

Anamika Podder

PhD Candidate in Mathematics | Numerical Analysis & Scientific Computing

anamikapodder.com • Lafayette, Louisiana

EDUCATION

Doctor of Philosophy in Mathematics

University of Louisiana at Lafayette — In Progress (5th Semester)

Master of Science in Mathematics

University of Louisiana at Lafayette — 2026

Master of Science in Mathematics

Jashore University of Science & Technology, Bangladesh — 2022

Bachelor of Science in Mathematics

Jashore University of Science & Technology, Bangladesh — 2020

RESEARCH INTERESTS

Numerical Analysis • Scientific Computing • Numerical Methods for Partial Differential Equations • Fractional Partial Differential Equations • Low-Rank Approximation and Data Compression

RESEARCH PUBLICATIONS

Publications: 6 • Citations: 52 • Google Scholar: scholar.google.com/citations?user=TdWvEPoAAAAJ

- Podder, A., Arefin, M. A., Akbar, M. A., & Uddin, M. H. (2023). A study of the wave dynamics of the space-time fractional nonlinear evolution equations of beta derivative using the improved Bernoulli sub-equation function approach. *Scientific Reports*, 13(1), 20478. (Cited by 36)
- Podder, A., Arefin, M. A., Ghazwani, H. A., Uddin, M. H., & Akbar, M. A. (2025). Dynamical behavior of soliton solutions to the space-time fractional combined KDV-MKDV equation through two robust techniques. *Modern Physics Letters B*, 2550031. (Cited by 8)
- Podder, A., Ahmed, F. F., Suman, M. Z. H., Mim, A. Y., & Hasan, K. (2023). Genome-wide identification of DCL, AGO and RDR gene families and their associated functional regulatory element analyses in sunflower (*Helianthus annuus*). *PLOS ONE*, 18(6), e0286994. (Cited by 7)
- Ahmed, F. F., Mim, A. Y., Rownaq, A., Sultana, I., Podder, A., & Sarkar, M. A. R. (2024). Genome-wide identification and functional analysis of RNAi gene families in papaya (*Carica papaya* L.). *Tropical Plant Biology*, 1–27. (Cited by 1)
- Podder, A., Arefin, M. A., Gepreel, K. A., Uddin, M. H., & Akbar, M. A. (2024). Diverse soliton wave profile assessment to the fractional order nonlinear Landau-Ginzburg-Higgs and coupled Boussinesq-Burger equations. *Results in Physics*, 65, 107994.
- Ahmed, F. F., Podder, A., Bulbul, M. F., Hossain, M. A., Hasan, M., Sarkar, M. A. R., & Kim, D. (2023). Investigating the precise identification of citrullination sites with high-performance score metrics using a powerful computation predicting tool. *Combinatorial Chemistry & High Throughput Screening*.

CONFERENCES

- A Powerful Computation Predicting Tool: Explore the Precise Identification of Citrullination Site with Higher Performance Score Metrics — Rajshahi, Bangladesh, August 2023

- Genome-wide identification of DCL, AGO and RDR gene families and their associated functional regulatory element analyses in sunflower (*Helianthus annuus*) — Sylhet, Bangladesh, October 2022

ACADEMIC SERVICE

Peer Reviewer, *American Journal of Applied Mathematics* — August 2025–Present

AWARDS AND ACHIEVEMENTS

Best Woman Achiever Award — Education & Employment Category

Department of Women Affairs, Ministry of Women and Children Affairs, Government of Bangladesh — 2024

Chancellor Gold Medal

Jashore University of Science and Technology — 2023

University Grants Commission (UGC) Merit Scholarship

University Grants Commission, Bangladesh — 2022

TEACHING EXPERIENCE

Graduate Teaching Assistant

Department of Mathematics, University of Louisiana at Lafayette

Instructor of record for undergraduate mathematics courses; prepare course materials; design and grade assignments and examinations; hold regular office hours; mentor students to promote academic success.

COMPUTER SKILLS

Programming Languages: Python, C/C++, Maple, Mathematica, R

Numerical Analysis Tools: MATLAB, Microsoft Excel, SPSS

Document Preparation: LaTeX, Microsoft Word, PowerPoint

LANGUAGE SKILLS

English • Bengali