CURRICULUM VITAE

Dr. Taniya Mukherjee
PhD in Mathematics
+973-37778144
aliptina@gmail.com



Profile

A competent Mathematics professional having 10 years of expertise in university teaching and 5 years of research experience, is seeking for an opportunity to join suitable organization where I can utilize my best academic & professional skill while being disciplined, innovative, resourceful & flexible with & as a team to let it & us flourish more and more.

Education

Graduation in Mathematics

University of Burdwan, India Sept 2001 – July 2004

Earned a bachelor's degree in science, with Mathematics as major subject in 2004.

Post -graduation in Mathematics

University of Burdwan, India Sept 2004 – Aug 2006

Have pursued Post graduation in Pure Mathematics from the esteemed University of Burdwan, India and secured 1st class with 65.4% marks.

- Specialization in ***Advanced Functional Analysis***
- Specialization in ***Advanced Operational Research***
- Proficiency in ***Linear Algebra, Modern Algebra, Probability, Graph Theory, Topology, Vector Algebra.***

PhD in Mathematics

Banasthali Vidyapith, Rajasthan India Feb 2020--Jan 2024

Completed PhD in Mathematics under the thesis title "**Mathematical Modelling on Cross-docking services in Inventory management**" from Banasthali Vidyapith, India. During this time have published research in *Q1* and *Q3 SJR* journals apart from Scopus Indexed Journals.

Employment

Academic Experience

Assistant Professor of Mathematics Sept 2025 –Present

Bahrain Polytechnic, Isa Town, Bahrain

Deliver applied mathematics courses tailored to logistics and maritime disciplines, integrating analytical and problem-solving skills relevant to industry needs. In addition to mathematics, teach research methodology, guiding students in designing literature reviews, structuring research projects, and applying appropriate data collection and data analysis techniques.

Assistant Professor of Mathematics

Gulf University, Sanad, Bahrain Sept 2018 – May 2025

Taught a range of Mathematics and Physics courses to students in General Science, Administrative and Financial Sciences (AFS), and Interior Design Engineering. Additionally, delivered advanced mathematics modules to Mechanical and Electrical Engineering students enrolled in the University of Northampton programs offered at Gulf University. Provided academic support and subject guidance to diverse cohorts, ensuring strong conceptual understanding and applied problem-solving skills.

Lecturer of Mathematics

University of Bahrain, Zallaq Sept 2018- June 2019

Employed as an Adjunct Faculty of mathematics in **Bahrain Teacher's College (BTC), University of Bahrain.** In this span of time, taught Foundation Mathematic courses to the students of Year 1.

Adjunct Lecturer of Mathematics

University College of Bahrain, Saar Sept 2015- January 2018

Taught a range of undergraduate Mathematics courses, including Probability and Statistics, Linear Algebra, Graph Theory, and Calculus, to students in Information Technology and Business

Administration programs. Guided students in developing mathematical and statistical projects on topics such as regression analysis, Fibonacci sequences in nature, queuing models, L'Hospital's rule, cardiac output estimation, simple harmonic motion, and applications of matrices in strategic games like chess.

Mathematics Faculty
Mastermind Institute (MMI)- Segaya, Bahrain April 2015- June 2016

Worked as a Mathematics faculty imparting mathematics lectures to Engineering students at Open universities.

Responsibilities

- Delivering undergraduate and postgraduate courses within the assigned discipline
- Providing academic support, mentoring and feedback to students and other staff.
- Developing course specifications as well as engaging in moderation and verification process.
- Academic advising and Supervising undergraduate/ post graduate students in dissertations and research work.
- Conducting research and publishing papers in academic journals.
- Representing the university at conferences and delivering presentations when necessary.
- Providing demonstrations and supervising experiments and investigations.
- Providing Professors and Department Heads with feedback on student progress.

Mathematics Teacher
Alnoor International School Sitra, Bahrain 2011-2012

Teaching Mathematics to the Higher Secondary level students of CBSE curriculum.

Mathematics Teacher
Oxford Sr. Secondary School. Bangalore, India May 2008 - March 2009

Mathematics Teacher for the middle school. Received an award for my hard work and efficiency. Also participated in various cultural activities in School with Students.

Science Teacher
Bangalore International Public-School, India Aug 2007- 22nd May 2008

Science Teacher for the middle school. Imparting lessons on Physics and Chemistry.

Professional Experience

Personal Loan Coordinator
Diva sales and Marketing, Bahrain April 2012—April 2013

Managed personal loan documentation and processing for **Standard Chartered Bank** while working at Diva Sales and Marketing.

Certification and Professional Development

IELTS Certificate 2018

Well versed in English Language with a valid **IELTS** (International English Language Testing System) score (Band 7).

Associate Fellow of the Higher Education Academy (AFHEA) – 2025

Completed *Introduction to Advanced Higher Education, Descriptor 1 (D1)* program

Courses Taught

Engineering mathematics

Under this course, lectures were imparted on topics related to Integral and Advanced calculus with an aim to enrich student's understanding of a concept, problem–solving as well as critical reasoning skills.

Probability and Statistics

Probability and statistics courses were designed to teach the students how to **analyze data** and **make inferences** based on **chance** and **uncertainty**. Topics such as **combinatorics**, **random variables**, **probability distributions**, **Bayesian inference**, **hypothesis testing**, **correlation**, and **linear regression** were discussed as well as their practical application were taught through SPSS.

