# S. M. Taslim Uddin Raju

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#### **Current Position**

Lecturer

Department of Computer Science and Engineering

Khulna University of Engineering & Technology (KUET), Khulna, Bangladesh

December 2020-present

#### Education

2019-Present Master of Science in Computer Science and Engineering (M.Sc.)

Khulna University of Engineering & Technology (KUET)

CGPA: **4.00** (out of 4.00) [Theory Courses]

2015-2019 Bachelor of Computer Science and Engineering (B.Sc.)

Khulna University of Engineering & Technology (KUET)

CGPA: **3.85** (out of 4.00) [87% Marks] Class position: **3**<sup>rd</sup> (out of 55 students)

#### **Research Interests**

Machine Learning and its Application

**Health Informatics** 

**Biomedical Engineering** 

Deep Learning

Natural Language Processing

#### **Published Articles**

- 1. **S. M. Taslim Uddin Raju**, Amlan Sarker, Apurba Das, Md. Milon Islam, Mabrook S. Al-Rakhami, Atif M. Al-Amri, and Tasniah Mohiuddin, Fahad R. Albogamy, "An Approach for Demand Forecasting in Steel Industries Using Ensemble Learning," *Complexity*, Hindawi, vol. 2022, Dec. 2021. [Accepted, Impact Factor: 2.833, (Q1)].
- 2. Md. Rezwanul Haque, **S. M. Taslim Uddin Raju**, Md. Asaf-uddowla Golap, M. M. A. Hashem, "A Novel Technique for Non-Invasive Measurement of Human Blood Component Levels from Fingertip Video Using DNN Based Models," *IEEE Access*, vol. 9, pp. 19025 19042, IEEE, Jan. 2021. [Impact Factor: 3.745, (Q1)].
- 3. Md. Asaf-uddowla Golap, **S. M. Taslim Uddin Raju**, Md. Rezwanul Haque, M. M. A. Hashem, "Hemoglobin and Glucose Level Estimation from PPG Characteristics Features of Fingertip Video Using MGGP-Based Model," *Biomedical Signal Processing and Control*, vol. 67, Elsevier, Jan. 2021. [Impact Factor: 3.88, (Q1)].
- 4. Md. Kamrul Hasan, Shidhartho Roy, Chayan Mondal, Md. Ashraful Alam, Md. Toufick E Elahi, Aishwariya Dutta, **S. M. Taslim Uddin Raju**, Md. Tasnim Jawad, Mohiuddin Ahmad, "Dermo-DOCTOR: A framework for concurrent skin lesion detection and recognition using a deep convolutional neural network with end-to-end dual encoders," Journal of Biomedical Signal Processing and Control, Elsevier, March. 2021. [Impact Factor: 3.88, (Q1)].
- 5. Shah Muhammad Azmat Ullah, Md. Milon Islam, Saifuddin Mahmud, Sheikh Nooruddin, S. M. Taslim Uddin Raju and Md. Rezwanul Haque, "Scalable Telehealth Services to Combat Novel Coronavirus (COVID-19) Pandemic" *SN Computer Science*, Springer, vol. 2, no. 1, pp. 18, Jan. 2021.

 Md. Milon Islam, Shah Muhammad Azmat Ullah, Saifuddin Mahmud and S. M. Taslim Uddin Raju, "Breathing Aid Devices to Support Novel Coronavirus (COVID-19) Infected Patients," SN Computer Science, Springer, vol. 1, no. 5, pp. 274, Aug. 2020.

### **Conference Papers**

- 1. Farhan Sadaf, **S. M. Taslim Uddin Raju**, and Abdul Muntakim, "Offline Bangla Handwritten Text Recognition: A Comprehensive Study of Various Deep Learning Approaches" *2021 3rd International Conference on Electrical & Electronic Engineering (ICEEE 2021)*, IEEE, RUET, Rajshahi, Bangladesh, 22 24 Dec., 2021.
- 2. Anik Ghosh, A. B. M. Aowlad Hossain and **S. M. Taslim Uddin Raju**, "Classification of Diabetic Retinopathy Using Few-Shot Transfer Learning from Imbalanced Data" *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, IEEE, Tamilnadu, India, 19 20 Mar., 2021.
- 3. **S. M. Taslim Uddin Raju**, and Md Shamimur Rahman, "Horizontal Vertical and SuperQueen Parity (HVSQ) Method for Soft Error Tolerance," 2020 IEEE Region 10 Symposium (TENSYMP), IEEE, Dhaka, Bangladesh, pp. 1734-1737, 5-7 Jun., 2020.

