

# Aisha B Rahman

Graduate Research Assistant

The University of New Mexico, Dept. of Electrical and Computer Engineering, Albuquerque, NM 87131, USA

☎ (+1) (505)-464-5157 | ✉ arahman3@unm.edu | 📧 aisha-b-rahman | 🏠 1211 Copper Avenue NE, Albuquerque, NM

## Education

### Ph.D. Candidate, Department of Electrical and Computer Engineering THE UNIVERSITY OF NEW MEXICO

Albuquerque, NM, USA

Jan. 2022 - Present

- **Laboratory:** Performance and Resource Optimization Lab (**PROTON LAB**)
- **Major Field Program:** Computer Engineering
- **Research Interest and Specialization:** Wireless Communication and Networks, Game Theory, Resource Allocation and Management for Cloud and Fog Computing, Network Economics, Network Security
- **Advisor:** Dr. Eirini Eleni Tsiropoulou
- **Current GPA:** 4.33/4.00

### Master of Science (MSc) in Electrical and Electronic Engineering UNIVERSITY OF CHITTAGONG

Chattogram, Bangladesh

Jan. 2019 - Dec. 2021

- **Laboratory:** Wireless Emerging Technology Lab (**WET LAB**)
- **Major Field:** Wireless Communication
- **Advisor:** Dr. Md. Fazlul Kader
- **MSc Thesis Title:** Best Relay Aided Energy Harvesting in a Multi-Relay Cooperative Network: A New Energy Harvesting Scheme
- **GPA:** 3.64/ 4.00

### Bachelor of Science (BSc) in Electrical & Electronic Engineering UNIVERSITY OF CHITTAGONG

Chattogram, Bangladesh

Jan. 2015- Dec. 2018

- **Major Field:** Wireless Communication
- **Project:** Bridge Strength Preservation by Automatic Traffic Density Control: an IoT Application
- **Advisor:** Ariful Islam
- **GPA:** 3.68/ 4.00

## Work & Research Experience

### Research Assistant

Performance and Resource Optimization Lab (**PROTON LAB**)  
University of New Mexico

Albuquerque, NM, USA

May 2022 - Present

- Wireless Communication and Networks
- Resource Allocation and Management for Cloud and Fog Computing
- Game Theory
- Network Economics

### Teaching Assistant

University of New Mexico

Albuquerque, NM, USA

Jan. 2022- May 2022

- ECE-440 Introduction to Computer Networks
- ECE-524 Network Economics

### Research Assistant

Wireless Emerging Technology Lab (**WET LAB**)  
University of Chittagong

Chattogram, Bangladesh

May 2019 - Feb . 2021

- Wireless Communication
- Internet of Things (IoT)
- Simultaneous Wireless Information and Power Transmission (SWIPT)
- Radio Frequency Energy Harvesting

## Volunteering Experience

### Chair, IEEE Women in Engineering Affinity Group Albuquerque Section

Organizing and conducting monthly public talks, workshops, and other volunteering activities for promoting women engineers and scientists.

Albuquerque, NM, USA

Aug. 2022 - Present

Former Vice-Chair, IEEE Women in Engineering Affinity Group Albuquerque Section

Feb. 2022 - Aug. 2022

## Skills

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### Programming Languages

Python, MATLAB, C

### Software Tools

MATLAB, Anaconda, Arduino-IDE, PSPICE, OpenAI Gym

### Embedded Skills

Arduino series, Microcontrollers

## Publications

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### Conferences

1. Siraj, M. S., **Rahman, A. B.**, Diamanti, M., Tsiropoulou, E. E., Papavassiliou, S., & Plusquelic, J., "Positioning, Navigation, and Timing enabled by Reconfigurable Intelligent Surfaces, Phase Shift Optimization, and Reinforcement Learning", IEEE MILCOM, 2022. (Accepted)
2. **Rahman, A. B.**, Siraj, M. S., Kubiak, N., Tsiropoulou, E. E., & Papavassiliou, S., "Network Economics-based Crowdsourcing in Online Social Networks", IEEE GLOBECOM, 2022. (Accepted)
3. **Rahman, A. B.**, and Kader, M. F., "Best Relay Transmission Aided Energy Harvesting in a Multi Relay Cooperative Network," IEEE Region 10 Symposium (TENSYP), 2020, pp. 106-109, doi: 10.1109/TENSYP50017.2020.9230985.
4. Rahman, A. B., Kamal, M.S., and Islam, A., "Bridge Strength Preservation by Automatic Traffic Density Control: an IoT Application," 2019 1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT), pp. 1-5, doi: 10.1109/ICASERT.2019.8934520.

### Journals

1. Siraj, M. S., **Rahman, A. B.**, Diamanti, M., Tsiropoulou, E. E., & Papavassiliou, S., "Alternative Positioning, Navigation, and Timing enabled by Games in Satisfaction Form and Reconfigurable Intelligent Surfaces", IEEE Systems Journal. (Under Review)
2. **Rahman, A. B.**, Kader, M. F., "A new energy harvesting scheme for multi-relay cooperative networks", Digital Signal Processing (Under Review)
3. P. Khan et al., Machine Learning and Deep Learning Approaches for Brain Disease Diagnosis: Principles and Recent Advances," in IEEE Access, vol. 9, pp. 37622-37655, 2021, doi: 10.1109/ACCESS.2021.3062484

## Honors & Awards

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2022	IEEE GLOBECOM 2022 GCSN Technical Program Committee (TPC) Member	<i>Rio de Janeiro, Brazil</i>
2022	IEEE ISCC 2022 Technical Program Committee (TPC) Member	<i>Rhodes Island, Greece</i>
2021	Education Board Scholarship based on Merit during M. Sc. degree program, 2019 - 2021	<i>Chattogram, Bangladesh</i>
2018	<b>1st Position</b> in 1st APECE Project Competition, University of Chittagong	<i>Chattogram, Bangladesh</i>
	<b>2nd Runners Up</b> , Project Showcasing, EDU Engineering Day, East Delta University	
	Education Board Scholarship based on Merit during B. Sc. degree program, 2015 - 2018	
2009	General Grade Scholarship, Education Board Bangladesh	<i>Dhaka, Bangladesh</i>

*References available upon request.*