Akhilesh Kumar Singh (M.Sc., M.Tech. & Ph.D.)
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AN OVERVIEW

Interdisciplinary trained Industrial Microbiologist and Biotechnologist with extensive experience ranging from physiology, biochemistry, to biotechnology. Pursued Ph.D. in Microbially engineered Polyhydroayalkanoate (PHA) Biopolymer (Industrial Biotechnology) and M.Tech. (Agricultural Biotechnology) from the Indian Institute of Technology (IIT) (a pioneer worldwide recognized institution), Kharagpur, India, followed by M.Sc. (Biotechnology) from the Indian Institute of Technology (IIT) (another pioneer worldwide known institution), Roorkee, India. Well-versed in separation, characterization, and material properties of bacterial and algal-based processed PHA biopolymer. Furthermore, I have good working experience with GC, MS-spectrometry, HPLC, Bacterial Fermentation with Biomass Processing, Growth/ Production Kinetics, and Biomass/ Product Optimization by Statistical Modelling using Response Surface Methodology (RSM), including Data Analysis. My aim is to look into the current challenges and translate Bioplolymeric PHA as well as Biofuel into commercially viable applications using smart approaches with the involvement of cost-effective materials like lignocellulosic feedstock, etc. In addition, recently entered the area of metallic nanobiotechnology with the aim to explore the potential/promising applications of biogenically produced metallic nanoparticles like copper, zinc, nickel, and so on.

Keywords: Biopolymer, Biofuel, *Brevibacillus invocatus* MTCC 9039, *Nostoc muscorum, Chlorella,* Nitric oxide, *Pseudomonas aeruginosa* MTCC 7925, Polyhydroxyalkanoates, LCL-PHAs, MCL-PHA, PHAs, PHB, SCL-PHA, SCL-LCL-PHA co-polymer, Material Properties, cyanobacterial PHAs

ACADEMIC CREDENTIALS

Examination	Subject	Year of passing	Board/University
Ph. D.	Microbial Biopolymer [Polyhydroxyalkanoate (PHA) Thermoplastic]	2009	**Indian Institute of Technology (IIT), Kharagpur**
M. Tech.	Agricultural Biotechnology	2002	**Indian Institute of Technology (IIT), Kharagpur**
M. Sc.	Biotechnology	2000	**Indian Institute of Technology (IIT), Roorkee**
B. Sc.	Botany, Chemistry and Zoology	1996	Dr. Ram Manohar Lohia Avadh University, Faizabad, India
Intermediate (XII)	Biology, Chemistry, Physics, English and Hindi	1993	C. B.S.E, New Delhi, India
High School (X)	Science, Mathematics, Hindi, English and Social	1991	C. B.S.E, New Delhi, India

Ph.D. Dissertation:
Accumulation of a novel short-chain-length-long-chain-length polyhydroxyalkanoate co-polymer in a sludge-isolated *Pseudomonas aeruginosa* MTCC 7925 ***(Mentor: Prof. Nirupama Mallick, FNA & Head, Department of Agricultural & Food Engineering, Indian Institute of Technology (IIT) Kharagpur, West Bengal, India)***

M.Tech. Dissertation:
Role of Nitric Oxide (NO) in regulating copper toxicity-A case study with green microalga *Chlorella vulgaris* ***(Mentor: Prof. Nirupama Mallick, FNA & Head, Agricultural & Food Engineering Department, Indian Institute of Technology (IIT) Kharagpur, West Bengal, India)***

M.Sc. Dissertation: Studies on biodegradation of cellulose containing materials by *Rhizopus* species ***(Mentor: Prof. BMJ Pereira, Department of Biotechnology, Indian Institute of Technology (IIT) Roorkee, India).***

Academic attainments:

- Qualified **ASRB-NET (Agricultural Biotechnology)** September 2014. Indian Council of Agricultural Research (ICAR), India.
- Qualified **CSIR–JRF (NET) (Life Sciences)** June 2002. Council of Scientific Industrial Research (CSIR), India.
- Qualified **Graduate Aptitude Test in Engineering (GATE) (Life Science)** 2001 (Percentile: 95.06), All India Rank: 94 out of 2206 students (within top 4.2 % of students).

