Dr. Bijoli Mondal
Associate Professor

Centre/School/Special Centre: *School of Studies in Engineering and Technology*

Department: *Civil Engineering*

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Personal Webpage Link:

Qualifications:

Course of Study	Board/University	Year of Passing
Ph. D. (*Environmental Engineering & Management)*	Indian Institute of Engineering Science and Technology, Shibpur, Howrah, West Bengal, India	2020
M. Tech (*Environmental Engineering & Management)*	Indian Institute of Technology, Kharagpur	2007
B. E (*Civil Engineering*)	Bengal Engineering and Science University	2005

Area of Interest/Specialization:

- Wastewater Treatment
- Water Treatment
- Water Quality
- Advanced Waste water Treatment
- Environmental chemistry
- Bio-Process
- Reaction Kinetics
- Air Pollution

Experience:

Organization/University	Position	Duration
Haldia Institute of Technology, Haldia, Purba Medinipur	Assistant Professor	*July, 2007- January, 2021*
Haldia Institute of Technology, Haldia Purba Medinipur	Associate Professor	*February, 2021- March, 2024*
Guru Ghasidas Vishwavidyalaya, Bilaspur	Associate Professor	*March, 2024- Present*

Awards and Honors:

- Recipient of "***Ministry of Human Resource Development***" Govt. of India Scholarships during PhD (July, 2015 - September, 2019).

- Recipient of "***Ministry of Human Resource Development***" Govt. of India Scholarships during M. Tech. (July, 2005 - July, 2007).

Research Projects: *NIL*

International Collaboration/Consultancy: Consultancy**: 15**

Best Peer Reviewed Publication (up-to 10):

List of Journal/Special Publications

1. **B. Mondal**, A. Adak and P. Datta, **(2017)** "Effect of operating conditions and interfering substances on photochemical degradation of a cationic surfactant". **Environmental Technology**, 39 (21), 2771-2780. DOI:10.1080/09593330.2017.1365943 **(SCI).**

2. **B. Mondal**, A. Adak, P. Datta, **(2018)** "Complete of the anionic surfactant by UV based advanced oxidation process and biodegradability" **Journal of Indian Chemical Society**, 95, 331-336 **(SCI).**

3. K. Hait, **B. Mondal**, A. Adak and P. Dutta **(2018)** "Determination of extent of antibiotic resistance bacteria in wastewater and removal of antibiotics using UV-H_2O_2 process". **Journal of Indian Chemical Society,** 95, 325-330 **(SCI).**

4. Adak, I. Das, **B. Mondal**, S. Koner, P. Datta and L. Blaney, **(2019)** "Degradation of 2, 4-dichlorophenoxyacetic acid by UV 253.7 and UV-H_2O_2: reaction kinetics and effects of interfering substances" **Emerging Contaminants**, 5, 53-60. DOI: 10.1016/j.emcon.2019.02.004 **(SCI).**

5. **B. Mondal**, A. Adak and P. Datta, **(2019)** "Degradation of anionic surfactant in wastewater by UV-H_2O_2: process optimization using response surface methodology", **Journal of Photochemistry and Photobiology A: Chemistry**, 375, 237-243. doi.org/10.1016/j.jphotochem.2019.02.030 **(SCI).**

6. **B. Mondal**, A. Adak and P. Datta **(2019)** "UV-H_2O_2 advanced oxidation of anionic surfactant: reaction kinetics, effects of interfering substances and operating conditions" **Environmental Engineering and Management Journal**, 18(6) 1245-1254. DOI: 10.30638/eemj.2019.119 **(SCI).**

7. **B. Mondal**, A. Adak and P. Datta, **(2020)** "Anionic surfactant degradation by UV-H_2O_2 advanced oxidation process and optimization of process parameters". **Journal of Indian Chemical Society,** 97 (9a), 1328-1335 **(SCI).**

8. **B. Mondal**, A. Adak and P. Datta, **(2020)** "Degradation of CTAB by UV-H_2O_2 AOP – Optimization of Process Parameters". **Journal of Indian Chemical Society**, 97, 613-619 **(SCI**).

