	Deputation	TA	Total
1	Dairy Technology	0	0	2	1	3
2	Dairy Engineering	0	1	0	2	3
3	Dairy Chemistry	0	1	0	2	3
4	Dairy Microbiology	0	1	0	2	3
5	Dairy Business Management	0	0	0	1	1
Total						**13**

Sl. No.	NAME	DESIGNATION	Contact No.	E mail ID
DAIRY CHEMISTRY				
1	Dr. RAHILA M P	AP (Special Officer i/c)	9400587443	rahilasona@gmail.com
2	Ms. HELNA PIOUS	TA	9544484503	helnapious99@gmail.com
3	Mr. SHARATH S	TA	9495315248	sharathsreedharan999@gmail.com
DAIRY MICROBIOLOGY				
4	Mrs. ARCHANA CHANDRAN	AP	9744975460	archanac@kvasu.ac.in
5	Ms. ANJALI M K	TA	8547873055	anjaliniranjanam@gmail.com
6	Ms. ARCHANA S	TA	8113899361	archanasouparnika94@gmail.com
DAIRY TECHNOLOGY				
7	Mrs GRACE A THACHIL	DEO on Deputation	9895636751	gracethachil@gmail.com
8	Mrs . ANKITHA ANTO C	DEO on Deputation	9656846425	ankithaanto@gmail.com

9	Ms. ABIDHA P K	TA	9447396206	abidathechiad@gmail.com
DAIRY ENGINEERING				
10	Mrs. AKHILA V.	AP	9497315161	akhilavasu@gmail.com
11	Mr.VYSHAK C.	TA	8943635684	vyshak.surendran@gmail.com
12	Mr. GOPESH KRISHNA	TA	7012399407	gkthenayil@gmail.com
DAIRY BUSINESS MANAGEMENT				
13	Dr. ANEES AJMAL M P	TA	7306446373	anees.iabm@gmail.com

2.2 Non teaching staff

Sl No	Department	Name	Designation	Contact No.	Email Id
1	Office	Vinu Solo-man	Ao	7012022254	Vinx37@Gmail.com
1	Office	Abhisha K M	Aso	8921529027	Sams.abisha@Gmail.com
2	Office	Thushara Mariyam	Assistant	6238955186	Mari-yathusharathus@Gmail.com
4	Office	Mariyam Thaykattil	Data Entry Operator	9961154188	
2	Dairy Microbiol-ogy	Jyothi Raju	Lab Assis-tant	8606685052	Jyothirajuanu@Gmail.com
3	Dairy Chemistry	Abhina P.v	Lab Assis-tant	9745661007	Abhinakankol@Gmailcom

2.3 Student profile

Details	2015	2016	2017	2018	2019	2020	2021
UG							
Students admitted	40	17	14	19	20	21	21
Current strength	40	16	14	16	20	21	16
Total	**142**						

3. Tapestry of Expertise and Dedication: Empowering Faculty

Sl no	Year	Awards and Achievements
Awards by faculty		
1	2021	Dr. Rahila M P Dr. Verghese Kurien Birth centenary award for best young researcher in dairy science (south zone)
2	2021	Dr. Archana Chandran - Best Poster presentation - International webinar on Eco Health paradigm: Towards sustainability & global Health

3	2022	Dr. Archana Chandran - Best Poster presentation – Kerala Science Congress
4	2022	Dr. Archana Chandran – Best Paper Award- International Seminar on 'Interventions for control of AMR: Harnessing one health knowledge' organized by ICAR-CIFT

4. Prospering University Life: Vibrant Campus Experience



16-07-2021 – Product Launch of Experiential Learning programme of 2017 Batch



1-11-2021 – Kerala Piravi Celebrations



31-12-2021 – Freshers day celebrations (2020 Admission)



01-01-2022- New year celebrations



10-01-2022- Freshers day celebration (2021 Admission)



17-03-2022- Holi celebrations



27-03-22 Experiential learning programme inauguration (2018 Batch)



31-03-2022 – Aagneya Students Union Inauguration

5. Exploring library trends

The college of Dairy Science and Technology has a Library which possess a collection of scientific books, journals, research papers, publications, annual reports, and electronic media. The library facilities are made available to all the students, trainees, faculty members and non-teaching staff.



II Education, Students well being, Enrichment activities

1. Infrastructure created

The college has infrastructure facilities to support the basic theory and practical sessions prescribed for the first three academic years of B.Tech programme. The Dairy Engineering, Dairy Microbiology, Dairy Technology and Dairy Chemistry laboratories are strengthened with sophisticated equipment to meet the academic/research requirements of concerned departments. A well-equipped dairy Engineering division with drawing hall is arranged in the campus to facilitate the engineering courses prescribed in the B.Tech curricula. An experiential learning lab is constructed to meet the

academic and extension activities of the college. A Computer Lab with 10 Desktop PCs (Pentium i3-4160 CPU@3.60 GHz processor) with Internet connection is available for students and faculty. The College Library has good collection of books and journals required for the B.Tech (DSc. &Tech.) students. The seminar hall is equipped with LCD projection facility and various electronic systems.

2. Scholarships

Sl no	Name of scholarship	Number of students
1	KVASU Merit cum means scholarship	4
2	KVASU Merit Scholarship	8
3	National scholarship	30
	TOTAL	**42**

3. Hostel and Housing

The institute provides hostel facilities for both boys and girls. Hostel facilities for girl students have been arranged both within and outside (Thalippuzha) campus premises. The boys are accommodated in the men's hostel within the campus. 57 girl students and 16 boy students are residing in college hostels.

4. Outreach programme

The college has organized several trainings and seminars for the technology transfer to students, farmers and entrepreneurs.

- Webinar on Financial well being on 26th June 2021
- Webinar on Physical fitness and well being on 3rd July 2021
- Webinar on Scope for overseas education and Stress management on 10th July 2021
- Webinar on Career guidance on 24th July 2021
- Webinar on Unravelling science of chocolate making and secrets behind successful corporate careers on 17th July 2021
- Webinar on Scope for overseas education on 31st July 2021
- Webinar on New product development on 7th August 2021
- Online seminar for farmers and entrepreneurs on farmers day 16th and 17th August 2021
- Webinar on New product development on 31st July 2021
- Webinar on Career prospects in Dairy industry on 31st July 2021
- Online seminar on Managing the Dairy development in market held on 26th November 2021
- Hands on training for value addition in goat milk to women entrepreneurs held on 26th and 27th November 2021
- Online seminar on Mastering stress held on 31st January 2022
- Hands on training for value addition in milk to farmers and entrepreneurs held on 26th March 2022.



5. Sports, Physical education

The college sports amenities typically include a wide range of indoor and outdoor facilities to support various athletic programs and student-athletes. These amenities are designed to enhance the overall experience to athletes while promoting physical fitness and skill development. These amenities not only support the college's athletic programs but also provide recreational opportunities for all students and contribute to the overall campus experience. Students were represented the college and proved their abilities at various levels starting from interclass to inter-agri competitions in National level.



6.Students Union/ Sport Day/ Hostel Day Celebrations

7. Student counselling and placement services

The placement cell organises several seminars and interactive sessions with dairy professionals globally to acquaint the students with the career opportunities world wide.

- Webinar on Scope for overseas education and Stress management on 10th July 2021
- Webinar on Scope for overseas education on 31st July 2021
- Webinar on Career prospects in Dairy industry on 31st July 2021

Placement cell also coordinates with various dairy industries nationally to ensure maximum campus placements.

7.1 Students successfully placed in various firms

- 6 graduates placed in Milma Malabar region
- 2 graduates placed in Vocational Higher Secondary Educational Department

III DEPARTMENT PROFILES

1. DEPARTMENT OF DAIRY CHEMISTRY

The Dairy Chemistry Department is responsible for imparting knowledge in the field of Dairy Chemistry, Food Chemistry and Quality Assurance. The department keenly undertakes measures to develop techniques that facilitates quality check at every point in a food processing chain.

Research Projects

- Development of antidiabetic whey jelly
- Studies on extending shelf life and antioxidant properties of ghee using herbal isolates

Achievements and Technology transferred

- Development of antidiabetic whey jam by incroporating sarvasugandhi extract
- Development of antidiabetic whey candy by incroporating sarvasugandhi extract
- Development of antioxidant rich greek yogurt incorporated with cocoa powder
- Development of chia seed enriched strawberry flavoured jelly
- Utilization of whey for pineapple flavoured whey jam



2. DEPARTMENT OF DAIRY MICROBIOLOGY

Research project

- Yeast Fermentation: Study on the symbiotic association of yeast and lactic acid bacteria in fermented milk products.
- Identification of lactic phages from dairy effluents and their effect on commercial starters

Achievements and Technology transferred

- Evaluation of probiotic potential and amylolytic properties of Lactic acid bacteria for application in food
- Phenotypic and genotypic diversity of indigenous Lactobacillus fermentum
- Molecular diversity of indigenous LAB
- Phenotypic and genotypic identification of wild yeast strains isolated from fermented milk.



3. DEPARTMENT OF DAIRY TECHNOLOGY

The Dairy Technology department focuses on imparting research based technical knowledge and proficiency relating to the production, processing, storage and handling of milk and milk products. A special emphasize has been given to development of novel dairy products. Standardization of manufacturing process of regional dairy products for their economic marketing is yet another area of interest in this discipline.

Research Project

- Development of passion fruit juice incorporated low calorie ice- cream.

Achievements and Technology transferred

- Process standardisation of quinoa kulfi
- Development and standardization of Persimonn fruit flavoured kulfi
- Development of Passion fruit flavoured diabetic kulfi
- Development of Passion fruit flavoured kulfi incorporated with orange peel



4. DEPARTMENT OF DAIRY ENGINEERING

This department handles the Dairy Engineering courses of the B.Tech programme. The dairy engineering department offers strategic directions to establish a fully functional dairy plant. This particular discipline lays thrust on designing, mechanization and maintenance of processing plants.

Research projects

- Rheological charecterization of locally avalable Dairy products in Wayanad district.

Achievements and Technology transferred

- Comparative assessment of saffron flavoured sappan wood extract added shrikhand with selected market samples
- Development and process standardization of bael fruit powder added muffins
- Rheological characterization of market samples of ghee in Wayanad



5. DEPARTMENT OF DAIRY BUSINESS MANAGEMENT

The Department of Dairy Business Management provides input regarding various managerial approaches followed in industries of all kinds. The courses handled by this department grooms the students and transforms them to professionals with impeccable communication skills, enduring entrepreneurial aptitude and human resource management proficiency.



COLLEGE OF DAIRY SCIENCE AND TECHNOLOGY KAIMANAM, THIRUVANANTHAPURAM

INTRODUCTION

The Government of Kerala made a budget provision of Rs. 25 lakhs in the financial year 2013-14 for setting up a new Dairy Science College in Chettachal, Nedumangad Taluk (Thiruvananthapuram district). Accordingly, the Kerala Veterinary and Animal Sciences University (KVASU) headquartered at Pookode in the Wayanad district decided to start the College of Dairy Science and Technology (CDST), Chettachal (Vithura). College of Dairy Science and Technology, Thiruvananthapuram (presently functioning at Academic Block, BSNL - RTTC, Kaimanam, Thiruvananthapuram -695040) under the faculty of Dairy Science and Technology of Kerala Veterinary and Animal Sciences University started functioning on 14.09.2015 to advance, disseminate and foster the developments in the field of Dairy Science and Technology. The College offers 4-year undergraduate B. Tech. (Dairy Technology) the degree programme, with intensive training in processing, quality control and engineering of milk and milk products.

OBJECTIVES OF THE INSTITUTION

- To undertake appropriate academic programmes at the undergraduate and postgraduate professional levels in various branches of Dairy Science and Technology.
- To create the necessary infrastructure to house classrooms, laboratories, library, computer lab, sports amenities and other allied facilities.
- To set up an Experimental Dairy plant for students with the state of art facilities for undertaking academic, research and training activities related to dairy processing.
- To provide R&D support to the Dairy and Food processing industry for developing value-added products and to take problem-oriented research based on feedback from different extension agencies and field feedback from dairy farmers.
- To develop new energy-efficient production systems utilizing emerging technologies in the processing of value-added dairy products for minimizing processing costs energy management etc.
- To undertake collaborative research projects with industries and renowned research institutions to develop products and technologies for entrepreneurs.
- To organize training programmes, farmer-scientist interactions, dairy-clinics, seminars, technology demonstrations and print and visual media programmes for dairy plant personnel, researchers, small entrepreneurs and others in the field of Dairy and Food Processing
- To publish books, booklets and popular articles for the dissemination of new technologies to the dairy farming community and dairy processing industry.

ADMISSION PROCEDURE

The candidates admitted to the UG course are selected through the Common Engineering Entrance Examination conducted by the Government of Kerala. The candidates should have completed Class XII or its equivalent examination with Chemistry, Physics and Mathematics as optional subjects and should have secured an aggregate of 50% marks or above in these subjects in the qualifying examination. The candidates can choose their option for this course among other graduate courses in Engineering.

COURSES

The course curriculum for B. Tech (Dairy Tech.) programme is prepared in line with the pattern specified by the I.C.A.R, New Delhi. The course is offered for a total duration of eight semesters. The total credits have been apportioned to Dairy Engineering, Dairy Technology, Dairy Chemistry, Dairy Microbiology, Dairy Business Management and Dairy Husbandry disciplines with due weightage for each. The students are also required to undertake an All Kerala Exposure Visit (7 days) and an All India Exposure Visit (23 days) as a part of the course curriculum during which the students are required to visit the important institutions and commercial dairy plants across the country. The last two semesters of the B.Tech programme are set apart for Experiential Learning, In-plant training and Farm training. Students are exposed to the entire gamut of operations taking place in farms and dairy processing plants, which help them to acquire the required skills set and confidence to work as highly motivated professionals for the emerging dairy industry. They are also enriched with entrepreneurial qualities to start their own industrial units as part of the "Experiential Learning Programme (90 days)" during the final year. The students are also trained to enrich the extension capacity by Extension Training Programme (7 days) and Hands on Training Programme (3 days). The Internship programme comprising of In-plant training and Farm training is organized in dairy farms for a period of 30 days and in commercial dairy plants for a period of 70 days. These programmes provide every student, the required practical exposure in scientific management of dairy farms and also in the operation, maintenance and management of large scale commercial dairy processing units like Amul, Schreiber Dynamix, Mother Dairy, Milma etc.

Sl.No.	Programme	Level	Duration (Yrs)	Sanctioned annual intake
1	B.Tech (Dairy Technology)	UG	4	20 students 2 (EWS)

Note: Sanctioned annual intake temporarily reduced from 40 to 20 students with effect from 2016 admission onwards and an additional 10 % reservation made to economically weaker section students

PTA ACTIVITIES

The College PTA coordinates the maintenance and upkeep of Students hostel at BSNL-RTTC campus. The College PTA is taking care of the service and periodic maintenance of Water Purifier to ensure purified drinking water to staff and students. PTA is also providing practical records to students at nominal rates. The association extends financial support to various union and college programmes with the concurrence of Executive Committee.

DEPARTMENTS

TEACHING DEPARTMENTS

The academic activities of the college are harnessed through the following six departments:

1. Dept. of Dairy Technology
2. Dept. of Dairy Engineering
3. Dept. of Dairy Chemistry
4. Dept. of Dairy Microbiology
5. Dept. of Dairy Business Management
6. Dept. of Dairy Husbandry

STAFF STRENGTH

Faculty Status (Regular Faculty as on 31st March, 2022)

Faculty Rank	No:of Sanctioned Regular posts	Present Status: Number in position by Highest Qualification			Total Regular Faculty in position	Total Vacancies
		Doctoral Degree	Masters Degree	Bachelors Degree		
Professor	N.A.	0	0	0	0	N.A.
Associate Professor	N.A.	0	0	0	0	N.A.
Assistant Professor	N.A.	2	3	0	5	N.A.
Dairy Extension Officer on Deputation to KVASU	N.A.	1	1	0	2	N.A.
TOTAL	N.A.	3	4	0	7	N.A.

DEPARTMENT WISE DETAILS

FACULTY DETAILS

Sl. No.	Name and designation of the Teaching Staff	Discipline	Residential Address	Email ID	Contact No.	
					Land line (Res.)	Mobile
1	Dr.RachanaC.R. Special Officer Asst. Professor&Head	Dairy Chemistry	Ponnili, Near Town Hall, Attingal P.O, Trivandrum - 695101	cr.rachu@gmail.com	0470-2794401	9497682168
2	Smt.Beena R.L Asst.Professor on Phd deputation	Dairy Technology	V. G bhavan Kallayam p.o Trivandrum 43	beenarl@kvasu.ac.in	0471 2371135	9947367580

3	Dr. K. Lalu Asst. Professor & Head	Dairy Husbandry	Prarthana Neeleswaram P.O., Kottarakkara - 691505	lalu@kvasu.ac.in	0474-2450910	9447150267
4	Sri. Rejeesh R. Asst. Professor on deputation Phd	Dairy Microbiology	Reshmi, TC 36/631 (3) ,Perunthanni, Trivandrum-695 008	rejeeshr-nair@ rediff-mail.com	0471-2452583	9497849625
5	Dr Aiswarya S. Panicker Dairy Extension Officer on deputation to KVASU	Dairy Microbiology	SreekrishnaVihar Venniyoor Venganoor P O Thiruvananthapur-am - 695523	aiswarya.has.sp@ gmail.com	8607553824	8950809839
6	Dr. G. R. Jayadevan Asst. Professor on deputation Phd	Dairy Business Management	Sangeeth K.E.R.A -175. Muttakkad Post Venganoor Thiruvananthapur-am- 695523	jayadevan@ kvasu.ac.in	0471-2481980	9496369816
6	Smt. Maureen Jacob Thomas, Dairy Extension Officer on deputation to KVASU	Dairy Business Management	Kochupurackal, TC 30/53(1), Sugathan Road, Kudavoor, Anayara P O, Thiruvanantha-puram- 695029	maureen-jacobt@ gmail.com	0471-2743057	9400058641

STUDENT STRENGTH

Sl. No.	Programme	Level	Duration (Yrs)	Batch	Sanctioned annual intake	Turn out	Pass out (No of students)
1	B.Tech (Dairy Technology)	UG	4	2015	40 students	35	35 on 2020
2	B.Tech (Dairy Technology)	UG	4	2016	20 students	18	18 on 2021
3	B.Tech (Dairy Technology)	UG	4	2017	20 students	16	16 on 2022
4	B.Tech (Dairy Technology)	UG	4	2018	20 students	19	

5	B.Tech (Dairy Technology)	UG	4	2019	20 students	20	
6	B.Tech (Dairy Technology)	UG	4	2020	22 students	21	
7	B.Tech (Dairy Technology)	UG	4	2021	22 students	18	
Total students						147	
Total students pass out as on 31/3/2022						69	
Total students currently present within the campus as on 31/3/2022						78	

INTERNSHIP

- 2017 Batch has done Dairy Extension Training Program Under Dairy Development Department, Kerala
- 2017 Batch has done In plant training in TRCMPU, MRCMPU, ERCMPU

INFRASTRUCTURE FACILITIES

With regard to infrastructure, facilities created in the temporary campus are sufficient to support the basic theory and practical sessions of the B.Tech degree programme. The Dairy Microbiology, Dairy Technology and Dairy Chemistry laboratories are strengthened with sophisticated equipments to meet the academic/research requirements of concerned departments. A spacious drawing hall is arranged in the campus to facilitate the Engineering Drawing course prescribed in the B.Tech curricula. A well-equipped Computer Lab with 14 Desktop PCs (Pentium i3-4160 CPU@3.60 GHz processor) having Internet connection is also present. BSNL Landline facility (Telephone No. 0471-2491288) and Broadband connection (FTTH 4999- multi-user facility intended for Institutions) have been subscribed by the college. The College Library has been set up with excellent infrastructure and good collection of books and journals required for the B.Tech (DSc. &Tech.) students. The lecture hall is equipped with LCD projection facility, Computer and Public Address Lectern. The college has made arrangements with the Sree Chitra Thirunal College of Engineering, Pappanamcode for the conduct of practical sessions prescribed for General Engineering courses in B.Tech curricula. The rates and remuneration charges are fixed as per the G.O (Ms) No. 42/2014/H.Edn dated23/01/2014.

EDUCATION, STUDENT AMENITIES AND ACTIVITIES

Students' Union Activities(: 01/04/2021to 31/03/2022)

Sl.No.	Event	Programme	Date / Period
1	World Milk Day	Product Selling Contest : Best Salesman Adithyan MR and Akhil Binu, Best Customer Mrudhularaj	01-06-2021
2	World Environmental Day	E-poster	05-06-2021
3	World Food Safety Day	E-poster	07-06-2021
4	World Day Against Child Labour	E-poster	12-06-2021

5	World Blood Donar Day	E-poster	14-06-2021
6	National Reading Day	E-poster	19-06-2021
7	National Doctors Day	E-poster	01-07-2021
8	International Justice Day	E-poster	17-07-2021
9	World Emoji Day	E-poster	17-07-2021
10	Freshers Day 2020 Batch	Online Programme	11-08-2021
11	Onam Games	Winners: Reels Onam- 1st Maria C Shibu, 2nd Aiswarya Babu, 3rd VibinV, Pling Onam - 1st Akhilbinu, 2nd Aiswarya Babu, 3rd Vibin V.	15-08-2021
12	Teachers Day	E-poster	05-09-2021
13	engineers day	e-poster	15-09-2021
14	World Ozone day	E-poster	16-09-2021
15	Gandhi Jayanthi	E-poster	02-10-2021
16	World Food Day	E-poster	16-10-2021
17	Childrens Day	E-poster	14-11-2021
18	National Milk Day	Winners: Quiz 1st-Rizwana M & Pavithra T,2nd- Mariya C & Divya Chandran, 3rd- Alfiya S &Fazeela A. Product Innovation 1st- Muhsina M S, Vyshnavi K R, Alfiya S, 2nd - Maria C, Divya Suresh Chandran, Aiswarya Babu, 3rd : Sreya C S, Smirithy S, Sivarenjini	26-11-2021
19	Christmas Celebration	Cake cutting and various games along with cultural programs where conducted	09-12-2021
20	New Year Celebration	Campfire was conducted	01-01-2022
21	Republic Day	E-poster	26-01-2022
22	Womens Day	E-poster	08-03-2022
23	Freshers Day 2021 Batch	Offline Programs was conducted	16-03-2022
24	Holi Celebration	Holi Celebration was conducted in the name'RangBarse'	18-03-2022

STUDENT SCHOLARSHIPS

Sl No	Name of scholarship	Number of Students
1	Central sector scholarship	1
2	C H Muhammed Koya	3
3	Fisheries department	2
4	E-grants	25
5	Merit cum means	4
6	Merit scholarship	6
7	National Scholarship/Merit cum means	7
8	Other Scholarships	3

CURRICULAR, CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

- Students of CDST, Thiruvananthapuram participated in National Webinar (March 24) on "Probiotics - A remedial approach for improving quality of life"
- Students of CDST, Thiruvananthapuram, 2018 batch: visited Muralya Dairy Plant Kattakkad on 20/12/2021.
- Students of CDST, Thiruvananthapuram, 2018 batch participated in IDA WEBINAR based on National Milk Day
- Students of CDST, Thiruvananthapuram, 2018 batch participated in Ksheera Smrithi Conducted by CDST. Kohlalemedu
- Students of CDST, Thiruvananthapuram, 2018 batch participated in Jeevanyam Conducted By VKIDFT

LIBRARY REPORT

Library is equipped with the latest and useful books and journals purchased under the State Plan 2021-22. Details of library books are digitalized and have been entered in the KOHA library management system of KVASU, enabling students to access information of all the library books 24X7. Library also provides the facility of online journals to students and teachers. The infrastructure facilities such as book shelves, computer and printer purchased utilizing the state plan funds 2021-22 has strengthened the Library.

