

Biodata



Name: Dr. Gayathri S Lal		Gender: Female	
Designation: Scientist		Discipline: Livestock Production and Management	
Date of Birth (dd/mm/yy): 19/01/1993		Date of joining the institute: 07/07/2025	
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Academic Qualifications			
Degree / Certificate	Subject	Year	Institution, Country
Ph.D.	Livestock Production and Management	2023	ICAR-NDRI, Karnal, Haryana, India
PGDAW	Animal Welfare	2021	IGNOU, New Delhi, India
M.V. Sc.	Livestock Production and Management	2019	C.V.Sc. & A.H., OUAT, Bhubaneswar, Odisha, India
B. V. Sc. & A. H.	Veterinary Science	2017	C.V.& A.S., Pookode, KVASU, Wayanad, Kerala, India

Publication (2023-25)

- Gayathri SL**, Bhakat M, Mohanty TK, Kumar RR, Chaturvedi KK, and Kumar S. Deep learning enhanced thermographic modeling for early and precise mastitis detection in Sahiwal cows. Res. Vet. Sci. **2025.** 196: 105899. <https://doi.org/10.1016/j.rvsc.2025.105899>.

- **Gayathri SL**, Bhakat M, and Mohanty TK. Seasonal dynamics of mastitis in Gir cows: A comprehensive thermographic assessment. *Vet. J.* **2025.** 313: 106400. <https://doi.org/10.1016/j.tvjl.2025.106400>.
- **Gayathri SL**, Bhakat M, Mohanty TK, Kumar RR, Chaturvedi KK, and Kumar S. Advanced mastitis detection in *Bos indicus* cows: A deep learning approach integrated with infrared thermography. *J. Therm. Biol.* **2025.** 131: 104173. <https://doi.org/10.1016/j.jtherbio.2025.104173>.
- **Gayathri SL**, Bhakat M, Mohanty TK, Chaturvedi KK, Kumar RR, Gupta A, and Kumar S. Udder thermogram-based deep learning approach for mastitis detection in Murrah buffaloes. *Comput. Electron. Agric.* **2024.** 220: 108906. <https://doi.org/10.1016/j.compag.2024.108906>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Thermographic assessment of mastitis progression in Sahiwal cattle: Insights into the patterns in the natural course of infection. *Microb. Pathog.* **2024.** 196: 106964. <https://doi.org/10.1016/j.micpath.2024.106964>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Advancing mastitis assessment in dairy bovines via short milking tube thermography: A seasonal perspective. *Int. J. Biometeorol.* **2024.** <https://doi.org/10.1007/s00484-024-02743-0>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Seasonal assessment of mastitis in crossbred goats: A thermographic approach. *J Therm Biol.* **2024.** 124: 103947. <https://doi.org/10.1016/j.jtherbio.2024.103947>.
- **Gayathri SL**, Bhakat M, Mohanty TK, and Sinha C. A study on the assessment of milking machine teat cup liner size fitting in indigenous dairy animals. *Indian J. Dairy Sci.* **2024.** 77(6). <https://epubs.icar.org.in/index.php/IJDS/article/view/149496>
- **Gayathri SL**, Bhakat M, Mohanty TK. Seasonal assessment of mastitis using thermogram analysis in Murrah buffaloes. *J. Therm. Biol.* **68**, 2253–2265 **2024.** 121: 103842. <https://doi.org/10.1016/j.jtherbio.2024.103842>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Seasonal mastitis assessment in Holstein Friesian Crossbred cows using infrared thermography. *Ital. J. Anim. Sci.* **2024**, 23(1): 1574–1590. <https://doi.org/10.1080/1828051X.2024.2416065>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Seasonal assessment of mastitis using thermogram analysis in Sahiwal cows. *Res Vet Sci.* **2024.** 166: 105083.

- **Gayathri SL**, Bhakat M, Mohanty TK. Early Detection of Sub-clinical Mastitis in Murrah Buffaloes through Udder Thermogram Analysis during the Natural Progression of Infection. *Vet. J.* **2024**. 306: 106176. <https://doi.org/10.1016/j.tvjl.2024.106176>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Short-milking-tube thermograms: An alternative to udder thermograms for mastitis detection in Sahiwal cows. *Res Vet Sci.* **2023**. 165: 105056. <https://doi.org/10.1016/j.rvsc.2023.105056>.
- **Gayathri SL**, Bhakat M, Mohanty TK. Short milking tube thermogram analysis: an indicator of mastitis in Murrah buffaloes. *Trop. Anim. Health. Prod.* **2023**. 56(1): 5. <https://doi.org/10.1007/s11250-023-03853-4>.

