NOOR ALAM

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RESEARCH INTEREST

Fluid Dynamics, Partial Differential Equations, Mathematical Physics, Data Science

EDUCATIONAL QUALIFICATION

Texas Tech University, TX, USA   **August 2025 – Present**
PhD in Mathematics

Comilla University, Cumilla, Bangladesh   **June 2017 – September 2018**
MS in Mathematics   *CGPA: 3.93/4.00 (Rank: 3/50)*
Thesis Dissertation: Unsteady MHD flow over an inclined porous plate thermal and mass diffusion in the presence of radiation.

Comilla University, Cumilla, Bangladesh   **January 2012 – April 2017**
BS in Mathematics   *CGPA: 3.72/4.00 (Rank: 3/50)*
Project Title: Numerical Study for Solving Initial Value Problems in Ordinary Differential Equations by using Single-step and Multi-step Methods.

TEACHING EXPERIENCE

Texas Tech University, TX, USA   **August 2025 – Present**
Graduate Teaching Assistant, Department of Mathematics and Statistics

Kishoreganj University, Bangladesh   **October 2023 – Present**
Lecturer, Department of Mathematics

Dhaka Commerce College, Mirpur, Dhaka, Bangladesh   **March 2022 – October 2023**
Lecturer, Department of Mathematics

Primeasia University, Banani, Dhaka, Bangladesh   **May 2019 – February 2022**
Lecturer in Mathematics, Department of Basic Science

German University Bangladesh, Gazipur, Bangladesh   **Feb 2019 – May 2019**
Lecturer in Mathematics, Department of Computer Science and Engineering

PUBLICATIONS

- T. Usman, **N. Alam**, M. S. Ullah, et al. "Soliton, stability, multistability, and diverse tools for identifying chaos in a nonlinear model with two modified methods", *Nonlinear Engineering*, De Gruyter, November 2025. [Accepted]

- T. Usman, M. A. Akter, **N. Alam**, et al. "Bifurcation, Chaos, Multistability, Sensitivity, and Dynamic Properties to the Third Fractional WBBM Equation", *Mathematical Methods in the Applied Sciences*, Wiley, November 2025. [Paper]

- **N. Alam**, M. S. Ullah, J. Manafian, et al. "Bifurcation analysis, chaotic behaviors, and explicit solutions for a fractional two-mode Nizhnik-Novikov-Veselov equation in mathematical physics", *AIMS Mathematics*, AIMS Press, March 2025. [Paper]

- **N. Alam**, M. S. Ullah, T. A. Nofal, et al. "Novel dynamics of the fractional KFG equation through the unified and unified solver schemes with stability and multistability analysis", *Nonlinear Engineering*, De Gruyter, October 2024. [Paper]

- **N. Alam**, A. Akbar, M. S. Ullah, M. Mostafa, "Dynamic waveforms of the new Hamiltonian amplitude model using three different analytic techniques", *Indian Journal of Physics*, Springer, September 2024. [Paper]
- **N. Alam**, W. X. Ma, M. S. Ullah, et al. "Exploration of soliton structures in the Hirota–Maccari system with stability analysis", *Modern Physics Letters B*, World Scientific, July 2024. [Paper]
- **N. Alam**, S. Poddar, M. E. Karim, et al. "Transient MHD Radiative Fluid Flow over an Inclined Porous Plate with Thermal and Mass Diffusion: An EFDM Numerical Approach", *Mathematical Modelling of Engineering Problems*, IIETA, September 2021. [Paper]

SELECTED AWARDS & ACHIEVEMENTS

UGC Grant '18: Received a research grant from the University Grants Commission of Bangladesh.
NST Fellowship '18: Awarded to support the M.Sc. dissertation from the Ministry of Science and Technology of Bangladesh.
Student Scholarship: Received the university's yearly scholarship for outstanding academic performance.
Scholarship for Entrance Exam: Awarded the scholarship for achieving the top position in the undergraduate entrance exam.

ACADEMIC SERVICES

Chief Advisor: Pie Club (June 2024 - July 2025), Department of Mathematics, Kishoreganj University, Bangladesh
Mentor: Math Olympiad Team (Jan 2020 - Dec 2021), Department of Basic Science, Primeasia University, Dhaka
Executive Member: Mathematics Club (Jan 2013 - Dec 2017), Department of Mathematics, Comilla University, Cumilla
Reviewer: Elsevier Journal, Physics Open
Reviewer: Hindawi Journals, Abstract and Applied Analysis
Reviewer: World Scientific Journals, International Journal of Modern Physics B

TECHNICAL SKILLS

- **Programming Languages:** Mathematica, Maple, FORTRAN, MATLAB, Python

- **Microsoft Office:** Word, Excel, PowerPoint

- **Developer Tools:** LaTeX, PyCharm, Jupyter Notebook, Spyder

- **Operating System:** Linux, Windows