



**Dr. Ashish**

**Assistant Professor, Department of Bioengineering, Faculty of Engineering,  
Integral University, Lucknow**

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## PROFILE

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### **ACADEMIC QUALIFICATIONS :**

- ✓ **Ph.D. (Biochemical Engineering), IIT(BHU), Varanasi, (Sept. 2012 –May. 2018).** Entitled “*Optimization and Characterization of Biosurfactant Produced from an Acclimatized Strain C. tropicalis MTCC230, Its Application and Insilico Study*”.
  - ✓ **M.Tech. (Biochemical Engineering), IIT(BHU), Varanasi, (2008-2010)**  
*Project: “Enhanced Production of Biosurfactant by Candida tropicalis MTCC no.230”*
  - ✓ **M.Sc in Biotechnology (2006-2008) and B.Sc in Botany, Chemistry (2003-2006)** from C.S.J.M.U Kanpur.
  - ✓ **Intermediate (2003) and High school (2001)** from K.V. No. 3 Chakeri Kanpur.
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### **TEACHING EXPERIENCES (Total Experience: 7.2\* Yrs. as an Assistant Professor):**

- ✓ **Assistant Professor** (26/08/2018 – Present)
  - Department of Bioengineering, **Integral University, Lucknow.**
- ✓ **Assistant Professor** (Contractual) (19/09/2016 to 29/06/2018)
  - University School of Chemical Technology (USCT), **Guru Gobind Sing Indraprasth University, New Delhi.**
- ✓ **Guest faculty** (July 2010 to May 2012)
  - Department of Biotechnology, MotiLal Nehru National Institute of Technology (**MNNIT, Allahabad.**

### **RESEARCH INTEREST:**

Biochemical/Bioprocess Engineering, Bioremediation, Enzyme Engineering, Bioreactor Design and process optimization.

### SUMMARY OF RESEARCH ACCOMPLISHMENT:

- Recent research interest contributions highlight extensive work in biosurfactants, microbial production, and their technological applications.
- Isolated 04 newly microbial strains from hydrocarbon contaminated soil and submitted to GeneBank data base.
- Published number of research articles in reputed journals and book chapters on biosurfactant production and its optimization.

### COURSE TAUGHT:

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**M.Tech Courses:** Advances in Molecular Techniques, Food Analysis and Quality Control, Down Stream Processing, Bioinformatics and Biological Databases.

**B.Tech Courses:** Pharmaceutical Biotechnology, Plant Molecular Biology, Applied Thermodynamics For Bioengineers, Food Regulation and Quality Control, Principles of Food Preservation and Processing.

### ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY

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- ✓ Under-Graduate (B.Tech Biotech) Coordinator in Dept. Of Bioengineering, Integral University, Lucknow.
- ✓ Internship Coordinator Dept. Of Bioengineering Integral University, Lucknow.
- ✓ Course Coordinator of M.Tech Biotech I year in Dept. Of Bioengineering, Integral University.
- ✓ Course Coordinator of B.Tech Biotech VIII<sup>th</sup> year in Dept. Of Bioengineering, Integral University.
- ✓ Experience in compilation of 5year departmental data (academic and R&D) of University School of Chemical Technology, GGSIPU, New Delhi for NIRF and NAAC.
- ✓ Worked as an Assistant Centre Superintendent Examination for two semesters in Guru Gobind Singh Indraprasth University, New Delhi.

### STUDENTS SUPERVISION

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- **Ph.D:** Huria Rizvi (Ongoing), Abuzer Amir(Ongoing), Vikram Singh(Ongoing).
- **M.Tech:** Shekh Rashid, Shahbaaz Khan.
- **B.Tech:** Jyoti Singh, Hanzala Hammad, Shreya Mishra, Sandhya Kumari.

### PUBLISHED/GRANT PATENTS

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- AI Based Safe Healthcare System For Fertility Preservation For Young Woman With Breast Cancer Using Cloud And Machine Learning Algorithms. Application Number: 202311064995 (Published).

### PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

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- Thakur, V., Baghmare, P., Verma, **Ashish** Verma, J.S. and Geed, S.R.,(2024). Recent progress in microbial biosurfactants production strategies: Applications, technological bottlenecks, and future outlook. *Bioresource Technology*, p.131211. <https://doi.org/10.1016/j.biortech.2024.131211> [**IF: 9.8**]

- Rizvi, Huria and **Ashish**, (2024) A critical review on scale-up strategies of biosurfactant production and its applications *Tenside Surfactants Detergents*, vol. 61, no. 4, pp. 297-309. <https://doi.org/10.1515/tsd-2023-2567>. [IF: 1.2]
- Rizvi H, Singh V, **Ashish**. (2024), Screening and Characterization of Biosurfactant-Producing Strains in Contaminated Soil. *J Pure Appl Microbiol.* ;18(2):1074-1084. doi: 10.22207/JPAM.18.2.24 [IF: 0.9]
- Pandey, V.K., Srivastava, S., **Ashish**, Dash, K.K., Singh, R., Dar, A.H., Singh, T., Farooqui, A., Shaikh, A.M. and Kovacs, B., (2023). Bioactive properties of clove (*Syzygium aromaticum*) essential oil nanoemulsion: A comprehensive review. *Heliyon*. [10.1016/j.heliyon.2023.e22437](https://doi.org/10.1016/j.heliyon.2023.e22437) [IF: 3.35]
- Rahul Singh, Poornima Singh, Vinay Kumar Pandey, Kshirod K. Dash, **Ashish**, Shaikh Ayaz Mukarram, Endre Harsányi, Béla Kovács (2023). Microwave-Assisted Phytochemical Extraction from Walnut Hull and Process Optimization using Box Behnken Design (BBD). *Processes*, MDPI, 11(4), 1243. <https://doi.org/10.3390/pr11041243> [IF: 3.35]
- Latafat, Siddiqui, M. H., **Ashish**, Vimal, A., & Bhargava, P. (2023). Isolation and screening of keratinolytic bacteria from feather dumping soil near in Lucknow and Kanpur city, North region of Indian. *Biocatalysis and Biotransformation*, 1-9. <https://doi.org/10.1080/10242422.2023.2235053> [IF: 2.32]
- Vimal, Archana, Mohammad Haris Siddiqui, **Ashish**, and Awanish Kumar. (2021). "Degradation product of curcumin restrain *Salmonella typhimurium* virulent protein L-asparaginase." *Journal of Complementary and Integrative Medicine*. <https://doi.org/10.1515/jcim-2021-0172>. [IF- 1.436]
- **Ashish**, Mira Debnath (Das) (2018). Application of biosurfactant produced by an adaptive strain of *C. tropicalis* MTCC230 in microbial enhanced oil recovery (MEOR) and removal of motor oil from contaminated sand and water. *Journal of Petroleum Science and Engineering*, Vol. 170, pp. 40–48. <https://doi.org/10.1016/j.petrol.2018.06.034> [IF- 5.16]
- **Ashish**, Jitendra Singh Parihar, Neeraj Sharma, Mira Debnath (Das) (2017). Radiological: Pre-clinical Comparative study of Microbial derived Surfactants with Survanta for Treatment of Respiratory Distress Syndrome (RDS). *Current Trends in Biotechnology and Pharmacy*. Vol. 11 (3), pp. 268-277 [NAAS score 4.42]
- **Ashish**, Akhil Kumar, Mira Debnath Das (2016). Molecular docking and Simulation studies to give insight of surfactin amyloid interaction for destabilizing Alzheimer's A $\beta$ 2 Protofibrils. *Medicinal Chemistry Research*, Vol. 25 (8), pp.1616-1622. <https://doi.org/10.1007/s00044-016-1594-y> [IF- 2.35]
- **Ashish**, Neeraj Gupta, Shiv Kr. Verma, Mira Debnath Das (2014). Multifactorial Approach to Biosurfactant Production by Adaptive Strain *Candida tropicalis* MTCC 230 in the Presence of Hydrocarbons. *J. Surfact. Deterg.* Vol. 18 (1), pp.145-153. <https://doi.org/10.1007/s11743-014-1608-z> [IF- 1.97]

- Neh Nupur, **Ashish**, Mira Debnath (Das) (2016). Preparation and Biochemical Property of Penicillin G Amidase-Loaded Alginate and Alginate/Chitosan Hydrogel Beads. *Recent Patents on Biotechnology*. Vol.10(1);121-132.

