CURRICULUM VITAE

Dr. Naba Hazarika

Designation: Assistant Professor
Department of Environmental Science
Mizoram University
Aizawl, Mizoram 796004 (India)
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Educational Qualifications:

- **Doctor of Philosophy (Environmental Sciences):** School of Environmental Sciences, Jawaharlal Nehru University, New Delhi (2017)
- **Master of Philosophy (Environmental Sciences,** 74.6%): School of Environmental Sciences, Jawaharlal Nehru University, New Delhi (2013)
- **Master of Science (Environmental Sciences,** 71.4%): School of Environmental Sciences, Jawaharlal Nehru University, New Delhi (2009)
- **Bachelor of Science (Chemistry Hons.,** 60.1%): Biswanath College, Gauhati University, Assam (2006)

Research Interests:

Atmospheric Pollution and Chemistry

Details of previous employments:

- **Project Scientist/Principal Project Scientist /Senior Project Scientist:** Indian Institute of Technology Delhi (2021-23)
- **Post-Doctoral Fellow:** Indian Institute of Technology Delhi (2019-21)
- **Teaching experience (s):** Shaheed Bhagat Singh (Eve) College (2023), and Shaheed Rajguru College of Applied Sciences for Women (2018-19), University of Delhi

Administrative Experience:

Participation in Academic and Administrative Committees:

- Member: Board of Studies, Department of Environmental Science, Mizoram University
- Member: School Board, School of Earth Sciences & Natural Resources Management, Mizoram University
- Member: Departmental Research Committee, Department of Environmental Science, Mizoram University
- Member: Departmental Purchase Committee, Department of Environmental Science, Mizoram University
- Member: Research Advisory Committee, Department of Environmental Science, Mizoram University
- Coordinator (s): M.Sc. Admission Program, Swachhata Activities, and Student's Academic Bank of Credit ID's of Mizoram University

Membership in professional bodies:

- Life Membership of the Association of Environmental Analytical Chemistry of India (AEACI), C/O Analytical Chemistry Division, Bhaba Atomic Research Centre (BARC), Trombay, Mumbai, Maharashtra 400 085, India

Details of Professional Trainings:

- Interdisciplinary Refresher Course (Two weeks) on "Earth Sciences and Natural Resources", conducted by the UGC-Malaviya Mission Teacher Training Centre (MMTTC), Mizoram University
- National Education Policy (NEP) Orientation and Sensitization Programme (Two weeks), conducted by the MMTTC, Mizoram University

Seminar/Symposia/Workshop Organized:

Organizer/ Organizing Secretary:

- Organizing Secretary of the International Conference on "Climate Change and Natural Resources Management for Sustainable Development" (ICNS-2024) hosted by the School of Earth Sciences & Natural Resources Management, Mizoram University

- Organizer of the "2nd URSI- Regional Conference on Radio Science" from 16th -19th November, 2015 organized by the Indian National Committee of URSI (International Union of Radio Science) and hosted by Jawaharlal Nehru University, New Delhi, India

Research Project:

1 (Ongoing)

Research & Teaching Experience (s):

(13 Years)
Research: 09 Years (including the M.Phil/Ph.D. research work)
Teaching: 04 Years (UG+PG+Ph.D.)

Research Supervision:

Ph.D.: 1 (Ongoing)
PG Dissertation: 3 (Ongoing)

Total Number of Publications:

i. Books (Ed.): 1 (in press)
ii. Book Chapters: 3
iii. Research Papers: 17
iv. Review Paper: 1
v. Article in the University periodical: 1

Publications in International Journals (under communicated papers are not listed)

- Faisal, M., Ali, U., Kumar, A., **Hazarika, N.,** Singh, V., & Kumar, M. (2024). Festive fireworks in Delhi: A major source of elemental aerosols established through dispersion normalized PMF in a multiyear study.

  Journal: Atmospheric Environment (ISSN: 1352-2310), 323 (2024), 120394. https://doi.org/10.1016/j.atmosenv.2024.120394

- Jakhar, S., Jakhar, J. K., **Hazarika, N.,** Das, A., Singh, A. P., & Srivastava, A. (2024). Bacterial Bioaerosol at Sewage Treatment Plant in Delhi, India: Characterization and Site-Specific Associations.

  Journal: Aerosol Science and Engineering (ISSN: 2510-3768), (2024). https://doi.org/ 10.1007/s41810-024-00259-z

- Das, A., Verma, A., & **Hazarika, N.** (2024). A Comprehensive Review on Integration of Cellular Metabolic Engineering and Cell-Free Systems for Microbial Platforms.

  Journal: Process Biochemistry (ISSN: 1359-5113), 149 (2025), 222-236. https://doi.org/10.1016/j.procbio.2024.12.010

- Faisal, M., **Hazarika, N.,** Ganguly, D., Kumar, M., & Singh, V. (2022). $PM_{2.5}$ bound species variation and source characterization in the post-lockdown period of the Covid-19 pandemic in Delhi.

