

Nisha Gaur, PhD

+919704455174 • nishagaur.ocfd@gbu.ac.in • Greater Noida, UP, India

WORK EXPERIENCE

Assistant Professor , <i>Gautam Buddha University, Noida, India</i>	2022 - present
Research Associate , <i>Defence Research Laboratory, DRDO Tezpur, India</i>	2020 - 2022
Junior Research Fellow , <i>Jawaharlal Nehru University, New Delhi, India</i>	2019 - 2019
Junior Research Fellow , <i>Babasaheb Bhimrao Ambedkar University, India</i>	2014 - 2015

EDUCATION

Ph.D. in Environmental Microbiology and Molecular Biology <i>National Institute of Technology Warangal, India</i> <i>Thesis: Utilization of laccase and Manganese Peroxidase from novel Klebsiella Pneumoniae strains for the bioremediation of organic pollutants and bioethanol production</i>	2015 - 2019
M.Tech in Biotechnology <i>Rajiv Gandhi Proudhyogiki Vishwavidyalaya, India</i>	2011 - 2013
B.Tech in Biotechnology <i>Lovely Professional University, India</i>	2007 - 2011

TECHNICAL SKILLS

High Pressure Liquid Chromatography • SDS-PAGE and Agarose gel electrophoresis • Atomic Absorption Spectrophotometer • PCR • FTIR • GC-MS • Metagenomic DNA isolation • Ion Chromatography • Mendeley • Endnote • Scientific writing • Plasmid DNA isolation

AWARDS

- **Dr. S N Dube award for best paper (2023)**- DRL, DRDO Tezpur
- **Best Research Paper award (2023)**- Director Appreciation Award, DRL, DRDO Tezpur
- **India National Ph.D. Studentship** - Ministry of Education (2015-18)
- **Best oral presentation award (2023)** - for ICAN3 conference, Chennai, India.
- **ITG Travel award (2018)** - ICCES conference, Melbourne, Australia.
- **Best Presentation Award (2018)** - ICCES 411th International Conference Melbourne, Australia.

- **Best Poster Award (2018)** - ICRM conference, Kerala, India
- **Recognition Award (2016)** - NCBmbcc conference, Agra, India
- **Best Poster Award (2015)** - AMTSG National Seminar, BBA University, India

TEACHING

- Assistant Professor (on contract) at the Gautam Buddha University, India
- Mentor for Post Graduate students at the Gautam Buddha University, India
- Mentor for Undergraduate and post Graduate students at the DRDO Tezpur, India

CONFERENCE PRESENTATIONS

ORAL PRESENTATIONS

- **International Conference on Innovation Practices in technology Management-** Amity University, Noida, India, 2024
- **International Conference on Applications of Natural Products Nanomaterials and Nanopharmaceuticals**, Chennai, India, 2023.
- **International conference on Nature and Natural Sciences**, Jabalpur, India, 2023.
- **International Conference on Emerging Trends in nanomaterials science and technology**, Nagaland, India, 2022
- **International Conference on Chemical and Environmental Science (ICCES)**, Melbourne, Australia, 2018

POSTER PRESENTATIONS

- Mahatma Gandhi University ICRM, Kerala, India, 2018
- AMTSG, BBA University, India 2015.

PEER REVIEWER

- 3 Biotech
- Environmental science and impacts
- IGI Globals
- Chemosphere
- Science of the Total Environment

EDITORIAL BOARD MEMBER

International Journal of Sustainable Engineering

Subject Taught

- Downstream Processing in Biotechnology

- Enzymology
- Biomolecules
- Fundamentals of Biochemistry
- Fundamentals of Biotechnology
- Microbiology
- Cell biology
- Development in Therapeutics
- Bioprocess technology

