



**Name: Dr. Mrinmoyee Bhattacharya**

**Designation: Assistant Professor**

**Qualifications: M.Tech. in Computer Sc., Ph.D. in CSE**

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### **Biographical Sketch**

**Dr. Mrinmoyee Bhattacharya** is an Assistant Professor in the Department of Computer Science under the Faculty of Science at St. Xavier's University, Kolkata. She joined the University in July 2023. She received B.Tech., M.Tech. degrees in Computer Science on 2012 and 2017 respectively from WBUT and IIT Dhanbad (ISM). She awarded Ph.D. in Computer Science and Engineering from Space Application Centre (SAC), Indian Space Research Organization (ISRO), Ahmedabad, India in 2022. She has achieved Gold Medal for securing first position in MTech. She qualified Gate in 2015 and UGC NET in 2020. Her areas of research interest are Pattern Recognition, Image Processing, AI, Machine Learning and Cryptography. She is having more than 5.5 years of teaching experience and 5 years of research experience.

### **Areas of Specialisation and Research**

- ❖ Pattern Recognition
- ❖ Image Processing
- ❖ Machine Learning
- ❖ Deep Learning
- ❖ Cryptography

### **Teaching Experience**

- ❖ Assistant Professor – Department of Computer Science at St. Xavier's University, Kolkata from July, 2023.
- ❖ Assistant Professor – Department of Computer Science and Engineering at Adamas University Kolkata from August 2022 – June 2023.
- ❖ Assistant Lecturer – Department of Computer Science and Engineering at Elite Institute of Technology, Kolkata from August 2012- June 2015.

## Administrative Responsibility

- ❖ Program coordinator of BCA from August 2022- June 2023 at School of Engineering and Technology, Adamas University Kolkata.
- ❖ Officer in Charge of Examination of Faculty of Science from July 2023 - June 2024
- ❖ Sports Coordinator of Faculty of Science from July 2024- June 2025
- ❖ Assistant Prof in Charge of Centre of Skill Development from July 2025 onwards

## Publications

### ❖ Book Chapters:

1. Koustav Bal, **Mrinmoyee Bhattacharya**, Tuhin Utsab Paul, Intelligent Web Scraping Based Question Answering Bot, Algorithms for Intelligent Systems, Springer Publication, 2025, Scopus indexed, [https://doi.org/10.1007/978-981-97-9532-1\\_32](https://doi.org/10.1007/978-981-97-9532-1_32).

### ❖ Journals:

#### Scopus and SCI Indexed:

1. **Mrinmoyee Bhattacharya**, Mourani Sinha, Estimation of one-dimensional energy density spectrum of surface waves using Genetic Algorithm, IEEE Xplore, Scopus Indexed, 2020, [10.1109/ICCECE48148.2020.9223107](https://doi.org/10.1109/ICCECE48148.2020.9223107)
2. **Mrinmoyee Bhattacharya**, Mourani Sinha, Basin scale wind-wave prediction using empirical orthogonal function analysis and neural network models, Results in Geophysical Sciences, Web of Science Indexed, Elsevier Publication, 8(2021), [10.1016/j.ringps.2021.100032](https://doi.org/10.1016/j.ringps.2021.100032)
3. Mourani Sinha, **Mrinmoyee Bhattacharya**, A probabilistic approach to estimate design wave parameters and extreme wave return values for 100 years in the Indian Ocean, Arabian Journal of Geosciences, Scopus Indexed, Springer Publication, 2022, [10.1007/978-3-031-43803-5\\_2](https://doi.org/10.1007/978-3-031-43803-5_2)
4. Mourani Sinha, **Mrinmoyee Bhattacharya**, M Seemanth, Suchandra A Bhowmick, Probabilistic models and deep learning models assessed to estimate design and operational ocean wave statistics to reduce coastal hazards, Geosciences Journal, SCI Indexed, MDPI Publication, 13(12), 2023, [10.3390/geosciences13120380](https://doi.org/10.3390/geosciences13120380)
5. Nirban Pal, Riti Mukherjee, **Mrinmoyee Bhattacharya**. (2024). FinanceFit: A Smart Application to Stay on Track with Expert Advice and Insights. International Journal of Intelligent Systems and Applications in Engineering, 12(4), 5936 - 5941. <https://ijisae.org/index.php/IJISAE/article/view/7927>. Scopus Indexed.
6. Dr. Abhijit Aditya, Ramazeame Loganathan, Dr Shivani Jaggi Guleria, **Dr Mrinmoyee Bhattacharya**, Dr. Neethu Sundaresan, Gokul Acharjee, Dr. Souvik Sur, (2025). A Systems-Based Framework for Sustainable Environmental Solutions: Integrating Science, Technology, and Policy for Resilience and Resource Efficiency. International Journal of Environmental Sciences, 11(14s), 229-240. [10.64252/3tfhs542](https://doi.org/10.64252/3tfhs542). Scopus Indexed.