RESEARCH: ONGOING PROJECT DETAILS

Sl no	Name of Project	Funding agency	Name of PI	Outlay
1	Isolation, identification and characterization of Lactic acid bacteria from indigenous fermented milk samples collected from Kerala Seven gene bank submissions done: Accession No.MK 729020(*Lb.rhamnosus*) Accession No.MK 729077(*Lb.delbrueckii*) Accession No.MK 765014 (*Enterococcus durans*) Accession No.MK 765016 (*Lb.delbrueckiissp bulgaricus*) Accession No.MK 765024(*Lb.fermentum*) Accession No.MK 793581 (*Lb.casei*) AccessionNo.MK793582(*Lb.helveticus*) Accession No.MT 176500 (*Lb.fermentum*) Accession No.MT 180550(*Enterococcusdurans*) Accession No.MT 180551(*Enterococcus faecalis*) Accession No.MT 180552 (*Lb.rhamnosus*)	ICAR	Sri. Rejeesh R Dairy Microbiology	2,00,000/- Year

2	Assessing the microbial quality of Raw milk procured by milk societies of Thiruvananthapuram district using DRTs and reviaving the role of Bulk Milk coolers(BMC)	State plan	Sri. Rejeesh R Dairy Microbiology	50000/-
3	Creation of repository of Dairy Starters for Southern Districts of Kerala	State plan	Sri. Rejeesh R Dairy Microbiology	50000/-
4	Setting up of a centre for milk testing and quality awareness for stake holders in the southern district of Kerala (1 Year Project)	KVASU	Dr. Rachana C R Dairy Chemistry	7.5 Lakhs
5	Study of fatty acid profile of Vechur and Kasargodu Dwarf cattle milk	KVASU	Dr.Rachana C R Dairy Chemistry	10 lakhs

ACHIEVEMENTS OF FACULTY

- ✓ Sri. Rejeesh R was Successful in implementing the concept of mini incubator into a reality.
- ✓ Sri. Rejeesh R got appreciation from Executive Vice President, KSCSTE, GoK for valuating Students project scheme 2021

Awards:

PUBLICATIONS:RESEARCH ARTICLES

Research Articles:

- Jasim Salim, Anita Mary Sunil, Shyma C S, Vithu p, Jayasree J, Asha A and **Rejeesh R**, (2021), Imaging techniques for food quality analysis. A review, Indian food industries magazine, 3(5), 41-52.
- Beena, A.K. and **Rejeesh, R**, (2021), Probiotic starter culture for value addition of milk, Compendium of lectures, Refresher course on Quality challenge in the dairy sector, organized by KVASU and MANAGE.
- **Rejeesh, R**, Beena A. K., and Sudheerbabu, P (2021), Mini incubator for Yoghurt, Kerala Karshakan**, (5):**51-52
- **Rejeesh, R** and Beena, A. K., (2021), Yoghurt – health, value addition and Entrepreneurial opportunities, Handbook for Dairy Farmers, Directorate of Entrepreneurship, KVASU, June:19-24.
- Natarajan, T. and **G.R., Jayadevan.** (2021), "COVID-19 pandemic and the consumption behaviour of branded functional beverages in India: a conceptual framework", Nutrition & Food Science, Vol. 52 No. 3, pp. 423-444. https://doi.org/10.1108/NFS-06-2021-0177

- George, A., Chandran, A. R. and **Jayadevan, G. R.** (2021). "Cooperative Dairying and Food Safety Regulations", A Reference Textbook (First Edition). ISBN 978-93-91716-10-3. KVASU Publications Division, Pookode
- **Jayadevan, G. R.**, Thamaraiselvan, N. Jayapal, J. and Gangadharan, N. (2021). "COVID-19 pandemic and its impact on the Consumption Behaviour of Functional Food Products in India". In Cobanoglu, C., & Della Corte, V. (Eds.). (2021). *Proceedings of the Global Conference on Services and Retail Management* (Vol. 2). USF M3 Publishing. May 11-13, 2021. pp. 315-319. https://www.doi.org/ 10.5038/2641-5062-v2
- Gangadharan, N., Thamaraiselvan, N., Jayapal, J. and **Jayadevan, G. R.** (2021). "The Future of Destination Marketing Organisations: A Literature Review". In Cobanoglu, C., & Della Corte, V. (Eds.). (2021). *Proceedings of the Global Conference on Services and Retail Management* (Vol. 2). USF M3 Publishing. May 11-13, 2021. pp. 268-272. https://www.doi.org/ 10.5038/2641-5062-v2
- Jayapal, J., Thamaraiselvan, N., Gangadharan, N., and **Jayadevan, G. R.** (2021). "Building Social Identity through Brand Placements in Reality Shows". In Cobanoglu, C., & Della Corte, V. (Eds.). (2021). *Proceedings of the Global Conference on Services and Retail Management* (Vol. 2). USF M3 Publishing. May 11-13, 2021. pp. 305-308. https://www.doi.org/ 10.5038/2641-5062-v2

TRAININGS/ SEMINARS AND CONFERENCES ORGANIZED

1. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) was the Coordinator of 2-day national level webinar on 'Probiotics – A remedial approach for improving quality of life' jointly organised by KVASU and PAI from 25th to 26th March 2021
2. Sri Rejeesh R., Assistant Professor (Dairy Microbiology), Member of souvenir committee of IDA-South zone on Honouring the Milkman of India - Varghese Kurien – Birth centenary year held at Chennai on 08.12.2021
3. Sri Rejeesh R., Assistant Professor (Dairy Microbiology),Rapporteur in the session I of food processing in connection with International conference on Convergence of Technology and Policy for sustainable Meat Production organised by AMST and MTU, KVASU on 27.10.2021
4. Sri Rejeesh R., Assistant Professor (Dairy Microbiology), Rapporteur in the session I of national level webinar on 'Probiotics – A remedial approach for improving quality of life' jointly organised by KVASU and PAI on 25th March 2021
5. Dr. Lalu K, Assistant Professor, Department of Dairy Husbandry conducted an orientation class for farmers on "Dairy Cow Nutrition" at APCOS, Kollam on 14th and 15th March 2022.
6. Dr. Lalu K, Assistant Professor, Department of Dairy Husbandry conducted an orientation programme entitled "Scientific fielding of crossbred cattle" at Kadamamcode tribal colony, Kulathupuzha on 25/03/2022

TRAININGS/ SEMINARS AND CONFERENCES ATTENDED

- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - successfully completed **AICTE ATAL online elementary FDP** on Building sustainable and resilient Food security and food processing systems from 25.10.2021 to 29.10.2021 at CDFT, Koduvally

- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - successfully completed **30 days Massive Open Online Course (MOOC)** on Theoretical foundations of Educational Technology by ICAR-NAARM, Hyderabad (1-30 June 2021)
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - successfully completed **30 days Massive Open Online Course (MOOC)** on Digital Teaching Techniques by ICAR-NAARM, Hyderabad (1-31 December 2021)
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Successfully participated in **14 days refresher programme** on 'Current concepts in Dairy Production and Processing' organised by ASC, KVASU from 17.01.2022 to 21.01.2022.
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Participated in National online conference on Implementing strategies to achieve food security food sustainable partnership: Progress and Challenges from 29th July 2021 to 30th July 2021 organised by Dept of Food Process Engineering, CDFT, TNVASU, Koduvalli (TANUVAS)
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - participated in the Online National Workshop on KVASU E 2025: The definitive plan "organised by Teacher's organization of Veterinary University Kerala (TOVUK) on 7th August 2021
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Participated in National Webinar on 'Trends in detection of adulterants in Milk and Ghee' organized by SMC College Anand (Kamdhenu University) on 15.09.2021
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Participated in the International conference on Convergence of Technology and Policy for sustainable Meat Production organised by AMST and MTU, KVASU from 25.10.201 to 27.10.2021
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Participated in a 2-day national level webinar on 'Probiotics – A remedial approach for improving quality of life' jointly organised by KVASU and PAI from 25th to 26th March 2021
- Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Participated in a training programme on IPR in Academics and research jointly organised by KVASU and KSCSTE from 23rd to 26th March 2021.
- Dr Lalu K, Assistant Professor, Department of Dairy Husbandry: Attended webinar on" Innovative Extension Strategies for Sustainable Live Stock Development", Organized by MVC, TANUVAS on 29/04/2021
- Dr Lalu K, Assistant Professor, Department of Dairy Husbandry: Attended "Agri expert Management" organized by MANAGE Hyderabad from 15/06/2021 to 17/06/2021
- Dr Lalu K, Assistant Professor, Department of Dairy Husbandry: Attended" Climate Smart Dairying in the contest of Global Warming" organized by MANAGE Hyderabad and KVASU on 04/05/2021,05/05/2021
- Dr Lalu K, Assistant Professor, Department of Dairy Husbandry: Participated and successfully completed online training on "Designing New Age Foods of Animal Origin" organised by

the Department of "Livestock Products Technology, College of Veterinary Science & Animal Husbandry, Mhow, From 2nd to 16th August 2021.

- Dr Jayadevan G. R., Assistant Professor, Department of Dairy Business Management attended 30 days International Online Workshop on *Academic Writing and Communication Skills, Research Methodology, Reference Management and Academic Publishing* organized by the Assumption College (Autonomous), Changanacherry from 24th July to 23rd August, 2021
- Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management attended NPTEL 12 Week Online Certification Course (FDP) on *Marketing Research and Analysis-II* organized by the IIT Roorkee during the period January-April, 2021

OTHER OUTREACH PROGRAMMES OF FACULTY AND INSTITUTION

I. Newspaper articles:

1. News paper article : Beena A K, Sri Rejeesh R., Assistant Professor (Dairy Microbiology) -, Food Safety and Health on 07.06.2021 (Janayugam,, Malayalam daily)

II. Radio/ YouTube talk

1. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - YouTube live programme on Farm Information Bureau, Dept of Agri, GoK on topic Milk and Food Safety on 09.06.2021

III. Other notable activities:

1. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - presented annual report and programme report on 10th Dec 2021, in connection with annual general body meeting of NCVTC network projects through online organized by, ICAR- NRCE, HISSAR Haryana.
2. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Panel Member of Experts for assessment of renewal for approval of exports of Export Inspection Agency- Kannur Dairy, MRCMPU under Export of Milk and Milk products rule (08.04.2021)
3. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Panel Member of Experts for assessment of renewal for approval of exports of Export Inspection Agency- Wayanad Dairy, MRCMPU under Export of Milk and Milk products rule (24.04.2021and 25.04.2021)
4. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Presented thematic talk on Dairy on 2nd December 2021, in connection with Young Innovators Programme -2021-2024 at Kasaragod organised by K-DISC, GoK.
5. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Member of judging panel of 'ICAR - *Kritagya Hackathon'* South zone competition held online in Jan 2022

IV. Sessions Handled

1. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Food safety : New Labelling regulations' for the three month training programme of the Asst Directors of AHD,

GoK on 07.05.2021

2. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Yoghurt- Health and Value addition' in connection with University day celebrations as a part of Expert Talk under DE, KVASU on 16.06.2021
3. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Manufacture of Yoghurt and entrepreneurial opportunities' for prospective dairy farmers organised by DTC, Kottayam on 23.06.2021
4. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'FMP- Method of manufacture' for prospective dairy farmers and

   entrepreneurs organised by DTC, Kottayam on 25.09.2021
5. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Fermented milk products – Health and Income' for prospective dairy farmers and entrepreneurs organised by DTC, Oachira on 23.12.2021
6. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - Conducted quiz competition on 26.11.2021 at CDST, Idukki in connection with National Milk Day
7. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Yoghurt and Probiotic Products' for prospective dairy farmers and entrepreneurs organised by DTC, Trivandrum on 20.10.2021
8. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Dairy Industry- New trends and Entrepreneurial Opportunities' for prospective dairy farmers and entrepreneurs organised by DTC, Kottayam on 17.11.2021
9. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Value added fermented milk products for health and wealth' for prospective dairy farmers and entrepreneurs organised by KVK, Palakkad on 07.01.2022
10. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Value added fermented milk products – New Trends' for prospective dairy farmers and entrepreneurs organised by DTC, TVM on 12.01.2022
11. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Scope of Value addition and Marketing of Dairy Products' for officers of AHD and DDD organised by SAMETI, GoK on 18.01.2022
12. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Recent developments in the functional dairy product sector' in the web-based refresher training programme on 'Current concepts in Dairy Production and Processing' organised by ASC, KVASU on 21.01.2022.
13. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Functional Dairy products – Futuristic Multifaced value addition and healthy living' for consumers, prospective dairy farmers and entrepreneurs organised by DDD, Thrissur on 26.02.2022

14. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Dairying – Towards Functional foods' for prospective dairy farmers and entrepreneurs organised by DDD, Kottayam on 04.03.2022

15. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Multi faced value addition – Dairy Functional foods – Beyond Nutrition' for consumers, prospective dairy farmers and entrepreneurs organised by DTC, Kottayam on 08.03.2022

16. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Milk, Milk Products and Functional Dairy Products and Ingredients' for consumers, prospective dairy farmers and entrepreneurs organised by DDD, Trivandrum on 16.03.2022

17. Sri Rejeesh R., Assistant Professor (Dairy Microbiology) - A session on 'Dairy Processing Industry- Newer trends in Processing and Marketing' for prospective dairy farmers and entrepreneurs organised by DDD, Palakkad on 31.03.2022

18. Dr.Lalu K, Assistant Professor, Department of Dairy Husbandry acted as an expert member in the interview committee for the appointment of management Trainee in KLDB Board Ltd. On 01/09/2021

19. Dr.Lalu K, Assistant Professor, Department of Dairy Husbandry,Acted as an Expert Member in the interview Committee of KPSCfor the selection process of Veterinary Surgeon GrII in Animal Husbandry Department on 03/02/2022

20. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management, delivered a Session titled "Indian Dairy Industry: Emerging Trends, Challenges and Opportunities in the post-COVID Scenario" in the Online Refresher Course on "Current Concepts in Dairy Production and Processing" for faculty members and research scholars organized jointly by the KVASU-Academic Staff College and Dept. of Dairy Science, CVAS Mannuthy – January 26, 2022

21. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management ,act as member of the Expert Sub Group themed Preparing Kerala for a Surplus in Milk Production: A Plan in the Sectoral Working Group on Animal Husbandry and Dairy Development for the formulation of the 14th Five Year Plan, Kerala State Planning Board, Govt. of Kerala – September, 2021

22. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management -Member – Drafting Committee for the 14th Five Year Plan Report on Animal Husbandry and Dairy Sectors, State Planning Board, Govt. of Kerala – September, 2021

23. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management, delivered the Focal Theme Presentation on 'Outreach' activities of the University in *KVASU@2025-The Definitive Plan*, an online workshop organized by TOVUK, August 7, 2021

24. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management delivered a talk on Career Counseling titled "From Confusion to Clarity" at the CLOUD TALKS Webinar Series organized by College of Dairy Science and Technology, KVASU Pookode Campus on 24th July, 2021 using the Google Meet platform.

25. Dr. Jayadevan G. R., Assistant Professor, Department of Dairy Business Management delivered a Webinar Talk on the topic "Graduation in Dairy/Food Technology – Admission, Course Highlights and Career Prospects" jointly organized by the College of Dairy Science and Technology, KVASU Mannuthy Campus and Indian Dairy Association – Kerala Chapter on 15th April 2021 using the Google Meet platform.

HOSTEL FACILITIES

- Under the aegis of the College Parent Teacher Association, hostelling of students were arranged in BSNL-RTTC campus. PTA coordinates the maintenance and upkeep of the student's hostels. The BSNL-RTTC management has extended the services of their Staff Canteen for the staff and students of CDST as well.

AWARDS IN CURRICULAR, CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

ALUMINI AND PLACEMENT

- The Third batch (2017) of CDST Trivandrum has completed their degree.
- Details of placement

Sl.No	Organisation	No of students	Remarks
01	HatsunAgro Product Ltd.	6	Technical Officer
02	Sapins Dairy	1	Production Executive
03	TRCMPU	1	Assistant Dairy Officer
04	Lazza	1	Production Supervisor
05	Jeevan Dairy	1	Production & QC in-charge

LIBRARY FACILITIES (01/04/2021to 31/03/2022)

Brief outline of the centre

The college library is fully automated and stocked with all subject related text and reference books, journals and magazines. We have been using the international integrated library system "KOHA" for total library management. The web based Online Public Access Catalogue(WEB OPAC) helps users to know the availability and status of the documents of the library @24x7 any time any where basis. (https://covas-opac.l2c2.co. in). Library also provide full text accessibility of more than 3000 national/international journals through the ICAR journal consortium CeRA. The provison of 250 e-books from leading publishers helps to cater the information needs of the students and faculty of this college.

Detailed note on stock of books, journals (print and online)

Books purchased during 2019 to 2020: 134

Total number of Books as on 31/03/2020: 723

Total number of journals as on 31/03/2020: 03

Books purchased during 2020 to 2021: Nil

Total number of Books as on 31/03/2021: 856

Total number of journals as on 31/03/2022: 03

Books purchased during 2021 to 2022: 379

Total number of Books as on 31/03/2022: 1234

Digitization status of library and others

Details of all the books are entered at the KOHA integrated library system of KVASU.

No. Of Users in Library: Total users:100



DEPARTMENT OF DAIRY CHEMISTRY













DEPARTMENT OF DAIRY ENGINEERING









DEPARTMENT OF DAIRY TECHNOLOGY









DEPARTMENT OF DAIRY MICROBIOLOGY





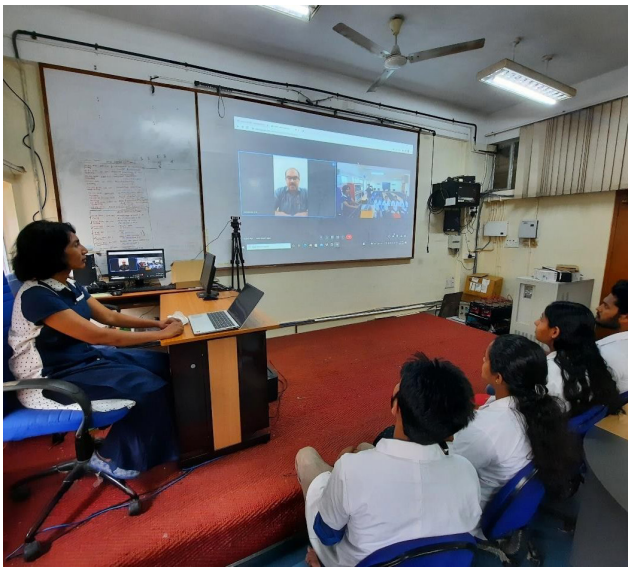




DEPARTMENT OF DAIRY BUSINESS MANAGEMENT








KEEP SILENCE


Chocolate: the sweet taste of chemistry

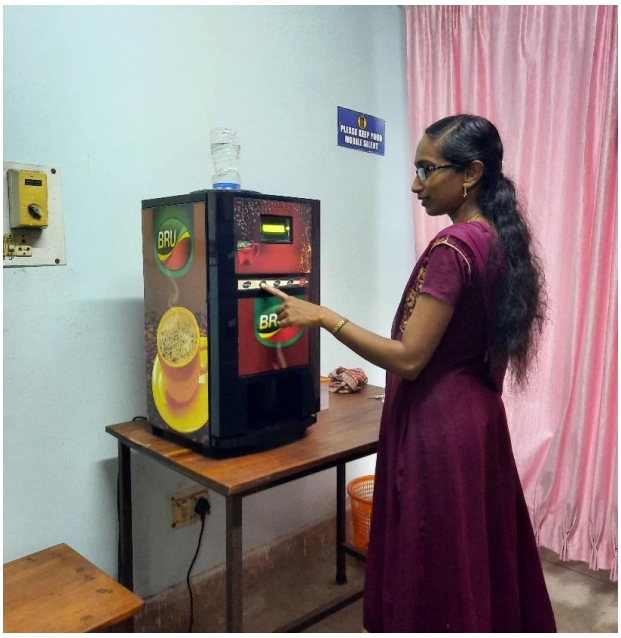





Vixen






BRU




AUDITORIUM



COLLEGE OF DAIRY SCIENCE AND TECHNOLOGY KOLAHALAMEDU, IDUKKI



1. Academic Excellence

B. Tech (Dairy Technology) is a unique job oriented professional degree programme which leads to the overall development of graduates and make them capable to face various situations in the field of dairy and food industry. The total credits have been apportioned to Dairy Engineering, Dairy Technology, Dairy Chemistry, Dairy Microbiology and Dairy Business Management disciplines with due weightage. The students also undertake a South Indian study tour and an All India study tour as part of the course curriculum during which they visit important institutions and commercial dairy plants across the country. The last semester of the B. Tech programme is set apart for In-plant training and Farm training.

Students are exposed to the entire gamut of operations taking place in professionally managed dairy processing units, which help them to acquire the required skill-set and confidence to work as highly motivated professionals for the emerging dairy industry. They are also enriched with entrepreneurial qualities to start their own industrial units. For this, they have to successfully complete an 'Experiential Learning Programme' during the seventh semester. All the students are required to undergo hands on training in the experimental dairy plant during the seventh semester and undergo Internship during the final semester. The Internship programme is organized in dairy farms for a period of 30 days and in commercial dairy plants for a period of 70 days. The programme provides every student, the required practical exposure in scientific management of organized dairy farms and also in the operation, maintenance and management of large scale commercial dairy processing units. Apart from this they also undergo a field extension training for a week.

2. Admission Excellence

The candidates admitted to B. Tech (Dairy Technology) programme are selected through the Common Engineering Entrance Examination conducted by Govt. of Kerala and admission is for 20 students per year which is increased to 22 per year from 2020. The course curriculum for B. Tech. (Dairy

Technology) is as specified by the Indian Council of Agricultural Research (ICAR), New Delhi. The college has presently admitted 4 batches of students comprising a total of 68 students into the B. Tech. Programme through KEAM. College is functioning with well infrastructure facilities and student amenities.

3. Myriad of Learning Pathways: Diverse Courses and Departments

The candidates admitted to B. Tech (Dairy Technology) residential programme are selected through the Common Engineering Entrance Examination (KEAM) conducted by Govt. of Kerala. They should have completed Class XII or its equivalent examination with Chemistry, Physics and Mathematics as optional subjects and should have secured an aggregate of 50% marks or above in these subjects in the qualifying examination. The candidates can choose their option for this course among other graduate courses in Engineering.

Title of the Programme	Level	Duration (Years)	Year of Starting	Sanctioned annual intake
B. Tech (Dairy Technology)	UG	4 (8 Semesters)	2017	22 students (from 2020 onwards)

As on 31-03-2022, there are 7 teachers and 6 non-teaching staff in the college.

STRENGTH OF STUDENTS AND GENDER DISTRIBUTION

Presently, there are 4 batches of students admitted for the programme. 2017 batch (18 students) passed out by February 2022.

Year of Study	Admission	Semester	Total B. Tech (DT)	Male	Female
1st Year	2021	II	18	4	14
2nd Year	2020	III	16	3	13
3rd Year	2019	V	15	3	12
4th Year	2018	VIII	19	3	16
Total			**68**	**13**	**55**

4. Tapestry of Expertise and Dedication: Empowering Faculty

FACULTY MEMBERS

Sl. No.	Name of the Teaching Staff	Discipline/ Department	Designation	Email ID
1	Dr. Shyam Suraj S R	Dairy Business Management	Special Officer/ Assistant Professor	spocdstklmd@kvasu.ac.in
2	Mr. P Nandagopal	Dairy Technology	Assistant Professor	nandagopal.p@kvasu.ac.in
3	Ms. Asha Ashok	Dairy Engineering	Assistant Professor	asha.ashok@kvasu.ac.in

4	Ms Prema KS	Dairy Microbiology	Teaching Assistant (Daily Wages)	prema11may@gmail.com
5	Ms Rinchu S Rajan	Dairy Business Management	Teaching Assistant (Daily Wages)	rinchu.srajan123@gmail.com
6	Ms Rinjumol K R	Dairy Chemistry	Teaching Assistant (Daily Wages)	rinjukr1994@gmail.com
7	Mr. Anas P	Dairy Engineering	Teaching Assistant (Daily Wages)	anaspottayil0@gmail.com

OFFICE AND NON-TEACHING STAFF

Sl. No.	Name of the Teaching Staff	Designation	Email ID
1	Mr. Sanoje Kumar A.C	Administrative Officer	officecdstklmd@kvasu.ac.in
2	Ms. Sona S	Assistant	
3	Mr. Shan S	Assistant	
4	Mr. Ajal P	Computer Assistant	
5	Mr. Sajan CS	Reference Assistant (Daily Wages)	
6	Ms. Aswathy M Bijo	Laboratory Assistant (Daily Wages)	

TRAININGS/COURSES ATTENDED BY FACULTY

Sl. No.	Name and designation	Title of the Programme	Duration	Institution
1	Dr. Shyam Suraj S.R. (Special Officer)	Digital Teaching Techniques (MOOC - Online)	1.12.2021 to 31.12.2021	ICAR- National Academy of Agricultural Research Management
2	Ms. Asha Ashok (Assistant Professor)	Strategic Reflections on Trans-formation against a Changing Academic Landscape (Online)	23/02/2022 to 15/03/2022	Academic Staff College, KVASU
		Research Methodology (Online)	20/07/2021 to 03/08/2021	University of Delhi
		Scientific Writing (Online)	23/06/2021 to 24/06/2021	ICAR-National Dairy Research Institute, Karnal, Haryana
		Induction/Orientation Programme for Faculty in Universities / Colleges /Institutes for Higher Education (Online)	18/05/2021 to 17/06/2021	University of Delhi

3	Mr. Nandagopal P (Assistant Professor)	Managing online classes and co-creating MOOCs 14.0 (On-line)	7.5.2021 to 22.5.2021	University of Delhi
		Strategic Reflections on Trans-formation against a Changing Academic Landscape (Online)	23/02/2022 to 15/03/2022	Academic Staff College, KVASU
		Induction/Orientation Programme for Faculty in Universities / Colleges /Institutes for Higher Education (Online)	18/05/2021 to 17/06/2021	University of Delhi

PUBLICATIONS BY FACULTY

1. Shyam Suraj S.R. and K.S. Kadian. (2021). Information Sourcing and Managing Behaviour of Dairy Entrepreneurs of Kerala in *Indian Research Journal of Extension Education.* 22(1). 66-72.
2. Shyam Suraj S.R. (2021). Dairy Cooperative Development in India: The Kurien Trajectory in *Honoring the Milkman of India* published by Indian Dairy Association, South Zone. 91-93.
3. Shyam Suraj S.R and A.G. Adeeth Cariappa (2021). Contract Farming: Success Story of a Dairy Entrepreneur in Haryana in *Indian Dairyman*. July. 74-76.
4. Nandagopal P. (2022). Khoa: A base material for traditional Indian dairy products in *A blueprint for professional experience* published by Academic Staff College, KVASU. 33-36.
5. Asha Ashok (2022). Advances in milk pasteurizer control systems in *A blueprint for professional experience* published by Academic Staff College, KVASU. 7-10.
6. Asha Ashok (2021). Learning Outcome Based Vocational Curriculum for the job role DAIRY PROCESSING EQUIPMENT OPERATOR for the Sector: Food Processing; Sub Sector: Dairy Products (Class 11 and 12) under State Council of Educational Research and Training (SCERT), Kerala, Department of General Education, Government of Kerala, April 2021.

5. **Exploring Library Trends**

   Rapid advances in Information and Communication Technologies are changing the Library and Information Services drastically. Besides this, expectations of the users have also raised manifold. Libraries are not mere spaces anymore; they are much more than that. It has become a challenge for library management to keep pace with changing information packaging and delivery methods on one hand and meet the user expectations on the other. CDSTK Library has been trying to do the same over the years and as per feedback from its patrons has been quite successful in this venture. CDSTK Library not only proactively works on its collection building and infrastructural augmentation, also put lot of emphasis on facilities for users. Online access to the core journals in dairy science and allied subjects is made available through the consortium CeRA (Consortium of e Resources in Agriculture) which include both national and international journals. Like previous years, this year also focus was on the strengthening of collection and implementation of latest information and communication technologies in its services.

Literary Activities

1. National Reading Day Celebration.
2. Library has successfully conducted a webinar on "Reading through the New Media Age.
3. Literary Club function was inaugurated (19/06/2022).