9. **B. Mondal**, A. Adak and P. Datta **(2021)** "Integrated UV–H_2O_2 and biological treatment processes for the removal of cationic surfactant" **Journal of Environmental Engineering and Science**, June 2020, 1-9/doi.org/10.1680/jenes.20.00027 **(SCOPUS).**

10. D. Das, **B. Mondal**, N. H. Barabhuiya and A. Adak, **(2020)** "Treatment of laundry wastewater by UVC based advanced oxidation process – a case study". **Journal of Indian Chemical Society**, 97 (9a), 1342-1346 **(SCI).**

11. A, Ghosh, A. Adak, **B. Mondal**, N. H. Barabhuiya and D. Das (2024**)** "Efficacious Degradation of 2,4-Dichlorophenoxyacetic Acid by UV–H2O2 Advanced Oxidation and Optimization of Process Parameters Using Response Surface Methodology ". **Journal of Hazard. Toxic Radioact. Waste,** 28 (3), 1342-1346 **(SCI).**

12. **B Mondal**, S. S. Basak, A. Das, ·S. Sarkar and A. Adak **(2024)** "UV-Based Degradation of Fluoroquinolone Antibiotic in Wastewater: Effects of Process Parameters, Identification of Degradation Products and Evaluation of Residual Toxicity" **Journal of Institute of Engineers: Series A,** 105(4), 1017-1028 (**SCI**). doi.org/10.1007/s40030-024-00840-2.

13. S Das, **B Mondal**, SP Swain and D Adak **(2025) "**Development of a low-cost red soil-based alkali-activated coating for efficient dye removal". **Indian Chemical Engineer** 1-16. doi.org/10.1080/00194506.2025.2531918 **(SCOPUS).**

Articles in Book Chapter

- **B. Mondal,** A. Adak and P. Datta**, (2023)"** Treatment of Anionic Surfactant Contaminated Wastewater by Combined Advanced Oxidation and Biological Processes" In book: **Emerging Technology and Management Trends in Environment and Sustainability** (pp.154-167), **(SCOPUS)** DOI:10.4324/9781003356233-14.

- S. Shome, **B. Mondal**, S. Das" Removal of Heavy Metals by Laterite Soil" In book: Sustainable Advanced Technologies for Industrial Pollution control, DOI: 10.1007/978-3-031-37596-5 **(SCOPUS)**

- S. Das, **B. Mondal**, S. P. Swain, D. Adak, S. Shome "Adsorptive Capacity of Surface-Modified Red Soil-Based AAB for Removal of Anionic Dye" In book: Sustainable Advanced Technologies for Industrial Pollution control, DOI: 10.1007/978-3-031-37596-5 (**SCOPUS**).

- **S. Das, B**. Mondal, S. P. Swain, D. Adak, S. Shome "Removal of Methylene Blue from Wastewater by Red Sandy Soil-Based Alkali Activated Binder" In book: Sustainable Advanced Technologies for Industrial Pollution control, 293-302, DOI: 10.1007/978-3-031-37596-5 (**SCOPUS**)

Articles in Conference Proceedings (International)

- S. Shome, **B. Mondal**, S. Das" Removal of Heavy Metals by Laterite Soil" **International Conference on Sustainable Advanced Technologies for Industrial Pollution control-**ATIPC 2022, IIEST, Shibpur.

- S. Das, **B. Mondal**, S. P. Swain, D. Adak, S. Shome "Removal of Methylene Blue from Wastewater by Red Sandy Soil-Based Alkali Activated Binder **International Conference on Sustainable Advanced Technologies for Industrial Pollution contro**l-ATIPC 2022, IIEST, Shibpur.

- **B. Mondal, A. Adak and P. Datta (2022) "**Treatment of Anionic Surfactant Contaminated Wastewater by Combined Advanced oxidation and Biological Processes. "**International Conference EMTES-2022** on 29-30th November at BBIT, Kolkata.

- **B. Mondal**, A. Adak and P. Datta **(2020)** "Integrated UV based advanced oxidation and biological treatment processes for the removal of cationic surfactant from wastewater" **Second ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020),** 2020 Kolkata.

- **B. Mondal**, A. Adak and P. Datta, **(2018)** "Application of Experimental Design Approach for Optimization of the Photo-chemical Degradation of Anionic Surfactant in Aqueous Solution", **International Conference on Advanced Technologies for Industrial Pollution Control**, 2018.IIEST, Shibpur, Howrah.