Awards/ Recognitions/ Achievements

1. **Certificate of Merit-** Gayathri S. Lal- Secured **Dr. R. Satheesh Memorial Young Scientist Award** for the **best poster presentation** in the 12th Kerala Environment Congress Organized by the Centre for Environment and Development, Thiruvananthapuram- 29th and 30th November 2016.
2. Certificate- Gayathri S. L.- **Best Paper Award** in the technical session Health Sciences, in the 25th Swadeshi Science Congress organized jointly by the Swadeshi Science movement- Kerala and Sree Sankaracharya University of Sanskrit, Kalady- 16-18 December 2015.
3. **Certificate of Merit-** S. L. Gayathri – third position in the poster competition conducted as a part of World Zoonoses Day, organized by the Department of Veterinary Public Health, KVASU, Pookode- 6 July 2013.
4. **Certificate of Award-**Dr. Gayathri S. Lal- Second in Poster Session. 17th Convocation of National Academy of Veterinary Sciences (India) and Scientific Seminar on Livestock Sector towards one Health, Food security and safety. Jointly Organized by, OUAT, Bhubaneswar, Odisha and National Academy of Veterinary Sciences, India. 19-20 December 2018.
5. Certificate- Dr. Gayathri S. Lal, **Best Poster Award**, Animal Sciences, National Seminar on reaching the unreached through science and technology. Organized by the Indian Science Congress Association, Bhubaneswar chapter and Kalinga Institute of Industrial Technology (KIIT), Bhubaneswar. 17th-18th December, 2017.
6. Certificate of Merit- **Best article award** with first prize- General Zoonoses category- World Zoonoses Day -2020- International Webinar on ‘Human-Animal-Environment Interface: Recent Approaches for Containing the Global Zoonotic Burden’- organized by Meat technology unit, Mannuthy, KVASU, Wayanad, IVA, Mannuthy in association

with Association of meat scientists and technologists from 06.07.2020 to 08.07.2020 through online mode.

7. Certificate of Merit- **Best research article award** with third prize- category of postgraduate/ research scholar in World Egg Day programme (National level) organized by Meat Technology Unit, Mannuthy, KVASU, Wayanad, IVA, Mannuthy in association with Association of meat scientists and technologists on 9th October 2020.
8. Certificate- **Kerala Chapter IPSA Award** in the field of Poultry Nutrition for the year 2020 during the IPSACON-2022 conference of the Indian Poultry Association held at DUVAS, Mathura from 4-6 November 2022.
9. Certificate of Merit- **Best Presentation** in Session III- Livestock Production – Artificial Intelligence, National Livestock Conference- Utkarsh, Organized by ISAPM, Andhra Pradesh, 11-13 April 2022.
10. Certificate of Recognition- **Young Scientist Award** during the XIX SOCDAB National Symposium- Contemporary Technology for Animal Genetic Resource Management organized by Society for Conservation of Domestic Animal Biodiversity at ICAR-NBAGR, Karnal, Haryana on September 21-22, 2022.
11. Award Certificate- **Best paper award**- with second prize for session 5- Livestock and poultry production- poster presentation category in the 14th Kerala Veterinary Science Congress organized by IVA- Kerala held at College of Veterinary and Animal Sciences, Mannuthy, Kerala during 12- 13th November 2022.
12. Certificate of Merit- 3rd in **Oral presentation** entitled Precise detection of mastitis by improved deep learning convolutional neural networks: a comprehensive assessment method using udder thermograms of Sahiwal cows in National Conference on “Futuristic Approach to Viable Animal Production vis-à-vis Climate and Calamity Challenges”. ISAPM-2023, Bhubaneswar, Organised by ISAPM and Deptt. Of LPM, CVSc. And AH., OUAT, Odisha, 18th-20th January, 2023.
13. **Certificate of Award**- Second position for the **Oral paper presentation** entitled "Seasonal assessment of mastitis using thermogram analysis in Murrah buffaloes" co-authored by Mukesh Bhakat, Mohanty T. K. in the DST SERB funded National Symposium on "One Health for a Pandemic-free Future" organized by ICAR Research Complex for North Eastern Hill Region, Umiam, Meghalaya during 28 and 29 March 2023.
14. **Certificate of Achievement**- 1st position in **oral presentation** entitled Detection of Mastitis by Improved Deep Learning Convolutional Neural Networks: a comprehensive assessment Method using udder thermograms of Murrah buffaloes in the international conference on Recent trends in Biomolecules and Therapeutics (RTBT-2023), Promoting health and clinical research, Organized by Department of Biophysics, Punjab University, Chandigarh, India, during 23rd-24th March 2023.
15. **Best Ph.D. thesis award** (production group)- 2022-23. **20th Convocation, ICAR-NDRI**, Karnal, Haryana, India on 15th March 2024.
16. 3rd **Best Oral Presentation Award**. For the paper “Assessment of moringa-based

herbal post-teat dip solution via goat trial”. Technical session: Advances in small ruminant therapeutics and ethno-veterinary practices. International conference of the Indian Society for Sheep and Goat Production and Utilization (ISSGPUCON 2024) on recent trends and future perspectives to improve the performance, health and welfare of small ruminants under a changing climate scenario held at Rajiv Gandhi Institute of Veterinary Education and Research (RIVER), Kurumbapet, Puducherry, during 24-26 April 2024.

Professional Registrations and Memberships

1. Certificate of Registration- Kerala State Veterinary Council- Reg. No: 4317.
2. Life membership Registration Certificate- Indian Society of Animal Production and Management (ISAPM) - LM1390
3. Life member Registration Certificate- Animal Nutrition Society of India (ANSI) – AN2450
4. Certificate of Membership- Indian Veterinary Association Kerala, Unit Thiruvananthapuram- Membership No: 701/2020.
5. Life member Registration Certificate- SOCDAB, NBAGR, Karnal, Haryana- Membership No:1256
6. Certificate of Registration- Veterinary Council of India- Reg. No:11246