PROFESSIONAL ENHANCEMENT SCHEDULES

Research Experience

Senior Research Fellow (SRF)

Indian Institute of Technology, Kharagpur, India	Oct' 2005 - Sep' 2008

Junior Research Fellow (JRF)

Indian Institute of Technology, Kharagpur, India	Sep' 2003 - Oct'2005

Experience as Faculty

Lecturer, Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow India	Sep' 2008-Dec' 2012
Senior Lecturer, Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow India	Jan' 2013-Aug' 2014
Assistant Professor, Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow India	Sep' 2014 – Oct' 2019
Assistant Professor, Department of Biotechnology, Mahatma Gandhi Central University, Motihari, India	Oct' 2019 - Till date

NOTABLE ATTAINMENTS

- Experienced in maintaining and managing Bacteria/ Microalgae/ Cyanobacteria culture collections and familiarity with culturing techniques.
- Investigated the antioxidative role of Nitric Oxide (NO) in chlorophycean alga (*Chlorella*) and strongly support the idea of NO as a versatile molecule with variable functions in plants, too.
- Efficiently developed a numerical and statistical model to optimize growth and Biopolymeric Polyhydroxyalkanoate/ Thermoplastics [Novel SCL-LCL-PHA co-polymer/ P(3HB-*co*-3HV) co-polymer /PHB] content of Bacteria/ Algae.
- Monitored growth and physiology of Bacteria/ Algae under various stress conditions in order to maximize Biopolymeric Polyhydroxyalkanoates production.
- Possess working knowledge on Biopolymeric Polyhydroxyalkanoates characterization.
- Efforts towards cost-effective production of novel Biopolymeric SCL-LCL-PHA co-polymers from *Pseudomonas aeruginosa* MTCC 7925 using inexpensive substrates

RESEARCH INDICATORS

Total impact factor **= 200.04** ***h-index*** **= 30** ***i10-index*** **= 59** ***Citations*** **= 3702**	❖ Google Scholar: https://scholar.google.co.in/citations?user=CzGFoj0AAAAJ ❖ Scopus: https://www.scopus.com/authid/detail.uri?authorId=57301682900 ❖ Research Gate: https://www.researchgate.net/profile/Akhilesh-Singh-30 ❖ Web of Science: https://www.webofscience.com/wos/author/record/1327233

PUBLICATIONS IN INTERNATIONAL JOURNALS

1. Pal P, Prakash O, Parveen A, **Singh AK**, Gupta R, Sarangi PK, Sahoo UK, Rathore SS, Singh RK (**2025**) Nanoparticle-driven plant signaling for advancing stress resilience and agricultural productivity – A review. Journal of Nanoparticle Research 27:258 ***(IF: 2.6;*** *Publisher****: Springer)***.
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16. Sarangi PK, Srivastava RK, **Singh AK**, Shadangi KP, Vivekanand V, Subudhi S, Singh TA, Sahoo U K, Prus P, Şmuleac L, Paşcalau R, Imbrea F (2024) Sustainable hydrogen through decomposition of ammonia and its derivatives by thermochemical processes: a review. *International Agrophysics 38: 325-344* ***(IF: 1.7;*** *Publisher: **Institute of Agrophysics, Polish Academy of Sciences**)*.

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Requirements. *Energies* 16:5409 ***(IF: 3.2;** Publisher: **MDPI**)*.

