

# Aisha B Rahman

Graduate Research Assistant

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

☎ (+1) (505)-975-9858 | ✉ arahman3@unm.edu | 🌐 arahman | 📄 Google Scholar

## Education

### Ph.D.:

Albuquerque, NM, USA

#### THE UNIVERSITY OF NEW MEXICO

Jan. 2022 - Present

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

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

Chattogram, Bangladesh

#### UNIVERSITY OF CHITTAGONG

Jan. 2019 - Dec. 2021

- **Laboratory:** Wireless Emerging Technology Lab (**WET LAB**)
- **Major Field:** Wireless Communication
- **Advisor:** Dr. Md. Fazlul Kader (**Personal Website**)
- **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

Chattogram, Bangladesh

#### UNIVERSITY OF CHITTAGONG

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

- Game Theory
- Network Economics
- Wireless Networks
- Reinforcement Learning

### 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
- Energy Harvesting

## Volunteering Experience

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

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

Albuquerque, NM, USA

Feb. 2022 - Present

## 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 Military Communications Conference, 2022. (Under Review)
2. **Rahman, A. B.**, Siraj, M. S., Kubiak, N., Tsiropoulou, E. E., & Papavassiliou, S., "Network Economics-based Crowdsourcing in Online Social Networks", IEEE Global Communications Conference, 2022. (Under Review)
3. **Rahman, A. B.**, and Kader, M. F., "Best Relay Transmission Aided Energy Harvesting in a Multi Relay Cooperative Network," 2020 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), 2019, pp. 1-5, doi: 10.1109/ICASERT.2019.8934520.

### Journals

1. 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 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> , 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>