### **Manuscripts under Review**

- 1. **S. M. Taslim Uddin Raju**, Md. Rezwanul Haque, Safial Islam Ayon, Mabrook S. Al-Rakhami, and Shah Muhammad Azmat, "CovResBlocksNet: A Multi-Step CNN Architecture with Multiple Residual Blocks for COVID-19 Detection from CT Images," *Journal of Healthcare Engineering*, Hindawi. [Under 3<sup>nd</sup> Review] [Impact Factor: 3.822, (Q2)].
- 2. **S. M. Taslim Uddin Raju,** Safin Ahmed Dipto, Md Imran Hossain, Md. Abu Shahid Chowdhury, Fabliha Haque, Ayesha Tun Nashrah, Araf Nishan, Ashfaq Ahmad, Mostafa Zaman Chowdhury, (Senior Member, IEEE), and M. M. A. Hashem, "A Novel Approach for Continuous Blood Pressure Estimation from PPG Signal Characteristics using Deep Neural Network Model," *IEEE Journal of Biomedical and Health Informatics*, IEEE. [Under 1st Review] [Impact Factor: 7.021, (Q1)].
- 3. **S. M. Taslim Uddin Raju**, Amlan Sarker, Apurba Das, Md. Milon Islam, S. M. Tanvir Uddin, Md. Ismail Hossain, and MD Piyal Mollah, "EwvEn: An Enhancing Weighted Voting Ensemble Algorithm for Demand Forecasting of Steel Industry," *Journal of King Saud University Science*, Elsevier. [Under 1<sup>st</sup> Review] [Impact Factor: 3.829, (Q1)].
- 4. **S. M. Taslim Uddin Raju,** Ashfaq Ahmad, Md Imran Hossain, Safin Ahmed Dipto, Araf Nishan, Asif Sijan, S. M. Tanvir Uddin, Md. Abu Shahid Chowdhury, and Md Mahamudul Hasan Khan, "BP Estimation from PPG Signal Characteristic Features Using Machine Learning Algorithms," *Medical Engineering & Physics*, Elsevier. [Under 1<sup>st</sup> Review] [Impact Factor: 2.356, (Q2)].
- 5. Towsif Ahamed Labib, Md. Nazrul Islam, **S. M. Taslim Uddin Raju** and M. M. A. Hashem, "Blood Donor Arrival Forecasting Using Regression Models and Analysis of Donor," *Transfusion clinique et biologique*, Elsevier. [Under 1<sup>st</sup> Review] [Impact Factor: 2.126, (Q3)].

#### **Reviewer for International Journals and Conferences**

- IEEE Access-2020-present
- IEEE Sensors Letters-2022

### Award(s) and Achievement(s)

- Awarded Dean List Award for outstanding performance from 2<sup>nd</sup> year to 4<sup>th</sup> year
- KUET Technical Scholarship-4 times (every year)

### **Technical Skills and Competencies**

Language : Python, C, C++, 8086 Assembly language, Java Data analysis : Scikit-learn, Tensorflow, Keras, MATLAB

Data visualization : Matplotlib, Excel
Web programming : HTML, CSS, Asp.NET
DBMS : Oracle 10g, MySQL
Operating system : Windows, Linux

Hands-on : Cisco Packet Tracer, Verilog, Weka, and LaTeX/Overleaf

### **Voluntary Experiences**

 Collaboration work with one blood organization project, 10100 Dr. Martin Luther King Jr. St. N. St. Petersburg, Florida 33716, USA [2020-2021]

- Instructor for introductory workshop on C Programming in SGPIC (Special Group Interested in Programming Contest) [2016]
- Student Motivator and Examiner in NHSPC (National High School Programming Contest) [2016-2017]

# **Other Experiences**

- Part-time Lecturer in the Dept. of CSE, Khulna University of Engineering & Technology, Khulna, Bangladesh [February 2020-November 2020]
- Full-time Lecturer in the Dept. of CSE, Eastern University, Ashulia, Dhaka, Bangladesh [June 2019-January 2020]

# **Teaching Courses**

Theory	Sessional (Laboratory)
Machine Learning	Artificial Intelligence Laboratory
Structure Programming	Structure Programming Laboratory
Data Structure and Algorithm	Database Systems Laboratory
Computer Architecture	Web Programming Laboratory

#### References

Prof. Dr. M. M. A. Hashem	Prof. Dr. K. M. Azharul Hasan
Dept. of Computer Science and Engineering	Dept. of Computer Science and Engineering
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