  Journal: Urban Climate (ISSN: 2212-0955), 46 (2022), 101290. https://doi.org/10.1016/j.uclim.2022.101290

- Manchanda, C., Kumar, M., Singh, V., **Hazarika, N.,** Faisal, M., Lalchandani, V., Shukla, A., Dave, J., Rastogi, N., Tripathi, S. N. (2022). Chemical speciation and source apportionment of ambient $PM_{2.5}$ in New Delhi before, during, and after the Diwali fireworks.

  Journal: Atmospheric Pollution Research (ISSN: 1309-1042), 13 (2022) 101428. https://doi.org/10.1016/j.apr.2022.101428

- Goel, V., **Hazarika, N.,** Kumar, M., Singh, V., Thamban, N. M., & Tripathi, S. N. (2021). Variations in Black Carbon concentration and sources during COVID-19 lockdown in Delhi.

  Journal: Chemosphere (ISSN: 0045-6535), 270 (2021), https://doi.org/10.1016/j.chemosphere.2020.129435

- Manchanda, C., Kumar, M., Singh, V., Faisal, M., **Hazarika, N**., Shukla, A., & Tripathi, S. N. (2021). Variation in chemical composition and sources of $PM_{2.5}$ during the COVID-19 lockdown in Delhi.

  Journal: Environment International (ISSN: 0160-4120), 153 (2021), https://doi.org/10.1016/j.envint.2021.106541

- Goel, V., **Hazarika, N.,** Kumar, M., & Singh, V. (2021). Source apportionment of black carbon over Delhi: A case study of extreme biomass burning events and Diwali festival.

  Journal: Urban Climate (ISSN: 2212-0955), 39 (2021), https://doi.org/10.1016/j.uclim.2021.100926

- Singh, A. K., **Hazarika, N.,** Kumar, U., & Srivastava, A. (2021). Assessment of size distribution of aerosols at kitchen environments in Delhi, India.

  Journal: Urban Climate (ISSN: 2212-0955), 37 (2021), https://doi.org/10.1016/j.uclim.2021.100819

- Mehta, D., **Hazarika, N**., & Srivastava, A. (2020). Diurnal variation of BTEX at road traffic intersection points in Delhi, India: source, ozone formation potential, and health risk assessment.

  Journal: Environmental Science and Pollution Research, (ISSN: 1614-7499) (2020) 27: 11093-11104, https://doi.org/10.1007/s11356-019-07495-8

- **Hazarika, N.,** Das, A., Kamal, V., Anwar, K., Srivastava, A., & Jain, V. K. (2019). Particle phase PAHs in the atmosphere of Delhi-NCR: With spatial distribution, source characterization and risk approximation.

  Journal: Atmospheric Environment (ISSN: 1352-2310), 200 (2019) 329-342, https://doi.org/10.1016/j.atmosenv.2018.11.064

- **Hazarika, N.,** Srivastava, A., & Das, A. (2017). Quantification of particle bound metallic load and PAHs in urban environment of Delhi, India: Source and toxicity assessment.

  Journal: Sustainable Cities and Society (ISSN: 2210-6707), 29 (2017) 58–67, https://doi.org/10.1016/j.scs.2016.11.010

- **Hazarika, N.,** & Srivastava, A. (2017). Estimation of risk factor of elements and PAHs in size-differentiated particles in the National Capital Region of India.

  Journal: Air Quality, Atmosphere & Health, (ISSN: 1873-9318), (2017) 10:469–482, https://doi.org/10.1007/s11869-016-0438-8

- **Hazarika, N.,** Jain, V. K., & Srivastava, A. (2015). Source identification and metallic profiles of size-segregated particulate matters at various sites in Delhi.

  Journal: Environmental Monitoring and Assessment, (ISSN: 0167-6369) (2015) 187:602, https://doi.org/10.1007/s10661-015-4809-7

- Kamal, V., Mukherjee, S., Srivastava, D., **Hazarika, N.,** & Singh, N. (2014). Geoenvironmental study of alluvial aquifer in Upper Gangetic plain, a case study of JP Nagar, Uttar Pradesh, India.

  Journal: IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT). e-ISSN: 2319-2402,p- ISSN: 2319-2399.Volume 8, Issue 5 Ver. III (May. 2014), PP 56-67.

- Kushwaha, R., **Hazarika, N.,** & Srivastava, A. (2013). Traffic related aerosol exposure and their risk assessment of associated metals in Delhi, India.

  Journal: International Journal of Environment, (ISSN: 2091-2854). Page no. 26-36 (2013).

- Kushwaha, R., **Hazarika, N.,** & Srivastava, A. (2013). SEM-EDX analysis of size segregated particulate matter in Allahabad located in north India.

  Journal: International Journal of Advanced Research, (ISSN: 2320-5407). Page no. 248-255 (2013).

- Ghosh, B., Lal, H., Kushwaha, R., **Hazarika, N.,** Srivastava, A., & Jain, V. K. (2013). Estimation of bioaerosol in indoor environment in the university library of Delhi.

  Journal: Sustain Environ Res, 23 (3), Page no. 199-207 (2013).

