

Md Tarek Hassan

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 Tarek-Hassan |  Tarek Hassan |  Tarek Hassan |

Belfast, Northern Ireland - BT9 5FB, United Kingdom

OBJECTIVE

PhD researcher at Queen's University Belfast, specializing in reconfigurable intelligent surface (RIS)-enabled wireless communication systems for future 6G networks. Actively conducting research on antenna configuration, propagation-aware modeling, and machine learning-based beam management, with a focus on RIS-assisted localization and sensing.

WORK EXPERIENCE

- **Queen's University Belfast** [] Feb 2025 – Present
PhD Researcher and Graduate Teaching Assistant (Electrical and Electronics Engineering) Belfast, Northern Ireland, United Kingdom
 - Doing research in AI-enabled electromagnetic environment for integrated sensing and communication system in 6G and beyond wireless communication.
 - Supervising and demonstrating undergraduate and master's students for the laboratory courses.
- **Rajshahi University of Engineering & Technology (RUET)** [] Dec 2021 – Present
Lecturer (On Leave) (Electronics & Telecommunication Engineering) Bangladesh
 - Conducted research and teaching in wireless communication, mmWave systems, and machine learning-enabled networks.
 - Supervised undergraduate research projects related to 5G/6G and signal processing.
- **Robi Axiata Limited** [] Apr 2019 - May 2019
Intern in Radio Access Network Dhaka, Bangladesh
 - Performed system by remote access and prepared reports to support the operation and planning of telecommunications systems.
 - **Technical Skills:** LTE (4G), UMTS (3G), Switching System, Access Network, Backhaul Networks.

EDUCATION

- **Queen's University Belfast** Feb 2025 - Present
PhD in Electrical and Electronic Engineering Belfast, Northern Ireland, UK
 - **Research Title:** Intelligent AI Electromagnetic Environment for Communication and Sensing within 6G
 - **Specialization** in 6G, Reconfigurable Intelligence Surface (RIS), Integrated Sensing and Communication (ISAC)
- **Rajshahi University of Engineering & Technology** Sep 2021 - Dec 2024
M.Sc. in Electronics & Telecommunication Engineering Rajshahi, Bangladesh
 - Graduated with Honors
 - **CGPA:** 3.92 out of 4.00 (1st Class **First** Position)
 - **Research Title:** Machine Learning Driven Mobile Edge Computing for Connectivity and QoS in Next Generation Networks
 - **Specialization** in Edge Computing, Machine Learning, Beyond 5G
- **Rajshahi University of Engineering & Technology** Jan 2016 - Mar 2021
B.Sc. in Electronics & Telecommunication Engineering Rajshahi, Bangladesh
 - Graduated with Honors
 - **CGPA:** 3.85 out of 4.00 (1st Class **First** Position)
 - **Research Title:** Radio Resource Management in 5G Heterogeneous Networks
 - **Specialization** in Wireless Communication, 5G, Millimeter Wave (mmWave)

PUBLICATIONS

1. M. T. Hassan, D. Zelenchuk, M. A. B. Abbasi, and I. Munina, "Impact of RIS Size on Machine Learning-Enabled Beam Sweeping for User Localization", (Accepted) *20th European Conference on Antennas and Propagation 2026 (EuCAP 2026) in Dublin, Ireland.*
2. M. T. Hassan, D. Zelenchuk, and M. A. B. Abbasi. "Machine Learning-Driven User Localization in RIS-Assisted Wireless Systems." (Accepted and Presented) *20th RIA/URSI Research Colloquium on Radio Science and Communications, Royal Irish Academy, Dublin, Ireland.*
3. M. T. Hassan and M. K. Hosain, "Optimization of computation offloading in mobile-edge computing networks with deep reinforcement approach," in *2024 IEEE International Conference on Communication, Computing and Signal Processing (IICCCS), Kolkata, India.*
4. M. T. Hassan and M. M. Mowla, "An Efficient Proportional Fair MAC Scheduling for Resource Allocation in 5G Millimeter Wave Networks," in *2022 25th International Conference on Computer and Information Technology (ICCIT), Cox's Bazar, Bangladesh.*
5. M. T. Hassan and M. M. Mowla, "Investigation of TCP Performance in 5G mmWave Networks," in *2020 IEEE Region 10 Symposium (TENSYMP), Dhaka, Bangladesh.*

SKILLS

- **Programming Languages:** Python, MATLAB, C++, C
- **Web Technologies:** HTML5, CSS3, Bootstrap, JavaScripts, PHP, WordPress
- **Database Systems:** MySQL, FireBase
- **Data Science & Machine Learning:** SciKit Learn, Pandas, MatPlotLib, TensorFlow, Keras, NumPy
- **Specialized/Research Area:** 5G/6G, Wireless Communication, mmWave, Reconfigurable Intelligent Surface
- **Mathematical & Statistical Tools:** Octave GNU, MATLAB
- **Other Tools & Technologies:** CST Studio, NS3, Anaconda, Jupyter Notebook, LaTeX

HONORS AND AWARDS

- **Most Impactful Thesis Award** March 2021

Rajshahi University of Engineering & Technology
 - Bachelor of Science (B.Sc.) Thesis Award
 - 3 good conferences based on the thesis
- **Student of the Year** November 2018
Rajshahi University of Engineering & Technology
 - This award based on the highest results in a year
 - Got the medal and certification for the award
- **University and Board Scholarships** 2008 - 2022
RUET and Bangladesh Government
 - Undergrad Scholarship in RUET
 - Bangladesh Government Scholarship in HSC, SSC and JSC Examination

CERTIFICATIONS

- **CISCO Certified Network Associate (CCNA): Routing and Switching** February 2020
- **International Business Machines Corporation (IBM): IBM Data Science Professional Certification** July 2020
- **University of Michigan: Python For Everyone Specialization** Sep 2020

ADDITIONAL INFORMATION

Languages: English (Proficiency level), Hindi (Intermediate), Bangla (Native)

Interests: Traveling, Documentation, Watching Films, Cooking

REFERENCES

Dr Dmitry Zelenchuk Senior Lecturer Electrical and Electronic Engineering Queen's University Belfast Email: d.zelenchuk@qub.ac.uk Relationship: Ph.D Thesis Supervisor	Dr Muhammad Babar Abbasi Reader (Assoc. Professor) Electrical and Electronic Engineering Queen's University Belfast Email: m.abbasi@qub.ac.uk Relationship: Ph.D Thesis Supervisor	Dr Md Munjure Mowla Innovation Manager, R&D Section IS Wireless Email: munjuremowla.official@gmail.com Relationship: Mentor and B.Sc. Thesis Supervisor
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