

SALIK RAFIQ BHAT

+91 6005035291 ◇ Kashmir, India

[Email](#)

OBJECTIVE

Fueled by curiosity and grounded in hands-on learning, I'm an enthusiastic 2nd-year Mechanical Engineering student with a strong passion for robotics, automation, and turning ideas into intelligent systems that move, think, and solve real-world problems. I was experienced in hands-on engineering applications through projects at IUST, where I built various projects including the 2-DOF, 3-DOF and the 6DOF Robotic Arm.

EDUCATION

Islamic University of Science and Technology,
Bachelor of Technology (B-Tech) in Mechanical Engineering

Awantipora, Pulwama
Sep 2023 - Present

Relevant Coursework: Solid Works, Thermodynamics, Strength of Materials, Manufacturing

Taileem-ul-Islam Ahmadiyya Institute,
Higher Secondary

Kanipora, Kulgam
2020 - 2021

WORK EXPERIENCE

Intern, Mechatronics & Industrial Automation Lab
Islamic University of Science & Technology (IUST)

Dec 2024 - Feb 2025

- Designed and developed sensor-based feedback control systems and programmed robotic arms to optimize assembly and material-handling workflows.
- Integrated various sensors and actuators, conducted system testing and troubleshooting, and produced detailed documentation for process improvement.

Intern, Mindler (Remote)
Mindler, Delhi

Apr 2023 - Jun 2023

- Conducted process mapping and data analysis to support technical and operational initiatives, improving workflow efficiency.
- Assisted in developing documentation and coordinating project tasks, strengthening project management skills.

Intern, Nestle (Remote)
Nestlé India

July 2023 - Aug 2023

- Collaborated with cross-functional teams on process improvement and quality control projects, applying core engineering concepts to optimize operations.
- Generated performance reports and presented key insights to stakeholders, enhancing decision-making and operational efficiency.

SKILLS

Programming: Python, Arduino, C, MATLAB, LaTeX,
Simulation: Simulink, Gazebo
CAD/Design: SolidWorks, TinkerCad, CorelDRAW, 3D Printing, Laser Printing
Writing: Technical Writing, Research Papers, Blogging

PROJECTS

Rectifier Module Development

Designed and developed a rectifier module capable of converting AC to DC, integrating advanced components to create a fully functional instrument. This project provided hands-on experience in electronic instrumentation and circuit design, enhancing my understanding of practical electrical systems and their engineering applications.

2-DOF and 3-DOF Robotic Arms

Designed and built two separate manipulators—a 2-axis arm and a 3-axis arm—by creating detailed CAD models in SolidWorks, carefully assembling appropriate motors and motor drivers, and programming control systems using Arduino to achieve smooth, precise, and coordinated motion across all axes.

6-DOF Robotic Arm

Currently developing a 6-axis robotic arm by designing and simulating detailed CAD models in SolidWorks, integrating high-torque servo motors with rotary encoders, and programming Arduino for precise, synchronized motion across all joints. Also building a custom Python interface for trajectory planning, manual control, and real-time monitoring.

RESEARCH PAPER

Ethical Considerations in Autonomous Vehicles - Explored the ethical challenges surrounding autonomous vehicles, including the implications of decision-making algorithms, safety concerns, privacy issues, and the broader societal impact. The paper critically examined the responsibilities of developers and policy makers in ensuring ethical standards and public trust in self-driving technology.

COURSES

Programming in C: A Hands-on Introduction Specialization – Harvard University

MATLAB Onramp, Simulink Onramp, and Simscape Onramp – MathWorks (in progress)

PUBLICATIONS

Blog Articles Published on : <https://salikrafiqbhat.blogspot.com/>

- Written a wide range of reflective and socially conscious blogs on topics including justice, education, family, xenophobia, community, and personal growth. These writings aim to spark thought, promote empathy, and encourage positive societal change.

Book Contributions

- Contributed to multiple published anthologies such as *Autumn* (Vol. 6), *Tiny Little Tails* (Vol. 3), *Beautiful Mishaps* (Vol. 3), and others—exploring themes of change, resilience, and the beauty found in everyday experiences.

EXTRA-CURRICULAR ACTIVITIES

Member, Sports Club — Regal Sports

Played in the A-division football league in 2023 and 2024, contributing to team success and developing teamwork, and strategic skills. Received the "Man of the Match" award several times for exceptional performance.

Member, IUST Football Team

Competed in the inter-department tournament, further developing team coordination and tactical skills.