




**INSTITUTE OF HOME ECONOMICS**  
**UNIVERSITY OF DELHI**



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Designation	Professor	
E-mail	arti.nigam@ihe.du.ac.in	
Educational Qualifications: M.Sc. (Biotechnology) JNU, PhD (Microbiology) University of Delhi		
Teaching experience: 29 years		
Subjects/Papers Taught: Industrial Microbiology, Recombinant DNA Technology, Microbial Biotechnology, Cell biology, Instrumentation, Diagnostics, Biofertilizers, Applied Food Microbiology and Microbial Ecology		
Awards received: JRF & SRF from UGC Post Graduate Merit Scholarship from DBT		
Research Interest/Specialization: Industrial Microbiology, Microbial Biotechnology, Enzymes, Diagnostics, Biofertilizers and Probiotics		
ORCID No. 000-0002-0642-7932		
Research Projects		
Title	Funding agency/organization	Duration of Project
Evaluation of chemical and microbiological quality of the vermicompost prepared from different types of wastes using <i>Eisenia foetida</i> . Sanctioned grant 6.52 lakhs	UGC Major Project	3 Years (2008-2011)
Evaluation of microbial flora of Indian Fermented foods for the development of novel probiotics having antioxidant properties. Project code :304 Sanctioned grant 4.6 lakhs	DU Innovation Project	1 Year (2015-2016)

## Research papers since 2010

1. Sen, A., **Nigam, A.** & Vachher, M. (2022). Role of Polypeptide Inflammatory Biomarkers in the Diagnosis and monitoring of COVID-19. *International Journal of Peptide Research and Therapeutics*. 28(2): 1-20. <https://doi.org/10.1007/s10989-022-10366-5>
2. Singh, T., **Nigam, A.** & Kapila, R. (2022). Analyzing the Use of Medicinal Herbs During the First Wave and Second Wave of COVID-19. *Proceedings in National Academy of Science, India, Sect. B Biological Sciences*. 92: 219–222. <https://doi.org/10.1007/s40011-021-01303-5>
3. Rastogi, A., **Nigam, A.**, Mandal, S., Nath, S. & Kapila, R. (2022). Increased Inclination towards Herbal Preparations as Immunity Booster among Young Adults in the Times of Pandemic: A Cross-Sectional Study. *Journal of Ayurveda*. 16 (1): 27-33. [https://doi.org/10.4103/joa.joa\\_7\\_21](https://doi.org/10.4103/joa.joa_7_21)
4. Gupta, R., **Nigam, A.** & Kapila, R. (2022). Cultivation and conservation of underutilized medicinal and agricultural plants in India. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*. <https://doi.org/10.1007/s40011-022-01405-8>
5. Sen, A. & **Nigam, A.** (2022). Bioengineering for Decolorization of Synthetic Dyes in Textile Effluents using Microbial Enzymes *Journal of Scientific Research*. 66(3): 66-78. <http://dx.doi.org/10.37398/JSR.2022.660310>
6. Aggarwal, S., Sen, A., Rastogi A. & **Nigam A.** (2021) Evaluation of the probiotic potential of yeasts isolated from Indian fermented food items. *Research Journal of Biotechnology* .16 (10): 3342 <https://worldresearchersassociations.com/biotechcurrissue/6.pdf>
7. Vachher, M., Sen, A., Kapila, R. & **Nigam, A.** (2021) Microbial therapeutic enzymes: A promising area of biopharmaceuticals. *Current Research in Biotechnology*. 3: 195-208 <https://doi.org/10.1016/j.crbiot.2021.05.0063>.
8. Vachher, M., Sen, A., Burman, A. & **Nigam, A.** (2021) Bacterial enzymes as diagnostic tools for various human pathogens. *Journal of Scientific Research*. 65(5): 105-115. [https://www.bhu.ac.in/research\\_pub/jsr/Current%20Issue.html](https://www.bhu.ac.in/research_pub/jsr/Current%20Issue.html)
9. Singh, T., **Nigam, A.** & Kapila, R. (2021). Innovations in Silkworm Rearing and Importance: Recent Advances. *Journal of the Textile Association*. 82(2): 87-90.
10. Sharma C, **Nigam, A.** & Singh R. (2021) Computational-approach understanding the structure-function prophecy of Fibrinolytic Protease RFEA1 from *Bacillus cereus* RSA1. *PeerJ* 9:e11570 <https://doi.org/10.7717/peerj.11570>
11. Sen, A., Kapila, R., Chaudhary, S. & **Nigam, A.** (2021) Biotechnological Applications of Microbial Enzymes to Replace Chemicals in the Textile Industry- A Review. *Journal of the Textile Association*. volume 82(6) [https://issuu.com/textileassociationindia/docs/e-journal\\_-\\_jul-aug\\_21](https://issuu.com/textileassociationindia/docs/e-journal_-_jul-aug_21)
12. Kapila, R., Verma, G., Sen, A. & **Nigam, A.** (2021). Compositional Evaluation of Vermicompost Prepared from Different Types of Organic Wastes using *Eisenia fetida* and Studying its Effect on Crop Growth. *Indian Journal of Agricultural Research*. DOI:10.18805/IJARE.A5708.