#### PAPER PUBLISHED IN INTERNATIONAL CONFERENCES

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- **Ashish**, Neeraj G, Debnath M. (2011). Characterization of biosurfactant production by mutant strain of *Candida tropicalis*. In *2nd International Conference on Environmental Science and Technology (IPCBE)*, IEEE. Vol. 6, pp. 133–136.

#### PUBLISHED NON-SCI-SCOPUS BUT PEER REVIEWED RESEARCH PAPERS

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- Verma, S. K., Choudhary, D. K., Kumar, Ashish, & Lal, M. (2015). Plant Regeneration Of A. Lakoocha From Encapsulated Nodal Explants. *Arch Appl Sci Res*, 7(1), 22-27.
- Latafat, Mohammed Haris Siddiqui, Ashish, Archana Vimal, And Prachi Bhargava. "Production And Partial Optimization Of Microbial Keratinase Enzyme By Bacillus Tropicus, Ks3 Novel Isolate From Poultry Waste Soil Samples." (2021): 64-73.

#### BOOK EDITED/ AUTHORED

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- **Ashish** Verma, Mira Debnath (Das), Biosurfactant Production and Application from an adaptive strain, ISBN-13: 978-3659927218, LAP LAMBERT Academic Publishing, Germany, 2016.

#### BOOK CHAPTERS

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- Sukhendra Singh, Pradeep Srivastava, Shipra Deep, Ashish, Priya Shukla, Huria Rizvi & Rupika Sinha (2022). Fermentation Strategies For Organic Acid Production Industrial Microbiology And Biotechnology. Springer, Singapore. [https://doi.org/10.1007/978-981-16-5214-1\\_14](https://doi.org/10.1007/978-981-16-5214-1_14)
- P. K. Singh, S. Singh, **Ashish** & H. Usaman (2022). Benchmarking of Medical Imaging Technologies. In *Advanced Sensing in Image Processing and IoT* (pp. 297-318). CRC Press.
- **Ashish**, Huria Rizvi, Abuzer Amir, Neeraj Gupta (2021). Hazards and environmental effects of nanomaterial's in bioenergy applications. In *Nanomaterials*, pp. 737-744. Academic Press, 2021.
- Huria Rizvi, Jitendra singh verma, **Ashish**\* (2021) Biosurfactants for Oil Pollution Remediation. In: Inamuddin, Ahamed M.I., Prasad R. (eds) *Microbial Biosurfactants. Environmental and Microbial Biotechnology*. Springer, Singapore. [https://doi.org/10.1007/978-981-15-6607-3\\_9](https://doi.org/10.1007/978-981-15-6607-3_9)
- **Ashish**, Singh D., Gupta N. (2020). Impact of Nanoparticles on PGPR and Soil Nutrient Contents. In: Ghorbanpour M., Bhargava P., Varma A., Choudhary D. (eds) *Biogenic Nanoparticles and their Use in Agro-ecosystems*. Online ISBN: 978-981-15-2985-6, Springer, Singapore. [https://doi.org/10.1007/978-981-15-2985-6\\_14](https://doi.org/10.1007/978-981-15-2985-6_14).
- Recent Advances in Bio-Polymers for Innovative Food Packaging (2017), Suvam Nag Chowdhury, Sananda Nag, **Ashish**, and Kumud Malika Tripathi. *Biopolymers: Structure, Performance and Applications*. ISBN: 978-1-53611-846-9, Nova Science Publishers, Inc. Hauppauge NY, United States of America.