

# Sampad Banik

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## EDUCATION

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### UNIVERSITY OF UTAH

*Doctor of Philosophy (Ph.D.) in Computer Science*

**UTAH, USA**

*(Aug2023 – Present)*

### LAMAR UNIVERSITY

*Master of Science in Computer Science*

**TEXAS, USA**

*(Jan2022 – Jul2023)*

- **Honors:** Overall GPA: (3.91)

### RAJSHAHI UNIVERSITY OF ENGINEERING & TECHNOLOGY BD

*Bachelor of Science in Electronics and Telecommunication Engineering*

**Rajshahi,**

*Dec 2018*

- **Honors:** CGPA: (3.16/4.0)

## RESEARCH EXPERIENCE

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**RESEARCH ASSISTANT**, Department of Computer Science, Lamar University      2022 - 2023

**Undergraduate Research Work:** Rajshahi University of Engineering and Technology (RUET), November, 2017- December, 2018

**Thesis title:** “*Routing Strategies for Next Generation Ad Hoc Networks*”

**Research Supervisor:** Dr. Md. Munjure Mowla

The main objective of this thesis was to study, analyze, and compare the performances of Reactive and Proactive routing protocols using Riverbed Modeler (OPNET) and Network Simulator 2 (NS 2) simulator with different traffics and mobility models under different network situations.

## PUBLICATIONS

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- **IEEE Publication Title:** “A Strategic Routing Analysis for Agro Sensor Communications in Mobile Ad hoc Networks”, International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT), 2019.  
[Website Link: <https://ieeexplore.ieee.org/document/8934513> ]
- **IEEE Publication Title:** “A New Routing Scheme for Multi-cluster Flying Ad hoc Networks”, 5th International Conference on Advances in Electrical Engineering (ICAEE), 2019.  
[Website Link: <https://ieeexplore.ieee.org/abstract/document/8975550> ]

## PROJECTS

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- **Project title:** *Design and Implementation of RF controlled spy robot.*  
**Project Supervisor:** Md. Robiul Islam  
The purpose of this project was to design and implement a spy robot car controlled by RF module. Moreover, a wireless camera is installed in spy robots, so, it can be used remotely to enter and exit any place.
- **Project title:** *Design and Implementation of a Low-Cost Microcontroller based Heart Rate and Body Temperature Monitor”.*  
**Project Supervisor:** Dr. Mst. Fateha Samad  
This project was started to design and implement our device for measuring the heartbeat and body temperature. Here, heart beat rate (HBR) sensor was used to count heart beat rate and Lm35 temperature sensor was used to measure body temperature. The overall circuit design was completed in Proteus software environment.
- **Project title:** *Practical implementation of AM modulator and demodulation.*  
**Project Supervisor:** Sham Datto  
In this project, I mainly showed the amplitude modulation of a signal by which we can transmit a low-frequency signal to a distance with a negligible lower distortion and noise information via a radio carrier wave. On the other hand, Amplitude demodulation was implemented to generate the original signal using the output of am modulator.

## PROFESSIONAL QUALIFICATION

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**System Engineer**

**February, 2020 – present**

### **Core Network Operation (IPTSP)**

**Intercloud Limited**, House: Ga-30/G, Pragati Sarani, Shahjadpur, Dhaka – 1212, Bangladesh.

**Responsibilities:** Configure and troubleshooting IP telephony service, management of servers and networks for OTT application Brilliant Connect, client provisioning and monitoring on Class 5 VoIP switch of PortaOne.

## LINGUISTIC PROFICIENCY

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**English:** Fluent Working Proficiency.

**Bangla:** Native Language

## SKILLS

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**Network Simulating Software:** CISCO Packet Tracer, Network Simulator-2 (NS2), OPNET Riverbed Modeler, SUMO.

**Engineering Software:** HFSS, CST Studio, PSPICE, Express PCB, Latex, Proteus, Multi-sim.  
**Programming Language:** Matlab, Basic C  
**Operating System:** Linux, Microsoft Windows.

## **ACADEMIC HONORS**

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**Technical Scholarship**, Rajshahi University of Engineering and Technology (RUET), 2016 to 2018.

**General Scholarship**, Ministry of Education, Government of the People's Republic of Bangladesh, for excellent academic record in Secondary School Certificate and Higher Secondary School Certificate exam.

## **RESEARCH INTERESTS**

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- Cognitive and AI-enabled Networks
- Wireless sensor networks
- Mobile ad hoc networks
- Network security

## **ADDITIONAL COURSES**

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- Cisco Certified Network Associate (CCNA) training course (Duration 8 months)
- Introduction to Data Science in Python  
(<https://www.coursera.org/account/accomplishments/certificate/WXMTCC489LLP> )
- SQL for Data Science  
(<https://www.coursera.org/account/accomplishments/certificate/Z8TJ8BU43326> )
- The Data Science Course 2020: Complete Data Science Bootcamp (Udemy)

## **EXTRA-CURRICULUM**

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- IEEE RUET Student Branch (Ex-member), 2018
- IEEE Power & Energy Society (Ex-member), 2018
- RUET Greater Mymensingh Association(GMA) (Ex-Vice President)(2017-2018)