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35. Srivastava RK, Sarangi PK, Bhatia L, **Singh AK**, Shadangi KP **(2022)** Conversion of methane to methanol: Technologies and future challenges. *Biomass Conversion and Biorefinery 12: 1851–1875 **(Impact Factor: 4.1;** Publisher**: Springer)***.
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40. Singh G, Pritam M, Banerjee M, **Singh AK**, Singh SP **(2020)** Designing of precise vaccine construct against visceral leishmaniasis through predicted epitope ensemble: A contemporary approach. *Computational Biology and Chemistry 86:107259 **(IF: 3.1;** Publisher: **Elsevier**)*.
41. Pritam M, Singh G, Swaroop S, **Singh AK,** Pandey B, Singh SP **(2020)** A cutting-edge immunoinformatics approach for design of multi-epitope oral vaccine against dreadful human malaria**.** *International Journal of Biological Macromolecules 158:159-179 (**IF:** 8.5; Publisher: **Elsevier**)*.
42. Mishra SS, Yadav TP, Singh SP, **Singh AK**, Shaz MA, Mukhopadhyay NK, Srivastava ON **(2020)** Evolution of porous structure on Al–Cu–Fe quasicrystalline alloy surface and its catalytic activities. *Journal of Alloys and Compounds 834:155162 **(IF: 6.3;** Publisher: **Elsevier**)***.**
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and antimicrobial activity of zinc oxide quantum dots using *Eclipta alba*. Materials Chemistry and Physics *203: 40-48* ***(IF: 4.7;*** *Publisher:* ***Elsevier****).*

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BOOK CHAPTER PUBLICATION (INTERNATIONAL)

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BOOK PUBLICATION (NANOSCIENCE/ BIOTECHNOLOGY FIELD)

1. Al-Khayri JM, Ansari MI, Singh AK (Eds.) (2021) Nanobiotechnology: Mitigation of Abiotic Stress in Plants. Springer, Cham, pp. 1-593.
2. Sarangi PK, Singh AK, Srivastava RK, Pandey B (Eds.) (2026) Industrial Biotechnology: Current Progress and Novel Technologies. CRC Press (In Press).
3. Sarangi PK, Singh AK, Srivastava RK, Pandey B (Eds.) (2026) Industrial Microbiology: Current Progress and Novel Technologies. CRC Press (In Press).

PATENT DETAILS (FILED/ AWARDED)

1. ***BIOFILM REACTOR FOR MULTIPLE SUBSTRATUM***
   - *Type:* National
   - *Application/Patent No.:* 432264001
   - *Status:* Awarded
   - *Date of Award:* 13 December 2024
2. ***Nickel Nanoparticle–Based LPG Leak Sensor***
   - *Type:* International
   - *Application/Patent No.:* 6397594
   - *Status:* Awarded
   - *Date of Award:* 17 October 2024
3. ***Microinjection Tool with Integrated Display***
   - *Type:* International
   - *Application/Patent No.:* 6389596
   - *Status:* Awarded
   - *Date of Award:* 17 September 2024
4. **ZnO Nanoparticles–Enhanced Algal Bioreactor for Synergistic Air Purification**
   - *Type:* National
   - *Application/Patent No.:* 202511061991
   - *Status:* Filed / In Process
   - *Filing Date:* June 2025

INVITED LECTURES

1. **Singh AK (2025)** Biogenic Fabrication of Copper Quantum Dots (Cu QDs) Using *Mangifera indica* Leaf Extract: Catalytic, Antimicrobial, and Antioxidant Potentials. **International Conference on "Frontier Areas of Chemistry (ICFAC)**" organized by the Department of Chemistry, Mahatma Gandhi Central University, Motihari, Bihar, was held on March 19-20, 2025 in a Hybrid format.
2. **Singh AK (2023)** Biogenically produced copper quantum dots using *Mangifera indica* (L.) leaf

extract: in-vitro catalytic, antimicrobial, and antioxidant activities. The National Conference on "Chemical and Bio-Science (NCCBS-2023)", organized by the Department of Chemical Engineering at VSSUT, Burla, Odisha, was held on March 25-26, 2023, in a Hybrid format.

