

1. **Full name of the faculty member:** DR. ANINDITA DEBNATH
2. **Designation:** ASSISTANT PROFESSOR
3. **Specialisation:** M.Tech. and Ph.D. in Dairy Technology
4. **Contact information:** Phone: 9163384369 e-mail ID: aninditadebnath2009@gmail.com
5. **Academic qualifications:**

College/ university from which the degree was obtained	Abbreviation of the degree
ICAR-National Dairy Research Institute	Ph.D.
West Bengal University of Animal and Fishery Sciences	M. Tech.
West Bengal University of Animal and Fishery Sciences	B. Tech.

6. **Positions held/ holding or Work Experience:** Assistant Professor (10 Years)

7. **Awards:**

- i. Secured third position in poster presentation entitled, **“Rheological property of inulin added low and reduced fat cream cheese”** in 47th Dairy Industry Conference held during 7th-9th Feb, 2019 at Samrat Ashok International Convention Centre, Patna
- ii. Achieved second best paper award for the article **"Sensory and Colour Profile of Milk-coconut Sweet as a Function of Ingredients"** in 47th Dairy Industry Conference held during 7th-9th Feb, 2019 at Samrat Ashok International Convention Centre, Patna.
- iii. Secured third position in poster presentation entitled, **“Optimization of processing parameters for developing cream cheese from buffalo milk”** in 44th Dairy Industry Conference held during 18th-20th Feb, 2016 at ICAR-NDRI, Karnal, Haryana.

8. **Other notable activities:**

Ongoing project: Co-PI at Project under ICAR-FARMER FIRST PROGRAM, Project Title: Livelihood Empowerment through Scientific Animal Husbandry & Allied Intervention Modules.

Completed project: Co-PI in World bank funded National Agricultural Higher Education Project under Innovation Grant, Project titled “Strengthening Post –Graduate Education and Outreach Programmes at Faculty of Dairy Technology, West Bengal University of Animal and Fishery Sciences, Kolkata, West Bengal”

9. **Publication:**

- a. **Journals (National & International): with NAAS, IF rating**

- i. Nigam, R., Khamrui, K., Prasad, W., Lodh, J., Singh, B. and **Debnath, A.** (2016). Optimization and sensory profile of chhana based kulfi as function of ingredients using response surface methodology. *Indian Journal of Dairy Science*, 69(1). **(NAAS – 5.26)**
- ii. Bansal, V., Kanawjia, S. K., Khetra, Y. Puri, R. and **Debnath, A.** (2017). Effect of whey protein concentrate, sodium caseinate, Cheddar cheese, and milk fat on sensory and functional properties of cheese dip. *Journal of Food Processing and Preservation*, 41(5), e13174. **(NAAS – 6.89)**
- iii. **Debnath, A.,** Kanawjia, S. K., Khetra, Y., Singh, B. and Lodh, J. (2017). Estimation of Production Cost for cream cheese and lowfat cream cheese incorporated with inulin and phytosterol ester. *Indian Journal of Dairy Science*, 70 (6): 693-700.

