### **Curriculum Vitae**

Tahera Parvin

Contact: +8801751412509

E-mail: moly151245@gmail.com

### **Present address:**

C/O: Md. Mohidul Islam

11/5(kha), Karimnagar, Choto Boyra, Khulna.

### Career objective:

Looking for hard and Challenging Job where I will have the scope to utilize my potentiality, adaptability and skill to do something innovate and from where I will be able to enhance my knowledge.

### **Research Interest:**

Infectious disease modelling with optimal control, dynamical systems applied to biology, transmission dynamics modelling.

# **Educational Qualifications:**

# 2022 M.Sc. in Applied Mathematics

Mathematics Discipline Science, Engineering & Technology School (SET) Khulna University, Khulna-9208, Bangladesh CGPA: 3.96 out of 4.00 (**Distinction**)

At Khulna University, a Distinction grade (at or above 3.75 in scale of 4.00) is the highest recognition. The Cumulative Grade Point Average (CGPA) measures the performance throughout the course including all subjects and semesters.

# 2020 B.Sc. (Hon's) in Mathematics

Mathematics Discipline

Science, Engineering & Technology School (SET)

Khulna University, Khulna-9208, Bangladesh

CGPA: 3.93 out of 4.00 (**Distinction**)

Khulna University is one of the best public universities in Bangladesh. According to the Scimago Institutions Ranking, in 2021 Khulna University was 10th in research and 2nd in innovation In Bangladesh while 435th in research and 490th in innovation in the world.



## 2014 Higher Secondary School Certificate (HSC)

Board of Intermediate and Secondary Education, Jashore Chittra Mohila Mahabiddyalaya (EIIN:117462), Terokhada, Khulna. GPA: 5.00 (in scale of 5.00)

# 2012 Secondary School Certificate (SSC)

Board of Intermediate and Secondary Education, Jashore Shaheed Smriti Secondary Girls' School (EIIN: 117441), Terokhada, Khulna.

GPA: 5.00 (in scale of 5.00)

#### **Published Articles:**

#### A. Journal Publications

- i) T. Parvin, A. Islam, P. K. Mondal and M. H. A. Biswas, Discrete Type SIR Epidemic Model with Nonlinear Incidence Rate in Presence of Immunity, WSEAS Transactions on Biology and Biomedicine, 17: 104-118, 2020. DOI: 10.37394/23208.2020.17.13.
- ii) M. A. Alim, M. Roy, M. S. Islam, T. Parvin and M. H. A. Biswas, Mathematical Analysis of an Ecological Model for Assessing the Emission of Air Pollutants, Journal of Mathematical Sciences: Advances and Applications, 68(1) (2021) 29–48. DOI: http://dx.doi.org/10.18642/jmsaa\_7100122221.
- iii) M. H. A. Biswas, S. A. Samad, T. Parvin, M. T. Islam and A. K. Supriatna, Optimal Control Strategy to Reduce the Infection of Pandemic HIV Associated with Tuberculosis, COMMUN. BIOMATH. SCI., 5(1), 2022, pp. 20-39. DOI:https://doi.org/10.5614/cbms.2022.5.1.2.
- iv) T. Parvin, K. N. Islam, and M. H. A. Biswas, "Mathematical Analysis of Transmission Dynamics and Control of Salmonella Bacterial Infection", *Khulna Univ. Stud.*, pp. 845–854, Nov. 2022. DOI: https://doi.org/10.53808/KUS.2022.ICSTEM4IR.0149-se.
- v) K. N. Islam, T. Parvin, and M. H. A. Biswas, "Dynamic Optimization Applied to a Criminological Model for Reducing the Spread of Societal Corruption", *Khulna Univ. Stud.*, pp. 832–844, Nov. 2022. DOI: https://doi.org/10.53808/KUS.2022.ICSTEM4IR.0148-se.
- vi) T. Parvin, M. H. A. Biswas, and B. K. Datta, Mathematical Analysis of the Transmission Dynamics of Skin Cancer Caused by UV Radiation, *Journal of Applied Mathematics*, vol. 2022, Article ID 5445281, 22 pages, 2022. DOI: https://doi.org/10.1155/2022/5445281. (Scopus Indexed).