3. **Singh AK (2021)** Biogenic Fabrication, Characterization and Antibacterial activity of Zinc Oxide Nanoparticles using *Eclipta alba* **(2021)** WEBINAR Series on "BioResources to Sustainable Nanoproducts-Interventions, Current Status & The Future Perspective", Organized by DBT-TDNBC-DEAKIN "Research Network Across Continents for Learning & Innovation" (DTD-RNA), TERI, New Delhi.
4. **Singh AK (2017)** Role of Zinc oxide quantum dots in cancer treatment. International Conference on "Updates in Cancer Prevention and Research (ICUCPR-2017) and Satellite Conference on Translational Pharmaceutical Research: Trends and Implications" Babasaheb Bhimrao Ambedkar University, Lucknow, February 14-16, 2017.

CONFERENCE/ SEMINAR/ SYMPOSIUM PARTICIPATION

1. Omprakash and Singh, A. K. (2025) *Iris versicolor* Leaf Extract as Mediator for Green Fabrication of Cobalt Nanoparticles: Catalytic and Antioxidant Potential. **International Conference on "Frontier Areas of Chemistry (ICFAC-2025)**" organized by Mahatma Gandhi Central University, Motihari, Bihar, March 19–20, p. 235.
2. Omprakash and Singh, A. K. (2024) Screening of Plant Leaf Extract-Mediated Cobalt/Cobalt Oxide Nanoparticles. **National Conference on "Bioinformatics and Biological Research (NCBBR)"** organised by the Department of Bioinformatics, Central University of South Bihar, Gaya, Bihar, 21-23rd November, p. 47.
3. Parveen, A., Rani. H. and **Singh, A. K.** (2018) Green Synthesis, Characterization and Animicrobial Activities of Nickel Nanoparticles. National Conference on "Biological applications of Nanomaterials" organised by **Amity Institute of Biotechnology, Amity University Uttar Pradesh, Lucknow campus, January 9, p. 38.**
4. Rani. H., Parveen, A. and **Singh, A. K.** (2018) Exploitation of *Dhatura inoxia* as potential platform for biogenic synthesis of Zinc nanoparticles. National Conference on "Biological applications of Nanomaterials" organised by **Amity Institute of Biotechnology, Amity University Uttar Pradesh, Lucknow campus, January 9, p. 37.**
5. Verma, A., Chauhan, S. S., Pankaj, V., Singh, S. P. and **Singh, A. K.** (2018) Studies on the Effect of Biogenically Synthesized Copper oxide Nanoparticle on Mung Plant (*Vigna radiata*). National Conference on "Biological applications of Nanomaterials" organised by **Amity Institute of Biotechnology, Amity University Uttar Pradesh, Lucknow campus, January 9, p. 27.**
6. **Singh, A. K.,** Khan, S.A. and Singh, S. P. (2017) Studies on the Effect of Biogenically Synthesized Zinc Nanoparticles on Germination and Growth of Gram Seedlings. National Conference on "Energy, Environment and its Impact on Society" **organized by K. N. Govt. P.G. College, Gyanpur, Bhadohi (UP), January 19-20, p. 57.**
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8. **Singh, A. K.,** Pal, P., Yadav, T. P. and Singh, S. P. (2016) Transmission electron microsco A cutting-edge py based characterization of biogenically engineered Zinc oxide quantum dots. International Conference on Electron Microscopy, **Indian Institute of Technology (IIT, BHU), Varanasi (India), June 2-4, p. 152.**
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13. **Singh, A. K.** and Mallick, N. (2015) *Pseudomonas aeruginosa* MTCC 7925 biofactories: Producer of sustainable novel SCL-LCL-PHA co-polymer thermoplastics from non-edible oils. International Conference on Contemporary Advances of Science & Technology, **Banaras Hindu University (BHU), Varanasi (India)**, August 7-9, p. 207.
14. Rastogi, S., **Singh, A. K.** and Singh, S. P. (2015) *Anethum sowa* leaf cell factories: A viable and sustainable approach for copper nanoparticles production. International Conference on Contemporary Advances of Science & Technology, **Banaras Hindu University (BHU), Varanasi (India)**, August 7-9, p. 199.
15. Pal, P., Singh, S. P. and **Singh, A. K.** (2015) *Eclipta alba* biofactories: A promising and sustainable transformation platform for the synthesis of Zn nanoparticles. International Conference on Contemporary Advances of Science & Technology, **Banaras Hindu University (BHU), Varanasi (India)**, August 7-9, p. 198.
16. Asif, S., **Singh, A. K.** and Singh, S. P. (2015) Sunlight driven *Mentha arvensis* Biofactories: Meaditor for the producer of Nickel Nanoparticles. International Conference on Contemporary Advances of Science & Technology, **Banaras Hindu University (BHU), Varanasi (India)**, August 7-9, p. 176.
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21. **Singh, A. K.** and Mallick, N. (2014) Production of a novel short-chain-length-long-chain-length Polyhydroxyalkanoate co-polymer by *Pseudomonas aeruginosa* MTCC 7925 from various carbon substrates. International Conference on Life Sciences, Informatics, Food and Environment, **Jaypee Institute of Information Technology, Noida (India),** August 29-30. Indo Global Journal of Pharmaceutical Sciences 4(3): 219.
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25. **Singh, A. K.** and Mallick, N. (2011) Biodegradation of cellulose containing materials by *Rhizopus* sp. National Symposium on Biodiversity for Food Security - Challenges and Devising Strategies, **Indian Institute of Pulses Research Kanpur (India),** December 10 - 11, p. 123.
26. **Singh, A. K.** and Mallick, N. (2005) Polyhydroxyalkanoates (PHA) accumulation in sludge-

