



# Hassam Ahmad Khan

Electrical Engineering Undergraduate

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📍 Isa khel, Mianwali

Electrical Engineering undergraduate with a strong foundation in power systems, embedded systems, and programming. Completed an industrial internship at FESCO and actively engaged in project work including a GPS-guided agricultural pesticide spraying quadcopter and IoT-based systems. Skilled in MATLAB, Proteus, Python, and Arduino. Eager to bring technical skills and a problem-solving mindset to a Graduate Trainee Engineer role.

## EDUCATION

### BS Electrical Engineering

Namal University, Mianwali

Oct 2022 - Present | Mianwali, Punjab | 2.95

#### Courses

- Internet Of Things
- Database Engineering
- Digital Image Processing
- Embedded System
- Data Structure & Algorithms
- Power Electronics
- Control Systems
- Signal And Systems
- Wireless Communication
- Computer Communication & Networks

## WORK EXPERIENCE

### Electrical Engineering Intern

FESCO 66KV Grid Station

Summer Internship - 2025

Isa Khel, Mianwali

#### Accomplishments / Tasks

- Observed operation and maintenance of power transformers, circuit breakers, and protection relays
- Studied CTs, PTs, and their role in metering and protection
- Analyzed Component nameplate data, ratings, efficiency, and starting methods
- Understood Electrical safety practices in utility environments

#### Contact Person

Naimat Ullah Khan | +92 300 6087582

## ORGANIZATIONS

### Namal Society For Social Impact

Management Head

Oct 2024 - Present

## SKILLS

Python Transformers & Protection C/C++ ETAP

Protection Relays, CTs & PTs Proteus Arduino

MATLAB / Simulink AutoCAD (Electrical) Python

Cisco Packet Tracer MS Office

## PROJECTS

### Agricultural Pesticide Spraying Quadcopter

Team Member

Developing a GPS-guided quadcopter for automated and manual agricultural pesticide spraying using Pixhawk 2.4.8, Mission Planner waypoint navigation, and a relay-controlled pump system integrating ESCs, motors, and battery for reliable field operation.

Sep 2025 - Present

### Power Flow Analysis & Improvement

Lead

Improved system power factor using capacitor banks through power flow analysis in ETAP.

### IoT Based Smart Home System

Lead

Designed a smart home using IoT Components in Cisco Packet Tracer

### Colour Image Edge Detection

Lead

Developed a Python-based pipeline to detect edges in colour images by processing RGB channels independently using Gaussian blur and edge detection algorithms.

## CERTIFICATES

### Namal Tech Expo 1.0

Namal University Mianwali

### Introduction to Front-End Development

Meta through Coursera

## INTERESTS

Gaming Robotics Programing Sports