1. INFRASTRUCTURE CREATED

The college is functioning with limited infrastructure facilities and student amenities. There are three classrooms, college office, library, four laboratories (DM, DC, DT and DE), computer lab, exam hall, recreation cum drawing hall, auditorium and experimental dairy plant. College provides accommodation facilities to staff, hostels for boys and girls, guest quarters and canteen with the limited resources. Students are taken to other institutions for conduct of practical especially for basic engineering courses (Govt. Polytechnic College, Muttom and CIFT, Kochi)

Sl. No.	Infrastructure facilities	Details
1	Classrooms	3 (with computer system and projector)
2	Computer lab	8 PC under DBM Dept.
3	Library	970 books, 2 newspapers, 3 journals
4	Hostel facility	Girls - Capacity- 60 Boys - Capacity-20
5	Experimental Dairy Plant	Work in progress (Commissioning by September 2022)
6	Laboratories	For 4 statutory departments – DT,DE,DM and DC
7	KVASU Base Farm	Located at vicinity that facilitate students for practical on farm management
8	KASAVU Canteen	For students and staff
9	KLDB Bull Mother Farm	Used for farm training of students
10	Staff Quarters	For staff accommodation

2. SCHOLARSHIPS

The students are provided scholarships such as KVASU Merit Cum Means Scholarship, KVASU Merit scholarship, NSP-MCM, E-grantz. About 60 students are getting these scholarships every year.

3. HOSTEL AND HOUSING

The college is presently accommodating all the staff in the staff quarters and the students in the hostel.

4. **OUTREACH PROGRAM**

CLASSES TAKEN BY FACULTY OUTSIDE THE CAMPUS

1. Dr. Shyam Suraj S.R, Special Officer presented a webinar on the topic – 'Dairy Entrepreneurial Behavior and Ecosystem of Kerala' under the auspices of Indian Dairy Association, Kerala Chapter and College of Dairy Science and Technology, Mannuthy on 14.8.2021.
2. Dr. Shyam Suraj S.R, Special Officer took a class on the topic "ക്ഷീരസംരഭങ്ങളുടെ വിജയമന്ത്രം" at the Vazhakulam Block "ക്ഷീരസംഗമം" on 15.1.2022.
3. Dr. Shyam Suraj S.R., Special Officer and Mr. P. Nandagopal, Assistant Professor took class for trainees at KLDB on 19.11.2021 and 27.11.2021 on Milk and Milk Products.

5. **SPORTS,PHYSICAL EDUCATION AND CO-CURRICULAR ACTIVITIES**

Discus Throw- Sreelakshmi U bagged 3rd prize All India Inter-Agri Sports meet on 03-03-2020 at Sri. Venkateswara Veterinary University, Tirupathi.

6. **STUDENTS UNION/HOSTEL/SPORTS DAY CELEBRATIONS**

The college has a Students' Union elected on democratic basis with a President, Secretary, Vice President, Joint Secretary, Arts Club Secretary, two University Union Councillors, Editor, Athletic Captain and Secretaries for Social Service, Hobby Centre and Planning Forum. It also includes the class representatives. Ms. Asha Ashok was the Associate Patron. Ms. Jiji.K (2018 batch) was the President and Mr. Sanid K.M (2019 batch) was the Secretary during the current year.

7. **STUDENTS COUNSELLING AND PLACEMENT SERVICES**

The Students Counselling Centre provides counselling to students during admission as well on monthly basis. A Counsellor is engaged for monthly counselling classes and students are getting assistance on the same from teachers and their advisors. The in-charge of Counselling Centre if Mr. Nandagopal. P., Assistant Professor.

8. **Students' intake details**

The B. Tech. (Dairy Technology) student's admission is through KEAM. The total intake capacity is 22. Total of 18 students took admission in the college during the academic year 2021-22.

DEPARTMENT PROFILES

DAIRY ENGINEERING

Dairy Engineering Department deals with instrumentation and process control required for automation of basic processes. It also deals with the instrumentation and process control required for automation of basic processes. It will cover wide areas dealing with Dairy and food Engineering, Dairy Machinery, Food Process Engineering, Electrical Engineering, Fluid Mechanics, and

Refrigeration & Air Conditioning etc. We are on an initials stage of establishment of a Dairy Plant. Our courses are designed accordingly to get a practical exposure to the students and industrial visits are also there in each course plan.

DEPARTMENT OF DAIRY MICROBIOLOGY

The Department of Dairy Microbiology is engaged in various activities pertaining to teaching,research, training and technology transfer in the field of Dairy Microbiology. The department is also actively involved in investigating, characterizing, evaluating and documenting the microorganisms relevant to the Dairy industry.

Laboratory Activities

· The department lab houses all vital instruments and equipment's for conducting practical sessions and research activities.

· Organizing training to students, entrepreneurs and researchers in the field of dairy

microbiology

· Facilities for the estimation of microbiological quality of milk and milk products are available in the laboratory.

DAIRY CHEMISTRY

Dairy Chemistry discipline deals with the components of milk and chemical aspects during processing of milk and milk products including quality assurance. It also deals with biochemical aspects and nutritional aspects of milk products to human body. The Department has exclusive laboratory for instrumentation, Dairy Chemistry, Food Chemistry, Quality control and Dairy and Food Analysis.

DAIRY TECHNOLOGY

Technology is the practical application of scientific knowledge. Department of Dairy technology is involved in the manufacture, standardisation and testing of various dairy products. Courses are designed in such a way that students are provided exposure in all aspects of dairy production such as Market milk, Traditional dairy products, Cheese technology, condensed and dried dairy products, By- product technology, Packaging etc. The experimental Dairy plant under the department provides hands-on exposure to the students in the industrial manufacture of different dairy products. The plant is installed with various equipment like skid-mounted pasteurisation unit, BMC, Milk packing machine, Ice cream freezer, Kulfi machine, cheese vat etc. The student ready experiential learning module under the department instils entrepreneurial skills in the students by the development, standardisation and marketing of various innovative dairy products.

DAIRY BUSINESS MANAGEMENT

The objective of the department is to impart theoretical and practical knowledge of dairy business-related activities such as accounting,financial & marketing management, economic concepts,

ICT tools and technology.

DEPARTMENT OF PHYSICAL EDUCATION

Department of Physical Education seeks to become a centre of excellence –moulding students into citizens of physically active, emotionally mature, intellectually analytical with moral values and social responsibility. It aims to inculcate healthy minds in the healthy bodies of students. It is responsible for the conduction of sports and games activities of the college.

I. LIBRARY AND INFORMATION SCIENCES

INTRODUCTION

Rapid advances in Information and Communication Technologies are changing the Library and Information Services drastically. Besides this, expectations of the users have also raised manifold. Libraries are not mere spaces anymore; they are much more than that. It has become a challenge for library management to keep pace with changing information packaging and delivery methods on one hand and meet the user expectations on the other. CDSTK Library has been trying to do the same over the years and as per feedback from its patrons has been quite successful in this venture. CDSTK Library not only proactively works on its collection building and infrastructural augmentation, also put lot of emphasis on facilities for users. Online access to the core journals in dairy science and allied subjects is made available through the consortium CeRA (Consortium of e Resources in Agriculture) which include both national and international journals. Like previous years, this year also focus was on the strengthening of collection and implementation of latest information and communication technologies in its services.

I. **Books Anew:**

a) During the FY (2021-22) **62** new books and 1 journal were added to the collection.

b) During the FY (2021-22), **43** new subject books and **19** general books were procured for enriching the collections of Library.

c) General Collection Novels (Malayalam)

II. **Novel Engagements:**

a) Reading Engagements

4. National Reading Day Celebration.

5. Library has successfully conducted a webinar on “Reading through the New Media Age.

b) Literary Fairs

1. Literary Club function was inaugurated (19/06/2022).

III. **Technological Leap:**

In the digitally advanced scenario, libraries cater to user needs in a blended atmosphere, from print to electronic, acquisition to access, subscription to perpetual, and physical to virtual mode.

a) CDST library is primarily concerned with conservation and dissemination of right knowledge to its users. Library follows Dewey decimal classification for classification of books and developed online catalogue using the KOHA software, an open source integrated Library Management software.

b) Koha Library Management System, Linux

c) The library's catalogue of books and other reading material can be accessed through library intranet (OPAC). The library catalogue is searched by author, title, publisher, keyword and year of publication.

d) User feedback can help to identify the strengths and weaknesses of library, as well as the opportunities and challenges for improvement. The feedback received from the students, there was an opinion that new general collection books are needed in library, along with this, requested that the current digital library facility should be increase.

IV. **Enriching Services :**

a) Research Services and assistance

The library has long been a hub for learning and research on our campus. The following research assistance services:

1. Literature Review Support: Library will provide comprehensive assistance to the students in conducting literature reviews for their research projects. This includes helping them identify relevant sources, access specialized databases, and organize their findings effectively.
2. Proofreading and Editing Services: We will provide proofreading and editing support, ensuring that the academic papers and research documents produced by our patrons are of the highest quality, free from errors, and aligned with proper citation standards.

b) Reference Section

The aim of library is to provide information to its users. The reference section provides services which help users make the best use of library resources, and find the information they require quickly and efficiently.

Reference services

- Assistance in using the library-

  Many students need assistance in using library, particularly the first time they use it. They may need help searching the catalogue, finding material on the shelves of finding information in reference sources.

- Library Orientation Class
- Answering requests for information
- Conducting literature searches

- Current awareness services

V. Library in Focus:

a) Snapshot of the library's evolution, development

College of Dairy Science and Technology, Kolahalamedu, Idukki shall contribute to the socio-economic change in Kerala through the development of highly skilled human resource in all spheres of Dairy Technology endowed with high integrity, work values and entrepreneurial orientation. The college library functional at the temporary campus of DCSMAT, Pullikkanam from Sept. 25th, 2017 to June 29th, 2019. Formal inauguration of Academic block was done by Hon'ble Minister for Agriculture & A.H., Govt. of Kerala Sri. V.S Sunil Kumar on 30thOctober, 2017.

The library being the heart of the University provides cutting-edge facilities and services to support research, teaching, learning, and scholarly communication across disciplines. It has good accommodation and excellent infrastructural facilities. It provides access to various national, international journals and periodicals in addition to an excellent collection of textbooks and reference books. Facilities are also provided to students and faculty for access to internet and online journals.



b) 1.Circulation **Operations**

Library circulation operation is a fundamental aspect of library services, enabling patrons to easily borrow and return materials from the library's collection. This essential process ensures the smooth flow of resources and supports the principle of equitable access to knowledge.

2. Reference Service

Library reference services are a cornerstone of library offerings, providing invaluable assistance and guidance to patrons in their search for information.

3. Information Service/Library Orientation
4. Assistance in Resource Discovery
5. Bibliographic Service
6. Current Awareness Service (CAS)
7. Reprographic Services

c) Acquisition section

During the FY (2021-2022) year 62 new books and 1 journal were added to the collection.

Library Collections

Collection	Nos
Total Number of Books	970
Reference Collections	60
CD ROM Collections	1
Newspaper (English)	1
Newspaper (Malayalam)	1
Magazines	3
Subject Journals	-
Question Papers	6 years

d) Library has strong base of users who visited and heavily utilized the services of library during the period.

Number of Books issued during financial year

SL No	Year	No. of Books Issued
01	2021-2022	388

e) Students/Faculties visited in Library

SL No	Academic Year	No. of students visited	No. of Faculty visited
01	2021-2022	2085	Nil

VII BIBLIOPHILE'S DELIGHT:

a).The library holdings in terms of books, journals, learning materials and technology-aided learning mechanisms are organized in such a way as to enable the students to acquire information, knowledge

and skills required for their study programme. CDST library is primarily concerned with conservation and dissemination of right knowledge to its users. Library holds an exclusive collection of books for competitive examinations which provides variety learning environment. The library provides open access to its documents and any member can browse through the collections which are arranged according to Dewey Decimal Classification (DDC).The Library is automated with Koha Library Management software.

c) SCHOLARLY WORKS

PUBLICATIONS BY STUDENTS

Sl. No.	Name of the student (All of 2019 batch)	Title	Magazine/ Newspaper
1	Ms. Sona Mariyam Anil	Aflatoxin in Milk	Krishi Jagran
2	Ms. Meghna P	Foot and Mouth Disease in Cattle	Mathrubhumi
3	Ms. Divya Murali	കൂടുതൽ പാൽ ചുരത്താൻ ടി എം ആർ ഫീഡ്	കർഷകൻ
4	Mr. Sanjay Babu	A1, A2 പാൽ തെറ്റിദ്ധാരണകളും യാഥാർഥ്യവും	ഹരിതഭൂമി
5	Ms. Sreelakshmi M.V.	രോഗപ്രതിരോധത്തിന് യോഗർട്ട്	കലാകൗമുദി
6	Ms. Naseera P.	കന്നുകാലികളെ പാമ്പുകടിച്ചാൽ എന്ത് ചെയ്യണം?	മാധ്യമം
7	Ms. Lamees	ബട്ടറും ബദലും..... നിങ്ങൾ കബളിപ്പിക്കപ്പെടുന്നുണ്ടോ?	സുപ്രഭാതം (E paper)
8	Ms. Muneesa K.S.	സന്തോഷം വേണോ? ഒരു ഐസ്ക്രീം കഴിക്കൂ! സമ്മർദ്ദവും മാറും	കലാകൗമുദി

COLLEGE OF AVIAN SCIENCES AND MANAGEMENT

Thiruvazhamkunnu, Palakkad 648601



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1.1. Academic Excellence

The College of Avian Sciences and Management is established at Thiruvazhamkunnu, Palakkad District with the aim of providing quality education in all aspects related to poultry science so as to meet the increasing demand of skilled personnel required in the industry. The college is offering B.Sc. (Poultry Production and Business Management), a three year graduate programme from 2014 Academic year onwards. The course is designed with the objectives of crafting human resource management professionals with technical knowledge in poultry production, developing entrepreneurial skills to unemployed youth and equipping youth with different facets of Poultry production and business management. The college also aims at conducting need based research in poultry farming for helping the farmers. An Avian Research station is also located in the campus which comprises of various poultry farms, feed mill, hatchery etc

1.2. Admission Excellence

(Detailed information of admission procedure, courses) departments, staff strength, student strength,)

B.Sc. Poultry Production and Business Management: The college is offering B.Sc. (Poultry Production and Business Management), a three year graduate programme from 2014 Academic year onwards. The timely modifications of the academic curriculum are done by the Board of Studies and the committee recommend the same to the Academic Council of university for

approval.

Objectives of the course

- Craft Human Resource Management Professionals with technical knowledge in Poultry production
- Develop entrepreneurial skills to unemployed youth
- Equip youth with different facets of Poultry production and business management

Highlights of the course

- Production domain: Layer and breeder production, broiler production, poultry nutrition, feed mill technology, automation in poultry production, poultry processing, hatchery management, climate change adaptation of poultry, management of pet birds and diversified poultry species
- Management domain: Business communication, computer application for poultry business, Accounting and financial management, marketing strategies, human resource management, risk management and insurance
- Work experience: Hands on training in leading poultry farms for 12 weeks.

Significance of the course

Presently, poultry industry is lacking management professionals with adequate knowledge about poultry production. Acquaintance on management aspects of poultry business will help to manage the commercial poultry industry efficiently. With this vision, B.Sc. PPBM (Poultry Production and Business Management) course was launched by combining management aspects related to poultry business with basic poultry production. Hands on training in collaboration with leading industries of the country and exposure visit to various farms, hatcheries, processing plants and feed mills inside the country coupled with sound theoretical and practical approach to poultry production as well as management aspects related to poultry production will help to mold managerial experts fitted to poultry industry in India and abroad.

The curriculum of the course is developed and finalized through a brain storming workshop with scientists, researchers, academicians, entrepreneurs, and industrialists related to the sector. The list of participants is given as Annexure II. The duly recommended curriculum was placed in various Statutory bodies of the University including Board of Studies, Academic Council and finally in the Management Council for approval.

Employment potential

The graduates from this institution are currently employed in the firms mentioned below:

i. Kerala State Poultry Development Corporation (KSPDC)

ii. Brahmagiri Kerala Chicken Project-A joint venture by Kerala Govt and NGO (Brahmagiri development Society, Wayanad, Kerala)

iii. Suguna Institute of Poultry Management, Udumalpet, Tamilnadu

iv. Suguna Foods, Tamil Nadu

v. Sreenivasa poultry farms Ltd, Andhrapradesh,

vi. Farms India chicken, Pollachi

vii. Government Hatchery, Ollur, Kerala

viii. Poultry production units, Kerala Veterinary and Animal Sciences University

ix. VIRBAC Animal Health Pvt. Ltd.

x. Kudumbasree Kerala Chicken Project

xi. Poultry farms in United Arab Emirates

xii. Entrepreneurs in poultry industry

xiii. Poultry Farms in United States of America for One Year Poultry Work Experience Programme

xiv. Poultry Farms/Hatchery of Kerala State Animal Husbandry Department

xv. Swami Feeds, Hosur

Students are also pursing higher education in various fields such as MBA, MBA (Agribusiness Management), MSc. Animal Science and M. S. Wild Life

Mode of selection	:	KVASU entrance examination
Duration	:	6 semesters
Eligibility Criteria	:	10+2/VHSE in any stream with at least 50% marks
Annual intake	:	40+4
Evaluation	:	Semester wise examinations, assignments and project work
Scope of the course	:	placements in various farms, hatcheries, processing plants and feed mills located inside and outside the country

Staff Position

Department wise faculty profile

Total sanctioned posts : 9

Posts in position : 4

Student Strength as on March 2022

Batch	2018 Batch	2019 Batch	2020 Batch	2021 Batch	Total
Boys	20	33	20	10	**63**

Girls	26	13	20	15	**74**

Staff Position as on March 2022

Teaching Faculty - 8 (including Teaching Assistants)

Non Teaching Staff - 12

Department wise faculty Profile

Sl. No	Department	Faculty
1	Poultry Breeding and Genetics	Dr. Stella Cyriac
2	Avian Nutrition	Dr. Harikrishnan S
3	Poultry Production Management	Dr. Prasoon S
4	Avian Disease Management	Dr. Vineetha P.G.
5	Poultry Processing and Technology	Dr.Prasoon S
6	Poultry Business and Entrepreneurship	Dr. Stella Cyriac

Myriad of Learning Pathways: Diverse Courses and Departments (Courses, departments, staff strength, students' profile)

Course	Departments	Name of Faculty	Number of Students
BSc. PPBM	Poultry Breeding and Genetics	Dr. Stella Cyriac	137
		Mrs. Muneera V	
	Avian Nutrition	Dr. Harikrishnan S	137
		Dr. Junaid N.	
	Poultry Production Management	Dr. Harikrishnan S	137
	Avian Disease Management	Dr. Vineetha P.G.	137
	Poultry Processing and Technology	Dr.Prasoon S	137
	Poultry Business and Entrepreneurship	Dr. Stella Cyriac	137
		Mr. Muhammed Arsal T.K.	
		Mrs. Azhar T.	

Tapestry of Expertise and Dedication: Empowering Faculty (Faculty details, Capacity building programs, Faculty achievements, outstanding faculty)

Faculty Details

Sl No	Name	Qualification
1	Dr. Harikrishnan S.	MVSc., PhD.
2	Dr. Stella Cyriac	MVSc., PhD.
3	Dr.Prasoon S.	MVSc., PhD.
4	Dr. Vineetha P G	MVSc.
5	Dr. Junaid N.	MVSc., PhD.
6	Muhammed Arsal T. K	MBA, M.Com., NET

7	Azhar T	M.Com, NET
8	Ramya Shankar	MSc Computer Science

1.3. Prospering University Life: Vibrant Campus Experience (Sports, Games, Co-curricular activities, Union, travel, Performing Arts and Aesthetic development)

Playground and recreation facilities

The college has adequate sports and games facilities to support the physical development of students. There is an outdoor multipurpose playground (70m×70m) for sports like football, cricket and athletics activities. Courts for volley ball (18m×9m) and shuttle badminton (13.4m×5.18m) are established for the students. An indoor area offers facilities for table tennis, caroms and chess. Sports goods are also made available for students for the conduct of various sports activities like cricket, football, volley ball and athletics. . A physical instructor on working arrangement guides the students in various sports activities. Students are actively participating in inter collegiate and inter-agri sports meets every year. A college yoga club was started with a one week yoga training programme and the students are practicing yoga regularly.

Fitness Centre for students and faculty

A fitness centre, equipped with various modern equipment like multi gym, treadmill and weight lifting equipment, has been established in the campus to help the students and faculty for improving their physical health.

Inter class games and sports

The college has been organizing annual inter class games and sports meet every year. The winners will be selected for participating in inter collegiate level meets.

Student's Union

As in every college, the Students' Union of CASM, Thiruvazhamkunnu is dedicated to social, organizational and co-curricular activities of students. Union encourages the spirit of secularism and patriotism, and inculcate democratic values in students. There are various associations like Athletic Association, Social Service League, Arts Club, Planning Forum, Literary and Debating Club, Film and Photography etc. subordinate to the College Union to achieve the objectives of the Union. Different clubs work together to organize debates, seminars, work squads, tour parties and other important activities.

1.4. Exploring Library Trends (details from colleges administration)

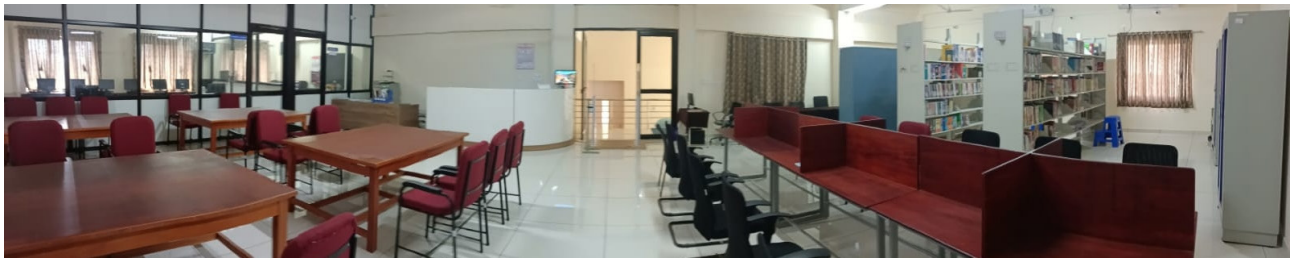
Literary Activities: Reading Day celebrations, Quiz competitions, Awards for Best Readers

New Arrivals and Information Systems:

No of new arrivals : 565

Library Report:

Our CASM College Library is a stronghold of knowledge and academic excellence within our institution, serving as a vital hub for students and faculty, fostering learning, research, and intellectual exploration.



1. New Additions in the Financial Year 2021-22

In the fiscal year 2021-22, we made significant additions to our existing stock, enhancing our facilities and services as follows

- CCTV System
- Circulation Counter
- Computers
- Customized U-shaped Computer Tables
- Revolving Chairs
- Air Conditioners
- Laptop
- Books

These valuable additions further enhance our library's infrastructure and services, ensuring a more enriching experience for our users.

These modifications incorporate the financial year for the additions and provide a clear tabular representation of the items and their costs.

1. EDUCATION, STUDENTS WELLBEING, ENRICHMENT ACTIVITIES

1.1. Infrastructure created- Nil

1.2. Scholarships

Scholarship Assistance to Students

Merit Scholarship	:	No.of students awarded scholarship : 20 Total Scholarship amount:60000(20* 3000)
Merit Cum Means Scholarship	:	No.of students awarded scholarship: 4 Total Scholarship amount: 20000(4 * 5000)
E grants scholarships	:	SC/ST/OEC and OBC Students

1.3. Hostel and Housing

Ladies hostel

College of Avian Sciences and Management provide hostel facilities for girls within the campus itself. The lady students are being accommodated in one floor of the Farmers' Training Centre in the campus. A matron and a resident tutor are residing in hostel to take care of the students. The hostel is established with fully furnished rooms. The hostel has all the facilities like electricity and water connection, 24 hour security guard supervision, fencing, easy road access, water purifiers for each floor, first aid box, TV, newspaper and magazines, computer, refrigerator, induction cooker, napkin destroyer.

Men's hostel

The College of Avian Sciences and Management has a well-furnished men's hostel with ample space for accommodation along with recreational facilities. The hostel building has facility to house 48 inmates. There are 14 rooms of which 12 are double rooms and 2 are dormitories. There are sufficient toilet facilities attached to the hostel. The students are provided with a TV room, caroms board and Table tennis and floodlit badminton court for their recreation. A resident tutor is extending academic support to the students in the hostel.

Hostel Annex

This facility is used to accommodate first year students during anti-ragging period. It has the capacity to accommodate 20 students.

1.4. Outreach Program

The college has been undertaking various extension activities for benefitting the farmer community and to solve the problems faced by the farmers in nearby districts. Various training programmes are being conducted for the farmers. The faculty members have been undertaking various kinds of trainings and other workshops as a part of the extension programmes. The farmers have been visiting the campus for obtaining technical advises and other consultancy services for making their business more profitable. The college has undertook the following outreach activities in the year:

1. Dr.Harikrishnan S, Special Officer, CASM was resource person for the training organised by Manjaadi Duck Hachery and Training Institute, Thiruvalla and he delivered a talk on "Muttakkozhi Valarthal" for the farmers on 11.08.2021 through google meet.
2. Dr.Prasoon S, Assistant Professor of CASM handled an online session on 'Irachikkozhi Valarthal ' to farmers on 16.09.2021 and 17.09.2021 as a part of the training programme organised by Animal Husbandry Department, Kudappanakkunnu.
3. Dr. Stella Cyriac, Assistant Professor of CASM handled an online session on 'Thaaraav valarthal' to farmers on 27.09.2021 as a part of the training programme organised by Animal Husbandry Department, Kudappanakkunnu.
4. Dr. Stella Cyriac, Assistant Professor handled an online session on Poultry Farm Management on 15.02.2022in the 7 day training programme for Livestock Inspectors.

