Assistant professor
Department of Mathematics
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Dr. Arindam Kundu

Research Areas

Numerical Methods, Nonparametric Regression, Quantitative Finance, Machine Learning

Professional Experience:

Teaching

Oct 2020-Present	Assistant Professor, Department of Mathematics, Adamas University, Kolkata, India.
Jan 2018-Sep 2020	Assistant Professor (Level 10) under *Technical Education Quality Improvement Program-III*, worked at Bineswar Brahma Engineering College, A Govt. of Assam Institution, Kokrajhar, India.
July-Dec 2017	Temporary Faculty, National Institute of Technology Raipur, India.

Research

Sep 2008 to July 2010	Project Asst. Level-II, Central Mechanical Engineering Research Institute (CSIR-Lab), Durgapur, India.

Education:

2017	**Ph.D.**, *Indian Institute of Technology Patna*, India
2008	**M.Sc.**, *in Mathematics*, Banaras Hindu University, India
2005	**B.Sc.**, *in Mathematics (Hons.)*, University of Burdwan, India

Subjects Taught

○ **Theory:**

PG (M.Sc, M.Tech, MCA)	Numerical Methods and Programming, Linear algebra, Machine learning and applications, Calculus, Exploratory Data Analysis, Numerical & Statistical methods, Numerical Techniques
UG (B.Sc. (Hons.), B.Tech., B.E. & BBA)	Numerical Analysis, Calculus, Probability Theory and Distributions, Applied Machine learning, Computer Oriented Numerical Methods, Financial and Risk Management, Exploratory Data Analysis and Visualization, Business Mathematics, Statistics, Engg. Math. I, II, III, Elective Math I & II
Ph.D.	Research Methodology, Quantitative Methods for Finance

○ **Lab (UG,PG)**

○ Numerical Methods and Programming Lab, Numerical & Statistical methods Lab with MATLAB

- ○ Machine learning and applications, Applied machine learning
- ○ Descriptive Statistics Lab,Probability theory and Distribution Lab

Journal Published

- ○ **Arindam Kundu**, S. Kumar, N.K. Tomar, *A Semi-Closed Form Approximation of Arbitrage-Free Call Option Price Surface*, Computational Economics, Springer, 2023 (SCIE, ABDC Ranked-B, Q2, IF-2.0)
- ○ **Arindam Kundu**, S. Kumar, N.K. Tomar, *Option Implied Risk-neutral Density Estimation: A Robust and Flexible Method*, Computational Economics, Springer, Volume 54, 2019, 705-728. (SCIE, Q2, ABDC-B ranked, IF-2.0)
- ○ **Arindam Kundu**, S. Kumar, N.K. Tomar, S.K. Gupta, *Call option price function in Bernstein polynomial basis with no-arbitrage inequality constraints*, J. Inequal. Appl., Springer, 2016(1), 1-16, 2016. (SCIE, Q2, IF-1.6)
- ○ H. Chattopadhyay, **Arindam Kundu**, B. K. Saha, T. Gangopadhyay, *Analysis of flow structure inside a spool type pressure regulating valve*, Energy Conversion & Management, Elsevier, Volume 53, Issue 1, January 2012, Pages 196-204. (SCIE, Q1, IF-11.5)

Seed Money Research Project

- ○ A Novel Machine Learning Algorithm Based On Support Vector Regression For Option Implied Risk-Neutral Density. Duration: March 2023 - Feb 2024.

Invited Talk

August 2019 | Delivered one lecture in five days "Bridge course on Physics, Chemistry, Mathematics & Communication Skill" organized by Assam Science and Technology University at B.B.E.C., Kokrajhar, A Govt. of Assam Institution, India.

Title - System of Equations.

May 2011 | Delivered one lecture in "Undergraduate Training Program in Mathematics" at Dept. of Mathematics, IIT Patna, India.

Title - Some numerical methods for solving dense system of linear equations.

Organized Event:Conference/FDP/Workshop/Seminar/Webinar etc.

- ○ **International Conference:** Core organizing member & Publication Chair - "Recent Advances in Mathematics, Statistics and Data Science", Adamas University, 27th-28th November 2024.
- ○ **International Conference:** Secretary- "Global Summit on Sustainable Science & Technology", Adamas University, 15th-16th September 2022.
- ○ **International workshop:** Core organizing member- 5 days International workshop on "Data Science and Its Applications" organized at Adamas University , 26th-30th April, 2022.
- ○ **International FDP:** Coordinator- 7 days International Faculty Development program on "Data Analytics for Basic and Applied Sciences" organized at Adamas University , 14th-20th June, 2021.
- ○ **Webinar:** Coordinator- Industrial expert talk on "Introduction to Data Visualization: Hands-on Tableau", organized by Department of Mathematics at Adamas University , 26th November 2022.

- **Webinar:** Convernor-Industrial expert talk on "Introduction to scope of Data Science " organized by Department of Mathematics at Adamas University , 23rd July 2022.
- **Webinar:** Convernor- Webinar on "Finance and Data Science" organized at Adamas University , 2nd February 2022.
- **Webinar:**Convernor-Industrial talk on "Data Science and Machine Learning in Telecom" organized at Adamas University , 25th August 2021.

FDP/Professional Training Program Attended:

June 2024	One week FDP on "Financial Mathematics, SPDE Theory, Mathematical Modelling and Current Numerical Trends ",VIT-AP University, India.
June 2023	One week FDP on "Revised NAAC Framework ", Adamas University, Kolkata.
Feb 2020	Two weeks short term course on "Data Science & Analytics ", IIT Ghandhinagar.
Dec 2019	Two weeks FDP on "Developing Teaching and Learning Techniques on Engg. Education", B.B. Engg. College, Kokrajhar in association with Engineering Council of India, funded by TEQIP.
Aug 2019	ASTU sponsored five days FDP on "Teaching Mathematics, Physics and Chemistry", B.B. Engg. College, A Govt. College of Assam, India.
July 2019	Five days TEQIP-III training program on "Advance Pedagogy and Digital Tools", IIT Kharagpur, India.
March 2018	Two days workshop on "Outcome Based Education", BBEC, Kokrajhar, A Govt. College of Assam, India.
Feb 2018	Five days workshop on "Faculty Induction Program", IIT Kharagpur, India.
December 2017	International Conference and Workshop on "Statistical Methods in Finance", Chennai Mathematical Institute, Tamil Nadu, India.