7. Sumit Saha, **Mrinmoyee Bhattacharya**, Deep Learning Meets Ayurveda: CNN-Based Medicinal Leaf Classification, Scopus Indexed, IEEE Xplore Publication, 2025, [10.1109/ICAJET65052.2025.11211024](https://doi.org/10.1109/ICAJET65052.2025.11211024)

8. Saha, S., Bhattacharya, M., InkSynth: recognizing Bengali compound characters with synthesized data and deep fusion networks. IJDAR (2025). <https://doi.org/10.1007/s10032-025-00561-7>

#### Peer Reviewed:

10. **Mrinmoyee Bhattacharya**, Trends on Social Network Analysis: How COVID-19 Pandemic changed the field, International Journal of All Research Education & Scientific Methods (IJARESM), ISSN No: 2455-6211, 12(8), UGC Care Listed, 2024, <https://www.ijaresm.com/trends-on-social-network-analysis-how-covid-19-pandemic-changed-the-field>

11. **Mrinmoyee Bhattacharya**, Reinventing Lean: An Optimized and Adaptive Approach to Construction Efficiency, International Research Journal of Engineering and Technology (IRJET), ISSN No: 2395-0072, 12(5), UGC Care Listed, 2025, <https://www.irjet.net/archives/V12/i5/IRJET-V12I5132.pdf>

12. Sinha Mourani, Roy Sitangshu, **Bhattacharya Mrinmoyee**, Biswas Susmita, Zaman Sufia, Abhijit Mitra, Application of numerical modeling to evaluate the role of mangroves in wave attenuation: A first order analysis in the domain of disaster management, Our Heritage, UGC Care Listed, 68 (8), 38 – 52, 2020, <https://archives.ourheritagejournal.com/index.php/oh/article/view/759>

#### ❖ Conferences:

1. Mrinmoyee Bhattacharya and Mourani Sinha, 2018, “ Characteristics of Southern Ocean swell propagating into the northern Indian Ocean”, National Conference on Progresses in Bioengineering & Environmental Management (NCPBEM 2018), hosted by: Techno India University, West Bengal, Salt Lake Sector V, Kolkata 700091, on 11th-12th May 2018.

2. **Mrinmoyee Bhattacharya** and Mourani Sinha, 2018, “A comparative study for predicting tropical cyclone wavefield using numerical wave models and non-linear autoregressive neural network model”, (TROPMET), hosted by: Benaras Hindu University, Varanasi, Uttar Pradesh, Varanasi 221005, on 24th-28th October 2018.

3. **Mrinmoyee Bhattacharya**, Sayan Das and Tuhin Utsab Bal, 2024, “Unveiling the Role of Artificial Intelligence in Transforming Entrepreneurship: Opportunities, Challenges, and Future Directions”, National Conference on Entrepreneurship Skills and Mindset among the Youth Studying in Higher Education Institutions sponsored by ICSSR (Indian council of social Science Research) (2025), hosted by: St. Xavier’s University, Kolkata, Action Area-III B, Newtown, Kolkata-700160, West Bengal, India.

4. Sumit Saha Maria Joseph Israel S.J. and **Mrinmoyee Bhattacharya** “Deep Inception: Cotton Leaf Disease classification with Convolution Precision Neural Network”, International conference on Data Science and Exploration in Artificial Intelligence, Code, hosted by: Department of Information Technology, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Bengaluru.

5. Afsana Zeba Yasmin, Anandarup Roy and **Mrinmoyee Bhattacharya** "A Novel Convolutional Neural Network Framework for Multi-Grade Classification and Early Detection of Diabetic Foot Ulcers", 3rd International conference on Advances in Science, Engineering & Technology (ICASET) (2025), hosted by: SSM College of Arts & Science , Atal Community Innovation Centre Rise (ACIC RISE) Association and Chandigarh group of colleges.

### **Professional Activities**

❖ **Reviewer**

➤ **Journals:**

1. IEEE Transactions on Industrial Informatics
2. International Journal on Document Analysis and Recognition (IJDAR)

➤ **Conferences:**

1. IEEE ATCON 2023
2. International Conference on Data Analytics and Insights (ICDAI 2024)

❖ **Member:**

Professional member of Computer Society of India, Kolkata Chapter.

### **Awards and Achievements**

- ❖ UGC-NET qualified in 2020
- ❖ Gold Medal in M.Tech