5. Dr. Stella Cyriac, Assistant Professor handled an online session on 'Waste Disposal in Poultry Farm' on 12.02.2022 in the Expert Interaction for SPF students of GVHSS Agali organised by General Education Department
6. Dr. Stella Cyriac, Assistant Professor handled an online session on 'Hatchery Management' on 20.02.2022 in the Expert Interaction for SPF students of AKAS GVHSS Payyannur, Kannur organised by General Education Department.
7. Dr. Prasoon S, Assistant Professor handled an online training session on Layer farming on 09/02/2022 and 10/02/2022
8. Dr. Stella Cyriac Handled an online session on 'Waste Disposal in Poultry Farm' in online interaction with SPF students of GVHSS BP Angadi, Thirur, Malappuram organised by General Education Department on 22.03.2022

1.5. Sports, Physical Education and co-curricular activities

For the promotion of physical education and other co-curricular activities among the students, college has been organising various games and arts fest every year among the students. The events are organised at class level and the winners are being selected for the inter collegiate level competitions. The college organises football, cricket, volley ball, badminton, chess and other games and also athletics for the students.

1.6. NSS/ NCC: Nil

1.7. Awards in curricular, extra-curricular activities /co-curricular

1. Mr. Neeraj Krishnan and Mr. Arjun TP of 2015 admission have been selected as the international coordinators of Global Processing Industry Welfare Organisation under Govt. of India for studying the market potential of Indian products in G20 countries.
2. Miss. Najma Abdul Jaleel of 2017 admission won Chief Minister's Student Excellence Award 2022 for securing higher grade in BSc PPBM programme.

1.8. Students Union / Hostel/ Sports Day Celebrations

National Sports Day Celebration

National sports day was celebrated on 29th August 2021. To mark the significance of National sports day, CASM Students Union virtually organised online games PES (football) and LUDO. The active participation from the students made the events a successs.

1.9. Students Exchange program -Nil

1.10. Students Counselling and Placement services

Placement Cell cum Counselling Centre

The Institute helps each student in exploring placement opportunities by inviting various companies for campus recruitment of students who are in the final year of the programme and are likely to graduate at the end of the academic year. The final placements, at the Institute, are a result of very systematic interaction with the industry and continuous career counselling of the

students. Right from the beginning of the programme, students are continuously counselled with regard to his/her career aspirations and options, which in turn is vigorously followed up with the potential companies for participating in the placement programme of the Institute. This helps the students in getting their 'dream' jobs, also assists the visiting placement companies in identifying the 'right' candidate for their organization

Activities undertaken by the placement cell

Solace- nurturing minds'- Interactive and Counselling Session for Students: After opening the offline classes at CASM Thiruvazhamkunnu, the students were found having some mental stress and social media and mobile addictions. For solving these issues and to illuminate the students to bring them back to the normal classes, a three day student counseling programm 'Solace-nurturing minds' was conducted on 26th, 27th and 29th November 2021. The classes were led by Mrs. Niveditha Ajayaghosh, HOD, Dept. of Psychology, MES Kalladi College, Mannarkkad. The programme was inaugurated by Dr. harikrishnan S, Special Officer. Dr. Stella Cyriac, Dr. Shamna TP, Dr. Vineetha PG, Dr. Prasoon S, and other teaching faculties were present in the programme.





Corporate relations

The college is maintaining a strong linkage with various firms under poultry industry for ensuring better placement and internship facilities for the students of CASM. Placement drives were conducted in association with Venkateswara hatcheries Ltd. and Sreenivasa Hatcheries. Opportunities have provided for the students to attend internship at reputed organisations in poultry industry.

1.11. Students' intake details

Student intake details

Course	:	BSc. Poultry Production and Business Management
Annual intake	:	26 students

DEPARTMENT PROFILES

DETAILING DEPARTMENTS

(Details of Departments under each station)

1. Exploring Research Frontiers Past Achievements and Current Ventures -Nil

2. **Noteworthy attainments in Science and Technology**

   Genetic up-breeding of duck production to strengthen livelihood security in North Eastern Region of India by converging conventional and molecular techniques

   - Phenotypic characterization of Kuttanad (Chara and Chembally varietes) as well as White Pekin ducks has been completed.
   - Molecular characterization of the Kuttanad duck for breed specific SNP biomarkers has been started.
   - The SNP markers associated with growth hormone have been completed.
   - The research to develop an improved meat line of Kuttanad ducks is going on.
   - Crosses from the above selected population were developed and evaluated for identifying suitable males and females for achieving highest heterosis based on the body weight achieved at the 8th week of age.
   - Evaluation of carcass traits were also carried out.

3. **Academic Manuscripts, Investigative Pursuits, Widely-read articles, Literary Volumes and Technical Documents, Details of Research papers published.**

   - Dr.Junaid, N. Dr.Stella Cyriac, Dr.Vineetha P. G. and Dr.Pramod, S. : Phenotypic characterisation of Kuttanad ducks with respect to its morphometric traits. Proceedings of the 13th Kerala Veterinary Science Congress, 13-14 November 2021

4. Technological Advancements Crafted and Transmuted-Nil

   4.1. Transfer of Technologies

   4.2. Disseminations of Innovations to society and institutions

5. Consultancy and Public Advocacy -nil

6. Patents-Nil

7. Unveiling Human Resources: Unlocking Potential and Pursuits

   - Seminars/ Workshops/ Summer Institutes/ Symposium/
   - Winter School Training Program / short courses/ Any other program organized (details from each department separately)

Training Programs

Beyond Books- 2 day residential induction camp: A two day residential induction camp was organised for the students of 2021 admission of CASM on 19th and 20th January 2022. The programme was inaugurated by Dr. Harikrishnan S, Special Officer &PI, NAHEP-IG Project in the presence of Dr. Stella Cyriac, Dr. Prasoon S, Dr. Vineetha PG and Teaching Assistants. The camp was mainly designed with various events for developing life success skills of the students. The sessions were handled by Mr. Abhishad Guruvayur, CEO and Chief Trainer, Lifetools Training and Development.









Training for Assistant Directors of AHD: As a part of the three months Obligatory Training for the Assistant Directors in the Department of Animal Husbandry, Government of Kerala training sessions were organized on 09.02.2022 at the seminar hall of College of Avian Sciences and Management. The first session was handled by Dr. Harikrishnan S, Special Officer of the college on the topic "Poultry Industry in India-Challenges and Opportunities". A session on the topic "Scientific Poultry Management Practices" was handled by Dr. Prasoon S, Assistant Professor, CASM. The session focused on various scientific practices followed in commercial poultry farming. After the two sessions, a visit was made to various farm units, hatchery and feed mill under Avian Research Station of Thiruvazhamkunnu campus.





Training on duck rearing practices: A one day training on 'Duck Farming Practices' was organised for farmers at CASM as a part of DBT project on 31.3.2022. DBT project is focused on conducting studies for upbreeding of meat type ducks. The training was mainly focused on imparting knowledge on effective rearing of ducks in backyard method. 45 farmers attended the training. Dr. Harikrishnan S, Special Officer, CASM inaugurated the programme. Dr. Stella Cyriac, PI, DBT Project handled the session. Dr. Prasoon S, Dr. Vineetha PG and Dr. Junaid were present in the programme. A visit was also arranged to the duck production unit of ARS to give a practical exposure to the trainees on scientific duck rearing..







Interactive session: An interactive session on 'Insights on Small and Marginal Poultry Farming in Kerala' was conducted for the students of CASM on 30.03.2022. The session was led by Dr. Maria Liza Mathew, Retd. Joint Director, AHD. The speaker shared the success stories of various poultry farmers in Kerala.



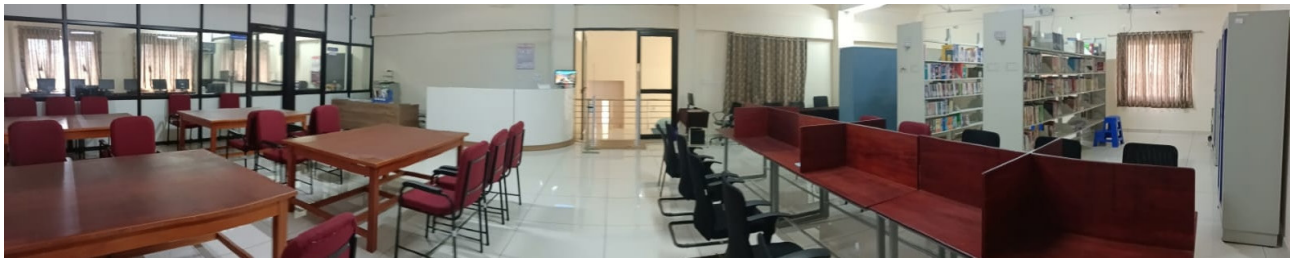


Strategic Resources additions- New/ innovative achievements

LIBRARY AND INFORMATION SCIENCES (COLLEGE LIBRARY)

1. **Unraveling the Elegance of Library and Information Sciences**
2. **Center Overview: A Snapshot of Excellence**

1. College Library stands as a bastion of knowledge and academic excellence within the institution. It serves as a vital hub for students and faculty, promoting learning, research, and intellectual exploration.



I - Books Anew

a) Host of New Arrivals

In the last year, Library has acquired an impressive array of new books and resources across various disciplines, ensuring that collection remains fresh and up-to-date.

b) Subjects and Genres The collection is thoughtfully curated to encompass a broad spectrum of subjects and genres, ensuring it aligns with the diverse academic interests and needs of users. Primarily focused on Poultry Science and Management studies, library houses a comprehensive collection of resources in these fields. Additionally, library maintain a substantial assortment of materials in literature, history, biography and general sciences, enriching the academic experience for all patrons. This diverse collection caters to the varied intellectual pursuits of user community.

c) Latest Trending Collections

Library has carefully curated collections that align with current academic trends and research interests, ensuring users have access to the most relevant materials.

II - Novel Engagements

a) Reading Engagements

Promoting a culture of reading, Library has initiated reading engagement programs, encouraging both students and faculty to explore the literary world and observed the Reading Day celebrations, conducted quiz programs and honored the best readers within user community. Additionally, a well-known dramatist conducted a highly informative session on reading habits among the students.





b) Literary Fairs

Library actively participates in literary fairs, fostering a sense of community and celebrating the written word.

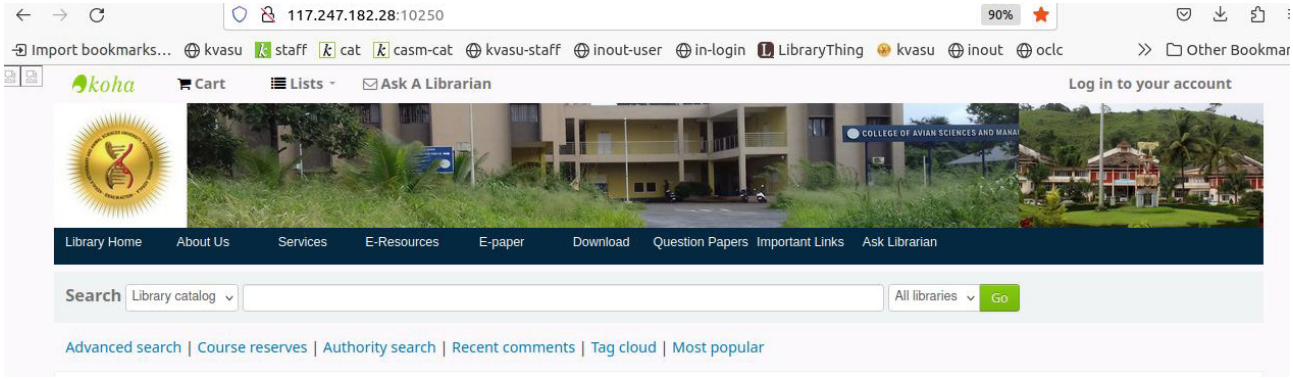
c) Training

Library offer training sessions to assist users in maximizing resources, promoting information literacy and research skills. Additionally, conducted user orientation programs for newly admitted students and provide personalized services to assist users in locating the documents they require

III - Technological Leap

a) Stepping into the Digital Age: Brief Profile

Library has embraced the digital age, providing online access to an extensive collection of e-books, journals, and databases. We utilize KOHA, an integrated Library Management System with RFID support, to offer all the necessary services to our user community. The Online Public Access Catalog (OPAC) is accessible to the entire user community 24/7 via the following web address: http://117.247.182.28:10250/



b) List of Upgraded Systems

Currently library systems have undergone significant upgrades, resulting in improved efficiency and an enhanced user experience by using Koha version 22.05 and Ubuntu Server version 22.04.

c) Improvement of Search Capabilities

Implemented advanced search capabilities, simplifying the process for users to locate and access the materials they require. Advanced search functionality is available in Koha, offering features such as 'and,' 'or,' and 'not' to refine search queries. Users can access their account by logging in with their credentials, allowing them to view their borrowed items, due dates, any fines incurred, as well as their previous search history. Additionally, users have the ability to search within the content pages of documents.

d) User Experiences and Feedback

Feedback from our users has been overwhelmingly positive, highlighting the improved access and user-friendly systems.

IV - Enriching Services

a) Research Services and Assistance

Dedicated research services and assistance team provides invaluable support to students, facilitating to their academic activities.

b) Reference Section

The reference section remains a cornerstone of library, offering a treasure trove of knowledge and expertise.

V - Library in Focus

a) Snapshot of the Library's Evolution

Over the years, library has evolved and expanded to meet the evolving needs of the academic community, commenced its journey in 2014 on the ground floor of the college building with limited space and features. Subsequently, it relocated to the first floor, providing more room but still within constrained space. In 2022, the library made a significant move to the second floor of the building,

affording ample space and state-of-the-art infrastructure facilities



b) Services Offered

Persistently the library strive to broaden its services and ensuring that its stand at the forefront of providing academic support. The core services offered are as follows:

Collection Development and Management

Cataloging and Classification

Reference and Information Services

Circulation Services

Interlibrary Loan (ILL)

User Orientation and Training

Reprographic Services.

c) Stock

The collection has experienced substantial growth, with a steadfast emphasis on quality and relevance. As an academic library specializing in Poultry Science and management studies, the majority of holdings consist of materials in these disciplines. Additionally, maintain a substantial collection of books in Literature, History, Biography, and general sciences. In total, the collection comprises over 2,300 books, 40 CDs, and IT equipment, including 20 computers and 3 printers. Library has also implemented RFID technology and well-equipped with various types of furniture, including tables, chairs, shelves, and air conditioning units.

d) Growth Projection

Anticipate continued intellectual exploration and academic growth, with plans to expand its

collection further.

e) Number of Users/ Subscribers

Serves an expanding number of users and subscribers, underscoring its significance within the academic ecosystem. Currently, library has 155 users, including 133 students.

f) Quantifying Library Engagement

Actively track the time invested by students and faculty in utilizing library resources, demonstrating its vital role in academic life.

VI - Financial Vitality

a) Library's Financial Standing and Revenue

Library's financial stability is primarily dependent on state plan funds and non-plan funds. Thus far, the library has maintained a healthy financial position. To further enhance the collection, additional funding is required.

b) Resources Allocation

Funds are allocated strategically to ensure the continuous improvement oflibrary services and collections.

c) Operational Cost

Maintained cost-effectiveness in operations and optimizing resources for maximum impact.

VII - Bibliophile's Delight

a) A Glance at Our Extensive Collection

Library boasts an extensive and diverse collection, catering to all types of readers and students.

b) Classic Masterpieces

Treasure classic masterpieces, ensuring they remain accessible to all who seek their wisdom.

c) Scholarly Works

Commitment of Library is evident in the collection of scholarly works and supporting academic excellence.

VII - Infrastructure Elegance

Library's infrastructure is designed to facilitate learning and research, offering a comfortable and inspiring environment for all users.

EVENTS UNDER UNIVERSITY

1. University Celebrations

World Environmental Day: World Environmental Day was celebrated at College of Avian sciences and Management, Thiruvazhamkunnu. In the light of the drastic spread of Covid-19 pandemic, events

were organized through online mode. The students union of CASM organized a quiz and speech competition.

Reading Day Celebration: In connection with Reading Day celebration, an online quiz competition was organised for the students and staff of CASM by Library and Informatics Centre of CASM on 21.06.2021

Nagasaki Day: The Students Union of CASM organised a caption contest in connection with the Nagasaki day on 09.08.2021. Ten students from CASM participated in the event. The winners were awarded prizes.

Independence day Celebration: College of Avian Sciences and Management, Thiruvazhamkunnu celebrated the 75th Independence Day with great enthusiasm and respect by following COVID 19 protocol. The ceremony started at 9 AM in the campus. To commemorate the sovereignty of our nation, Dr. Harikrishnan S, Special Officer of the college hoisted the tricolor flag and all sang the national anthem to pay homage to the nation. The Special Officer delivered a speech with patriotic zeal. He emphasized the relevance of upholding the dignity of our nation and remembered the contributions of the great leaders in our independence struggle. On the occasion, Dr. Febina Mol K T and Srimati. Rukhiya K of PHC, Kottopadam were honored for their valuable contribution in resisting the COVID 19 pandemic. Mr. Roy Daniel, Senior Farm Supervisor, Avian Research Station, delivered vote of thanks. Farm labourers, and other staff were also present for the programme. Quiz competion was organised by the students union in connection with the celebration.

Onam Celebration : Onam 2021 was celebrated online under the students union by organising various events for the students. The events were organised in three days through virtual mode from 21 August 2021 to 24 August 2021. Various competitions including selfie with pookalam, Onasadhya, Cartoon contest, Sundharikk Pottu thodal were conducted and prizes were distributed to the winners.

Constitution Day Celebrated: College of Avian Sciences and Management has celebrated the Constitution Day (Samvidhan Divas) on November 26th, 2021 at the college.On this occasion, as an important part of the celebration, the staff and students read the Preamble of the Indian Constitution.

Republic Day Celebration: College of Avian Sciences and Management celebrated 73rd Republic Day in the most befitting manner abiding Covid protocol. The unfurling of National Flag was done by Dr. Harikrishnan S, Special Officer followed by an inspiring speech on the adoption of constitution of India and the transition of our country to a republic on January 26, 1950. He also shared the happiness of entire Veterinary fraternity and congratulated Dr Sosamma Ipe, Retired Scientist of Kerala Veterinary and Animal Sciences University for bagging Padma Shri award for this year for the conservation of Vechur Cattle. Sri. Peter VP, Administrative Officer, Sri. Roy MD, Senior Farm supervisor, faculty, Students, Staff and labourers were present and the programme concluded with the distribution of sweets.







National Poultry Day Celebration: The national poultry day was celebrated at CASM. As part of the celebration, a quiz competition was organised by students union on 23.03.2022. 8 teams of 2 members from different batches participated in the programme.

ULF & FRDS MANNUTHY

1. Introduction

University Livestock Farm (ULF) and Fodder Research Development Station (FRDS) has a rich and distinct lineage with regard to developed technologies and imparted knowledge in animal husbandry sector of Kerala. It has played a commendable role in enriching the practice of Veterinary Sciences as a profession not only in the state of Kerala but also in other parts of the country. The rich heritage and distinct legacy of ULF & FRDS dates back to 1917 when Thiru – Kochi Government of the Royal Cochin Dynasty established it as Ollukara Farm (OF) and has at present completed a century long existence in public domain of Kerala. Post national independence, ULF& FRDS was transferred to Department for Animal Husbandry, Government of Kerala (GoK) as State Livestock Farm – Mannuthy and concentrated primarily to satiate the ever increasing needs for milk of the emerging urban population of Thrissur. After the establishment of Government Veterinary College, Mannuthy in 1955 by GoK it has worked hand in hand with the College to enhance and ensure quality of veterinary education imparted and also to develop, validate and refine technologies that found profuse use with the dairy farmers in Kerala. Along with the college, farm also came under the purview of Kerala Agricultural University, Vellanikkara, Thrissur in 1972. State Livestock Farm – Mannuthy was then on redesignated as ULF&FRDS. In 2010, the farm became an official part of Kerala Veterinary and Animal Sciences University, Pookode , Wayanadu.

ULF & FRDS has 250 cattle and produces on an average 1000 Litres of milk daily. Cattle consist of a herd that is predominantly of Frieswal origin as it is a part of Progeny Testing Scheme run nationwide by Project Directorate on Cattle, ICAR, Govt of India. Farm also has 80 Buffaloes that produces daily on an average 130 litres of milk. Herd consist predominantly of Murrah breeds that are systematically graded up. Fodder section has 40 acres of land and is cultivated occasionally with cereal purpose fodders namely Maize and Sorghum. Perennial cultivated grasses namely, guinea grass, para grass, congo signal and hybrid napier variants namely CO3, CO4 and CO5 are the main crops available. ULF & FRDS possesses a motivated team of teachers, non teaching staff and a labour force that caters to cattle farming, buffalo farming and fodder cultivation. True to the rich heritage and core objectives ULF & FRDS continues on the path of improving dairy farming scenario of Kerala.

2. Present Stock

Species/ Breed	Age Group										
	0-3		3 -6 months		6 months – 1 year		Heifers	Milch animals	Dry animals	Pregnant animals	Total
	M	F	M	F	M	F					
Cattle	9	4		8		29	92	92	14	43	291
Buffalo		1	2	1	7	7	36	18	13	18	103
Total	**9**	**5**	**2**	**9**	**7**	**36**	**128**	**110**	**27**	**61**	**394**

3. Production and Reproduction Data of the report year

Sl No.	Items	Cattle	Buffalo	Fodder
1.	Total No. of Calvings	**113**	**18**	
2.	Milk	**360544** L	**56766** L	
3.	Urine	**2379** L		
4.	Manure(Fresh)	**767929** Kg		
5.	Cow dung powder			**39270** Kg
6.	Fodder Slips			CO3,CO5 – **137267** Nos Guinea – **9530** Nos
7.	Vermicompost			**2190** Kg
8.	Fodder Grass			Cattle farm **-1568380** Kg Buffalo farm - **515755** Kg Other Units **-123675** Kg

4. Germplasm and Input Supply: Farmers and Institutions

- Sale of elite crossbred calves and heifers to public
- Sale of high yielding quality Hybrid Napier fodder slips to public

5. Breakthrough Strain Variants: Unveiling New Species and Varieties : Nil

6. Sales Revenue from animals and Product Offerings

Sl No.	Items	Cattle	Buffalo	Fodder
1.	Culled Animals	Rs. **672307/-**		
2.	Animals sold	Rs. **722680/-**		
3.	Milk	Rs. **13864775/-** **(317926.507 L)**	Rs. **2249958/-** **(49569.476 L)**	
4.	Urine	Rs**. 22957/-**		
5.	Manure(Fresh)	Rs. **217564/- (174051 Kg)**		
6.	Cow dung powder			Rs. **569415/-**
7.	Fodder Slips			Rs. **204285/-**
8.	Vermicompost			Rs. **35040/-**
9.	Fodder Grass			Rs. **514992/-**

10.	Other miscellaneous items			Rs. **366826/-**
TOTAL		**Rs. 1,94,40799/-**		

7. Capturing Innovations: Photos of New Strains, Varieties, Synthetics and Farm Activities



ULF & FRDS Awarded for achieving a record daily production of 1250 litres per day in the month of November 2021 as well as achieving a record internal revenue of 2 crores d uring the financial year 2020-21 by University Livestock Farm and Fodder Research Development Scheme



New fodder maize fodder (African tall) plantation in 80 cents of cultivable land



Farm training to students



New portable forage harvesting machine



Hill top fodder plantation



Herringbone milking parlour



Renovated Blower Type Forage Chaff cutting machine



Gallery of different Fodder crop varieties



Renovation of farm labourer's waiting sheds



Irrigation pipelines installation in hilly area for fodder cultivation



Fodder Crop Development Army 2021 -22 batch Stipendiary Training programme



Dung Pit Guard installation in buffalo farm



Fencing of open paddock in buffalo farm



Platform electronic precision balance for calves at ULF Cattle farm

8. Training Endeavors: Insights into Conducted Programs (Details of training conducted)

One year Stipendiary Training programme for 26 Fodder Crop Development Army trainees on Fodder entrepreneurship during 2021-22.

9. Fodder development

Fodder slips supplied from farm to farmers during flood rehabilitation brought laurels to the section. Fodder slips supplied to farmers became a mainstay of FRDS and it recorded a revenue income of Rs 332914 Rs in 2020-21 that included CO3 & CO5 slips. From around 25 acres of cultivable fodder area at ULF & FRDS, the annual green fodder production during 2020-21was 2,023 Tons including high yielding Hybrid Napier varieties like CO3, CO4 and CO5. By bringing an additional area of 25 acres of land in the hilly area of the campus under intensive fodder propagation, steps will be initiated to enhance the fodder production further.

