# Farzana Afroz

Lecturer (Mathematics)
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# **Educational Qualifications**

- M.S. in Applied Mathematics (2017, result published in 2019), Merit GPA- 4 (out of 4),
   Dept. of Applied Mathematics, University of Dhaka, Bangladesh
  - **Thesis Title:** "A Comparative Study of the Black-Scholes Model and a Modified Black-Scholes Model with Bounded Underlying Prices for Option Valuation" with Dr. A B M Shahadat Hossain (Associate Professor, Dept. of Applied Mathematics, University of Dhaka)
  - Courses Completed in M.S.; (AMT 502): Fluid Dynamics,

(AMT 503): Mathematical Hydrology (AMT 504): Applied Numerical Methods (AMT 506): Riemannian Geometry

(AMT 507): Stochastic Modelling in Finance (AMT 511): Applied Dynamical Systems.

- B.S. in Mathematics (2016, result published in 2017), Merit CGPA-3.77 (out of 4), Dept. of Mathematics, University of Dhaka, Bangladesh.
  - **B.S. Project:** "Flow and Losses in Pipes and Fittings" with Dr. Md. Zavid Iqbal Bangalee (Associate Professor, Dept. of Applied Mathematics, University of Dhaka)
- HSC (2011), Merit GPA 5, Board of Intermediate and Secondary Education, Dhaka, Bangladesh
- SSC (2009), Merit GPA 5, Board of Intermediate and Secondary Education, Dhaka, Bangladesh

## **Working Experience**

■ Lecturer (Mathematics), Dept. of Computer Science and Engineering, Green University of Bangladesh (18-09-2019 to 06-09-2021)

Research Assistant, University Grants Commission (UGC) project titled as "Numerical Investigations in Option Pricing: A Comparative Study" under Dr. A B M Shahadat Hossain (Associate Professor, Dept. of Applied Mathematics, University of Dhaka), (06-03-2018 to 05-03-2019).

## **Scholarships**

- Achieved NST Fellowship Scholarship 2018-19 from Ministry of Science and Technology for the research work in M.S. thesis.
- Achieved merit scholarship from University of Dhaka for excellent result in B.S. examination

#### **Publication**

- Practitioner Truncated Black-Scholes Model: A Dynamic Market Informed Hedging Analysis, Sharif Mozumber, H. Humayun Kabir, Farzana Afroz (last submitted in Journal of Finance Research Letters, 2021)
- Tahmid Tamrin Suki, Farzana Afroz, ABM Shahadat Hossain, "A Numerical Investigation in Option Valuation", IOSR- Journal of Mathematics (IOSR-JM), e-ISSN: 2278-5728, p-ISSN: 2319-765X. Volume 16, Issue 6 Ser. III (Nov. Dec. 2020), PP 34-41.
- A B M Shahadat Hossain and Farzana Afroz (2019). A comparative study of the Black Scholes model and a modified Black-Scholes model with bounded underlying prices for option valuation, The International Journal of Social Sciences (TIJOSS), pp 073-085 Vol 76. No. 1 2019.

#### **Conference Presentations**

- A talk was given in 21<sup>st</sup> International Mathematics Conference 2019; Topic: Numerical Investigations in Option Pricing: A Comparative Study, (6-8 December, 2019).
- A poster presented in A F Mujibur Rahman- Bangladesh Mathematical Society (BMS)
   National Mathematics Conference; Topic: A comparative study of the Black -Scholes
   model and a modified Black-Scholes model with bounded underlying prices for option
   valuation,(21-22 December 2018)

### **Conference Attended**

20<sup>th</sup> International Mathematics Conference, Bangladesh Mathematical Society, (8-10 December 2017)

### **Research Interests**

- Financial Risk Managements
- Actuarial Science
- Corporate Finance
- Stochastic Models

### **Skills**

- MATLAB, Mathematica, FORTRAN
- LaTeX, LaTeX Presentations, Microsoft Power Point

# **Extra Curriculums**

- Voluntary work for 9<sup>th</sup> National Undergraduate Mathematics Olympiad (final round) 2017
- Participated in intro-departmental mathematical contest MathCON'15
- Participated and became Champion in departmental Quiz & Presentation competition 2013

#### References

### 1. Dr. A B M Shahadat Hossain

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### 2. Dr. Md. Sharif Ullah Mozumder

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## **Declaration:**

I hereby declare that the above information is true and correct to the best of my knowledge.

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