

WORK EXPERIENCE

- **Jamia Millia Islamia (A Central University)** New Delhi, IN
Guest Faculty, Computer Engineering Section Aug 2024 - Present
 - **Subjects Taught:** Web Technology, Database Management System, Advanced RDBMS, Computer Oriented Numerical Methods, Visual Programming, Computer Application
- **Indian Institute of Technology Delhi** New Delhi, IN
Jr. Research Fellow, Embedded System Laboratory May 2023 - May 2024
 - **Research Project:** Design and development of a subsidence detection system in landslide prone hill slopes.

ACADEMIC QUALIFICATIONS

- **Master of Technology in Software Engineering** Jun'21 - Jun'23
Aligarh Muslim University (AMU), CGPA: 8.02/10.0 Aligarh, India
 - **Relevant courses:** Advance Computer Architecture, Machine Learning, Image processing and Computer vision, Big Data Analytics, Numerical and Statistical Techniques
- **Bachelor of Technology in Computer Science and Engineering** Jun'17 - Jun'21
Rajasthan Technical University, percentage: 68.01 Kota, India
 - **Relevant courses:** Data Structure, Operating System, Design & Analysis of Algorithm, Data Base Management System, Compiler Design, Embedded System, Distributed System.

KEY ACADEMIC PROJECTS

- **miniflight: Budget flight controller for drone using ATmega328p microcontroller** - [repository](#)
A budget flight controller for drones using the ATmega328P microcontroller offers an affordable yet efficient solution for controlling the flight dynamics of drones. Designed with cost-effectiveness in mind, this flight controller provides the essential features required for stable flight control while utilizing the capabilities of the ATmega328P microcontroller.
- **AT89S52: A SPI programmer that can program AT89Sxx series of microcontrollers** - [repository](#)
Existing programmers of AT89Sxx series of IC's are costly and very messy to use, so we design and develop a simple easy to use programmer that can program AT89Sxx Series of IC's. (simple drag and drop hex file in serial terminal program)
- **Smart city integration using google voice kit**
I led the creation of a web-based smart city monitoring system, integrating various sensors and databases using MySQL. My specific role involved implementing the Google Voice Kit for efficient voice message broadcasting, contributing to a comprehensive solution for online smart city monitoring.
- **8051 FPU: Fast floating point subroutines support for 8051 microcontroller** - [repository](#)
Designed and implemented Fast Floating Point Subroutine for the 8051 microcontroller, enhancing its computational capabilities with efficient IEEE 754 floating-point arithmetic for high-speed and precise calculations in resource-constrained environments.
- **glucose: A open source smart watch ecosystem.** - [repository](#)
Designed and developed a wearable device to monitor health metrics such as **blood oxygen saturation (SpO2)** and **heart rate**, with a focus on simplicity, cost efficiency, and modularity for elderly users.
- **MCS51: A assembler for MCS-51** - [repository](#)
An advanced assembler for MCS-51 architecture to programming by supporting custom instructions beyond the standard ISA.

RESEARCH EXPERIENCE

- **Master of Technology Thesis:**

Energy efficient heterogeneous multi-core architecture for edge computing devices.

- **Bachelor of Technology Project:**

Design and Development of a Wearable Device for ECG Monitoring Using ESP32 SoC.

- **AMURoboclub**

PG Representative

Aligarh, IN

Jun 2022 - Jun 2023

- Taking various workshops on (STM32, Arduino, Raspberry pi) development board.
- Supervise different projects group in the lab.
- Manage ABU Robocon (Asia Pacific Robot contest) team as leader and mentor.

- **i-Robotics Lab**

Software Engineer

Jaipur, IN

Jul 2018 - Feb 2019

- Develop flight controller firmware using STM32 AVR series of microcontroller (all the low-level subroutines written in assembly language in order to optimize every single byte and performance).
- Testing and debugging the raw data of accelerometer, gyroscope.
- Design flight controller PCB on Eagle EDA software.

PUBLICATIONS

- : Saeed Akhtar, Rashid Ali, **Syed Mohd Ameen**; Predicting the surface elastic parameters of soft solids using multi-output decision tree regressor. AIP Conf. Proc. 2 July 2024; 3168 (1): 020024.
<https://doi.org/10.1063/5.0219700>
- : **Syed Mohd Ameen**, Yunus Kathat, Sunny Kr Shah, Kapil Kr Jangid, Ritika Sharma, "Implementation Graph Search Technique on A Navigation Line Follower Robot" IJSRED-V4I4P103 Page(s): 731-735

SKILLS

- * **Languages:** C/C++, python(*advance*), Java, R & Kotlin (*Intermediate*)
- * **Softwares :** Android Studio, Arduino IDE, Visual Studio
- * **Frameworks/libraries :** Tensorflow, NumPy, Pandas, matplotlib, scikit-learn
- * **Web :** HTML, CSS, JavaScript, Django, flask
- * **Communication protocols :** I2C, SPI, UART, Zigbee, Bluetooth, 802.11, Thread, LoRa
- * **Programmable devices :** AVR, PIC and ARM – based microcontrollers, EPS32, RP2040, RP2350
- * **Database :** MongoDB, MySQL
- * **Instruction set architecture :** x86, AVR, RISC-V, MCS-51, 6502 (*Assembly languages*)
- * **EDA :** KiCad (PCB schematic and board layout designing)
- * **CAD :** FreeCAD

PERSONAL INFORMATION

- * Address - Ghaffar Manzil Colony, Jamia Nagar, Okhla, New Delhi, Delhi 110025
- * Nationality - Indian
- * Passport Number - **Y6711248** (Valid up to 2033)