CENTRE FOR PIG PRODUCTION AND RESEARCH, MANNUTHY

<table>
<tr><th>Sl No</th><th>Details sought</th><th>Details for the year</th></tr>
<tr><td>1</td><td>Introduction</td><td>The Centre was established on 12th May 1965 under AHD and was taken up by KAU as the University Pig Breeding Farm in 1972. Later in 1995, it was upgraded to Centre for Pig Production and Research in recognition of the academic, research and extension activities undertaken. In 2011 the Centre was taken up by the Kerala Veterinary & Animal Sciences University</td></tr>
<tr><td>2</td><td>Present Stock category-wise as on 31/03/2022</td><td><table>
<tr><td>a. Large white Yokeshire</td><td>629</td></tr>
<tr><td>b. Landrace</td><td>137</td></tr>
<tr><td>c. Duroc</td><td>48</td></tr>
<tr><td>d. Desi</td><td>66</td></tr>
<tr><td>e. Crossbred</td><td>397</td></tr>
<tr><td>TOTAL</td><td>1277</td></tr>
</table></td></tr>
<tr><td>3</td><td>Production details</td><td><table>
<tr><td>Animals sold/year (young stock)</td><td>Fattening 1591</td></tr>
<tr><td>Animals sold/year (Adult stock)</td><td>Culled 193
Breeding 293</td></tr>
<tr><td>Others: Plam leaves</td><td>20 nos</td></tr>
<tr><td>Firewood</td><td>11005 Kg</td></tr>
<tr><td>Green grass</td><td>2905 Kg</td></tr>
<tr><td>Pig manure</td><td>13 tons</td></tr>
<tr><td>Coconut</td><td>132 nos</td></tr>
</table></td></tr>
<tr><td></td><td>Reproduction details</td><td>No of piglets born 2061
Weaned piglets 1889</td></tr>
<tr><td>4</td><td>Germplasm and Input supply</td><td>Started 2 breeder units</td></tr>
<tr><td>5</td><td>Breakthrough variants</td><td>-</td></tr>
<tr><td>6</td><td>Sales revenue from animals and products</td><td>1,40,09,722.00</td></tr>
</table>

7	Capturing innovations	 Semen Evaluation laboratory  Fodder plots

		 
8	Training endeavours	**Farmers' trainings** Hands-on training programme withheld due to the incidence of African Swine Fever in the State • Consultancy services have been provided to around 1200 farmers, through personal and telephonic interactions. • The Centre provided technical know-how to progressive farmers for establishing piggery units in respect to the construction of sheds, health care and management, waste disposal and other problems faced on a day-to-day basis. Scientists handled classes on scientific management practices through online mode

		Technical Trainings • The scientists of CPPR have undertaken regular theory and practical classes for students of BVSc&AH, MSc, MVSc and PhD programmes. • Also conducted practical farm training viz. Livestock farm practice, entrepreneurial training and internship training to the undergraduate students. Handled classes and training sessions for Assistant Directors of AHD, Kerala (3 batches)
9	Fodder development	Sufficient fodder required for the unit is produced using the recycled water from the treatment plant
10	Satellite units	2 new fattening units
11	PG-PhD research projects undertaken	1 PhD, 2MVSc

GOAT AND SHEEP FARM, MANNUTHY

Introduction

The University Goat and Sheep Farm was established in the 1965 with the total area of 4.10 acres. The objectives of the farm is to promote and undertake research on all aspects of goat production and health, operate as an instructional farm to students and conduct extension activities as model unit and supply breeding animals to farmers.

Present stock position as on March 2022

Species / Breed	March 2022	
Goat	Male	Female
Malabari	24	41
Attappady black	10	75
Crossbred	34	130
Sheep	14	47
Total	82	293
Total stock	375	

Production and Reproduction data

a. Total milk production (L)	2021-22
	6383.7

b. Number of kidding

Species / Breed	2021-22			
Goat	No. of kidding	Male	Female	Total
Malabari	13	5	10	15
Attappady black	45	19	34	53
Crossbred	68	53	57	110
Sheep	33	19	21	40
Total	159	96	122	218

Germplasm supply: Farmers and Institutions

Supply	2021-22		
	Male	Female	Total
Farmers	58	19	77
Institutions	2	28	30

Sales Revenue from animals and product offerings

	Amount (Rs) from sale of			
Year	Goats	Miscellaneous	Milk coupon	Total
2021-22	6,83,620/-	95,800/-	3,74,195/-	11,53,615

UNIVERSITY POULTRY AND DUCK FARM, MANNUTHY

1. Introduction

The UPDF was established in 1950 under Erstwhile Cochin State. The mandate of the farm is to provide facilities for research and practical training to UG and PG students. At present, the farm maintains 28 breeds of poultry including chicken, duck, turkey, guinea fowl, Japanese quail and goose. The hatchery unit in the farm have 15,000 eggs hatching capacity per week. The farm supplies parent stocks chicks of Gramasree chicken to Regional Poultry Farms under Animal husbandry Department, Kerala. The farm also supplies day old chicks of various breeds of poultry to farmers in Kerala and neighbouring states. It also impart training and consultancy services to farmers and entrepreneurs

2. Present Stock

Birds	Number
Chicken	10317
Duck	1281
Turkey	9
Goose	52
Guinea Fowl	52
Japanese Quail	775

3. Production and Reproduction data of the report year

Birds	Total Egg per year
Chicken	758674
Duck	87797
Japanese Quail	162636
Others	1954

4. Germplasm and Input Supply

2021-22	
Birds	**Number**
Chicks	339526
Chicken (Egg)	758674

5. Breakthrough Strain Variants : Unveiling New Species and Varieties.

6. Sales Revenue from Animals and Product Offerings.

2021-22	
Birds	**Number**
Chicks	339526
Adult	8466
Others (Mannure)	120515 Kg.

7. Capturing Innovations





8. Training Endeavours

2021 - 22

B.V.Sc. & A.H. Internship

B.Sc. Poultry Production & Business Management Internship

V.H.S.E. – On Job Training.

Farm Practice – Diploma in Poultry Production.

INSTRUCTIONAL LIVESTOCK FARM COMPLEX, POOKODE

Annual report 2021-22

The farm was established in 2004 as instructional farm under the Kerala Agricultural University. In 2013 it was renamed as Instructional Livestock Farm complex, CVAS, Pookode under Kerala Veterinary & Animal Sciences University.

The farm acts as a center for practical training of UG students (BVSc & AH, BTech, Diploma) and for post graduate research in various disciplines. Many nutritional trials and other relevant research by the faculty and students have utilized the resources in the farm. It also forms the training center for the programmes like Dairy Diploma, Livestock Assistant, and Farmers Training etc. The farm also acts as a conservation unit of various indigenous breeds of cattle.

Present stock: (March, 2021)

Goat and Sheep Farm	
Malabari	124
Sheep	20
Cattle, Buffalo, Vechur and Indigenous units	
Cross Breed cattle	117
Buffalo	23
Vechur	69
Poultry unit	
Desi	11
Chicken - layer	1027
Duck - layer	32
Turkey	3
Quail	0
Guinea fowl	1
Ostrich	4
Pig farm	
Large White Yorkshire	2
Landrace	1
Duroc	20
Cross breed Pig	89
Pigs under RKVY project	140
Rabbit farm	
Rabbits – NZW, WG, SC, GG, Angora	94

Production and Reproduction data:	Milk: 86464.4 ltrs Eggs: 81425 Calves born: 52 Rabbit birth: 99 Piglets weaned: 670 Goat births: 41 Sheep births: 8
Details of supply of germplasm and other inputs to the farmers and institutions	Young Cattle and Buffalo: 4 Young Rabbit: 77 Young Piglets 501 Manure: 67929 kg Urine: 130 ltr Fodder slips: 2800 Agricultural produce: 15nos. Eggs: 81425 Chicks: 48221 Adult birds: 2431 Adult Pigs: 56 Adult Rabbit : 5 Adult Goat : 6 Adult Cattle and Buffalo: 20
Breakthrough Strain Variants: Unveiling New Species and Varieties (Details of new strains/ varieties / developed)	Nil
Sales Revenue from animals and Product Offerings	Rs 8934339/-
Capturing Innovations: Photos of New Strains, Varieties, Synthetics, and Farm Activities	 Improved fodder production

<table>
<tr><td></td><td> 
Training for the students
Functional hatchery</td></tr>
<tr><td>Training Endeavors: Insights into Conducted Programs (Details of training conducted)</td><td>Organized farm visits by societies and organizations
267 visitors
3 months obligatory training from AHD</td></tr>
<tr><td>Satellite units</td><td>Nil</td></tr>
<tr><td>Any other report of the year</td><td><table><tr><td>Additional facilities created during the year</td><td>•Chain link fencing for various fodder plots
•Mini tractor with trailer
•Bulk milk cooler
•Hydroponics unit
•Generator for hatchery
•New poultry cages
•New rabbit cages</td></tr></table></td></tr>
<tr><td></td><td><table><tr><td>Mecha-nisms and methods adopted to improve the functioning of the farm</td><td>•Improved fodder cultivation by adopting new plots
•Sprinkler facility for fodder fields improved
•Pathways to access new fodder plots
•Automatic drinker facility in the cattle farm
•Maintenance of hatchery
•Repair of rabbit shed
•Repair of pig sty
•Repair of goat shed
•Repair of calf shed and cattle shed</td></tr></table></td></tr>
</table>

	Mecha-nisms and methods adopted to improve the functioning of the farm	•Improved fodder cultivation by adopting new plots •Sprinkler facility for fodder fields improved •Pathways to access new fodder plots •Automatic drinker facility in the cattle farm •Maintenance of hatchery •Repair of rabbit shed •Repair of pig sty •Repair of goat shed •Repair of calf shed and cattle shed
	Student research during the year	• Assessment of correlation between milk components and serum beta hydroxy butyrate during early lactation in dairy cattle • Standardization and preparation of platelet rich plasma in animals • Evaluation of uterine fluid and hormonal changes associated with metoestrual bleeding in dairy cows • Evaluation of uterine cytological and biochemical changes to detect endometritis in dairy cows • Rearing of large white Yorkshire pigs in different feeding system for meat and biodiesel production • Environmental enrichment to abate aggressive behavior and mortality in piglets • Efficacy of dietary supplementation of Kaempferia galanga on the growth performance of broiler chicken and assessment of its antimicrobial activity against non-typhoidal salmonella spp. • Effect of dietary supplementation of banana inflorescence with probiotic on growth performance in broiler chicks. • In vivo pharmacokinetics of meropenem alone and in combination with cationic antimicrobial peptide, cecropin A-(l-7) melittin against multi-drug resistant Escherichia coli in broiler chicken. • In vivo pharmacokinetics of faropenem alone and in combination with encapsulated cecropin A-(l-7) melittin against multi-drug resistant Escherichia coli in broiler chicken. • In vivo pharmacokinetics of meropenem alone and in combination with cationic antimicrobial peptide, cecropin A-(l-7) melittin in broiler chicken • Insertion/ deletion (indel) polymorphisms in candidate genes and its association with growth traits in Malabari and Attappadi black goats of Kerala • Assessment of health status of postpartum goats with special reference to fatty liver syndrome • Effect of dietary incorporation of tiktaka gritham residue on growth performance of Malabari kids”

	Student research during the year	• Early diagnosis and therapeutic management of pseudo pregnancy in goats • Research on Effect of dietary supplementation of Feed additives like METHIONINE on rumen microbial growth" • Performance and carcass traits of meat-type ducks fed on baring dietary levels of metabolisable energy and methionine • Effect of supplementation of chlorella vulgaris extract as feed additive on growth performance and nutrient utilisation in broilers
	Student training during the year	Internship training, farm clinics, farm practice, entrepreneurship training for BVSc and AH students

CATTLE BREEDING FARM THUMBURMUZHY

1. Introduction

The Cattle Breeding Farm, Thumburmuzhy was started in the year 1957 under Animal Husbandry department as Cattle Breeding Research Station. In 1972 the farm was taken over by Kerala Agricultural University and converted to Dry Salvage Farm. In 1993 this farm was upgraded to a milch cattle breeding farm. From 2010 onwards, the farm has been functioning under Kerala Veterinary and Animal Sciences University. The research station has a total land holding of around 65 acres where in 75% of the total land area is used for the production of high quality fodder. It also acts as a centre for practical field training for students of B.V.Sc& A.H, B.Tech, VHSE and Dairy Diploma. The different products for sale and price list are given as annexure.

I.a) TOTAL STRENGTH OF ANIMALS:

Species/ Breed	Age Group												
	0-3 months		3 -6 months		Months		Heifers (> 18 months)		Milch animals		Dry animals		Total
	M	F	M	F	6-12	12-18	NP	P	NP	P	NP	P	
Frieswal	2	1	-	19	24	12	51	17	77	8	18	18	247
Vechur	-	-	-	-	-	-	3	2	-	-	-	-	5
Total	2	1	-	19	24	12	54	19	77	8	18	18	252

NP – Non pregnant ; P - Pregnant

3. Production & Reproduction Data of the report year

Data for the year 2021-22								
		Production data		Reproduction data				
				Calves born during the month			Pregnant animal details	
Sl. No.	Month& Yr	Monthly Milk yield (L)	Daily avg milk yield (L)	Male	Female	Total	P D + during the month	Total pregnant animals during the month
1	Apr-21	15387.5	512.92	11	6	17	13	55
2	May-21	22266.5	718.27	9	5	14	21	72
3	Jun-21	24965.5	832.18	8	8	16	12	68
4	Jul-21	28604	922.71	3	4	7	5	58
5	Aug-21	29085	938.23	9	3	12	6	54
6	Sep-21	26744.5	891.48	2	2	4	3	54
7	Oct-21	27177	876.68	3	5	8	4	49
8	Nov-21	31167	1039	12	9	21	3	31
9	Dec-21	36164	1166	7	6	13	7	27
10	Jan-22	36161.5	1166.5	1	1	2	10	34
11	Feb-22	29609	1057.46	3	1	4	10	40

12	Mar-22	29694	957.87	2	0	2	7	45
	TOTAL	**337025.5**	**11079.3**	**70**	**50**	**120**	**101**	

4. **Germ plasm and input supply: Farmers & Institutions**

During 2021-22

Germplasm in the form of cattle semen were received from **4** following sources in CBFT

I. Semen doses received from CVAS, Mannuthy- KVASU, progeny testing scheme

Sl. No.	Date of receipt of semen	Semen doses received
2021-22		
1.	08.05.2021	30
2.	10.08.2021	30
3.	28.10.2021	17
4.	10.12.2021	30
5.	30.12.2021	30
6.	28.01.2022	30
7.	03.03.2022	30
TOTAL		***197 DOSES***

II.Vechur Semen doses received from CVAS, Mannuthy- KVASU, progeny testing scheme

Sl. No.	Date of receipt of semen	Semen doses received
For the year 2021-22		
1.	10.02.2022	5
TOTAL		***5 DOSES***

III. Frozen Semen doses received from KLDB

Sl. No.	Date of receipt of semen	Semen doses received
2021-22		
1.	18.10.2021	50
2.	01.11.2021	50
TOTAL		***100 DOSES***

IV. Sex sorted Semen doses received from KLDB

Sl. No.	Date of receipt of semen	Semen doses received
2021-22		
1.	19.02.2022	50
TOTAL		***50 DOSES***

5. **Breakthrough Strain variants: Unveiling New Species & Varieties- NIL**

6. **Sales Revenue from animals & product offerings**

Sales/Internal Revenue detailed data for the years 2021-22

2021-22	
Month	**Total (FR+RF)**
Apr-21	585391
May-21	824622
Jun-21	890093
Jul-21	951605
Aug-21	1166392
Sep-21	991349
Oct-21	1058886
Nov-21	1076438
Dec-21	1246969
Jan-22	1722691
Feb-22	1659080
Mar-22	1280498
TOTAL	**-Rs.13454014**

7. **Capturing innovations:** Photos of New strains, Varieties, Synthetics & Farm activities

Farm Activities

Vechur Conservation project





Thumburmuzhy model aerobic composting





8. **Training Endeavors: Insights into conducted trainings**

Details of Trainings conducted

TRAINING PROGRAMMES 2021-22

April 2021- Nil

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May 2021

Online training for dairy farmers on the topic Pasuparipalanam organized by LMTC, Aluva on 05.05.2021 by Dr. Seena T.X

• Online orientation class for VHSE -LSM students for preparing Livestock Inspector Exam as part of the career on 9 th and 16 th May, 2021 Dr. Seena T.X

• Farmer friendly online lecture series – "മാലിന്യ സംസ്കരണം മഴക്കാലത്ത്" on 31/05/2021 by Dr. Biya Ann Joseph

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June 2021

Farmer friendly online lecture series – Kidaghalude mazhakkala paricharanam on 07.06.2021 by Dr. Seena T.X

• Online training for dairy farmers on the topic Mazhakkala roghanghal…prathirodha margaghal organized by Dairy training centre, Kozhikode on 23.06.2021 by Dr. Seena T.X

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July 2021

Nil

…….

Aug 2021

Online expert interaction class on the topic 'Health care and well being measures in dairy cattle' for Second year VHSE-NQSF-Dairy farmer/Entrepreneurship students, VHSE Department, of Govt. VHSS for girls, Kottarakkara, Kollam on 23.08.2021 and Govt. VHSS, Ayyanthole, Thrissur of on 28.08.2021 as a part their course curriculum by Dr. Seena T.X, Assistant Professor, Cattle Breeding Farm, Thumburmuzhy.

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Sep 2021

Nil

……..

Oct 2021

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'Milking Machines – Parts

and Functions' for the students of • Govt. VHSS, Ayyanthole, Thrissur on 19.10.2021 • Govt. VHSS, East Marady, Ernakulam on 20.10.2021 to Second year VHSE-NQSF-Dairy farmer/ Entrepreneurship students

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Nov 2021

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'Selection of good dairy animals for a dairy farm' for the students of Govt. VHSS for Boys, Attingal, Thiruvananthapuram on 27.11.2021 •

Online expert interaction class by Dr. Seena T.X on the topic 'Management of pregnant animals and calves' for the students of Govt. VHSS, East Marady, Ernakulam on 03.11.2021

Stakeholders- Second year VHSE-NQSF-Dairy farmer/Entrepreneurship students

……

Dec 2021

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'Selection of good dairy animals for a dairy farm' for the students of • Govt. VHSS for Girls, Chengannur on 07.12.2021 at GMBVHSS, Irinjalakkuda on 09.12.2021

Stakeholders- Second year VHSE-NQSF-Dairy farmer/Entrepreneurship students

…….

Jan 2022

- Online expert interaction class by Dr. Biya Ann Joseph the topic 'Milking Machines – Parts and Functions' for the Second year VHSE-NQSF-Dairy farmer/Entrepreneurship students of • CNPPMVHSS, Kattachira on 12.01.2022, • GVHSS, Kalanjoor on 13.01.2022, • GVHSS, Malampuzha on 19.01.2022
- Online expert interaction class by Dr. Biya Ann Joseph on the topic 'Selection of good dairy animals for a dairy farm' for the Second year VHSE-NQSF-Dairy farmer/ Entrepreneurship students of Govt. VHSS for Girls, Kottarakkara, Kollam on 18.01.2022

……

February 2022

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'New Methods in

Fodder Cultivation and Preservation' for the First year VHSE-NQSF-Dairy

farmer/Entrepreneurship students of

• GVHSS for Girls, Kottarakkara on 15.02.2022

• GVHSS, East Marady on 17.02.2022

• GVHSS, Muvattupuzha on 22.02.2022

• GMBVHSS, Irinjalakkuda on 24.02.2022

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'Popular Breeds of Cattle and Buffalo in India' for the First year VHSE-NQSF-Dairy farmer/Entrepreneurship students of Govt. VHSS for Boys, Attingal on 21.02.2022

…….

March 2022

Online expert interaction class by Dr. Biya Ann Joseph on the topic 'New Methods in Fodder Cultivation and Preservation' for the students of CNPPMVHSS, Kattachira on 14.03.2022

……...

9. **Fodder Development**

Varieties cultivated

CO-3, Supernapier, Australian napier, Australian red napier, TM-1, GG-3, Congosignal, CO-5

…….

BASE FARM, KOLAHALAMEDU

1. Introduction:

The Base Farm was established in the year 1962 under Indo-Swiss Project Extension Unit. In 1976, it was handed over to Kerala Livestock Department and Milk Marketing Board and later on to Kerala Livestock Development Board (KLDB) in 1984. It was taken over by Kerala Agricultural University (KAU) for establishing College of Dairy Science and Technology in 2000. In 2011, the farm was transferred to Kerala Veterinary and Animal Sciences University (KVASU) as Base Farm Complex by the Act 3/2011 of Kerala Legislative Assembly. At present the farm is functioning as an instructional dairy farm for imparting training to the students, professionals and farmers in modern animal husbandry practices.

2. Present Stock

- Crossbred cattle – 100 Nos
- Indigenous Cattle – 20 Nos.
- Total – 120 Nos.

3. Production and Reproduction Data of the report year

Production

- Milk – 116305 Litres
- Fodder – 449050 Kg

4. Germplasm and Input Supply: Farmers and Institutions

Nil

5. Breakthrough Strain Variants: Unveiling New Species and Varieties (Details of new strains/ varieties / developed)

Nil

6. Sales Revenue from animals and Product Offerings

- Milk – Rs. 4244057
- Fodder – Rs. 4116
- Dung – Rs. 12100
- Live Animals – Rs. 309900
- Miscellaneous – Rs. 335835

7. Capturing Innovations: Photos of New Strains, Varieties, Synthetics, and Farm Activities

NA

8. Training Endeavours: Insights into Conducted Programs (Details of training conducted)

NA

9. fodder development:

Improved fodder production through construction of check dams, installation of sprinkler irrigation system, and fencing of fodder plots.

10. Satellite units

11. Any other report of the year

- Infrastructure facilities were strengthened, with new office building, farm road, borewells etc. improving fodder cultivation
- Improved water storage and irrigation facilities through constructing check dams and installing sprinkler
- Land issue with KLD Board settled and demarcation done.
- Fencing of fodder fields and adoption of controlled grazing in fenced fodder plots.
- Improved care and management of animals
- Training to BVSc & AH/ BTech (DT) internees
- DST SERB Research project on sperm proteomics on going

CENTRE FOR ADVANCED STUDIES IN POULTRY SCIENCE

PROFILE

Centre for Advanced Studies in Poultry Science was established in 1985 as recognition for its contribution in various fields of activities. The centre has successfully completed 12 External Aided Projects. Release of crossbred chicken for backyard- Gramasree & Gramalakshmi, release of high yielding ILM-90, Establishment of ICAR Revolving Fund Poultry Project, implementation of NATP on productivity enhancement of Ducks and successful conduct of IV World Water Fowl conference, IPSACON 2015, RKVY project etc. are the significant milestones of the Centre.

OBJECTIVES

- Academic programmes of the Poultry Science and Veterinary faculty.
- Research on advanced areas in Poultry Science
- Implementation of Externally aided projects.
- Transfer of Technology (ToT) programmes.

ADMINISTRATIVE DETAILS

ADMINISTRATIVE STAFF

Director- Dr P Anitha,Professor

Assistant –Smt Akhila

SUPPORTING STAFF

Office Attendant

ANNUAL FINANCIAL DETAILS

NON PLAN

Total financial outlay – Rs 49.15 Lakhs

Title of the Project	Name of the Principal Investigator	Funding Agency	Fund Allocated	Duration of the Project
Conservation,Characterization And Popularization of Native Varieties of Poultry in Kerala	Dr P Anitha	Govt . of Kerala	61 Lakhs	Continuing Since 2018
Advanced Mycotoxin Testing Facility for Poultry Feed	Dr Binoj Chacko & Dr P Anitha	Govt . of Kerala	27.5 Lakhs	Continuing Since 2018
Hatchery Waste Disposal and its Effective Utilization	Dr Harikrishnan S & Dr Vimal Antony Muttathettu	Govt . of Kerala	11 Lakhs	Continuing Since 2018

Annual Report of KVASU Farms during 2021-22

Station Code:120 Name of Unit: AICRP on Poultry for Eggs

No	Particulars		FY: 2021-22
1	Year of Establishment		1976
2	The total area of the farm		5 Acre
3	(Sanctioned strength/in position as x/y) with the designation of each post		
	Scientific staff		2
	Professor		
	Associate Professor		
	Assistant Professor		2 (Senior Scientist (i/c) and Farm Manager)
	Administrative staff		3 (Section Officer Hr. Gr., Assistant and Computer Assistant Seln. Gr.)
	Farm Supervisors		2 (Senior Farm Supervisor & Farm Supervisor GR I)
	Class IV		1
	Labourers - permanent		8
	Labourers - casual		Nil
	Others- Specify		Nil
4	Total number of permanent staff		16
	Contract staff		Nil
	Daily wage employees		6
5	Whether the farmland/part is occupied by any agency/govt. dept in last five years, if yes details with area		-
6	Details of Budget allocation and Expenditure		
	Fund released (Non Plan + Plan + EAP)		133.97 Lakhs
	Expenditure (Non Plan + Plan + EAP)		207.13 Lakhs
	Expenditure (Non Plan + Plan + EAP) excluding salary		124.90 Lakhs
	Revenue Generated		36.41 Lakhs
	Cost-benefit ratio		0.18
	Cost-benefit ratio		0.29

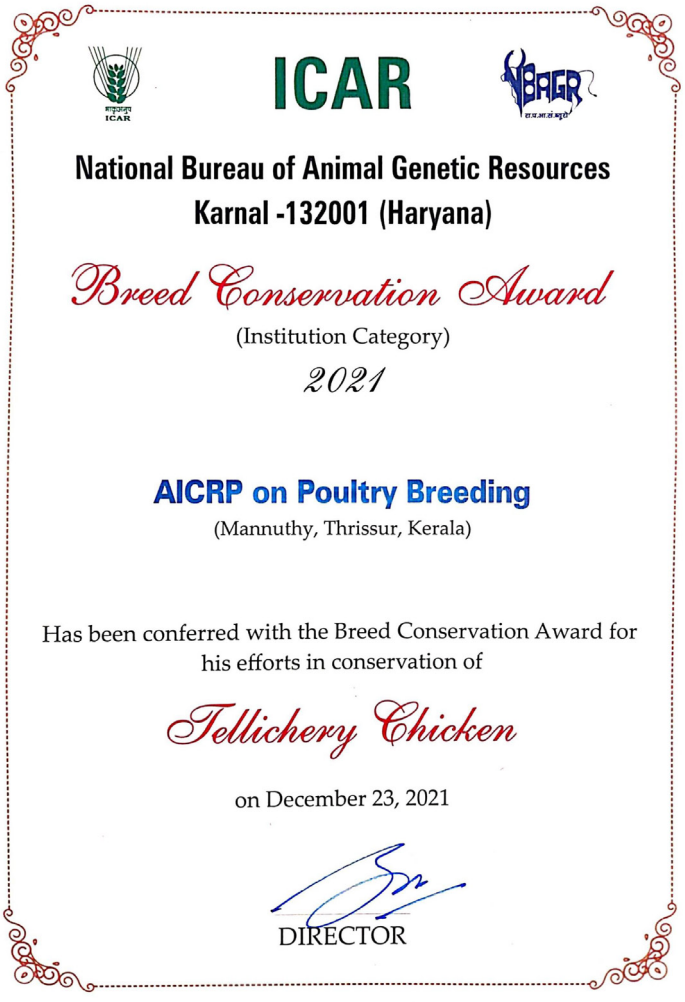
7	Objectives of running the farm		a) Genetic improvement of IWN & IWP strains. b) Conservation, improvement, characterization and application of native germplasm. c) Development of a three way cross suitable for backyard purpose using native germplasm
	Level of achievement of the above objectives		a. Genetic improvement of S32 generation (upto 72 weeks), S33 generation (upto 28 weeks) of IWN & IWP strains completed. b. Conservation, improvement, characterization and application of native germplasm completed for S6 generation. c. Development of a three way cross suitable for backyard purpose using native germplasm completed upto 72 weeks under farm condition. d. Breed conservation 2021 award by the ICAR-NBAGR under institution category for conservation of Tellichery chicken breed.
8	Status of maintenance of mandatory registers in the farm (up to date/pending)		Upto date
9	Suggestions/recommendations of the superior officers who have visited the farm		Honourable Animal Husbandry Minister, Smt J. Chinchurani visited the farm on 20/12/2021 and appreciated the progress made in the farm and also for the release of backyard crossbred "Triveni". She wished for the release of new varieties in the future.
10	Details of farm produce		
	Total Egg/Year		467471
	Milk/Year		-
	Birds sold/year (Chicks)		16279
	Birds sold/year (Adult)		1204
	Animals sold/year (Young Stock)		-
	Animals sold/year (Adult Stock)		-

	Others (specify) Manure		43695 Kg
	Hatching Egg		9375
	Culled bird		6704kg
11	The mechanism adopted for the sale of the farm produce		• Directly from farm Sales counter of KVASU
12	Method of purchase of feed		• Direct purchase
	Source of purchase of feed		• Revolving Fund Feed Mill
13	Additional facilities created during the year		• Installation of 10 rows (1320 nos.) individual cages in cage 2 • Fencing of boundaries of AICRP poultry farm • Paving of vehicle parking area • Repair and maintenance of wheel dip
14	Mechanisms and methods adopted to improve the functioning of the farm (Ten points minimum)		• Artificial insemination for commercial hatching egg supply • Improvement of biosecurity measures. • Repair & reinstallation of the Air circulating fans in cage I &III to reduce the summer stress • Molecular work of Tellichery breed started (mitochondrial d loop sequencing) • Summer stress management measures • Three-way cross development for backyard purpose using native germplasm completed 72 weeks under farm conditions. • Paving of vehicle parking area • Purchase of digital egg quality analyzing equipments • Basic infrastructure development. • Basic infrastructure maintenance.
15	Student research during the year		1
16	Student training during the year		-
17	Farmers training during the year		Online training (10)
18	No. of farmers visited the farm during the year		-
19	Number and type of publications during the year		1 (lead paper)
20	Present stock position of animals/birds category wise (31/03/2022)		
	IWN (Female)		896

	IWN (Male)		376
	IWP (Female)		953
	IWP (Male)		409
	CP (Female)		121
	Native (Female)		990
	Native (male)		249
	RIR		108
	ND(Male)		73
	NDR(Three way cross)		293

Breed conservation award (institutional category) 2021 by NBAGR

AICRP on Poultry Breeding, Mannuthy centre has bagged the Breed Conservation Award (Institutional category) 2021 awarded by NBAGR, Karnal for conserving the Tellicherry chicken breed.