LIST OF PUBLICATIONS

Total published: 20 Citations: 1124 h-Index:9

1. Chaudhary, R; **Gaur, N**; Yadav, M; Srivastava, S; Chaudhary, V; Shah A, M. A stochastic analysis and bibliometric analysis of COVID-19. Indian Journal of Microbiology Research. Vol 11, N0.- 4(2024). Pp- 342-353.
2. Kumari, A; Neeraj, Sharma, S; Chaudhary, R; **Gaur, N**. Strategies for Mitigating Nitrate Leaching: A Comprehensive Methodological. International Journal of Plant Biotechnology. Vol 10, No. 1 (2024). Pp- 13-28.
3. Chaudhary, R; **Gaur, N**; Yadav, M. Hydrogeochemical analysis of groundwater quality during the pre- monsoon season of Manipur, India. Water Science. Vol 38, N0. 1(2024) pp- 274-292.
4. Chaudhary, R; Banerjee, P; **Gaur, N**; Bajpai, S; Joshi, K. Environmental implications of Chitosan nanostructures. International Journal of Antibiotics. Vol 1, No. 1 (2024) pp-42-58. ISSN No.- 2584-2986.
5. **Gaur, N**; Kumar, A & Sharma, E. Solar Energy Based Water Purification System: Process Modelling and Real Time Study. E- Indian Journal of Env. Protection. Vol. 43, N0.11(2023) pp. 1014-1021. ISSN N0.- 0253-7141. I.F- 0.17.
6. Das, P; Devi, N; **Gaur, N**; Goswami, S; Dutta, D; Dubey, R & Pujari, A. Acrylonitrile adducts design, synthesis and biological evaluation as antimicrobial, haemolytic and thrombolytic agent. Sci Rep 13, 6209 (2023).
7. **Gaur, N**; Singh, A; Dutta, D; Dubey, R & Kamboj, D.V. Recent Advances in the Elimination of Persistent Organic Pollutants by Photocatalysis. *Frontiers in Environmental Science*. Vol. 10, (2022) pp. 872514.
8. **Gaur, N**; Roy, S, Das, C; Dutta, D; Dubey, R & Dwivedi, SK. The Hidden Microplastic: A New Insight into Degradation of Plastic in Marine Environment. *Defence Life Science Journal*. Vol. 7, No. 3 (2022) pp.221-231.
9. **Gaur, N**; Sarkar, A; Dutta, D; Dubey, R & Dwivedi, SK. Evaluation of Water Quality Index and Geochemical Characteristics of Surface Water from Tawang India. *Scientific Reports*. Vol 12. (2022) 11698.
10. Joshi, HC; Dutta, D; **Gaur, N**; Singh, GS; Dubey, R & Dwivedi, SK. Silver- doped Active Carbon Spheres and its application in microbial decontamination of water. *Heliyon* Vol 8, no.4 (2022) e09209.
11. Dutta, D; **Gaur, N**; Barman, P; Ghosh, Debottam; Dubey, R & Dwivedi, SK. A review on the degradation of ionic and non-ionic surfactants in water. *Defence Life Science Journal*. Vol 7, no. 2 (2022) 103-117.
12. Dutta, D., **Gaur, N.**, Dubey, R., Borah, J. P., & Puzari, A. Carbon nanotubes ornamented hollow polymethyl methacrylate microspheres for turbidity removal from water. *Journal of Environmental Management* 304(2022): 114242.
13. **Gaur, N**, Guguloth Naresh, Dhiraj Dutta, Abhishek Das, Rama Dubey, and Sanjai Kumar Dwivedi. "Physico-chemical and bacterial status of drinking water sources harboring hospital areas: a case study of tezpur hospital areas." *International Journal of Environment and Health Sciences* 3 (2021): 1-9.

14. **Gaur, N**, Korrapati N, and Y. Pydi Setty. "Recent advances in the bioremediation of persistent organic pollutants and its effect on environment". *Journal of Cleaner Production* 198 (2018): 1602-1631.
15. **Gaur, N**, Korrapati N, and Y. Pydi Setty. "Biochemical and kinetic characterization of laccase and manganese peroxidase from novel *Klebsiella pneumoniae* strains and their application in bioethanol production." *RSC Advances* 8, no. 27 (2018): 15044-15055.
16. **Gaur, N**, Korrapati N, and Y. Pydi Setty. "Extraction of ligninolytic enzymes from novel *Klebsiella pneumoniae* strains and its application in wastewater treatment." *Applied Water Science* 8, no. 4 (2018): 111.
17. **Gaur, N**, Kukreja, A, Yadav, M, and Tiwari, A. "Adsorptive removal of lead and arsenic from aqueous solution using soya bean as a novel biosorbent: equilibrium isotherm and thermal stability studies." *Applied Water Science* 8, no. 4 (2018): 98.
18. Korrapati, N, Saroj, P and **Gaur, N**. "Morphological and Elemental analysis of the effluent of Lead-acid battery manufacturing." *Journal of Applied Biology & Biotechnology Vol* 5, no. 03 (2017): 052-056.
19. **Gaur, N**, Kukreja, A, Yadav, M, and Tiwari, A. "Assessment of phytoremediation ability of *Coriander sativum* for soil and water co-contaminated with lead and arsenic: a small-scale study." *3 Biotech* 7, no. 3 (2017): 196.
20. **Gaur N**, **Flora GD**, Yadav M, Tiwari A. A review with recent advancements on bioremediation-based abolition of heavy metals. *Environmental Science: Processes & Impacts*. 2014;16(2):180-93.

