

Dr. SUBHASHIS CHATTERJEE

Professor(HAG)

Department of Mathematics & Computing

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Education

- B.Sc Mathematics (Hons.), The University of Burdwan, West Bengal
- M.Sc (Mathematics) , I.I.T. Kharagpur
- Ph.D (Software Reliability), I.I.T. Kharagpur

Area of Research:

Software Engineering, Software Reliability, Algorithm Design & Analysis, Bioinformatics.

Membership of Professional Bodies:

- Senior Member IEEE
- Complementary Member ACM
- Member Society of applied Mathematics, IIT(ISM), Dhanbad.

Teaching Experience: 25 years

Research Experience: 30 years

Research Guidance:

Sl. No.	Name	Title of Thesis	Year
1	Shobhit Nigam	Data Driven and Probabilistic Aspects of Software Reliability Modelling	2012
2	Jeetendra B. Singh	Prediction and Analysis of Software Reliability Using Various Mathematical Approaches	2012
3	Rohini Yadav	Some Efficient Class of Estimators for Population Parameters in Sample Surveys	2012
4	Arunava Roy	Web Software Reliability Analysis Using Various Mathematical Approaches	2015
5	Ankur Shukla	Software Reliability Modelling Under the Effect of Change Point	2017
6	Venkata Ramana B	Evaluation of Network Reliability Using Optimal ROBDD	2017
7	Bappa Maji	Reliability Assessment Using Novel Fault Prediction Techniques during Early Phase of Software Development	2018
8	Bhagyashree Choudhury	Release Time Analysis of Software Using Parametric and Data Driven Approaches in Stochastic Environment	2021
9	Ananya Das	Predictive Applications of Biomedical Informatics Based on Novel Ensemble Algorithms in Cancer Research	2023
10	Deepjyoti Saha	Software Dependability Analysis Utilizing Various Statistical and Machine Learning Techniques	2025
11	Aliviya Bhowmick,,	Optimization Problems in Fuzzy Environment	2025
12	Subrata Rath	Reliability Along with Availability Estimation and Improvement of Hardware Devices	2025

ii). Ph.D Students Presently Guiding:

Sl. No	Name	Area of Research	Status
1	Shreya Swarnaker, DST Inspired Fellow	Bioinformatics	Continuing
2	Rohit Bose	Bioinformatics	Continuing
3	Nipendra Saren	Software Rejuvenation	Continuing
4	Mr. Surjya Naryan Rath	Software Engineering	Continuing
5	Mr. Ritik Kumar, DST Inspired Fellow	Bioinformatics	Continuing

Project Fellow:

- Mr. Debtanu Ghosh working on TEXMiN funded project Applications of various machine learning (ML) techniques for predicting, detecting, and analyzing rare earth elements (REEs) in different geological and environmental contexts

Project Guidance:

i). M. Tech (Data Analytics) : 07

ii). Int. M.Tech (M&C) - 28

iii). M.Sc Project – 54

iv). M.Phil Project – 06

Number of Publications:

- No. of Publication in SCI/SCIE Indexed Journal: 36
- No. of Publication in Scopus & Other Indexed Journal: 25
- No. of Conference Publications: 13
- No. of Conference presentation: 10

Sponsored Research Project Ongoing

- R&D Project sponsored by TEXMiN, (16.62 Lakh), Project Title: Applications of various machine learning (ML) techniques for predicting, detecting, and analyzing rare earth elements (REEs) in different geological and environmental contexts.
- DST FIST project for Department of Mathematics & Computing 2024

Completed

- R&D Project sponsored by ISRO, India (₹ 17.29 Lakh), Project Title: **Predicting Reliability and Optimal Release Time of Various Categories Software Systems**
- R&D Project sponsored by UGC, New Delhi (₹ 7.86 Lakh), Project Title: Some Studies On the Application of Stochastic Process, Operation Research and Fuzzy Mathematics in Development of Software Reliability Models
- R&D Project sponsored by UGC, New Delhi (₹ 8.41 Lakh), Project Title: Contributions to the Sampling Theory using Auxiliary Information

Product Development:

Developed a Software for SAC, ISRO which they use for Software fault prediction, Identification of Software Faulty Prone module and Dependability Analysis.

Short Term Courses / Training Program Conducted:

- Short Term Course on Introduction to Generative AI and its Application A Step Forward to Artificial Intelligence, October 2025.
- Short Term Course on Machine Learning With Excel, September 2025

- Short Term Training Program On Six Sigma Green-Belts. June 2025
- Short Term Training Program On Six Sigma Green-Belts. June 2018
- Short Term Training Program On Reliability and Safety Analysis, June 2016
- Workshop On Application of Statistical Tools in Research & Data Analysis, February 2016

NPTEL Lecture

- Software Reliability
- Introduction to Software Engineering : A Road Map to Reliable Software Development and Maintenance

Abroad Visit

- Visited Monash University, Australia in 2024 to present paper Computational Techniques and Applications Conference (**CTAC2024**).
- Visited Singapore in 2015 to present paper in **International Conference on Computer Technology and Development**
- Visited Shanghai in 2011 to present paper in **CET 2011**

Reviewer of Following Journals:

- IEEE Trans. On Reliability
- IEEE Trans. Fuzzy Systems.
- IEEE Access
- Applied Soft Computing
- International Journal of Systems Science
- Mathematical & Computer Modelling of Dynamical Systems
- Information and Software Technology
- Software Testing, Verification and Reliability
- Quality and Reliability Engineering, International
- Communications in Statistics - Theory and Methods
- Journal of Systems and Software
- Soft Computing
- Journal of Expert Systems with Applications

Institute Level Responsibility:

- Chairman HCC from October 2024 till date
- Dean(Faculty) from September 2021 to September 2024
- Associate Dean Faculty (Recruitment) from 21.5.2018 to August 2021
- Vice Chairman Career Development Center IIT(ISM), Dhanbad from February 2015 to June 2018.
- Member M.Sc/M.Sc Tech Entrance Committee IIT(ISM), Dhanbad from 2010 to 2016
- Member Computer Purchase Committee, IIT(ISM), Dhanbad from 2013 to 2015

Department Level Responsibility:

- In charge of Departmental Computer Lab from August 2010 to September 2018.
- Faculty Advisor of 2017 batch of Int. M.Tech (M&C).
- Faculty Advisor of IIIrd Semester Int. M.Tech (M&C).
- Faculty Advisor of Ist Semester M.Tech (Data Analytics)

Area of Interest

Algorithm Design & Analysis, Software Engineering, Software Reliability, Bioinformatics, Stochastic Process, Time Series Analysis, Data Mining