Breed conservation award in news

A FEATHER IN CAP

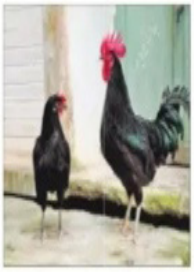
Kerala's own Thalassery chicken breed gets national recognition

AMIYA MEETHAL @Kozhikode

THE All-India Coordinated Research Project (AICRP) cell at Mannuthy under Kerala Veterinary and Animal Science University (KVASU) has won the national breed conservation award (2021) for the conservation of Thalassery breed, the only registered native chicken breed in the state, and research activities related to it. The centre received the prestigious ICAR-NABGR (National Bureau of Animal Genetic Resources) award for conserving the breed, which is now in its sixth generation. The centre had started the conservation of the breed — which was brought from Thalassery — seven years ago. "The Thalassery breed is unique for its less weight, less egg weight and long broodiness compared to other indigenous varieties. Its comb and wattles are characterised by red colour," says Dr Suja C S, Assistant Professor at AICRP.

The centre is now conserving the sixth generation of the breed — each generation having around 650-700 female and 150-200 male birds. After research and study and hatching of the new generation, the previous one will be culled.

"As a result of the continuous monitoring of the Thalassery chicken breed — providing feed on time, taking vaccination etc — the birds begin laying eggs as early as five months and the annual egg production (per bird) has been increased to 160-170 now," added Suja. For other indigenous types, the egg-laying period is six to eight months and annual production 70-80 eggs only. Thriveni — the new crossbred chicken variety developed at AICRP two weeks back — was a cross of Thalassery breed, White lagoon and Rhode Island Red. The centre has also initiated the genetic characterisation of Thalassery breed, which played an important role in the national award. The AICRP had started selling the hatched Thalassery chicks to the people from 2016 itself which means the breed would have presence beyond Thalassery. The research team is led by current Principal Investigator Dr Sankaralingam and the other members are Dr P Anitha, Dr Binoj Chacko, Dr Beena C Joseph and Dr S Harikrishnan, besides Suja.



Its peculiarity

According to Dr Suja C S, assistant professor at AICRP, Thalassery breed is unique for its less weight, less egg weight and long broodiness compared to other indigenous varieties.

തലശ്ശേരി കോഴികളുടെ സംരക്ഷകർ

തൃശൂർ ▸ സംസ്ഥാനത്തെ ഏക തദ്ദേശീയ കോഴിജനുസ്സായ തലശ്ശേരി കോഴികളുടെ സംരക്ഷണ-ഗവേഷണത്തിൽ നേട്ടങ്ങളുമായി വെറ്ററിനറി സർവകലാശാല. തലശ്ശേരി കോഴികളുടെ ജനിതകശേഖരമുള്ളത് സർവകലാശാലയുടെ മണ്ണുത്തി കാമ്പസിലെ എ.ഐ.സി.ആർ.പി. ഗവേഷണ കേന്ദ്രത്തിൽ മാത്രമാണ്. ജീൻ സീക്വൻസിങ് സങ്കേതങ്ങളും ഉപയോഗിച്ച് ഈ വിഭാഗത്തിന്റെ ജനിതകസവിശേഷതകളും തിരിച്ചറിയുന്നതിനുള്ള ഗവേഷണപദ്ധതിയും ഇവിടെ നടക്കുന്നുണ്ട്.

2014-ൽ ആരംഭിച്ച ഗവേഷണപദ്ധതിയുടെ ഭാഗമായി തലശ്ശേരിയിൽനിന്ന് തന്നെയാണ് കോഴികളെ ശേഖരിച്ചത്. ആറ് തലമുറ കോഴികളെ ഇതിനകം ഉത്പാദിപ്പിച്ചു കഴിഞ്ഞു. ഒപ്പം ഐ.സി.എ.ആറിന്റെയും സർവകലാശാലയുടെയും ഫണ്ടുപയോഗിച്ച് ഗവേഷണവും നടക്കുന്നുണ്ട്.



ഗവേഷണപ്രവർത്തനങ്ങൾക്ക് ഇപ്പോൾ നേതൃത്വം നൽകുന്ന സീനിയർ സയന്റിസ്റ്റ് ഡോ. ശങ്കരലിംഗം, ഡോ. സി.എസ്. സുജ എന്നിവരോടൊപ്പം

നിലവിൽ 750-നടുത്ത് തലശ്ശേരി പിടക്കോഴികളും 250-നടുത്ത് പൂവൻകോഴികളും ഇവിടത്തെ ഫാമിലുണ്ട്. ശാസ്ത്രീയമായ ജനിതകനിർദ്ധാരണത്തിന്റെ ഫലമായി ഗവേഷണകേന്ദ്രത്തിലെ തലശ്ശേരി കോഴികളും നാലരമാസത്തിൽ മുട്ടയിട്ടു തുടങ്ങുന്നു. വർഷത്തിൽ ശരാശരി 160 മുതൽ 170 മുട്ടകൾ വരെ ഉത്പാദിപ്പിക്കുന്നതും ഇവയുടെ മേന്മയെന്ന് ഗവേഷകയായ ഡോ. സി.എസ്. സുജ പറഞ്ഞു.

72 ആഴ്ചയാണ് ഇവയുടെ വളർച്ചാ കാലാവധി. തലശ്ശേരിക്കോഴികളുടെ കൊത്തുമുട്ടകളും കോഴിക്കുഞ്ഞുങ്ങളും ലഭ്യതയനുസരിച്ച് ഫാമിൽ നിന്ന് കർഷകർക്ക് വിൽക്കുന്നുമുണ്ട്. കൂടാതെ മുട്ടയും വിൽക്കുന്നുണ്ട്. ഏറെ ആവശ്യക്കാരുമെത്തുന്നുണ്ട്. ഈയിടെ സർവകലാശാല പുറത്തിറക്കിയ ത്രിവേണി തലശ്ശേരി കോഴിയുടെയും റോഡ് ഐലൻഡ് റെഡ് എന്ന വിദേശ ജനുസ്സിന്റെയും സങ്കരയിനമാണ് ഗവേഷകരായ ഡോ. പി. അനിത, ഡോ. ബിനോജ് ചാക്കോ, ഡോ. ബീന സി. ജോസഫ്, ഡോ. ശങ്കരലിംഗം, ഡോ. സി.എസ്. സുജ, ഡോ. എസ്. ഹരികൃഷ്ണൻ എന്നിവരുടെ നേതൃത്വത്തിലാണ് ഗവേഷണപ്രവർത്തനം നടത്തുന്നത്.

സർവകലാശാലയ്ക്ക് ബ്രീഡ് കൺസർവേഷൻ പുരസ്കാരം

വെറ്ററിനറി സർവകലാശാലയിലെ എ.ഐ.സി.ആർ.പി. കോഴി പ്രജനനഗവേഷണകേന്ദ്രത്തിന് 2021-ലെ ദേശീയ ബ്രീഡ് കൺസർവേഷൻ അവാർഡ് ലഭിച്ചു. രാജ്യത്തെ തദ്ദേശീയ ജനുസ്സുകളെ ശാസ്ത്രീയമായി സംരക്ഷിക്കുകയും ഗവേഷണങ്ങൾ നടത്തുകയും ചെയ്യുന്ന സ്ഥാപനത്തിനാണ് ഐ.സി.എ.ആർ. എൻ.ബി.എ.ജി.ആർ. ദേശീയ പുരസ്കാരം നൽകുന്നത്.

Honorable Animal Husbandry Minister's visit and appreciation

Honorable Minister for Animal Husbandry, Government of Kerala Smt. J. Chinchurani visited the AICRP on Poultry Breeding, Mannuthy on 20.12.2021 and appreciated the progress of the centre and also presented memento for bagging ICAR-NBAGR Breed Conservation Award 2021.





ICAR-AICRP-SCSP SCHEME 2020-21

- **Distribution of day-old native chicks, feed, feeder, drinker and medicine kit to Scheduled Caste Beneficiaries**

  Scheduled caste sub-plan funded by the ICAR through AICRP on poultry for eggs, Mannuthy center for the year 2020-21 was implemented in collaboration with National service scheme of Kerala Veterinary and Animal Sciences University and Vocational Higher Secondary Education, Kerala. About 43 Scheduled caste families were selected according to the land

availability and experience in poultry rearing. AICRP Mannuthy provided online training on scientific poultry management. The class was handled by Dr. Suja C.S, Assistant Professor of AICRP on poultry for eggs on 21-102021. The inauguration ceremony was conducted on 25-10-2021. Day-old chicks of Tellicherry native breed, drinkers, feeders, feed, and vitamin supplements were supplied free for the beneficiaries. The feed for the birds up to 5-6 months of age was provided from AICRP on Poultry Breeding, Mannuthy at no cost. About 1220 female and 300 male chicks were distributed to this scheme. The ceremony was presided by Honourable Vice-chancellor of Kerala Veterinary & Animal Science University (KVASU), Prof. (Dr.) M. R Saseendranath and inaugurated by Thrissur district panchayat president Sri. David Master. Standing committee chairman for health and education Sri. P. R. Sureshbabu distributed the feed bags, Dr. C. Latha, Dean, College of Veterinary & Animal Sciences, Mannuthy distributed the poultry rearing equipments, Dr. A. P Usha, Director of Farms, KVASU distributed the medicines and pamphlet. Dr. P. Anitha, Director, CASPS, CVAS, Mannuthy described the details of the project. Dr. T.S Rajeev, NSS coordinator, KVASU felicitated the function. Dr. Beena C Joseph, Senior scientist, AICRP on poultry, welcomed the gathering and Dr. Suja C.S delivered the vote of thanks.



Presidential address by Honourable Vice-chancellor of Kerala Veterinary & Animal Science University, Pro. (Dr.) M. R Saseendranath



Inauguration of SCSP programme 20-21 by Thrissur district panchayat president Sri. David Master by handing over the chicks

ICAR-AICRP- SCSP SCHEME 2021-22

Distribution of Tellicerry native chicken and wooden coop to Scheduled Caste Beneficiaries

All India Research Coordinated Project (AICRP) on Poultry Breeding, Mannuthy centre has implemented the ICAR SCSP scheme for the year 2021-22 on 27.03.2022 by supplying 10 numbers of 8 weeks old vaccinated Tellichery native chicken worth Rs. 1030 and a wooden coop worth Rs. 2900 each to 140 Schedule caste farmers of Nadathara grama panchayat, Thrissur district, Kerala.

The function was inaugurated by Honorable Revenue cum Housing Minister Adv. K. Rajan of Government of Kerala. The function was presided by Nadathara Grama Panchayat president Smt. Srividya Rajesh and welcome address was delivered by Dr. M.R. Saseendranath, Honorable Vice-Chancellor of Kerala Veterinary and Animal Sciences University (KVASU). The project was explained by Dr. P. Anitha, Director, Centre for Advanced Studies in Poultry Science, Mannuthy. The function was felicitated by Dr. P. Sudheer Babu, Registrar, KVASU, Dr. N. Ashok, Director of Academics and Research, KVASU, Dr. C. Latha, Dean, College of Veterinary and Animal Sciences, Mannuthy and the vote of thanks was delivered by Dr. S. Sankaralingam, Senior Scientist, AICRP on Poultry Breeding, Mannuthy.



Honorable Vice-Chancellor of KVASU Dr. M.R. Saseendranath delivering the Welcome address



Honorable Revenue cum Housing Minister Adv. K. Rajan distributing the Wooden coop and 10 numbers of Tellicherry native chicken to the beneficiary

■ കർഷകർക്കൊപ്പം വെറ്ററിനറി സർവകലാശാല

നടത്തറയിലെ വീട്ടുമുറ്റങ്ങളിൽ തലശേരി കോഴികൾ

തൃശൂർ

തനിനാടൻ കരുത്തും ചേലുമുള്ള തലശേരി കോഴികൾ നടത്തറയിലെ വീട്ടുമുറ്റങ്ങളിൽ വളരും. ഇതിനായി വെറ്ററിനറി സർവകലാശാല കോഴികളെയും കൂടും വിതരണം ചെയ്തു. സർവകലാശാല എഐസിആർപി ഗവേഷണ കേന്ദ്രമാണ് പദ്ധതി നടപ്പിലാക്കുന്നത്. നടത്തറ പഞ്ചായത്തിലെ 140 പട്ടിക ജാതി കുടുംബങ്ങൾക്ക് രണ്ട് മാസം പ്രായമുള്ള 10 തലശേരി നാടൻ കോഴികളും തടി നിർമിത കൂടുമാണ് വിതരണം ചെയ്തത്. പദ്ധതിയുടെ ഉദ്ഘാടനം റവന്യൂ മന്ത്രി അഡ്വ. കെ രാജൻ നിർവഹിച്ചു.

രണ്ടു മാസം പ്രായമുള്ള പ്രതിരോധ കുത്തിവയ്പുകൾ പൂർത്തിയാക്കിയ കോഴികളെയാണ് വിതരണം ചെയ്തത്. ഇവയ്ക്ക് പ്രത്യേക തീറ്റ നൽകേണ്ട. വീട്ടുമുറ്റങ്ങളിൽ വളർത്താനാവും. മാംസം, മുട്ട ഉൽപ്പാദനം എന്നിവയിലുള്ള മുന്നേറ്റത്തിനും ഇത് വഴിവെയ്ക്കും. കേരള അഗ്രോ കോ



കോഴിയും കൂടും വിതരണം മന്ത്രി കെ രാജൻ ഉദ്ഘാടനം ചെയ്യുന്നു

ർപറേഷനാണ് മരത്തിന്റെ കൂട് നിർമിച്ചത്.

ചടങ്ങിൽ പഞ്ചായത്ത് പ്രസിഡന്റ് ശ്രീവിദ്യ രാജേഷ് അധ്യക്ഷയായി. വെറ്ററിനറി സർവകലാശാല വൈസ് ചാൻസലർ പ്രൊഫ. എം ആർ ശശീന്ദ്രനാഥ്, സി എഎസ്പിഎസ് ഡയറക്ടർ ഡോ. പി അനിത, രജിസ്ട്രാർ ഡോ. പി സുധീർ ബാബു, ഡിഎ ആർ ഡോ. എൻ അശോക്, വെറ്ററിനറി കോളേജ് ഡീൻ ഡോ. സി ലത, എഐസിആർപി സീനിയർ സയന്റിസ്റ്റ് ഡോ. എസ് ശങ്കരലിംഗം എന്നിവർ സംസാരിച്ചു.

ദേശാഭിമാനി Tue, 29 March 2022
https://epaper.deshabhimani.com/c/67101251

REVOLVING FUND POULTRY PROJECT, CASPS, MANNUTHY

PROFILE:

The Revolving Fund Poultry Project operating under CAS in Poultry Science was originally sanctioned by ICAR vide order No.F.7-15/95/ASR II Dt.17.07.96 in the name 'Establishment of a Commercial hatchery'. The project started functioning w.e.f. 03.03.1998 under Kerala Agricultural University with a capital investment of Rs. 25 lakhs as the corpus amount and one time grant. The corpus fund was fully repaid in five installments and the project was carried out successfully under Kerala Agricultural University and transferred to Kerala Veterinary and Animal Sciences University vide order no. KVASU/DAR/R2/2011 dated 11.07.2011 of Director, Academics & Research with name as 'Revolving Fund Poultry Project'.

The Revolving Fund Poultry Project (RFPP) is a prestigious project under the Kerala Veterinary and Animal Sciences University, functioning as an autonomous project without incurring Non- Plan expenditure. Presently it is being operated as per the new guidelines formulated by KVASU.

OBJECTIVES

- To produce balanced poultry feeds to cater the requirements of research stations under University and farms under AHD, Govt. of Kerala
- To facilitate advanced research in frontier areas of Poultry production and technology

ADMINISTRATION DETAILS

Principal Investigator

Dr. P. Anitha Director

Co- PIs

Dr. Binoj Chacko. Associate Professor & Head, UPDF

Dr.S.Sankaralingam, Senior Scientist i/c, AICRP on poultry for eggs

Name of supporting staff	Position
Dr.Afsal.S	Feed mill Manager
Mrs. Hima.P.P	Accountant
Mrs. Raji.P.G	Accountant
Mr. Binto Benny	Feed mill Assistant
Mr. Nitjin Rajan	Feed mill Assistant
Mr.Joshine Joy	Feed Mill Technician/Fitter
Mr.Yadhukrishnan.K.M	Lab Assistant
Mr.Rajith C.P	Driver cum office attendant

Dr. Vimal Antony Muttathettu, Assistant Professor, Dept of Poultry Science,Mannuthy

Financial Details

Corpus Fund Disbursed	:	NIL
Opening Bank Balance as on 01-04-2021	:	Rs. 1,45,36,779/-
Closing Bank Balance as on 31-03-2022	:	Rs. 1,24,25,245/-
Total Income (April 2021– March 2022)	:	Rs 9,59,70,609/-
Total Expenditure (Apr 2021 – Mar 2022)	:	Rs. 8,92,42,076/-
Net margin	:	Rs. 67,28,533/-
Interest received from bank	:	Rs. 2,58,571/-

TIN:32080509729
E-mail:lptmty@kvasu.ac.in

FSSAI:11315008000043
Website:www.kvasu.ac.in

Ph:9895213500

MEAT TECHNOLOGY UNIT, MANNUTHY

Report and Achievements for the year 2021-22

I. **Research:**

- Development of organic briquettes from slaughter house waste as a nutrient source for plant growth
- Development and evaluation of Pet treats incorporating buffalo by products
- Development and evaluation of chicken chips by using extrusion technology
- Fourier transform infrared spectroscopy for the identification of cold slaughtered meat
- Development and evaluation off chicken meat spread
- Ultrasonic measurement of backfat thickness and Loin eye area in crossbred pigs and their correlation with meat yield and fatty acid profile.

II. **Training & Human ResourceDevelopment:**

1. ***Human Resource Development***: **Stipendiary TrainingProgrammes**
    a. Meat processing cum plant operation (2years),
    b. Wholesome meat production and meat processing (1 year)
    c. Meat plant operation and maintenance (1year)
2. ***Human Resource Development***: **Training Programmes – 2**
    - One day hands on training on poultry processing and marketing organized by Meat Technology Unit sponsored by MS Swaminathan foundation for entrepreneurs on 17-12-2021
    - FoSTaC - Food Safety Supervisor Training & Certificate Advance manufacturing training conducted by Meat Technology Unit on 7/01/2022
3. ***Trainings, Seminars and Workshop*** **– 3Nos**
    - World Food Safety Day Celebration 2021- Online Quiz Competition on "Safe Food for Healthy Living" and International Webinar on "Safe Food for Healthy Tommorrow" 0n 7/06/2021& 8/06/2021.

      Organisations Collaborated - School of Zoonoses, Public Health and Pathobiology, Kerala Veterinary and Animal Sciences University, Association of Food Scientists & Technologists (India), Thrissur Chapter and ICAR-Central Institute of Fisheries Technology (CIFT)
    - A two-day international webinar on Ecohealth paradigm: towards sustainability and Global Health was organized by the departments ofLivestock Products Technology,

Veterinary Public Health, College of Veterinary and Animal Sciences, Mannuthy and Pookode, Centre for One Health Education Advocacy Research and Training and the School of Zoonoses Public Health and Pathobiology on 3 rd and 4 th August 2021.

- Fifth Annual Convention of Association of Meat Scientists and Technologists and International Conference on "Convergence of Technology and Policy for Sustainable Meat Production from 25th to 28th October 2021 organizedby Meat Technology Unit and Department of LPT. Organisations Collaborated - Association of Food Scientists & Technologists (India), Thrissur Chapter, Indian Dairy Association and Association of Meat Scientists and Technologists

III. **Production:**

1. Preliminary goes on for the application of ISO 22000: 2018 certification of an existing facility under Kerala Veterinary and Animal SciencesUniversity
2. Scaling up of the production status of Meat TechnologyUnit
3. ***Product diversification***: Development of new value-added products: **Chicken chips, Meat Spread, Enrobed Paneer**
4. Enhancement of marketing of meat and meatproducts
5. Revenue generated:**over 2.5Crores**

Major activities

- Teaching and research activities in the field of Livestock Products Technology,
- Regular production, processing and marketing of meat and meat products and by-products and close interaction with State Agricultural Universities, Veterinary Officers, Local Self Government authorities, Industries Department, Suchitwa Mission, Health professionals, FSSAI, Animal HusbandryDepartments,
- Technical advice to entrepreneurs, Food SafetyCommissionerate,
- Conducted classes for Nursing, Pharmacy, MBBS, BAMS and Food Technology students,
- Hands-on training on slaughter practices and meat inspection to Veterinary Officers and on meat processing to Self-Help Groups,
- Conducted training programmes for staffs and faculty in relation with COVID–19 and prepared operational guidelines for Meat Technology Unit during lock downperiod.
- **Online Classes for BVSc, MVSc and PhDStudents**

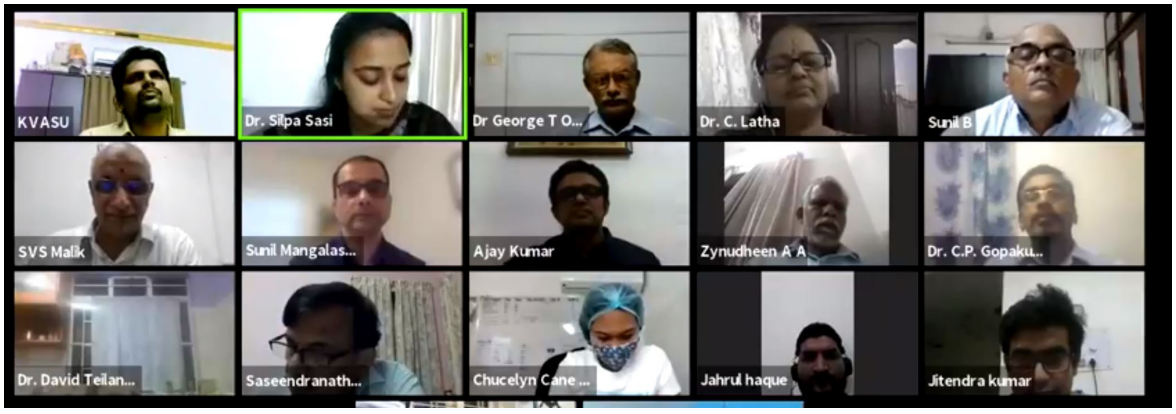
I. New schemes and Programmes to be launched for2022-23.

1. ISO 22000: 2018 certification of an existing facility under Kerala Veterinary and Animal Sciences University
2. Industrial Collaboration – Research on effect of natural antioxidants on meat and meat products in collaboration with AVT Natural Products Limited.