13. Kapila, R., Verma, G., Sen, A., & **Nigam, A.** (2021). Evaluation of Microbiological Quality of Vermicompost Prepared from Different Types of Organic Wastes using *Eisenia fetida*. *Agricultural Science Digest*. DOI: 10.18805/ag.D-5275
14. Sen, A., Oswalia, J., & **Nigam, A.** (2021). Biodegradation of Synthetic Dyes in Effluents by Immobilised Microbial Cells and Enzymes. *Journal of the Textile Association*. 81(6) :312-318 [https://issuu.com/textileassociationindia/docs/e-journal\\_-\\_mar-apr\\_21](https://issuu.com/textileassociationindia/docs/e-journal_-_mar-apr_21)
15. Ramesh, M., Sen, A., Vachher, M., & **Nigam, A.** (2021). Delineating Bacteria Using DNA Barcoding. *Molecular Genetics, Microbiology and Virology*, 36(1), S65-S73. 10.3103/S0891416821050128
16. Chaudhary, S & **Nigam, A.** (2020). Antimicrobial Fabrics: An innovation In Textile Technology. *Journal of the Textile Association*. 81(4) :204-210 [https://issuu.com/textileassociationindia/docs/e-journal\\_-\\_nov-dec\\_\\_20](https://issuu.com/textileassociationindia/docs/e-journal_-_nov-dec__20)
17. Keshan P, Rastogi A, Aggarwal S, **Nigam A**, Kapila R, & Syed S. (2020) Effect of one-day training on Knowledge related to Biosafety and waste management among life-science Students. *Indian Journal of Community Health*. 32(4):694-698. <https://doi.org/10.47203/IJCH.2020.v32i04.014>
18. Gupta, S., **Nigam, A**, & Singh, R. (2015). Purification and characterization of a *Bacillus subtilis* keratinase and its prospective application in feed industry. *Acta Biologica Szegediensis* 59(2):197-204
19. Singh, R., **Nigam, A.**, Verma, G., & Kapila, R. (2013). Vermicomposting- A technology for waste management and recycling and its relevance to horticulture. *International Journal of Innovative Horticulture*. 2(1):44-51

#### Books published/edited

##### **Book Authored** as First Author

Lab Manual in Biochemistry, Immunology and Biotechnology 2007, First Reprint 2008, Second reprint 2009

Lab Manual in Biochemistry, Immunology and Biotechnology ISBN-13:978-0-07-0617674

Published by International publishing company: Tata McGraw Hills

#### Association with Professional Societies

Life Member Association of Microbiologists of India

Life Member Microbiologists Society of India

Any other

**Research Guidance**

**Ph.D. guidance**

Amity Institute of Microbial Biotechnology

Co-Guide for Ph.D. in Microbial Biotechnology

Sonali Gupta 2011- 2015 Bacterial Keratinase: Production, Purification and its properties  
<https://shodhganga.inflibnet.ac.in/handle/10603/18839>

Chhavi Sharma. 2017-2021 Production, Purification and Molecular Characterization of Fibrinolytic Protease from *Bacillus sp.*

Reeta Bhati 2017-2021- Isolation, Characterization and Application of Arsenic Resistant Bacteria in Bioremediation. Ongoing

**M.Sc Dissertations:** 4

**Academic expert** at Amity Institute of Microbial Biotechnology

**Editorial Board Member:** European Journal of Sciences  
Scientific European (SCIEU)

**College committee member** (2021-2022): IQAC, Admission, Academic, Covid Task Force, Examination, Building and legal affair committee. Teacher Incharge