

MUHAMMAD FAHEEM KHAN Address: Vill. Nawan, P.O. Thamewali, Dist. & Teh. Mianwali, P.C. 42250 Cell: 03460150824, 03455258120 | faheem2017@namal.edu.pk Date of Birth: 13/11/2000 Linkedin Profile: <u>Muhammad Faheem Khan | LinkedIn</u>

## **EDUCATION & QUALIFICATIONS**

Bachelors in Electrical Engineering Namal Institute, Mianwali CGPA: 3.91/4	Sep 2017- Current
Intermediate in Pre-Engineering (F. Sc) Superior College Mianwali, Ali Town, Mianwali Marks: 936/1100	June 2017
PROFESSIONAL EXPERIENCE	
<ul> <li>Pakistan Atomic Energy Commission</li> <li>Final Year Project</li> <li>Designed a mobile robot for tele-monitoring of the environment in collaboration with PAEC.</li> </ul>	Sep 2020- Current
<ul> <li>Namal Institute Mianwali</li> <li>Teacher Assistant, Mathematics Department</li> <li>Helping the students and teacher throughout the course</li> </ul>	Sep 2019- Current
<ul> <li>Khoj School, Sheikhupura</li> <li>Teacher, Maths</li> <li>Teaching the students via Skype</li> </ul>	Feb 2019

## PROJECTS

**Tele-monitoring via Mobile Robot:** The primary objective of final year project is real-time monitoring of the environment via a mobile robot. The robot will be capable of moving from one place to another through a web interface for a safe and agile remote control. A camera with 360-degree rotation is mounted on the top of the robot for real-time monitoring of the environment. **Handwritten Multi-digit recognition using Artificial Neural Network:** Testing data of 200 images is created manually, each image with at max 5 digits. MNIST implementation is tested on the manually created dataset and the ANN model is trained with Histogram of Oriented Gradients' (HOG) features to recognize the multi-digits.

**Implementation of CBR and ID3 Algorithms:** CBR and ID3 are implemented on the zoo dataset from scratch. The performance of both algorithms is analyzed and compared.

**Implementation of Search Engine:** Implemented 5 different algorithms using various data structures like Queues, BSTs, AVLs, Hashing, and skip-lists to efficiently search in a given dataset of size 9 lacs.

Audio Amplifier: Variable gain audio amplifier is designed using discrete components in simulation and hardware.

**Solar Tracker:** A prototype is designed to locate the position of the sun and adjust the position of the solar panel accordingly. **Traffic Light Control:** Designed and implemented a traffic light control system to prioritize the ambulance in any of the lanes using embedded systems.

Tic Tac Toe and Result Analytics: Unbeatable tic tac toe game and result analytics calculator for the students of a university is designed using C language.

## ADDITIONAL EXPERIENCE

<ul> <li>Head of Training Center, Center of Excellence and Skills Development, Namal</li> <li>Organized and promoted various events conducted at the university.</li> </ul>	2018 – 2020
<ul> <li>Training Workshops, Aspire Training and Consulting Pakistan</li> <li>Participated in different activities focusing on career and confidence building.</li> </ul>	Sep 2020
HONORS & AWARDS	
Best 1 <sup>st</sup> and 2 <sup>nd</sup> year student in Namal Institute Mianwali(2018-2019).	
<ul> <li>Merit-based scholarship at NIM in BSEE (2017)</li> <li>PEEF scholarship holder(2017-present)</li> </ul>	

## **SKILLS & INTERESTS**

- Adroit in Microsoft Office, ORCAD, Proteus, Modelsim and Mathematica.
- Skilled in overleaf, assembly language, C, C++, Python, SQL
- Interests: Freelancing, Video editing, Entrepreneurship and Volleyball.