3. ICT enabled virtual training courses to entrepreneurs, food processors andfarmers
4. Online workshops and seminars for students, faculty, stakeholders and scientist in the area of meat production, processing, marketing of livestock products, one health and veterinary publichealth.
5. Stipendiary Training Programmes for the year2022-23

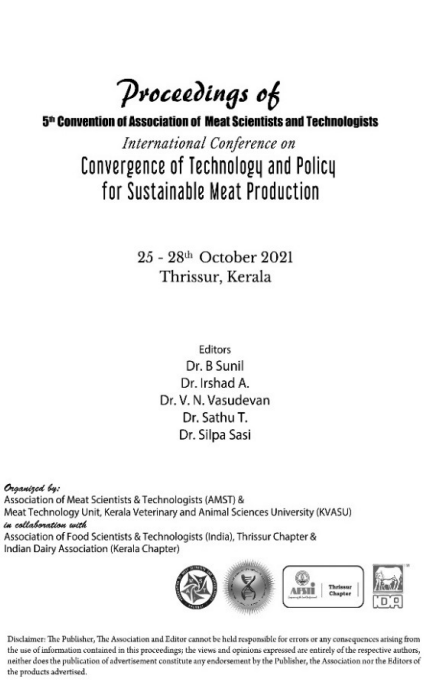
Online Training and Workshops

World Food Safety Day Celebration 2021- Online Quiz Competition on "Safe Food for Healthy Living" and International Webinar on "Safe Food for Healthy Tommorrow"



World Food Safety Day Celebration 2021- Online Quiz Competition on "Safe Food for Healthy Living" and International Webinar on "Safe Food for Healthy Tommorrow"



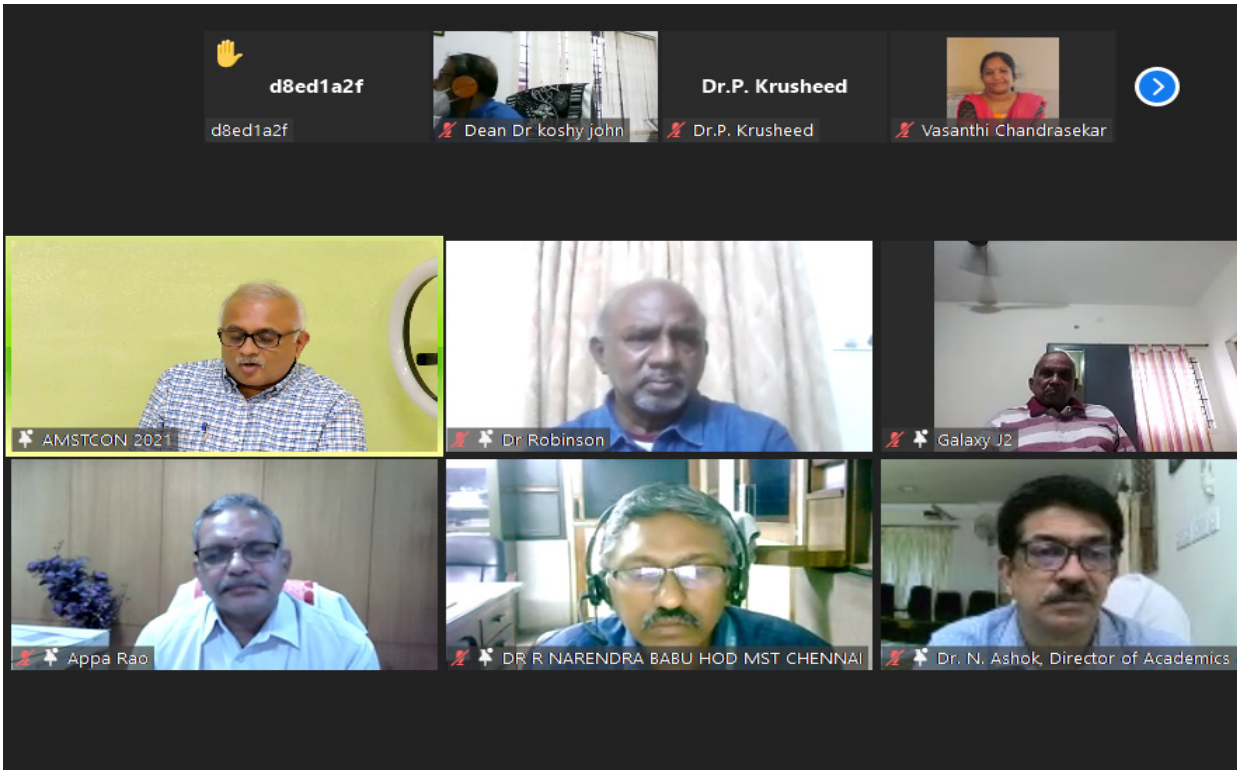

Proceedings of
5th Convention of Association of Meat Scientists and Technologists
International Conference on
Convergence of Technology and Policy
for Sustainable Meat Production

25 - 28th October 2021
Thrissur, Kerala

Editors
Dr. B Sunil
Dr. Irshad A.
Dr. V. N. Vasudevan
Dr. Sathu T.
Dr. Silpa Sasi

Organized by:
Association of Meat Scientists & Technologists (AMST) &
Meat Technology Unit, Kerala Veterinary and Animal Sciences University (KVASU)
in collaboration with
Association of Food Scientists & Technologists (India), Thrissur Chapter &
Indian Dairy Association (Kerala Chapter)

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Conference on "Convergence of Technology and Policy for Sustainable Meat Production

UNIVERSITY DAIRY PLANT, MANNUTHY

No	Particulars		2021-22
1	Year of Establishment		1993
2	Total area of the dairy plant		
3	(Sanctioned strength/in position as x/y) with designation of each post		
	Scientific staff		
	Professor		1
	Associate Professor		2
	Assistant Professor		3
	Administrative staff		
	Farm Supervisors		1
	Class IV		1
	Labourers - permanent		2
	Labourers– casual		
	Others- Specify		Assistant Section Officer-1, Computer Assistant – 1, Technical Staff - 3
4	Total number of permanent staff		7
	Contract staff		
	Daily wage employees		4
5	Whether the farm land/part is occupied byany agency/govt. dept in last five years, if yes details with area		Nil
6	Details of Budget allocation and Expenditure		
	Fund released (Non Plan + Plan + EAP)		Non Plan – Rs.1,86,00,000/- (As per revised Budget Estimate) Plan Fund –Rs. 34,00,000/-
	Expenditure (Non Plan + Plan + EAP)		Non Plan – Rs.48,06,082.5/- Plan Fund – 34,00,000/-
	Revenue Generated		Rs.1,93,67,902.73/- (Total Balance Rs.2,02,86,483.3/- including opening balance)
	RF Expenditure		Rs.1,88,38,756.85/-
	Cost benefit ratio		Rs.1447726.45/-

7	Objectives of running the dairy plant		• To impart practical training – as a student's Dairy unit- to the under graduate and postgraduate students of the various faculties viz. Dairy Science and Veterinary and Animal Sciences • To act as a major centre for Research and Development projects undertaken by post graduate research scholars, research associates/fellows of various universities. • To provide consultancy to farmers, entrepreneurs etc. in areas of milk processing, product manufacture, quality control, design of processing equipments, packaging etc. • To conduct short term and long-term training programmes for entrepreneurs, students, unemployed youth and farmers for periods ranging from 1 day to 1 year.
	Level of achievement of above objectives		87 %
8	Status of maintenance of mandatory registers in the plant (up to date/pending)		Up to date
9	Suggestions/recommendation of the superior officers who have visited the Plant		• To increase the range of value-added products in the dairy plant • To redesign the packaging material to enhance consumer acceptability
10	**Details Of PlantProduce**		
	Pasteurized Cow Milk (500ml)		604876
	Pasteurized Buffalo Milk (500 ml)		52774
	Cream (Kg)		1439.7
	Curd (500 ml)		22637
	Ghee - 500 ml		1030
	Ghee - 250 ml		855
	Ice-Cream-50 ml		2852
	Ice-Cream-500 ml		1758
	Khoa – 25g		25968
	Paneer -250 g		9457

	Sambharam – 200 ml		2133
	Sip Up -packets		31851
	Gulabjamun – (10 pieces)		880
	Skim Milk (Litre)		11235.7
	Pumkin Halwa-100 g		258
	Pumkin Halwa-400 g		218
	Paneer Pickle-150 G		117
	Paneer Pickle-250 G		116
	Palada Payasam- 1 ltr		247
	Diabetic palada – 500 ml		68
	Carrot Halwa-100 g		195
	Carrot Halwa-400 g		19
11	Mechanism adopted for the sale of the dairy plant produce		The products are sold through the sales counter at dairy plant, Technology Information and Sales Centre, Mannuthy and through selected supermarkets at Thrissur
12	Method of purchase of feed		NA
	Source of purchase of feed		
13	Additional facilities created during the year		1. Research and Development lab was renovated to facilitate the research activities and development of new- value added products. 2. Fumigator, hygienometer and automatic sanitizer dispenser were installed to ensure proper hygiene and safety of the employees during the Covid 19 pandemic period. 3. Improved the production facilities of the dairy plant by installing sip up packaging machine, UV water purifier, product display cum storage unit, batch coding machine , pedal operated milk packing unit , ice cream freezer cum churner, ,nozzle atomizer, centrifugal atomizer , can scrubber, ghee clarifier, homogenizer, cocoa.

14	Mechanisms and methods adopted to improve the functioning of the Dairy Plant (Ten points minimum)		1. Pumpkin and Carrot Halwa preparation processes were standardized in the research lab and these products were marketed towards improving the range of value-added products sold from the plant. 2. Packaging materials of some products were redesigned (family pack peda)as an initiative to e make them more attractive improving its consumer- acceptability. 3. UV water plant was installed in the dairy plant to ensure the availability of potable water for the production of milk products. 4. Sip-up packaging machine was purchased to improve the hygiene during the packaging process. 5. Chocolate preparation machine was installed as an initiative to increase the range of value added products produced in the plant 6. Inkjet printer was installed in the dairy plant to meet the FSSAI labelling stipulations. 7. Planetary mixer was purchased to improve the hygiene of the dough making process during the Gulab jamun preparation. 8. Kjeldahl apparatus was installed in the research and development laboratory as a part of quality assurance initiatives 9. Milkoscreen milk analyser was installed in the quality control lab to make the quality control measures more stringent and routine calibration of the equipment is done with the standard procedures 10. Product sales counter of the dairy plant was separated from the main office for administrative purposes 11. Restricted the entry of public without prior intimation and limited the accessibility

15	Student research during the year		• Dairy plant facilities were utilized for PG research work of M.Tech Students and M.Sc. Students • Development and Standardisation of Diabetic palada using sorbitol as the sweetening agent
16	Student training during the year		• Internship training for BVSc Students of CVAS Mannuthy and CVAS Pookode (2015 Batch and 2016 Batch) • Inplant training for 2 students from KCAET Tavanur(2018 Batch) • Training for 2 students from B. tech Food Processing Technology from Karunya Institute of Technology and Science • Training for 2 students from B tech Dairy technology (2018 Batch)
17	Farmers training during the year		-
18	No. of farmers visited the dairy plant during the year		216
19	Number and type of publications during the year		
20	Present stock position of animals/birds category wise		
21	Other major activities		

Directorate of Clinics, KVASU

The Directorate of Clinics of KVASU caters to the overall development and management of clinical facilities of the university. The directorate is actively engaged in ascertaining the field oriented needs of the state *Vis-a-vis* health related problems of livestock and pet animals and in offering practical approaches in the management of these problems. Constant improvement of the clinical amenities of the university is envisaged and implemented. The clinical wings of KVASU offer specialised service to the livestock owners and pet owners of the state and to districts of adjoining states. Planning and monitoring of research in clinical subjects and supporting clinical teaching and training is also a mandate of the Directorate. The directorate has the technical control of the veterinary hospitals and teaching veterinary clinical complex of the university.

The clinical activities of the University Veterinary Hospitals at Mannuthy, Kokkala and the Teaching Veterinary Complex at Pookode were coordinated to provide the best possible tertiary level treatment and care to the patients presented to the hospitals. The Directorate provided the required support to the ambulatory clinics of the university at Kakkavayal (Wayanad) and Malamukku and Asarikadu (Thrissur).

The revolving fund project of the Directorate on 'clinical training and allied activities' trained veterinarians from Kerala and different parts of India on techniques in small animal anaesthesia with Dr Sooryadas, Assoc Professor, Dept of Vet Surgery and Radiology as the Course Director.

The gynaecology operation theatre at Teaching Veterinary Clinical Complex, KVASU, Pookode, Wayanad, was refurbished to provide a better facility for surgeries conducted in the unit. A feline ward was established to provide a better facility for clinical examination of cats at Teaching Veterinary Clinical Complex, Pookode.

A book on standard treatment practices was published. This book will be beneficial to the veterinarians for optimisation of clinical practice by standard treatment protocol formulation for common disease conditions in livestock, poultry and pets.

Diagnostic equipment, diagnostic kits and veterinary medicines were provided for facilitating diagnosis of cases and for the purposes of treatment benefitting the livestock owners.



Refurbished Gynaecology Operation Theatre, TVCC, Pookode



Feline Examination Room, TVCC, Pookode

UVH & TVCC, MANNUTHY

1. Introduction

The Universiry Veterinary Hospital and Teaching Veterinary Clinical Complex (UVH & TVCC), Mannuthy congregates the services of all clinical departments viz. Veterinary Clinical Medicine, Ethics and Jurisprudence, Veterinary Epidemiology and Preventive Medicine, Veterinary Surgery and Radiology and Animal Reproduction, Gynaecology and Obstetrics under one umbrella providing integrated tertiary veterinary healthcare. disease investigation aid, ambulatory facility and consultancy services to the public.

2. Academic/internship/continuing veterinary education programmes

UVH & TVCC is the distinctive platform imparting quality training on clinical practice to the undergraduate, post graduate and doctoral students of the college along with conducting scientific research in the field of Veterinary clinical sciences. This unit also provides advanced trainings on the diagnostics to *veterinarians* and the disease control measures in profitable livestock farming to entrepreneurs and farmers. It is also offering a stipendiary training to VHSE pass outs in "Animal handling, veterinary laboratory techniques, pharmacy and nursing" which equips the selected candidates in all supportive para-veterinary duties enabling them to secure jobs in veterinary hospitals/ farms in public as well as private sector. Veterinary clinical Practices, tracking program, Veterinarian in Society etc are offered for UG students. Several PG and PhD courses are being offered by other departments and training is given at TVCC.

Trainings/webinars *were* conducted for field veterinarians &Additional Directors of AHD.

3. Clinical meetings, Hospital Services

Clinical investigations and therapy for all types of diseases. An average of 1800 cases is being handled per month. Summary of cases handled is given below:

Sl No.	Item	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Total
1.	Bovine	160	52	173	181	197	178	192	160	162	145	145	160	1905
2.	Caprine	270	211	372	521	539	478	471	464	432	376	253	317	4704
3.	Small Animals (Canine & Feline)	841	379	837	1046	1117	1230	1219	1216	1281	1108	1626	2324	14224
4.	Birds	77	22	49	72	97	66	58	64	56	34	69	78	742
5.	Others	39	14	16	18	31	33	30	48	26	19	21	39	334
Total		1387	678	*1447*	*1838*	*1981*	*1985*	*1970*	*1952*	*1957*	*1682*	*2114*	*2918*	21909

4. Vaccination details:

Around 500 vaccination per month.

5. Pharmacy

Hospital pharmacy dispenses common drugs and other emergency medicines free of cost. The revolving fund pharmacy attached to the hospital dispenses all medicines and disposables at a subsidized rate.

6. Referral units

Most of the cases will be referred to the various units like Clinical Medicine, Ethics and Jurisprudence, Veterinary Epidemiology and Preventive Medicine, Veterinary Surgery and Radiology and Animal Reproduction, Gynaecology and Obstetrics.

7. a. Theatre services

Month-wise list of minor & major surgeries conducted.

S1 No.	Item	April 2021	May 2021	June 2021	July 2021	Aug 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Total
1	Minor Surgery (Rs. 300)	6	6	3	12	5	3	5	9	13	27	15	14	*118*
2	Minor Surgery (Rs.500)	0	2	1	7	3	4	4	4	0	2	2	2	31
3	Major Surgery (Rs. 1000)	7	1	0	4	2	4	5	5	3	3	4	3	*39*
4	Major Surgery (Rs. 1200)	0	0	1	0	0	0	0	0	0	0	0	0	1
5	Major Surgery (Rs. 1500)	0	1	2	2	3	2	2	2	0	3	3	9	*29*
Total		***13***	***10***	***7***	***25***	***13***	**13**	***16***	***20***	***16***	***35***	***25***	***28***	**218**

b. Emergency and critical care: Casualty and emergency services are provided in the critical care unit attached to the TVCC. Average 20-30 cases/day is being attended.

c. Mobile Veterinary Services: Ambulatory clinic is functioning at selected rural milk societies (Cherumkuzhy and Malamukku) in the ambulatory vehicles engaged solely for this purpose. The experienced faculty extends their service to the farmers of Cherumkuzhy and Malamukku on routine basis, conducting infertility camps and awareness programmes. Average of 125 cases/ month is attended. Field farm visits for special expert diagnostic aid is also provident on request from the Animal Husbandry Department.

8. Veterinary Medical Record System:

Monthly reports and disease reports are being submitted to the university on monthly basis. Around 70 clinical cases were studied and presented by the students and faculty at various

and webinars.

9. Publications:

10. Other achievements:

11. Other services and activities:

1 *Laboratory Services:* A molecular biology lab and a veterinary diagnostic clinical laboratory are functioning in this TVC C. Following diagnostic services are routinely carried out in these labs.

1. Molecular diagnostics for hemoparasites
2. Routine faecal sample examination
3. Urinalysis
4. Complete blood count and hematological evaluation, Blood smear test
5. Skin scrapings and impression smear examination
6. Serum biochemistry (ALP, ALT, AST, Total protein, Albumin, Bilirubin, Blood

   Urea Nitrogen, Creatinine, Calcium, Phosphorus, Magnesium)
7. Microbiology (Culture and sensitivity examination of bacterial pathogens)
8. Cytopathology of fine needle aspirate and biopsy samples.

UNIVERSITY VETERINARY HOSPITAL, KOKKALAI

1. BACKGROUND INFORMATION OF THE DEPARTMENT

Initially known as Cochin State Veterinary Hospital and founded in 1904, University Veterinary Hospital, Kokkalai is presently a stand-alone station under Kerala Veterinary and Animal Sciences University since 2011. Erstwhile, when State of Kerala was formed, the hospital became a part of Animal Husbandry Department of Kerala and functioned as under Kerala Veterinary College from 1955. Later it was transferred to Kerala Agricultural University in 1972, on its formation. The hospital occupies an area of 1.19 acres. The outpatient clinic of the hospital (OP Clinic) works from 9.00A.M to 1.00 noon (OP registration up to 11.30 AM) and there after casualty service is being provided up to 4.00 P.M. on all working days and from 9 A.M to 12.00 noon on all holidays. Hospital handles about 120 to 130 cases daily with an annual increase of about 10%.

Major Mandates of the Station

1. Providing expert treatment, health checkup and preventive vaccinations and breeding management to animals, supported by modern diagnostic facilities
2. Clinical teaching of undergraduates, post graduates and doctoral students.
3. Facilitating postgraduate and doctoral research and under taking External Aided Research Projects
4. Referral services and emergency clinical cases referred by veterinarians and providing treatment
5. Providing training to VHSE (Dairying and Animal Husbandry) Certificate holders and farmers, conduct of continuing veterinary education programme
6. Consultancy services to govt. and private agencies

Major Facilities:

Ultrasonography, Computed Radiography with networking to units, Operation theatre with gas anaesthesia, digital monitoring, ventilator, oxygen administration, Ultrasound massager facility for soft tissue, orthopaedic, gynaecological, dental and ophthalmic surgeries. ECG, emergency and critical care with defibrillator, breeding advice with EVC, gynaecological operation theater, Laboratory with five-part Auto-haematology analyser, semi-automatic serum chemistry analyser, Arterial Blood gas analyser, Dark field microscope, Fluorescent antibody microscope, automated progesterone analyser, facilities for routine hematological and microscopical examination, blood transfusion, Vaccinations for pets and birds on discounted rates, pharmacy with common drugs, emergency medicines and i/v fluids and Karshakamithra medical store.

Details of Service Rendered

No. of cases attended – (species wise)

Canine	:	20927
Bovine	:	2342
Caprine	:	3673
Feline	:	4971
Avian	:	723
Others	:	234
TOTAL	**:**	**32870**

In-patient facilities : NIL

No. of cases admitted and quarantined: : NIL

Vaccination :

- Multi component Vaccine in dogs : 1942
- Anti-rabies Vaccination : 1852
- Cat Vaccination : 392
- Ranikhet Disease Vaccine : 0

Referral units (No. of cases attended) : 3650

- Operation Theatre services : Major: 492 Minor :526
- Emergency and critical care service : 352
- Mobile veterinary service : NA
- Veterinary Medical Record System : Manually maintained through a nominal register and case sheets.
- Case studies carried out / published : Nil (Researches and publications through concerned departments)
- Details of project works carried out by outside students : NIL
- Revenue generated (Only the amount remitted to Finance Officer's Account up to 31.3.2022)

: Non-Plan : Rs. 11,000.00

Revolving Fund : Rs. 15,00,000.00

Revolving Fund Karshakamitra : Rs. 0

2. EDUCATIONAL COURSES

Undergraduate/ Post graduate/PhD/Diploma/any other

- Supports clinical courses of B.V.Sc. & A.H. pertaining to Department of Surgery and Radiology, Animal Reproduction, Gynecology and Obstetrics, Clinical Medicine, Ethics and Jurisprudence and Epidemiology and Preventive Medicine and clinical practice of M.V.Sc and Ph.D. courses pertaining to the above subjects are also being conducted here.
- Stipendiary training program on Veterinary Nursing, Pharmacy and Laboratory Techniques for students completed Vocational higher secondary course.

3. CONFERENCES/SEMINARS/TRAININGS/VISIT OF INTERNATIONAL FACULTY :

A. Conference/Seminars/Trainings/Workshops conducted: NIL

B. Visit of International Faculty : NIL

C. Conference/Seminars/Trainings attended :

Name of the Incumbent	CONFERENCES/SEMINARS/TRAININGS ATTENDED
Dr. Syam K. Venugopal Professor and Head	**Conference/Seminars/Trainings/Workshops attended:** • NIL
Dr. Radhika, R Assistant Professor	**Papers presented at seminars:** Seminars (Presented): Radhika R., Dalbin P.B., Asha Rajagopal, Lucy Sabu, Devada K. 2021. 'Morphological and molecular identification of Haemonchus placei in cattle of Kerala'. 30th National conference of Veterinary Parasitology and National Symposium on 'Fundamentals of Integrated Parasite Management and its Relevance in One Health', Parbhani, MaharashtraAnimal and Fishery Sciences University, Nagpur from 14th – 16 December,

Dr Javed Jameel A Assistant Professor	• International webinar on Roadmap for the prevention and control of Dog mediated rabies on 6th to 7th July 2021,KVASU • Global Webinar: Trauma and critical care emergency(TraCCE) webinar series on 18-08-2021,TANUVAS • National webinar on Important Animal Diseases and control program in india on 23.10.2021 • Web based training program on Current concept of Methodology of research(online) in Academic staff college Mannuthy from12.01.2022 to 25.01.2022 • National webinar on scientific Goat farming:From the livelihood to financial security for the farmers on 18/09/2021,ICAR Patna

4. RESEARCH / INFRASTRUCTURE PROJECTS

a. Funded

Sl. No.	Name of the Project	Outlay (Lakh)	Amount Received (Lakh)	Amount Utilised (Lakh)	Source
1	Strengthening of Veterinary clinical laboratory at UVH Kokkalai	14.0	14.0	14.0	State Plan Projects 2021-22
2.	Empowering Farm Animal Health Care Services for Enhancing production	6.0	6.0	6.0	State Plan Projects 2021-22

b. Departmental projects : NIL

5. PUBLICATIONS (mention publications in recent 3 years)

a. Journals

Name of the Incumbent	Details of Article Published
Dr. Syam K. Venugopal Professor and Head	1. Laiju M. Philip, Deny Jennes, Soumya Ramankutty, Sudheesh S. Nair, Syam K. Venugopal, Praveen, M. K., Lavanya, B., Gayathri, K and John Martin, K. D. 2021. Unilateral conjunctival dermoid in a holstein friesian heifer. *Indian J. Vet. Surg.* **42**(1): 68. (IF-0.02, NAAS Rating-4.7). 2. Sharat Joshi, Laiju M. Philip, Syam K. Venugopal and John Martin, K. D. 2021. Surgical stabilisation of traumatic luxation of elbow joint in a dog. *Pharma Innovation J.* **10**(9): 330-332. (NAAS- 5. 23). 3. Nayana, D., Bibin Becha, B., Jayakumar, C., Unnikrishnan, M. P. and Syam K. Venugopal. 2021. Haemato-biochemical studies in medically managed open and closed-cervix pyometra in dogs. *J. Vet. Anim. Sci.* **52**(3): 281 - 285. 4. Sharat Joshi, Syam K. Venugopal, Sudheesh S. Nair, Sunilkumar, N. S and John Martin, K. D. 2021. Management of fracture of long bones using string of pearls (SOP) plating technique in dogs. *Indian J. Sci. Res*. **10**(10): 330-332. (NAAS- 5. 23)

	5. Lavanya, B., Syam, K. Venugopal., John Martin, K. D., Soumya Ramankutty and Sreeranjini, A. R. 2021. Ultrasonographic ocular biometry for the diagnosis of ophthalmic disorders in dogs. *Int. J Curr. Microbiol. App. Sci.* **10**(8):188-193. 6. Lavanya, B., Syam, K. V., John Martin, K. D., Soumya, R and Sreeranjini A. R. (2021). B – Mode Ultrasonographic Biometry of Cataractous Eyes in Dogs. J. Vet. Anim. Sci. 52(4): 377 - 382. 7. Suvaneeth, P., Nair, N. D., Ajith J. George, Vijayan, N., Anoop, S., Syam K. Venugopal., Mammen J. Abraham, Uma, R and Vasudevan, V. N. 2021. AgNOR staining: A diagnostic tool for determining the proliferation activity of fibroblasts in bioscaffold assisted healing. *Explor. Anim. Med. Res*. **11**(2): 247 - 250. 8. Sharat Joshi, Syam K. Venugopal, Sudheesh S. Nair, Sunilkumar, N. S and John Martin, K. D. 2022. Evaluation of serum calcium, phosphorus and alkaline phosphatase levels during long bone fracture repair in dogs stabilized with string of pearls plating technique. *J. Vet. Anim. Sci*. **53**(1): 27 - 31. 9. Reji Varghese, Laiju M. Philip, Sharat Joshi, Praveen, M. K and Syam K. Venugopal. 2022. Surgical management of lacerated wounds and rehabilitation of a rescued Indian rock python (*Python molurus*): A Case Report. *J. Vet. Anim. Sci.* **53** (1): 125 - 128.

b. Books :

Sl. No.	Title	Authors / Department	Language
1.	Practical manual for the Stipendiary Training on Veterinary Nursing, Pharmacy and Laboratory Techniques - 2021	Dr. Syam K. Venugopal Professor and Head, Dr. Laiju M Philip, Dr. Reji Varghese Dr. R. Radhika and Dr. Javed Jameel Assistant Professors	English

6. AWARDS/ HONOURS AND OTHER PERSONAL ACHIEVEMENTS

Dr. Syam K. Venugopal

Functioned as a Jury and chair for **12th *Kerala Veterinary Science Congress,*** organized by Indian Veterinary Association, Kerala, held at IVA Buildings, Thiruvananthapuram during 14th and 15th November, 2020

Dr. R. Radhika

Third prize in oral session at the 30th National conference of Veterinary Parasitology and National Symposium on "Fundamentals of Integrated Parasite Management and its Relevance

in One Health" at College of Veterinary and Animal Sciences, Parbhani, Maharashtra Animal & Fishery Sciences University, Nagpur from 14th – 16th December,2021

EXTENSION ACTIVITIES

By the Institution

1. Free Anti rabies Vaccination camp
2. Advice to public on animal husbandry and welfare issues.
3. Sales outlet of KVASU Products started from 02/05/2016 and is still continuing.
4. Karshakamitra Medical store started from 14.01.2022 and is still continuing

By Incumbents

Name of Incumbent	Extension activity
Dr. Syam K. Venugopal Professor and Head	• Consultancy Service for the Thrissur Zoological Park • Consultancy Service for the Department of Forests and Wildlife Department. • Consultancy Service for the Department of Kerala Police Dog Squad. • Training class for the senior officers of Animal Husbandry Department.
Dr. Radhika, R. Asst. Professor	• Handled classes to farmers under NSS programme • Training class for the senior officers of Animal Husbandry Department.
Dr. Javed Jameel A. Assistant Professor	• Training class for the senior officers of Animal Husbandry Department • Resource person for Tele advise service to farmers (KALF) • Regional Coordinator (Kerala) in National webinar -Important animal Diseases and their control program in India conducted by ICAR ,RCER Patna • Expert clinical faculty in NSS infertility and health camp

7. ADMINISTRATIVE, EDUCATIONAL, RESEARCH AND OTHER ASSIGNMENTS

- Dr. Syam K. Venugopal, Professor and Head, Member in the Special Purpose Vehicle for the implementation of Thrissur Zoological Park.