Mathematics for Business

This course was delivered to the students of Accounting and Finance and HRM. Under this course, lectures were imparted to provide students with basic math skills related to Algebra, Arithmetic useful in solving real-life business problems.

Discrete Mathematics

Under this course the students belonging to information and technology were taught to developed basic symbolic logic, set theory and proof techniques, and introduce themselves to discrete structures including sets, relations, functions, matrices and graphs.

Foundation Mathematics

Taught this course to the students of year -1 of Interior Design, General science as well as to the students at Bahrain Teachers College (UOB). In this course emphasis was given to revise all the important topics of basic mathematics learnt by the student in the school years and make them more compatible for the different mathematics courses to be availed by them during their course of study.

Physics Course

This course was mainly designed for the students of Year 1of Interior Design. Imparted lectures enabled the students to have a better understanding of the various physical phenomena related to Light and Sound and utilize the gained knowledge to design Interior spaces.

Seminars / Conferences Attended

- Attended the conference, "**e Learnit, e-Learning Excellence in Higher Education**" organized by Bahrain Polytechnic on 2nd & 3rd April 2017 in Hotel Sofitel, Bahrain. Papers from Various themes, like "e-Learning to Enhance Pedagogy"," e-Learning Platforms and Software", "e-Learning and Teacher Development", "e-Learning and Course Design" were presented in the conference.

- Digital International conference on **Inventory Modelling** organized by Department of Mathematics, Gujrat University, Ahmedabad, India during August 22-23, 2020.

- Workshop on **Optimization Theory, Methods and Applications** on August 18th and 19th 2020 organized by Indian Institute of Technology, Roorkee. Papers on various themes like "convex optimization and support vector machines", "optimization in Finance", "Optimization under uncertainty" were presented in the conference.

- The International Conference on **Business and Technology**", Nisantasi University, Istanbul, Turkey, 27-28 May 23. Presented the paper "The Use of M-Gov apps and the levels of public satisfaction with M-services quality".

- International conference on **Mathematics, Statistics and Applied Science** organized by Institute for Technical and Academic Research (ITAR), India, during August 5-6, 2023.

- 2nd International Conference on Science, Engineering and Advanced Technology (ICSEAT 2024)", Gulf University, Bahrain, May 2024.

- 5th International Conference on Business, Digital Transformation, Innovation, and Sustainability (ICBDTIS2024), Gulf University, Bahrain, 30-31 October 24.

Journals Published

- Application of Linear programming in optimizing Labor Scheduling problem. Journal of Mathematical Finance, 9(3), 272-285, (2019). https://doi.org/10.4236/jmf.2019.93016
- Predictive Modelling of Covid -19 pandemic in Bahrain published in Advances in Mathematics: Scientific Journal 9 (12), 10683–10697, (2020). https://doi.org/10.37418/amsj.9.12.53

- Mathematical Estimation for Maximum Flow of goods within a Cross dock to reduce inventory. MBE, 19 (12): 13710–13731. (2022). DOI: 10.3934/mbe.2022639

- Logistic models minimize the material handling cost within a cross-dock. MBE, 20 (2): 3099–3119. (2022). DOI: 10.3934/mbe.2023146

- Dependency on TikTok and Social Alienation Among Gen Y & Z. Academic Journal of Interdisciplinary Studies, 12 (3), May 2023. Richtmann Publishing Ltd. DOI: 10.36941/ajis-2023-0063

- The Use of M-Gov apps and the levels of public satisfaction with M-services quality. Accepted for "The International Conference on Business and Technology", Nisantasi University, Istanbul, Turkey, 27-28 May 23. Published In book: AI and Business, and Innovation Research: Understanding the Potential and Risks of AI for Modern Enterprises. DOI: 10.1007/978-3-031-42085-6_70

- How effective is reverse cross-docking and carbon policies in controlling carbon emission from fashion industry? Mathematics 2023, 11(13), 2880; https://doi.org/10.3390/math11132880

- Pallet Distribution Affecting a Machine's Utilization Level and Picking Time. Mathematics 2023, 11(13), 2956; https://doi.org/10.3390/math11132956

- An analysis of the fuel consumption of the vehicle and the level of carbon emission in the Region of Bahrain. Published as a book chapter in "The Digital Edge: Transforming Business Systems for Strategic Success." 2025, 243-256.

- The influence of Knowledge Management processes on Project Management Success among SMEs in Yemen: The Mediating Role of Self-Efficacy. Published as a book chapter in "The Digital Edge: Transforming Business Systems for Strategic Success." 2025, 997-112.

- Learning Without Forgetting in NLP: Deep Learning based Transformer Models for Lifelong Task Incremental Learning" accepted for publication in Edelweiss Applied Science and Technology.

Personal Profile:

Date of Birth : 20th May 1982
Passport No : U0547528
Sex : Female
Marital Status : Married
Language Known : English, Hindi (Equal Fluency in all)

Skills

Well versed in mathematical and statistical software LINGO, OCTAVE, MATLAB and SPSS.
Profuse knowledge of LMS like MOODLE, GOOGLE CLASSROOM, CREATRIX.
Confident in working with operating software Windows and MS office.

Interests /Hobbies : Trained in Vocal Classical Indian Music. Proficiency in Oil and Acrylic painting

Declaration:

I hereby declare that the above written particulars are true to the best of my knowledge.

Date : 14.11.2025
Place : Juffair ,Bahrain **(Taniya Mukherjee)**