isolated *Pseudomonas* sp. International Congress on Chemistry and Environment, The Emerald Heights International School, Indore (India), December 24 - 26, p. 113.

27. **Singh, A. K.** and Mallick, N. (2004) Antioxidative role of nitric oxide (NO) on copper toxicity to a chlrophycean alga *Chlorella vulgaris*. National Symposium on Recent Trends in Algal Biology and Biotechnology, Punjabi University, Patiala (India), February 4 - 5, p. 59.

PARTICIPATION IN REFRESHER COURSE / MOOCs/ WORKSHOP

1. **Singh, A. K. (2025)** Refresher Course in Interdisciplinary Life Sciences and Biotechnology, conducted by the **UGC–Malaviya Mission Teacher Training Centre (MMTTC), Hemvati Nandan Bahuguna Garhwal University (a central university), Srinagar (Garhwal), Uttarakhand, India, October 6-18.**
2. **Singh, A. K. (2024)** Refresher Course in Environmental Sciences (Inter-disciplinary), conducted by the **University Grants Commission, Malaviya Mission Teacher Training Centre (formerly UGC- Human Resource Development Centre), University of Madras,** October 14-26.
3. **Singh, A. K. (2020) First Faculty Induction Programme, School of Social Sciences, Mahatma Gandhi Central University, Motihari, Bihar, India,** January 13-20.
4. **Singh, A. K. (2019)** agMOOCs on Fundamentals of Agricultural Extension, **Centre for Development of Technical Education, IIT Kanpur, India in association with Commonwealth of Learning Canada** (Eight-week online course).
5. **Singh, A. K. (2019)** agMOOCs on Resource Management in Rainfed Drylands **Centre for Development of Technical Education, IIT Kanpur, India in association with Commonwealth of Learning Canada** (Five-week online course).
6. **Singh, A. K. (2018)** agMOOCs on Functional Foods: Concept, Technology and Health Benefits **Centre for Development of Technical Education, IIT Kanpur, India in association with Commonwealth of Learning Canada** (Four-week online course).
7. **Singh, A. K. (2017)** Pre-conference workshop on Thin Film Solar Cells, **CSIR-National Physical Laboratory (NPL), New Delhi, India,** November 13.
8. **Singh, A. K. (2016)** Pre-conference workshop of Electron Microscope Society of India (EMSI) on Advances in Electron Probe Microanalysis, Department of Geology, Centre of Advanced Study**, Banaras Hindu University (BHU), Varanasi (India),** June 01.
9. **Singh, A. K. (2016)** Interactive Workshop on Strengthening Research & Innovation, **Amity University Uttar Pradesh Lucknow Campus, (India),** April 13.
10. **Singh, A. K. (2016)** Pre-conference workshop on Basics of Electron Backscattered diffraction, Electron Energy Loss spectroscopy and Electron diffraction in Materials science, Department of Metallurgical Engineering**, Indian Institute of Technology (IIT, BHU), Varanasi (India),** May 30- June 1.
11. **Singh, A. K. (2015)** International Workshop on Nanoscience & Life, **Department of Physics, Banaras Hindu University (BHU), Varanasi (India),** February 26-02 March.
12. **Singh, A. K. (2015)** Workshop on Energy Materials: Synthesis to Application, **Banaras Hindu University (BHU), Department of Physics, Varanasi (India),** December 01 -07.
13. **Singh, A. K. (2015)** Workshop on Innovation & Intellectual Property Rights (IPR), **Amity University Uttar Pradesh Lucknow Campus, (India)**, **March 03**.