- iv. Marwade, D. H., Kanawjia, S. K., Khetra, Y., Puri, R., **Debnath, A.** and Gupta, H. R. (2017). Changes in sensory and physico-chemical attributes of low sodium Mozzarella cheese during storage. *Indian Journal of Dairy Science*, 70(6): 650-657. (NAAS – 5.26)
- v. Nayek, S., Khamrui, K., Prasad, W., Singh, B. and **Debnath, A.** (2017). Optimization of sensory profile of steamed dahi (Bhapa Doi) as function of ingredients using response surface methodology. *Indian Journal of Dairy Science*, 70(3): 273-279. (NAAS – 5.26)
- vi. Singh, B., Khamrui, K., **Debnath, A.**, Lodh, J., Gupta, H. R. and Prasad, W. (2017). Sensory and Colour Profile of Milk-coconut Sweet as a Function of Ingredients. *Indian Journal of Dairy Science*, 70(5): 497-507. (NAAS – 5.26)
- vii. Singh, B., Khamrui, K., Lodh, J., **Debnath, A.**, Prasad, W. (2017). Selection of Levels of Ingredients for the Preparation of Milk-coconut sweet (A traditional Indian delicacy) by Using Sensory and Instrumental Colour Attributes. *Asian Journal of Dairy and Food Research*, 36(2): 106-111. (NAAS – 3.88)
- viii. Singh, B., Singh, A.K., Rekha Rani, **Debnath, A.** and Raju, P.N. (2017). Effect of milk fat (white butter) and vegetable fat (Shortening) on the sensory, colour and textural attributes of Eggless muffins. *The Pharma Innovation Journal*, 6(4): 140-144. (NAAS – 5.03)
- ix. Singh, B.K., Sen, D.C. and **Debnath, A.** (2017). Sensory and microbiological attributes of Danadar marketed at three adjacent markets of West Bengal. *The Pharma Innovation Journal*, 6(4): 87-90. (NAAS – 5.03)
- x. Das, A., Sanyal, M. K., **Debnath, A.** and Ganguly, S. (2018). Development of spiced and smoked sausage from buffalo skim milk. *Journal of Pharmacognosy and Phytochemistry*, 7(6): 121-125. (NAAS – 5.21)
- xi. **Debnath, A.**, Kanawjia, S. K., Khetra, Y., Lodh, J., Singh, B., Bansal, V. and Nigam, R. (2018). Effect of processing parameters on quality attributes of cream cheese. *Indian Journal of Dairy Sci.*, 71(1): 7-12. (NAAS – 5.26)
- xii. Roy, K., **Debnath, A.** and Singh, B. (2018). Estimation of production cost for ghee residue based snack. *The Pharma Innovation Journal* 2018; 7(10): 630-634. (NAAS – 5.03)
- xiii. Ghosh, D., **Debnath, A.** and Chetri, A. (2019). Effect of Processing Parameters on quality attributes of cow skim milk paneer. *The Pharma Innovation Journal* 2019; 8(1): 429-431. (NAAS – 5.03)
- xiv. Bansal, V., Khetra, Y. and **Debnath, A.** (2021) Study of the keeping quality of cheese dip stored in PET Bottles: Sensory, physico-chemical, textural and microbiological aspects. *Indian Journal of Dairy Science*, 74(5): 387-394. (NAAS – 5.95)
- xv. Sen, C., Ray, P. R., Hossain, S., Bhattacharyya, M., Mondal, S. and **Debnath, A.** (2022). Effect of Nisin on the Quality and Shelf-Life of Paneer (Indian Cottage Cheese), SSRN: <https://ssrn.com/abstract=4254559> or <http://dx.doi.org/10.2139/ssrn.4254559>.
- xvi. Bansal, V., Kanawjia, S. K., Khetra, Y., **Debnath, A.** Deshmukh, G. (2022). Steady and dynamic rheological properties of cheese dip: Effect of milk proteins, fat and cheddar cheese. *Measurement: Food*, 8, 100066.
- xvii. Sen, C., Ray, P.R., Hossain, S., Bhattacharyya, M., Mandal, S. and **Debnath, A.** (2023). Influence of nisin on water activity, textural and other quality attributes of paneer (Indian cottage cheese) during storage. *Food and Humanity*, 1:1134-1144.
- xviii. Manik, S., **Debnath, A.**, Hossain, S., Roy, K., Debnath, P. P., Haldar, L. and Ray, P. R. (2024). Formulation and characterization of novel dairy-based dip utilizing heat-acid-coagulated milk gel and whey. *Journal of Dairy Research*, 91(3), 343-348. (NAAS – 8.10)