8. SIGNIFICANT EVENTS IN THE DEPARTMENT

Hospital functioning following Covid – 19 protocol.

9. STAFF DETAILS:

Sl.no	Name	Designation
Head of station		
1.	Dr. Syam K. Venugopal	Professor and head
Teaching faculty		
2.	Dr. Radhika, R	Assistant Professor
3	Dr .Javed Jameel A	Assistant Professor
Technical staff		
1.	Sri. Sivadasan P.B.	Farm Supervisor, Gr. I
2.	Mrs. Divya	Pharmacist (Daily Wage)
3.	Smt. Preethimol M	Radiographer (Daily Wage) appointment)
Administrative Staff		
1.	Sri. Bijith Baby	Section Officer
2.	Sri. Mridul, M.	Assistant
3.	Sri. Joy A. K.	Class IV

OTHER SCHOOLS AND CENTERS OF THE UNIVERSITY

Center for One Health Education, Advocacy, Research and Training (COHEART)

1. **Introduction of the Center**

The Kerala Veterinary & Animal Sciences University (KVASU) has established "Center for One Health Education, Advocacy, Research and Training (COHEART)" in the year 2014 to serve as a base for the rapidly expanding concept of "One Health" in India as well as to act as a hub for encouraging One Health activities over the globe. The One Health Initiative is a global movement dedicated to improving the life of all species – human and animal - through the integration of human medicine, veterinary medicine and environmental science. COHEART is the first of its kind in the country and aims at capacity building of various professionals for a holistic, multifaceted solution of zoonoses threats and global health challenges through collaboration, cooperation and partnership between different disciplines.

The centre is located in scenic hilly terrain of Pookode in Wayanad district of Kerala, India. Wayanad district stands in the southern tip of the Deccan Plateau, north eastern part of Kerala and its chief glory is the majestic Western Ghats with lofty ridges interspersed with dense forest, tangled jungles and deep valleys along the human habitations- a place ideal for co-existence of man and animal with nature, which will make the centre shine as a beacon of excellence.

2. **Objectives**

1. EDUCATION of a new cadre of health professionals about One Health- the linkages between animal, human and environmental health. We do this by offering 3 courses- PG Diploma in One Health, PG Certificate courses in One Health Surveillance and PG Certificate in Community Based Disaster Management. All the courses are suitable for health-related professionals interested in integrating the knowledge and application of human medicine, veterinary medicine and public health. The exploration of interconnectedness helps us to realize various factors and conditions of healthy co-existence.
2. ADVOCACY for collaboration as an encouragement for professionals to work together in order to attain "Optimal health for people, animals and the environment". Advocacy is through our online technology-oriented portals and most importantly through our YouTube channel named as Dr. Coheart where a virtual 2D character educates general public, farmers and professional on emerging health threats and control measures.
3. RESEARCH to understand the health threats and disease processes that occur at the interface of human and animal activities and their effects on the environment. We conduct research to improve health outcomes of human and animal populations and their surrounding environment. The major research focusses on Animal Health Hazards, Antimicrobial Resistance, Human Animal Conflict, Environmental Health Hazards, Food Safety, Infectious and Zoonotic Diseases, Occupational Health Hazards, Public Health

Hazards and Wildlife Research

4. TRAINING AND CAPACITY BUILDING to improve our community's preparedness and response to hazards affecting man, animal and the environment. As a part of capacity building activities, the Centre organizes series of awareness programmes, camps, interface meets, important day commemorations, seminars, workshop, student event etc. on cross-cutting topic areas.

3. Details of Administration activities

Faculty

Dr. Prejit : Officer-In-Charge, COHEART

Dr. Jess Vergis : Co-ordinator, COHEART

Courses

Sl. No	Name of course
1	PG Diploma in One Health
2	PG Certificate in One Health Surveillance
3	PG Certificate in Community Based Disaster Management

4. Significant School Accomplishments

External-Aided projects:

1. ***Green Recovery Pathway for India: Transitioning towards a green and resilient COVID-19 recovery*** under Rapid Financing Facility (Principal Investigator: Dr. Prejit; Funding Agency: UNDP India; Project Outlay: Rs. 36,43,200/-)

State-plan funded projects:

1. One health advocacy through development of e-resources and capacity building programmes-Phase- II (RSP/21-22/X-3)
2. Occurrence and characterization of major antimicrobial resistant and zoonotic enteropathogens at man-animal-environment interface (RSP/21-22/XIV-8)
3. Sero-screening of high-risk occupational groups for major zoonotic pathogens in the northern districts of Kerala (RSP/21-22/IX-3)

5. Major Achievements

Training Programmes:

1. Conducted Field epidemiology training programme in collaboration with NCDC, New Delhi for field Veterinarians (18.03.2022- 23.03.2022).



2. One Health initiatives for addressing zoonotic disease threats in Himalayan regions of Uttarkashi and West Sikkim funded by United Nations Development Programme (UNDP), India One Health initiative under the Green Recovery project.

Awareness session

1. Awareness videos on KFD, Dengue, Japanese encephalitis, leptospirosis, rabies was prepared and aired through the Kite Victerz channel and YouTube channel of COHEART.
2. Commemorated rabies day programme on 28/09/2021 at Kabani auditorium, Pookode.

Publications:

1. Hitziger, M., Berezowski, J., Dürr, S., Falzon, L.C., Léchenne, M., Lushasi, K., Markosyan, T., Mbilo, C., Momanyi, K.N., Özçelik, R. and **Prejit, N**., 2021. System thinking and citizen participation is still missing in One Health initiatives–Lessons from fifteen evaluations. Frontiers in public health, 9, p.653398.

Centre for Animal Adaptation to Environmentand Climate Change Studies(CAADECCS)

Climate change has become a buzz word. The alterations in climate are creating havoc globally, gathering attention from multiple fields of science. Agriculture being the back bone of economic development, is getting adversely affected with the variations in climatic events. Livestock sector, being the engine of agricultural growth, acts as the major source of income for the poor and marginal farmers of developed as well as emerging nations. Indeed, the sector is unique for both contributing to climate change and also for being affected by the same. The surging levels of greenhouse gases provide the scope for the phenomena called global warming, making livestock production at stake. There are evidences to prove the increased concentration of greenhouse gases over the last century. These effects are of serious concern for its projected impact on dairy sector, the major livelihood of the poor underprivileged farmers. The present scenario of global warming is expected to affect the breed composition, nutritional security, emergence as well as re-emergence of pests and diseases.

The Kerala Veterinary & Animal Sciences University (KVASU) has established the "Centre for Animal Adaptation to Environment and Climate Change Studies (CAADECCS)" to excel in climate change education, research and extension in the field of Animal Agriculture under the Directorate of Academics and Research as per the University Proceedings No. KVASU/DAR/R2/3579/2011 (1) Pookode dated 27.04.2012 with ICAR special grant during X1 Plan.

The CAADECCS serves as the nodal agency dealing with research and capacity building on all the aspects of climate risk management in relation to animal agriculture including weather insurance and provide information to the planners/ policy makers for implementing strategies to mitigate the ill effects of climate change/variability so as to sustain and enhance the rural livelihoods through livestock production and management.

The centre aims to have Livestock Advisory Field Units (LAFUs) at all livestock farms to cater to the location specific issues on climate change adaptation and mitigation and prepare Livestock Advisory based on medium Range Weather Forecasting for the benefit of livestock farmers. The outcomes of the Centre will have local and regional as well as national and global relevance on climate change adaptation and mitigation strategies in the field of Animal Agriculture under the Humid Tropics.

Faculty Position:

1. Implementing Officer- **Dr V. Beena** (Associate Professor, Dept. of Veterinary Physiology)
2. Assistant Professor- **Dr S. Harikumar** (Assistant Professor Dept. of LPM on additional duty)

1. Education

1.1 P.G. Diploma in Climate Services

Two P.G. Diploma Programs have been launched in Climate Services. No student enrolment in the academic year2021-22

1.2 Ph.D. Climate Change and Animal Agriculture

No students enrolled to PhD programme in the academic year 2021-22

1.3 CAADECCS-ACCER BSc. -MSc Climate Change Adaptation

CAADECCS is offering courses to the students of B.Sc.-M.Sc. (Integrated) Climate Change Adaptation of Academy of Climate Change Education and Research (ACCER) of KAU who have taken Veterinary Science as their elective subject

1.4 Continuing Education

1.4.1. Training offered to AHD Officers:

Officers of the Animal Husbandry Department attended classes in CAADECCS on climate change and Animal Husbandry as a part of their three months training programme.Dr. V. Beenatook class on the topic "An introduction to the activities of CAADECCS" and Dr. S. Harikumar on "Thermal stress management in dairy cattle."

2. Research activities

CAADECCS has already signed MoU with National Institute of Animal Nutrition and Physiology (NIANP), Adugodi, Bangalore. Various collaborative research projects have been submitted to external funding agencies like DST, Animal Husbandry Department, Kerala State Council for Science, Technology and Environment (KSCSTE) and Biodiversity Board. An RKVY- RAFTAR research project entitled "Strengthening of CAADECCS for thermal stress assessment in dairy cattle" for the year 19-20 has been sanctioned to CAADECCS with a financial outlay of 170 lakhs. The implementation of this project is in progress and as it gets completed; CAADECCS will become one among the pioneer institutes in India with climate-controlled research facility of global standards for thermal stress assessment in small and larger animals. Apart from this, state plan projects are being implemented every year. The preliminary research projects are focussed on the assessment of thermal stress in animals. The members of CAADECCS have published articles in various national and international journals.Every year a book on Automatic Weather Station-Hourly Weather Data and THI is

also getting published from CAADECCS.

CAADECCS has established a meteorological observatory with the equipment and technical expertise of IMD, Pune in the year 2018. The daily weather data is recorded and documented and which is used for climate related researches of the University. Observatory has the necessary instruments such as maximum and minimum thermometers, dry and wet bulb thermometers, sunshine recorder, wind vane, anemometer, soil thermometers and rain gauges. Additionally, CAADECCS is having an automatic weather station (AWS) which records the hourly data of different weather variables.

2.1 One MVSc. student from Department of Veterinary Physiology, CVAS, Mannuthy completed MVSc researchin collaboration with CAADECCS and submitted thesis on"Association of Temperature Humidity Index with Physiological, Biochemical and Behavioural Parameters inNative and Crossbred Goats", under the supervision of Dr V Beena

3. State Plan Projects

"Livestock Advisory Based on weather Forewarning" RSP/21-22/XIV-6with a total financial outlay of Rs 8 lakhs (seven lakhs only) under the state PlanSchemes for the year 2021-2022

The released amount was effectively utilized for the conduct of CAADECCS. An animal weighing balance with cage -1000kg, Thermal imager,four Portable Temperature and Relative humidity logger and its USB interface adapter, Infrared thermometer, lux meter, Absolute pressure measuring instrument were purchased for research purposes. Improved the infrastructure facility. The amount was also spent for improving the facilities of the Centre for effective dissemination of information to the farmers. In collaboration with KAU weekly bulletins containing tips on animal husbandry practices being distributed to farmers of Thrissur, Palakkad and Ernakulum districts using messengers, online services like email and WhatsApp. From 2019 onwards CAADECCS has been successful in recording all the important weather parameters from the surface observatory established in CVAS Mannuthy Campus in collaboration with the Indian Meteorological Department (IMD).And also we are routinely providing weather information to various newspapers, online and television Medias. Furthermore, hourly/daily/monthly/yearly data recorded from automatic weather station is effectively utilized for various research works.

4. External Aided Projects

4.1. The RKVY project (2019-20)with a financial outlay of 170 lakhs has been sanctioned to CAADECCS. Ref: G.O. (Ms) No. 112/2019/AD dated 31/08/2019.

In the year 2019, the government has sanctioned the RKVY project to CAADECCS entitled "Strengthening of Centre for Animal Adaptation to Environment and Climate Change Studies (CAA-

DECCS) for Thermal Stress Assessment in Dairy cattle" with an estimated amount of 170 lakhs. This is a sophisticated state of the art facility which is commonly used to study the impact of the climate change on animals. There are two chambers, namely, the climate control chamber and the comfort zone chamber. Both chambers are well equipped for altering the temperature and humidity as per the study requirement from 5ºc to 50ºc ±1°C and 20% to 95% ±3% respectively. Additionally, there is provision for controlling the diurnal lighting, optional elevated humidity, air exchange control, and tight performance tolerances. These chambers are first of its kind in State veterinary universities and are ideal for studying climate related impacts on cows, buffalos and other small animals. The project is going through the final stages of completion.

4.2 Submitted RKVY project 2022-23 (Green Clean Infrastructure for Research and Farmer Facilitation for Climate Smart Livestock Management at Centre for Animal Adaptation to Environment and Climate Change Studies (CAADECCS), KVASU)

5. Publications

5.1 Articles Published in Research Journals

- Jisha.,G. Girish Varma., V.L. Gleeja.K., A.Prasad., V. Beena., Karthiayini and V. Sejian. 2021. Annual temperature profile of Thrissur: a climate change perspective.*J.Vet.Anim.Sci*. **52(1):**26-31
- Sasi, D., Harikumar, S., Prasad, A., Beena, V., Gleeja, V.L. and Nameer, P.O (2021). Structural and microclimatic characteristics of dairy cattle shelters in Kerala. J Indian Vet Assoc. 19(1): pp-33-42
- Debia Yamin.,V. Beena., B. Ramnath., R. Thirupathi Venkatachalapathy and Aziz Zarina (2021). Association of temperature humidity index during summer with haematological parameters in native and crossbred goats of KeralaJ.Vet.Anim.Sci.52(3) : 222-227
- Ibraheem Kutty C., Harikumar S., Shajeesh J. and Bibin Becha B. 2021. Comparison of weather parameters inside and outside the cattle house as a causative factor of thermal stress under humid tropic. *J. Indian Vet. Assoc*. 19 (3):61-72
- Evaluation of glutathione peroxidase in anemia associated with hemoprotozoan infections in dogs-Rohil Chopra, V. Ramnath, V. Beena, K. Raji, and Arun George: JVAS- Manuscript No. 262/27/11/2
- Aishwary Vibhuti R. Thirupathy Venkatachalapthy, Pramod S, T.V. Aravindakshan and V. Beena Expression profilingof Ecto-NOX Disulfide-Thiol Exchanger 2 (ENOX2) gene during heat stress in Attappady black and Malabari goats JVAS- Manuscript No. 273/06/01/22

6. Trainings/ seminars and conferences attended/ organised

Dr. V. Beena	Attended MOOC on Digital Teaching Techniques	1/12/2021 to 31/12/2021
Dr. V. Beena	Taken class to Animal Husbandry Department Officers-An Introduction to the activities of CAADECCS	11/01/2022
Dr. S. Harikumar	Taken class to Animal Husbandry Department Officers-Thermal Stress Management in Dairy Cattle	11/01/2022
Dr. V . Beena	Acted as Resource Person on Refresher Training on "Current Concepts in Dairy Production and Processing "	24/01/2022
Dr. S. Harikumar	Acquired Post Graduate Diploma in Agricultural Extension Management from MANAGE	
Dr. S. Harikumar	Acquired Post Graduate Diploma in Animal Welfare from IGNOU	

7. Extension Activities

CAADECCS has successfully completed nine years since its foundation and has achieved excellence in serving the needs of farmers, extension workers, policy makers and professionals associated with livestock production

CAADECCS also conducted a four-day onlinenational training programme with MANAGE, Hyderabad from 04-05-21 to 07-05-21. Nearly 300 participants from all over the country including faculty members from various state Agriculture/Veterinary Universities and veterinary professionals from various state animal husbandry departments participated in the training. The renowned scientists from various national institutes like IMD, IVRI, NDRI, NIANP and also from KAU and KVASU were the resource persons for the training.

Published various articles in farm journals and delivered radio talks for bringing awareness among the farmers regarding the consequences of climate change on their livestock and the remedial measures to tackle these impacts.

Further, several awareness programmes both for professionals and farmers were organized at different parts of the state.

7.1 Online training programme jointly organized by CAADECCS, KVASU and MANAGE

The collaborative online training programme jointly organized by Centre for Animal Adaptation to Environment and Climate Change Studies (CAADECCS), Kerala Veterinary and Animal Sciences University (KVASU) and National Institute of Agricultural Extension Management (MANAGE), Hyderabad on "Climate Smart Dairying in the Context of Global Warming" was held

during 4-7th May 2021.

The CAADECCS, established under the Directorate of Academics and Research, KVASU, serves as the nodal agency with respect to matters relating to climate change education, research and extension in the animal husbandry sector. The main objective of this programme is to provide awareness among veterinary professionals on the impact of global warming on dairy farming and also on the possible alleviation strategies to be adopted for sustainable dairy farming.

In four days, training program there were a total 16, each day four sessions for four days. The course director and local course coordinator has conducted two sessions as per MANAGE off-campus training norms. The content covered in this training programme were

- Centre for Animal Adaptation to Environment and Climate Change Studies (CAADECCS) - objectives and achievements
- Role of weather and climate in livestock production
- Physiology of Thermoregulation
- Climate Change and Dairy Cattle Production: Emerging Concepts and Technologies for Sustenance
- Impact of Heat Stress on Dairy Animals
- Impact of climate change on Milk Productivity of Bovines
- Thermo tolerance and adaptive behavior in dairy cattle
- Microclimate manipulations in dairy farms
- Evaluation of climatic variables to assess thermal stress in dairy cattle
- Assessment of environmental stress in cattle in field conditions
- Strategies to alleviate heat stress and enhance production in cattle
- Green Clean Dairy Farming
- Role of Weather Based Advisories for Livestock Management in Changing Climate
- Innovations in livestock insurance under changing climate scenario
- Climate Services

7.2 Handled sessions on workshop organised jointly by KAU and KILA

Dr. S. Harikumar handled sessions on Climate change and animal husbandry in the workshop of Climate Smart Agriculture conducted for implementing officers and people's representatives of Thalikulam and Chavakkad block panchayaths organised jointly by Kerala Agricultural University and Kerala Institute of Local Administration at KILA, Mulangunnathukavu on 03.03.2022 and 09.03.2022

7.3 Dr. V. Beena acted as resource person and handled a session on 'Impact of climate change on health and productivity of animals – strategies for mitigation' in therefresher training on "Current Concepts in Dairy Production and Processing'' jointly organized by Department of Dairy Science and Academic staff college, KVASUfrom 17th to 29thJanuary, 2022by online mode

7.4Publications from CAADECCS

- Publication of E-bookon Climate Smart Dairying in the Context ofGlobal Warming

This e-book is a compilation of resource text obtained from various subject experts for Collaborative Online Training Programme of KVASU-CAADECCS & MANAGE, Hyderabad, Telangana on Climate Smart Dairying in the Context ofGlobal Warmingconducted from 04-07May, 2021. This e-book is designed to educate extension workers, students, and research scholars, academicians related to veterinary science and animal husbandry about Climate Smart Dairying in the Context of Global Warming.

- Given for publishing a Malayalam book entitled "MRIGASAMRAKSHANAVUM MAARUNNA KAALAVASTHAYUM" to Director of Entrepreneurship

It is a book prepared focusing on Animal Husbandry and the changing climatic conditions, a relevant topic in current situation.It was compiled by incorporating chapters prepared by several resourceful personalities who are experts in the subject and is edited by Dr. V. Beena and Dr. S. Harikumar.

7.5 Other daily Activities

- Livestock Advisory services based on weather changes along with KAU to farmers all over Kerala
- Distributing leaflets on livestock management in different seasons to professionals and farmers
- Providing weather data for various research activities in KVASU
- Providing weather data on daily basis for awareness to professionals on adopting management strategies in the farms associated with the campus.

KVASU CENTRE FOR WILDLIFE STUDIES (KVASU-CWS), POOKODE

1. Introduction

We live in times when the importance of biodiversity and ecosystem health in sustainable development, health and survival has been realized by humanity more than ever before since our species evolved and diverged from other animals more than three lakh years ago. Whether it is conservation action, wild animal welfare, mitigation of problems associated with human-wildlife interactions, or zoonotic diseases of wildlife origin, global interest in the interface between humans, animals and natural ecosystems has increased tremendously in recent decades. Kerala Veterinary and Animal Sciences University took a pioneering step in this sector by establishing KVASU-CWS as one of its new centres at the time of commencement of functioning of the University in 2011. The Centre has evolved over the years as a transdisciplinary platform connecting post graduate students from various bioscience backgrounds, multidisciplinary scientists, and the general public living at the interface with forests and wildlife.

2. Objectives

i. Academic and research training of Master of Science (Wildlife Studies) students

ii. Research on biodiversity, ecosystems and emerging issues at the wildlife-human interface

iii. Social outreach aimed at mitigating problems faced by people living at the interface with forests and wildlife, especially those from tribal and other socio-economically diverse communities and farmers suffering from human-wildlife conflict

3. Details of Administration activities

The Centre continued its efforts to make itself sustainable by pursuing the establishment of 'Western Ghats Regional Institute for Wildlife Research and Tribal Welfare' with the motto of "*Proactive interdisciplinary One Health Action at the wildlife-human interface by a Conservation Medicine approach*", which was inaugurated by Shri. V. Raju, Minister of Animal Husbandry, Government of Kerala, on 20th February, 2021. There were 29 students at the Centre during the FY 2021-22. The employees of the Centre consisted of three teaching faculty and four supporting staff during this period. In addition, the Centre implemented the Gothra Mission project, a tribal welfare project of KVASU.

4. Major Achievements

The Centre routinely conducted training programmes for MS (Wildlife Studies) students which included workshops and field visits. Programmes for the empowerment of tribal youth were also undertaken during this period.



Pelagic survey at Kannur



Field training at Silent Valley National Park



Field training at Salim Ali Birds Sanctuary, Thattekad



Training for tribal youth in mushroom cultivation at KVK, Ambalavayal



Empowerment programme for tribal youth at Gothra Mission

BIOSCIENCE RESEARCH AND TRAINING CENTRE, THONNAKKAL, THURUVANANTHAPURAM

I. Major activities

- Implemented the State Plan projects 'Isolation and characterization of antibiotic resistance pathogens from chicken and raw milk samples of Thiruvananthapuram District', 'Studies on Infectious Bursal Disease virus-host interaction', 'Strengthening of Bioscience Research and Training Centre Thiruvananthapuram' and 'Laboratory at BRTC, Thiruvananthapuram'.
- Implementation of external funded project entitled 'Pilot study on the seroprevalence of SARS-COV-2 antibodies in cats in Thiruvananthapuram District' funded by Department of Animal Husbandry, Government of Kerala

II. Staff Details

Sl. No.	Designation	Number of positions
1	Co-ordinator (i/c) (Assistant Professor on working arrangement)	01
2	Assistant Professor	01
3	Research Assistant (Contract/Daily wages)	02
4	Senior Grade Assistant	01
5	Security (Contract)	01
5	Daily wage labourer	01



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