ONGOING Ph.D. SUPERVISION AS GUIDE

- **"Implication Of Gut Bacterial Biofilm in Colorectal Cancer Causation and Progression",** (Ph.D. Scholar Name: Mr. Manish Kushwaha; Enrollment No.: MGCU2020BIOT6006; Joining Date: December 14, 2020).
- **"Nanomaterials-Based Sensing Platform for Antibiotic Detection", (**Ph.D. Scholar Name: Mr. Jayendra Kumar Himanshu; Enrollment No.: MGCU2020BIOT6003; Joining Date: December 14, 2020).

- **"Biogenic Synthesis of Cobalt Nanoparticles using Plant Leaf Extract",** (Ph.D. Scholar Name: Mr. Om Prakash; Enrollment No.: MGCU2020BIOT6007; Joining Date: December 14, 2020).

COMPLETED Ph.D. SUPERVISION AS GUIDE/ CO-GUIDE (DEGREE AWARDED)

- **"Studies on synthesis, characterization and potential applications of Nickel nanoparticles",** (Ph. D. Scholar Name: (Ph.D. Scholar Name: Ashna Parveen; Enrollment No.: A7117317007; Batch: January 2017-2020).
- **"Phytogenic transition metal nanoparticles: synthesis, characterization, and application-oriented studies",** (Ph.D. Scholar Name: Humiara Rani; Enrollment No.: A7117316005; Batch: July 2016-2019).
- **Molecular and functional analysis of gamma aminobutyric acid (GABA): Transaminase during leaf senescence in *Arabidobsis thaliana*,** (Ph.D. Scholar Name: Ms. Syed Uzma Jalil; Enrollment No.: A7117314002; Batch: January 2014-2016).

M.TECH./ M.SC. AND B.TECH. LEVEL SUPERVISION

- **M.Tech. Dissertation: 01**
- **M.Sc. Dissertation: 23**
- **B.Tech. Dissertation: 05**

PARTICIPATION IN CONFERENCE ORGANIZATION

- National Conference on "Biological applications of Nanomaterials" organised by **Amity Institute of Biotechnology, Amity University Uttar Pradesh, Lucknow campus,** January 9, 2018.
- National Conference on Bioengineering & Biotechnology: An Industrial Perspective (2014) organized by **Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow Campus (India),** October 16-17, 2014.
- National Conference on Women Power in Cutting Edge Biotechnology (2013) organized by **Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow Campus (India),** October 17-18.

PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMME

- **Singh, A. K.** (2017) Faculty Development Programme on GLP and GMP, **Amity University Uttar Pradesh Lucknow Campus (India),** March 17th.
- **Singh, A. K.** (2016) Faculty Development Programme on Biosafety and Bioethics in Lifesciences, **Amity Institute of Biotechnology, Amity University Uttar Pradesh Lucknow Campus (India),** October 15th.