- xix. Manik, S., **Debnath, A.**, Hossain, S., Roy, K., Debnath, P. P., Ray, P. R. and Haldar, L. (2025). Feasibility assessment of sensorial accepted novel dairy based dip during storage. *Indian Journal of Dairy Science*, 78(3): 201-207. **(NAAS– 6.20)**
- xx. Halder, K., Sahu, J. K., Naik, S. N., Kumar, A., Yadav, R., Haldar, L., Mandal, S. and **Debnath, A.** (2025). Production of Indian cultured butter (makkhan) from buffalo creams with varied fat globule size: Process improvement and quality assessment. *International Dairy Journal*, 164, 106184. **(NAAS – 9.10)**
- xxi. Biswas, S., Goswami, A., Tudu, N. K., Kar, I., Mukherjee, A., **Debnath, A.**, Das, S., Sau, S. K., Ghosh, D. K. and Pal, B. (2025). Perceived constraints & its association with livelihood empowerment of rural stakeholders in Nadia district of West Bengal under farmers first project of ICAR, India. *International Journal of Agriculture Extension and Social Development*, 8(12): 11-21. **(NAAS – 5.04)**
- xxii. Pandit, A., Ray, P. R., Mandal, S., Barman, A. K., Mukherjee, A. and **Debnath, A.** (2025). Growth, Acidification Profile and Proteolytic Activity of Thermophilic *Lactobacillus* spp. Isolated from Traditional Sweet Curd of West Bengal. *Indian Journal of Dairy Science*, 78(6): 553-557. **(NAAS – 6.20)**
- xxiii. Pandit, A., Ray, P. R., Mandal, S., Barman, A. K., Mukherjee, A. and **Debnath, A.** (2025). Antioxidative and ACE-inhibitory activities of skim milk fermented with thermophilic *Lactobacillus* isolated from traditional Indian sweet curd of West Bengal. *Journal of Dairy Research*, 1–6. **(NAAS –7.60)**
- xxiv. Roy, T., Ray, P. R., Pandit, A., Mandal, S., **Debnath, A.** and Manik, S. (2026). Antioxidative and ACE-inhibitory activities of skim milk fermented with thermophilic *Lactobacillus* isolated from traditional Indian sweet curd of West Bengal. *Indian Journal of Dairy Science*, 79(1): 49-54. **(NAAS – 6.20)**
- xxv. Debnath, P. P., Roy, K., **Debnath, A.**, & Sanyal, M. K. (2022). Life cycle assessment and application of green technologies in dairy industry to reduce carbon footprint. *Indian J Anim Health*, 61(2): 19-32. **(NAAS-5.25)**
- xxvi. Banerjee, P., Chakraborty, P., Debnath, A., Chakraborty, C., Roy, P.K., Kalla, A.M., Manik, S. and Debnath, P.P. (2025). Quantum Dots in Milk Adulteration. *Indian Journal of Veterinary Public Health*, 11(1): 7-15. **(NAAS-3.35)**
- xxvii. Swarnakar, R., Kumar, L., Chakraborty, C., Ray, P.R., **Debnath, A.** and Debnath, P.P. (2026). Bioactive Lipids in Milk: A Gateway to Functional Nutrition - A Review. *Indian Journal of Veterinary Public Health*, 12(1): 8-16. **(NAAS-3.35)**

b. Popular Articles:

- i. Bansal, V. and **Debnath, A.** (2017). Bitterness in milk and milk products. *Beverage and Food World*, 44(12): 31-32.
- ii. **Debnath, A.** and Singh, B. (2017). Cold Plasma: A novel antimicrobial approach for food safety. *Beverage and Food World*, 44(9): 29-31.
- iii. Lodh, J., Sen, D. C., **Debnath, A.** and Singh, B. (2017). Production of traditional dairy products-an opportunity for entrepreneurship. In souvenir of *National seminar on 'A Dairy Snapshot'*, organized by Indian Dairy Association (East Zone) in association with West Bengal University of Animal and Fishery Sciences, Mohanpur Campus, Nadia, Kolkata, West Bengal on 5th August, 2017. Pp: 32-36.
- iv. Lodh, J., Sen, D.C., **Debnath, A.**, Singh, B. (2018). Algae: a fabulous alternative source of protein. *Beverage and Food World*, 46(2): 32.
- v. Singh, B., Rekha Rani, **Debnath, A.**, Dharaiya, C. (2018). Application of alkaline water in dairy and food industry. *Beverage and Food World*, 35(4): 31-34.

- vi. **Debnath, A.** (2020). Potential of Traditional Milk Based Sweets in Dairy Sector. In Compendium of National Seminar on 'Traditional Indian Dairy Products- Prospects of Commercialization', organized by Faculty of Dairy Technology, West Bengal University of Animal and Fishery Sciences, Mohanpur Campus, Nadia, Kolkata, West Bengal on 13th March, 2020. Pp: 53-54.
- vii. Hazra, S., Jadhav, V., Manik, S., **Debnath, A.** and Roy, K. (2020). Infrared Heating: An Alternate Way for Traditional Food Processing. *Vigyan Varta*, 1(8): 26-28.
- ix. Manik, S., Roy, K., **Debnath, A.**, Hossain, S., & Hazra, S. (2022). Glycomacropeptides: A key to cheese whey utilization. *Indian Dairyman*, 74(12),

c. Books/ Books chapter:

- i. Singh, B., Rani, R., Dharaiya, C. N., and **Debnath, A.** (2018). Dairy Based Beverages. In: *Beverages: Processing and Technology*. Deepak Mudgil and Sheweta Barak (eds.), Scientific Publishers, 142-168.
- ii. **Debnath, A.**, Lodh, J. and Singh, B. (2019). Advances in Cheese Technology. In: *Recent Technologies in Dairy Science*. Rekha Rani, Bhopal Singh, Chetan N Dharaiya, Hanslal and Arghya Mani (eds.), Today and Tomorrow's Printers and Publishers, 366-388.
- iii. Singh, B. and **Debnath, A.** (2019). Advanced Preservation Technologies for Milk and Milk Products. In: *Recent Technologies in Dairy Science*. Rekha Rani, Bhopal Singh, Chetan N Dharaiya, Hanslal and Arghya Mani (eds.), Today and Tomorrow's Printers and Publishers.
- iv. Das, A., **Debnath, A.**, Kumari, A., Hazra, T. and Patra, F. (2020). Objective Question Bank in Food Chemistry, Dairy Technology, Dairy Engineering, Dairy Chemistry and Dairy Microbiology. Jaya Publishing House.
- v. Bansal, V., Chandla N.K. and **Debnath, A.** (2021). Yak Milk. In: *Non-Bovine Milk: Chemistry, Health Benefits and Future Scope*. New India Publishing Agency, New Delhi. pp: 112-121.
- vi. Debnath, P. P., Roy, K. and **Debnath, A.** (2021). Donkey Milk. In: *Non-Bovine Milk: Chemistry, Health Benefits and Future Scope*. New India Publishing Agency, New Delhi. pp: 81-93.
- vii. Roy, K., **Debnath, A.** and Debnath, P. P. (2021). Buffalo Milk. In: *Non-Bovine Milk: Chemistry, Health Benefits and Future Scope*. New India Publishing Agency, New Delhi. pp: 1-29.
- viii. Sarkar, T., **Debnath, A.** and Das, A. (2021). Deer Milk. In: *Non-Bovine Milk: Chemistry, Health Benefits and Future Scope*. New India Publishing Agency, New Delhi. pp: 122-131.
- ix. **Debnath, A.**, Patil, S. and Bansal, V. (2022). Structural and functional aspects of milk oligosaccharides. In: *Functional Dairy Ingredients and Nutraceuticals*. Apple Academic Press, pp. 121-143.
- x. **Debnath, A.**, Roy, K., Debnath, P. P., Haldar, L., Barman, A. K. and Veena, N. (2024). Microbiological analysis of dairy products. In: *Analytical methods for milk and milk products: Volume 3. Microbiological analysis, isolation, and characterization*. M. R. Goyal, N. Veena, & S. K. Mishra (Eds.), Apple Academic Press, pp. 81-212. <https://doi.org/10.1201/9781032676074-5>
- xi. Roy, K., **Debnath, A.**, Mandal, R., Hossain, S., Karmakar, P. and Debnath, P. P. (2024). Physicochemical analysis of khoa and khoa-based sweets. In: *Analytical methods for milk and milk products: Volume 2. Physicochemical analysis of concentrated, coagulated, and fermented products*. M. R. Goyal, N. Veena, & S. K. Mishra (Eds.), Apple Academic Press. <https://doi.org/10.1201/9781032675817-3>
- xii. Debnath, P. P., **Debnath, A.**, Roy, K., Karmakar, P., Mandal, R., & Sarkar, J. R. (2024). Applications of enzymebased flavour components in dairy products. In: *Innovations in dairy sciences*. M. Parmar, T. Hazra, R.

G. Sindhav, & C. H. V. K. Sudheendra (Eds.), NIPA GENX Electronic Resources & Solutions Pvt. Ltd., pp. 113–127.

- xiii.** Roy, K., Debnath, P. P., **Debnath, A.**, Mandal, R. and Karmakar, P. (2024). Alternative (eco-friendly) milk processing systems. In: *Innovations in dairy sciences*. M. Parmar, T. Hazra, R. G. Sindhav, & C. H. V. K. Sudheendra (Eds.), NIPA GENX Electronic Resources & Solutions Pvt. Ltd., pp. 1-10.
- xiv.** Mandal, R., Debnath, P.P, Karmakar, P., Kumari, R., **Debnath, A.** and Lodh, J. (2025). Accelerated Cheese Ripening. In: *Technological Advances and Trends in Cheese Making*. S. M. Rafiq (Ed.), Springer, pp. 81–105. https://doi.org/10.1007/978-3-031-94476-5_6
- xv.** Debnath, P. P., **Debnath, A.**, Roy, K., & Manik, S. (2024). Physicochemical analysis for casein, caseinates, and whey powder. In: *Analytical methods for milk and milk products: Volume 2. Physicochemical analysis of concentrated, coagulated, and fermented products*. M. R. Goyal, N. Veena, & S. K. Mishra (Eds.), Apple Academic Press. <https://doi.org/10.1201/9781032675817-9>