Book Chapters

1. Pandey R., **Gaur N.**, Sharma E (2024). Bioenergy production and wastewater treatment: Case studies analysis. In *Biotechnologies for Wastewater Treatment and Resource Recovery: Current Trends and Future Scope*. ISBN: 9780443273773 Elsevier.
2. Mathur K., Sharma E., **Gaur N** (2024). Sustainable Plant Disease Protection Using Machine Learning and Deep Learning. In: *Hyperautomation in Precision Agriculture*. ISBN: 9780443241390 Elsevier.
3. Singh A., **Gaur N.**, Sharma E (2024). Circular economy approach for production of value -added products from wastewater. In: *Nanotechnology to Monitor, Remedy, and Prevent Pollution*. ISBN: 9780443156601 Elsevier. DOI: <https://doi.org/10.1016/C2022-0-01626-3>
4. Chaudhary R., **Gaur N.**, Sharma E (2024). Antibiotics and Ecological Disruption: Exploring Alternative Approaches. In: *Frontiers in Combating Antibacterial Resistance: Current Perspectives and Approaches*. ISBN: 9798369341391. DOI: 10.4018/979-8-3693-4139-1.ch005. IGI GLOBALS.
5. Tiwari T., Nain DP., **Gaur N.**, Sharma E (2024). Countering Aminoglycoside Modifying Enzymes: Inhibitory Strategies. In: *Contemporary Approaches to Mitigating Antibacterial Drug Resistance*. ISBN: 798369315408. DOI: 10.4018/979-8-3693-1540-8.ch005. IGI GLOBALS.
6. **Gaur N.**, Chaudhary R., Choudhary R. (2023). Bio-magnetic separation of different nanomaterials and their applications. In: *Nanomaterials for Bioreactors and Bioprocess Applications*. ISBN: 978-0-323-91782-7 Elsevier.
7. **Gaur N.**, Kumar A., Chaudhary R., (2023). Graphene and reduced graphene oxide in bioreactor. In: *Nanomaterials for Bioreactors and Bioprocess Applications*. ISBN: 978-0-323-91782-7 Elsevier.
8. **Gaur N.**, Chaudhary R., Diwan B (2022). Nanoencapsulation for chemical intermediate, biocides and bio -based binder. In: *Smart Nanomaterials for bioencapsulation*. ISBN: 9780323912297 Elsevier.

9. Chaudhary R., **Gaur N.**, Diwan B (2022). Nanoencapsulation for production of fermented foods and pigments. In: Smart Nanomaterials for bioencapsulation. ISBN: 9780323912297 Elsevier.
10. **Gaur N.**, Dutta D., Jaiswal A., Dubey R., & Kamboj DV (2022). Role and effect of persistent organic pollutants to our environment and wildlife. In Persistent organic pollutants- Monitoring, Impact and Treatment, edited by Prof. Nageeb. London: IntechOpen, 2022. 105772/intechopen.101617. (978-1-83968-207-0)
11. **Gaur N.**, Diwan Batul, Chowdhary R (2022) Bioremediation of organic pesticides using nanomaterials. Nano-bioremediation: fundamentals and applications. In: ISBN: 9780128239629 Elsevier.
12. Chowdhary R, **Gaur N.**, Diwan Batul (2022) Nanobioremediation: An Introduction. Nano-bioremediation: fundamentals and applications. ISBN: 9780128239629 Elsevier.
13. **Gaur N.**, Chowdhary R., Brunwal D., Singh R., Maitra S.S. (2020) Degradation of Plastic in Environment and Its Implications with Special Reference to Aromatic Polyesters. In: Hussain C. (eds) Handbook of Environmental Materials Management. Springer, Cham. ISBN: 978-3-319-73645-7.

Edited Books

1. **Gaur N.**, Sharma E., Brunwal D., Nguyen, T A; Bilal, M; Melkania, N.P (2024) Global Impacts of Micro- ad Nano plastic pollution. In: IGI Global. ISBN: 9798369334478.
2. **Gaur N.**, Sharma E., Brunwal D., Nguyen, T A; Bilal, M; Melkania, N.P (2024) Societal and Environmental Ramifications of Plastic Pollution. In: IGI Global. ISBN: 9798369391631.

Workshop/Conference/FDP organized

1. One week faculty Development Program on “**Hands-on Workshop in Bioprocessing & Biomanufacturing: From Fundamentals to Industry Applications**” , January 20th- 24th 2025, Gautam Buddha University, Greater Noida, in association with Association of Indian Universities and Academic and Administrative Development Centre- GBU, India.
2. 2nd International workshop on “**Skill Development in Molecular Biology Techniques**”, April 23rd -27th 2024, Gautam Buddha University, Greater Noida, India.
3. International conference on “**Structural Biology and Drug Discovery**”, October 11th – 12th 2023, Gautam Buddha University, Greater Noida, India.

Delivered Invited Talk

1. Delivered an invited talk on “Integrating Modern Screening Principles: Exploring the Plackett-Burman Approach for Enhanced Yield in Bioprocess Application” in 5 days faculty Development Program on “**Hands-on Workshop in Bioprocessing & Biomanufacturing: From Fundamentals to Industry Applications**” , January 20th- 24th 2025, Gautam Buddha University, Greater Noida, in association with Association of Indian Universities and Academic and Administrative Development Centre- GBU, India.