Publications in the proceedings (International/ National)

- Assessment of elements adhered to very fine particles in urban environment of Delhi-NCR. Authors: **Hazarika, N.,** and Srivastava, A.
  MPDD/IGNOU/P.O.0.5K/October, 2018 (Page no. 104-109). ISBN: 978-93-87960-94-7

- Characterization and morphological analysis of particulate matter in Allahabad located in central India.
  Authors: Kushwaha, R., Lal, H., **Hazarika, N.,** and Srivastava, A.
  IASTA-2012/ SESSION-I/ P-010 (Page no. 87-90). ISSN 0971-4570

- Bioaerosol exposure in different sections of printing press area of Delhi.
  Authors: Ghosh, B., Lal, H., Kushwaha, R., **Hazarika,** N., Srivastava, A., Jain, V. K.
  IASTA-2012/ SESSION-VII/ O-131 (Page no. 471-473). ISSN 0971-4570

Publication in the University periodical

- The article – "JNU salutes the 'Forest Man of India' on the occasion of Earth Day", on 22nd April - 2012, was published in the university periodical (Bimonthly Journal of the Jawaharlal Nehru University, Issue: 3, 2012).

Invited Lecture/Papers presented:

- Acted as a Resource Person/delivered lecture in the Awareness Programme on Scientific Social Responsibility: Swasth Bharat, under the Department of Science and Technology (DST) Sponsored Research Project – "Potential Effect of Climate Change on Hydrochemical Regimes of Wetlands in Aizawl District, Mizoram" on 28th March, 2025 at the Department of Environmental Science, School of Earth Sciences & Natural Resources Management, Mizoram University.

- Delivered Oral Presentation at the International Conference "Environmental and Ecological Sustainability: Engaging the Stakeholders", organized by the School of Interdisciplinary and Trans-disciplinary Studies (SOITS), Indira Gandhi National Open University (IGNOU), New Delhi, 4th-5th October 2018.

- Presented the M.Sc. project work "Determination of Dielectric Constant of Post Tsunami Soil Samples at Microwave Frequencies" on "National Workshop Cum Symposium on Nanoscience and Microwaves" organized by "Jawaharlal Nehru University" and "Microwave Applications Society of India" from 5th to 7th November 2009.

Participations in Conferences/Seminars/Workshops (International)

- Participated in the International Conference on "Climate Change and Natural Resources Management for Sustainable Development" (ICNS-2024) hosted by the School of Earth Sciences & Natural Resources Management, Mizoram University.

- Participated in the International Conference "Environmental Challenges and Solutions", organized jointly by the Shiksha Sanskriti Utthan Nyas (New Delhi), Manav Rachna International Institute of Research and Studies (Faridabad, Haryana) and Dakshina Foundation (Delhi) India, from 31st Jan-2nd Feb 2020.

Participations in Conferences/Seminars/Workshops (National)

- Member of the conference "Sustainable Solutions: Navigating Climate Change and Natural Resources" (2024), organized by the Department of Environmental Science, Mizoram University.
- Member of the "International Biodiversity Day" celebration, under the Biodiversity Research Centre, Department of Environmental Science, Mizoram University
- Participated in the seminar "Biodiversity Richness and Climate Change Impact on Biodiversity in Mizoram", Department of Environmental Science, Mizoram University.
- Participated in the "National Conference on Environmental Pollutants: Impact Assessment and Remediation, (NCEPIAR-2017)" on 29th March, 2017 in the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, sponsored by UGC-SAP-DSA-II.
- Participated in the National Science Day event "Science and Technology for Specially Abled Persons" on 28th February, 2017 at the Convention Centre, Jawaharlal Nehru University, New Delhi sponsored by VIGYAN PARASAR, and organized by Department of Science and Technology (DST) & Jawaharlal Nehru University, New Delhi.
- Presented a poster on "Characterization of carbonaceous aerosols in the National Capital Region, India" held on the National Science Day, February 26th, 2016 at Convention Centre, Jawaharlal Nehru University, New Delhi under the DST, Government of India.
- Presented a poster on "Characterization of atmospheric aerosols" held on the National Science Day, February 28th, 2015 at Convention Centre, Jawaharlal Nehru University, New Delhi under the DST, Government of India.
- Participated in the Board of Research in Nuclear Sciences (BRNS, Department of Atomic Energy) sponsored ninth School on Analytical Chemistry (SAC-9), organized by the AEACI, C/O Analytical Chemistry Division, BARC, Trombay, Mumbai, India in collaboration with Atomic Minerals Directorate for Exploration and Research (AMD), in Shillong (Meghalaya) from 27th October to 3rd November, 2014.
- Participated as a Trainer cum Volunteer for the INSPIRE (Innovation in Science Pursuit for Inspired Research) Internship programme of the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi under the DST, Government of India from 17th to 21st February, 2014.
- Participated in the "ASSOCHAM, National Waste to Wealth Conference", on 14th November 2011 at New Delhi.
- Participated in the "First National Students Conference on River Basin Planning (BRiP-2011)", held at Indian Institute of Technology Kanpur (IITK), 4th-5th November 2011.

(Dr. Naba Hazarika)