### B. Book Chapter

(i) T. Parvin and M. H. A. Biswas, Modeling on Transmission Dynamics of Skin Cancer due to the Exposure of Ultraviolet Radiation, Recent Developments in Engineering & Technology, Jaipur, India, 2022, http://anandice.ac.in/icrdet22/.

### C. Conference Publications

- (i) T. Parvin and M. H. A. Biswas, Mathematical Modeling on Interrelation between Ultraviolet Radiation and Skin Cancer, Proceedings of the Third International Conference on Industrial & Mechanical Engineering and Operations Management (IMEOM 2020), Dhaka, Bangladesh, held on December 18-19, 2020.
- (ii) T. Parvin, M. A. Islam, P. K. Mondal and M. H. A. Biswas, Discrete Type SIR Epidemic Model with Nonlinear Incidence Rate in Presence of Immunity, Proceedings of the International Conference on Mathematics and Computers in Science and Engineering, held at Spain on January 18, 2021.
- (iii)T. Parvin and M. H. A. Biswas, Mathematical Modeling and Optimal Control Strategies for the Treatment of Breast Cancer, Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management, held at Singapore on March 7-11, 2021, pp. 818-830. (Scopus indexing)
- (iv)T. Parvin and M. H. A. Biswas, Optimal Control Model for the Treatment of Skin Cancer due to Ultraviolet Radiation, Proceedings of the International Conference on Computational and Mathematical Biology (ICCMB 2021), Dhaka, Bangladesh, held on July 30-31, 2021.
- (v) T. Parvin and M. H. A. Biswas, Mathematical analysis of the epidemic model with salmonella bacterial infection, Proceedings of the 22nd International Mathematics Conference 2021, held at Dhaka on December 10-11, 2021.
- (vi)T. Parvin and M. H. A. Biswas, Mathematical Model of Cell-Cell Interaction to Assess the Evolution of Breast Cancer, Proceedings of the fourth International Conference on Industrial & Mechanical Engineering and Operations Management (IMEOM 2021), held at KIBC, Dhaka, Bangladesh, on December 26-27, 2021.

#### Award:

Awarded "National Science and Technology (NST) Fellowship bearing ID: MSc-201203, Serial: 291, Merit: 77, No: 39.00.0000.012.002.06.21. Session: 2021-2022", on the basis of M.Sc thesis work by the Ministry of Science and Technology, Dhaka, Bangladesh.

### **Computer Proficiency:**

- Matlab, Maple, Mathematica, Compaq Visual Fortran
- Microsoft Word, Microsoft Power Point, Microsoft Excel, Math Type
- ➤ Have Expert Knowledge in MS Windows 2007, MS Windows 2010, MS Windows XP
- > Tecplot 7 etc.

### **Personal Information:**

Father Name's : Md. Mohidul Islam

Occupation : Retired Army

Mother Name's : Farida Islam

Occupation : Housewife

Permanent address : 11/5(kha), Karimnagar, Choto Boyra, Khulna.

Date of Birth : 25/08/1996

Height :5'2"

Marital Status : Single

Religion : Islam

Nationality : Bangladeshi

National ID No : 8698669408

# **Language Proficiency:**

Bengali - Mother tongue

English - Fluent in reading, writing, listening and speaking

### **References:**

#### Dr. Md. Haider Ali Biswas

Professor, Mathematics Discipline, Khulna University, Khulna-9208, Bangladesh.

Email: mhabiswas@yahoo.com Contact No.: +8801711-948396

### Sk. Abdus Samad

Assistant Professor, Mathematics Discipline Khulna University, Khulna-9208, Bangladesh

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### Dr. Munnujahan Ara

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Email: munnujahan@gmail.com Contact No.: +8801716-341664