

Resume

Mossa. Samima Nasrin

Assistant Professor, Dept. of Mathematics
Islamic University, Kushtia-7003, Bangladesh
Date of Birth: 12 November 1989
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RESEARCH INTEREST

Climate Change, Computational Fluid Dynamics, Mathematical Biology

HIGHLIGHTS

- Eight years of research experience in **Climate Change , Computational Fluid Dynamics and Mathematical Biology**
- Eight years of academic experience as an **Assistant Professor, Senior Lecturer, and Lecturer in Mathematics**
- Expertise in **C and C++, MATLAB, MATHEMATICA, FORTRAN 90/95, MS Office, Photoshop**

EDUCATION

Masters of Science (Thesis Based) in Mathematics (Applied Section) **2011 (held in 2014)**
Islamic University, Kushtia-7003, Khulna, Bangladesh, CGPA: **3.67**, Merit Position: 4th
Dissertation title: Storm surge analysis using semi implicit finite difference method

Bachelor of Science in Mathematics **2010 (held in 2012)**
Islamic University, Kushtia-7003, Khulna, Bangladesh, CGPA: **3.75**, Merit Position: 3rd
Dissertation Title: Sunrise and Sunset time prediction in a specific latitude

PUBLICATIONS

1. Md. Abdul Al Mohit, Md. Towhiduzzaman, Mst. Rabiba Khatun, Mossa. Samima Nasrin, Tropical cyclone data calibration for the estimation of a path of a cyclone along the coast of Bangladesh, Geosystems and Geoenvironment, Volume 2, Issue 2, 2023, 100159, ISSN 2772-8838 (<https://www.sciencedirect.com/science/article/pii/S2772883822001340>).
2. M. A. A. Mohit , M. Towhiduzzaman , M. S. Nasrin and S. K. Ghosh , "Development of a Regional Numerical Tidal Forecast Model Along the Coast of Bangladesh and Its Associated Tidal Height Estimation", Academic Platform Journal of Natural Hazards and Disaster Management, vol. 3, no. 2, pp. 45-56, Dec. 2022, doi:10.52114/apjhad.1162004.
3. Al Mohit, M. A. , Towhiduzzaman, M. , Kumar Joardar, A. , Nasrin, M. S. & Khatun, M. R. (2022). "Investigation of Cluster-Based Cyclone Track Pattern Within the Bay of Bengal" . Marine Science and Technology Bulletin , Volume 11 (Early View) , P 320-330 . DOI: 10.33714/masteb.1161479.
4. Md. Abdul Al Mohit, Md. Towhiduzzaman, Mossa. Samima Nasrin, and Mst. Rabiba Khatun, "Investigation of the Effects of Climate Change on Tropical Storms and their Genesis in the Bay of Bengal", Malaysian J. Sci. Adv. Tech., vol. 2, no. 4, pp. 156–162, Sep. 2022.
5. Al Mohit, Md Abdul, Md Towhiduzzaman, and Mossa Samima Nasrin. "Investigation of the Effects of Climate Change on the Properties of Tropical Cyclones in the Bay of Bengal." International Journal of Earth Sciences Knowledge and Applications 4, no. 3 (2022): 351-364.
6. Mossa. Samima Nasrin, Anuz Kumar Chakrabarty, Mrinal Chandra Barman, Sanjay Kumar Saha, Md. Mijanoor Rahman. "Sunrise and Sunset time prediction in a specific latitude." IOSR Journal of Mathematics (IOSR-JM); e-ISSN: 2278- 5728, P - ISSN: 2319-765X. Volume 13, Issue 6 Ver. III (Nov. - Dec. 2017), PP 01-07.
7. Abdul Al Mohit, Anuz Kumar Chakrabarty, Shamima Nasrin. "A Study on the Comparison between two Different Tide Forecasting Methods." Daffodil International University Journal of Science Technology Volume 11, Issue 2, July 2016 (ISSN 1818-5878-PRINT)

TEACHING AND MENTORING EXPERIENCE

➤ Faculty Member

May 2019-Present

Department of Mathematics, Islamic University, Kushtia-7003, Bangladesh

➤ Faculty Member

March 2015-May 2019

Department of Mathematics, Bangladesh Army University Engineering & Technology (BAUET), Qadirabad Cantonment, Natore-6431, Bangladesh

➤ Supervised Projects

Mixed Convection Flow Embedded in a Bio-Magnetic Medium with Magnetization & Electrical Conductivity, Impact of Climate Change on Maximum Sustained Wind Radius and its Associated Storm Surge Estimation along the Coast of Bangladesh, Investigation of the Impact of Storm Surge Resilience Measures on Biodiversity and Ecosystem Services in the Coastal Zone of Bangladesh, An analysis of the past and future population of Bangladesh using the Verhulst population model

COURSES TAUGHT

Theoretical Courses: ■ Meteorology ■ Fluid Dynamics ■ Advance Numerical analysis ■ Population Dynamics ■ Calculus ■ Coordinate Geometry ■ Complex Variables ■ Ordinary and Partial Differential Equations ■ Discrete Mathematics ■ Graph Theory ■ Vector Analysis ■ Mathematical Methods

Practical Courses: ■ Programming with C, ■ Computing with MATLAB, ■ Programming with FORTRAN, and ■ Computing with MATHEMATICA.

AWARDS AND ACHIEVEMENTS

- Merit Scholarship by Islamic University in four academic years at Undergraduate level
- Merit Scholarship by Bangladesh Army Welfare trust in four academic years at Undergraduate level
- Merit Scholarship in Jashore district by Bangladesh government in Junior High School level and primary level

SEMINAR & WORKSHOPS

- **International Conference on Earth and Environmental Sciences & Technology for Sustainable Development (ICEEST) 2020**, 25-27 January 2020, Intercontinental Dhaka, Faculty of Earth and Environmental Sciences university of Dhaka, Dhaka-1000, Bangladesh
- **21st International Mathematics Conference 2019**, 06-08 December, a biennial event of Bangladesh Mathematical society, Department of Applied Mathematics, university of Dhaka, Dhaka-1000, Bangladesh

LANGUAGE SKILLS

- Bangla : Fluent (mother tongue)
- English : Proficient [**IELTS: Overall Score: 7** (Listening-8, Reading-7.5, Writing-6, Speaking-6)]

REFERENCES

Dr. Md. Abdul-Al-Mohit

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