PARTICIPATION IN ACADEMIC/ ADMINISTRATIVE RESPONSIBILITIES

At Mahatma Gandhi Central University (MGCU), Motihari, Bihar, India (Oct 2019 - Till Date)

1. **Coordinator, University Sports "Umang-2024"**
   26 January 2024 – 31 January 2024 (6 days): Coordinated and supervised all activities of the University Sports Event "Umang-2024".
2. **Member, Transport Committee for the 1st Convocation of the University**
   1 June 2023 – 19 October 2023 (4 months, 19 days): Contributed to planning and execution of transport logistics for the first University Convocation.
3. **Member, Swachhta Hi Sewa Programme 2023–24**
   20 September 2023 – 2 October 2023 (13 days): Participated in organizing and monitoring activities under the Swachhta Hi Sewa cleanliness campaign.
4. **Member, Stock Verification Committee, Chanakya Parisar (MGCU), Motihari**
   11 March 2021 – 28 February 2025 (3 years, 11 months, 18 days): Conducted annual stock verification and ensured compliance with institutional inventory protocols.

5. **Member, National Education Policy (NEP) Committee:** *23 September 2024 – 28 February 2025 (5 months, 6 days):* Contributed to discussions and implementation strategies related to NEP-2020 within the University.
6. **Member, Ek Bharat Shreshtha Bharat (EBSB) Committee**
11 September 2024 – 28 February 2025 (5 months, 18 days): Assisted in organizing cultural and academic exchange activities under the EBSB initiative.
7. **Member, Transport Committee for the 2nd Convocation of the University**
27 November 2024 – 7 December 2024 (11 days): Supported transport planning and coordination for the second University Convocation.
8. Research Advisory committee (RAC) of Department of Biotechnology.
9. Doctoral Research committee (DRC) of Department of Biotechnology.

At Amity University Lucknow Campus, India (September 2008 - October 2019)

10. Member of Central Examination control committee (2010-2015) at Amity University Uttar Pradesh Lucknow Campus, India (responsible for conduction of end semester examination).
11. Member of publication committee (2015-2016) of Biotechnology Department, Amity University Uttar Pradesh Lucknow Campus, India.
12. Member of convocation committee (2010-2013) of Biotechnology Department, Amity University Uttar Pradesh Lucknow Campus, India.
13. Programme leader of B.Sc. (H) Biotechnology (Batch: 2015-2018) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.
14. Mentor of M.Tech. Biotechnology (Batch: 2015-2017) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.
15. Member of course advisory committee of B.Sc. (H) Biotechnology (Batch: 2015-2018) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.
16. Member of Student Research Committee (SRC) for Ph.D. programme (2015-2019) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.
17. Member of Annual Function Committee (AMIPHORIA) since 2013 of Amity University Uttar Pradesh Lucknow Campus, India.
18. Member of Annual Sports Committee (SANGTHAN) since 2014 of Amity University Uttar Pradesh Lucknow Campus, India.
19. Member of Admission Boards (2015-2019) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.
20. Member of Anti-Ragging Squad from September 2008 to December 2010 at Amity University Uttar Pradesh Lucknow Campus, India.
21. Member of orientation program committee (2015-2019) at Biotechnology Department of Amity University Uttar Pradesh Lucknow Campus, India.

MEMBER OF PROFESSIONAL BODY

1. Life Member of *Electron Microscope Society of India (EMSI)*, India
2. Life member of *Uttar Pradesh Academy of Sciences (UPAS), India*.
3. Life member of *Society for Applied Biotechnology (SAB), India*.

MEMBER OF EDITORIAL BOARD

1. Member of Editorial Board of International Journal entitled "*Indo Global Journal of Pharmaceutical Sciences*"

REVIEWER OF JOURNAL

- Reviewer of International Journal entitled **"3 Biotech"** (Springer) – *57 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Acta Tropica"** (Elsevier) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Algal Research"** (Elsevier) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Applied Biochemistry and Biotechnology"** (Springer) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Archives of Microbiology"** (Springer) – *8 manuscripts reviewed.*