- D. Das, **B. Mondal**, N. H. Barabhuiya, A. Adak and P. Dutta, **(2018)** "Treatment of laundry wastewater by UVC based advanced oxidation process – a case study" **International Conference on Advanced Technologies for Industrial Pollution Control**, 2018. IIEST, Shibpur, Howrah.

- Ghosh, **B. Mondal**, N. H. Barabhuiya, A. Adak and P. Dutta, (2018) "Optimization of Degradation of 2,4-D Herbicide by UV-H_2O_2 Process using Response Methodology", **International Conference on Advanced Technologies for Industrial Pollution Control**, 2018, IIEST, Shibpur, Howrah.

- **B. Mondal**, A. Adak, P. Dutta, **(2018)** "Degradation of surfactants present in laundry wastewater by UV based process", in: **International conference of Sustainable Technologies for Intelligent Water Management**, 2018. IIT Roorkee.

- **B. Mondal**, I. Das, A. Adak, P. Dutta, **(2016)** "Complete Degradation of the Cationic surfactant by UV based Advance Oxidation Process", **International conference of Waste Management**., 2016. IIT, Guwahati.

- Das, **B. Mondal**, S. Koner, A. Adak, **(2016)** "Degradation of 2, 4-dicholorophenoxy acetic acid by advance oxidation process", in: Recycle. 2016- International conference of Waste Management, 2016. IIT, Guwahati.

Articles in Conference Proceedings (National)

- **B. Mondal,** S. Shome and S. Das "Removal of Cationic Surfactant from wastewater by AOP and Biological Processes" **National conference on New Horizon in Biotechnology (NHBT-2023),** 2023, HIT, Haldia

- S. Shome, K. Adhikari, S. Pal**, B. Mondal** & S. Das"Removal of Heavy Metals by Laterite Soil" Natioal **Conference on Emerging Trends and Application of Green Technologies for Sustainable Development (Green Tech - 2022).** 2022 HIT, Haldia.

- **B. Mondal**, A. Adak, P. Dutta, **(2019)** "Degradation of CTAB by UV-H_2O_2 AOP – Optimization of Process Parameters", in National Conference on Sustainable Advanced Technologies for Environmental Management, 2019, IIEST, Shibpur, Howrah.

- **B. Mondal**, I. Das, A. Adak, P. Dutta, **(2018)** "Degradation of anionic surfactants present in laundry wastewater by UV based process", **National Conference on Advancement in Civil Engineering Practice and Research**, 2018, Haldia Institute of Technology, Haldia. Purba Medinipur.

- **B. Mondal**, A. Adak, P. Dutta, **(2017)** "Complete degradation of the anionic surfactant, SDS by UV based advanced oxidation process and biodegradability, in National Conference on Sustainable Advanced Technologies for Environmental Management, 2017, IIEST, Shibpur, Howrah.

- K. Hait, **B. Mondal**, A. Adak, P. Dutta, **(2017)** "Determination of extent of antibiotic resistance bacteria in wastewater and removal of antibiotics using UV-H_2O_2", in National Conference on Sustainable Advanced Technologies for Environmental Management, 2017, IIEST, Shibpur, Howrah.

- **B. Mondal**, I. Das, A. Adak, P. Dutta, (2016) "Complete Degradation of the Anionic surfactant by UV based Advance Oxidation Process", in **Research Scholars Colloquium** 2016, IIEST, Shibpur, Howrah.

Research Supervision:

- **Ph.D. Thesis**: **3**
- **M.Tech Thesis: 3**
- **UG Major Project: 42**

Administrative Responsibilities:

- Served as a member of ***Industry Institute Partnership*** at **Haldia Institute of Technology**, **Haldia**, from September, 2019 to February 2024.
- Member of Academic Committee from September, 2007 to February 2024.
- Warden, Rajmohini Devi Girls Hostel, GGV, C.G**.**
- Member of the Coordination Committee (CC) for repairing & maintenance /extension work for type-D quarters, GGV, C.G.
- Member of the verification committee for Gender Champions (Girls& Boys) for 2024-25 at Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Member, DRC, Civil Engineering Department at Guru Ghasidas Vishwavidyalaya, Bilaspur

(***Bijoli Mondal)***