

# Allah Nawaz Khan

Electrical Engineer

Final year Electrical Engineering student with a strong foundation in communication systems, currently pursuing a final year project on tunable frequency selective surfaces for filter and electromagnetic interference shielding. Experienced in key areas including power electronics and renewable energy. Skilled in industry-relevant tools such as HFSS, MATLAB, AutoCAD, and PSpice. Comfortable with programming in C/C++ and hardware design using Verilog. Known for a practical, problem-solving mindset and a hands-on approach to engineering challenges.

Short and engaging pitch about yourself.

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📍 Mianwali, Pakistan

## EDUCATION

### Bs Program

Namal University Mianwali

07/2021 - Present

Mianwali

#### Courses

- Communication Systems
- Digital Logic Design
- Digital Image Processing
- Technical Writing & Communication
- Control Systems
- Power Electronics
- Internet of Things
- Renewable energy Sources

### Fsc Pre Engineering

Superior Group of Colleges Mianwali

05/2019 - 07/2021

3.01

## WORK EXPERIENCE

### Event Organizing Team Member

Namal University Mianwali

#### Achievements/Tasks

- Got experience in arranging and participating in Namal Robo Tech 2024 and held at Namal University, Mianwali

## SKILLS

HFSS

C/C++

Matlab

Verilog

Proteus and PSpice

Autocad

Problem Solving

## PERSONAL PROJECTS

### FYP: Tunable FSS for filter and EMI shielding applications

- Designed and simulated a tunable Frequency Selective Surface (FSS) using HFSS, targeting the 10 GHz band. Achieved dual functionality for frequency filtering and EMI shielding on a Rogers-5880 substrate.

### Converter Design

- Designed and simulated a high-power, low-voltage DC-DC converter using MATLAB/Simulink with Si-MOSFET and GaN-HEMT technologies.

### Design and implementation of 4-bit ALU

- Developed a 4-bit ALU capable of performing arithmetic and logic operations. Implemented the ALU functionality in Verilog HDL and verified through simulation waveforms.

### Line Following Robot Control

- Assembled and programmed a LEGO EV3 robot to achieve straight-line movement using MATLAB/Simulink.

### Library Catalog Management System

- Developed a GUI-based library management system in Python enabling book addition, removal, and modification.

## CERTIFICATES

Certificate of appreciation for arranging & participation in Namal Robo Tech (2024)

## LANGUAGES

English

Full Professional Proficiency

Urdu

Native or Bilingual Proficiency