- Reviewer of International Journal entitled **"Archives of Microbiology"** (Springer) – *3 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Biomass Conversion and Biorefinery"** (Springer) – *13 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Biotechnology Journal"** (Wiley) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Biotechnology Progress"** (Wiley) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Chemical and Biological Technologies in Agriculture"** (Springer) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Chemical Papers"** (Springer) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Critical Reviews in Biotechnology"** (Taylor & Francis) – *22 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Current Biotechnology"** (Bentham Science) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Environmental Health Insights"** (SAGE) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Evolutionary Bioinformatics"** (SAGE) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Food and Bioproducts Processing"** (Elsevier) – *14 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Frontiers in Bioengineering and Biotechnology"** (Frontiers) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Frontiers in Environmental Microbiology"** (Frontiers) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Frontiers in Microbiology"** (Frontiers) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Frontiers in Plant Science"** (Frontiers) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Fuel"** (Elsevier) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Fuel"** (Elsevier) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Green Chemistry Letters and Reviews"** (Taylor & Francis) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"International Journal of Biological Macromolecules"** (Elsevier) – *9 manuscripts reviewed.*
- Reviewer of International Journal entitled **"International Journal of Microbiology and Biotechnology"** – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Iranian Journal of Science and Technology, Transactions A: Science"** (Springer) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Journal of Applied Microbiology"** (Wiley) – *6 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Journal of Applied Phycology"** (Springer) – *3 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Journal of Applied Phycology"** (Springer) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Journal of Basic Microbiology"** (Wiley) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Journal of Cleaner Production"** (Elsevier) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Journal of Crop Improvement"** (Taylor & Francis) – *3 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Journal of Hazardous Materials Advances"** (Elsevier) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Journal of Microbiology, Biotechnology and Food Sciences"** – *1 manuscript reviewed.*

- Reviewer of International Journal entitled **"Journal of Nanomaterials"** (Hindawi) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Karbala International Journal of Modern Science"** (Elsevier) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Letters in Applied Microbiology"** (Wiley) – *5 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Microbial Biotechnology"** (Wiley) – *4 manuscripts reviewed.*
- Reviewer of International Journal entitled **"PLOS ONE"** (Public Library of Science) – *6 manuscripts reviewed.*
- Reviewer of International Journal entitled **"PLOS Sustainability and Transformation"** (Public Library of Science) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Process Safety and Environmental Protection"** (Elsevier) – *19 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Protoplasma"** (Springer) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Protoplasma"** (Springer) – *1 manuscript reviewed.*
- Reviewer of International Journal entitled **"Saudi Journal of Biological Sciences"** (Elsevier) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Science of the Total Environment"** (Elsevier) – *6 manuscripts reviewed.*
- Reviewer of International Journal entitled **"Science of the Total Environment"** (Elsevier) – *2 manuscripts reviewed.*
- Reviewer of International Journal entitled **"SN Applied Sciences"** (Springer) – *1 manuscript reviewed.*

ANALYTICAL EXPERTISE

- Proficiency in GC, GC-MS, UV-VIS Spectrophotometer, TLC, NMR (^{1}H-NMR and ^{13}C-NMR), Sonicator, Centrifuge, Differential Scanning Calorimetry (DSC), Thermogravimetric Analyzer (TGA), Mechanistic Analyzer, Liquid Scintillation Counter, Oxygen analyzer and Atomic Absorption Spectroscopy (AAS).
- Well conversant with biochemical separation techniques.
- Conversant with major software like Design Expert, SPSS, Chem Window, Origin, including basic computational software.

REFEREES

1. **Prof. (Dr.) J. K. Srivastava**
   (Director)
   Amity Institute of Biotechnology,
   Amity University Uttar Pradesh
   Lucknow Campus, Near Malhour
   Railway Station, India
   Mobile No.: +91-9621808784
   E. mail: jksrivastava@lko.amity.edu

2. **Prof. (Dr.) Nirupama Mallick**
   (FNA & Head)
   Agricultural and Food Engineering
   Department, Indian Institute of Technology,
   Kharagpur-721302, West Bengal, India
   Ph: +91 3222 283166 (O)
   Mobile No.: +91-9434041662
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