MUHAMMAD HARIS

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**Objective** Dedicated, highly motivated and hardworking electrical engineer with approximately 13 months of remarkable lab experience in providing timely solution and comprehensive technical support to researchers. Eager to learn new things and committed to achieve goals in a highly efficient manner while meeting deadlines.

### Education US-Pak Center for Advanced Studies in Energy UET Peshawar Oct 2022 in Progress

M.Sc. Renewable Energy Engineering

### University of Engineering & Technology Peshawar, Pakistan September 2018 – July 2022

Bachelor of Science in Electrical Engineering (plan: Communication major) **CGPA 3.44**

## **Research (FYP)**: Automatic Detection of Paediatric Congenital Heart Diseases (CHDs) from Phonocardiogram (PCG) Signals.

* 1D CNN Algorithm was used for binary classification, Audio Signal Processing (.wav files)
* **Supervisor:** Dr. Muhammad Salman Khan

**Current Research Areas**

Data Communication, Computer Networking, Wireless Communication, Renewable Energy, Control system

### Experience

### Cisco + Huawei authorized & information Academy University March 2023 – July 2023 Of Engineering and Technology Peshawar, Pakistan

*Graduate Intern*

### National Center of Artificial Intelligence Healthcare (NCAI), University November 2021 - June 2022 of Engineering and Technology Peshawar, Pakistan

*Research Intern*

* Collected heart phonocardiogram (PCG) signals from hospitals.
* Data preprocessing and developing deep learning algorithm for the classification of normal and abnormal heart sounds.
* Developing convolution 1D algorithm for PCG signals classification.

### Pakistan Telecommunication Company Ltd (ptcl), Pakistan September 2021- October 2021

*Summer Intern*

* Analyzed working of switches and routers.
* Explored the installation of multi-service access gateway (MSAG) in Peshawar, Pakistan.

### Center for Intelligence System and Networks Research (CISNR) September 2020-October 2020 University of Engineering and Technology Peshawar, Pakistan

*Summer Intern*

* Assisted researchers and engineers in development of different smart city projects.
* Managed equipment testing.
* Conducted troubleshooting of hardware.

**Teaching Experience**

*Home tutor* **August 2018**

### present

* Throughout undergraduate studies, taught mathematics and physics to different level students such as 5th , 6th , 9th, and 10th grade and MSc students .
* Counseled students for their future studies.

**Projects Tree Detection in videos and images using python January 2022** *BSc Semester project*

* Developed a classification and detection Al model to detect tree in videos and images.

*MSc Semester project* ***January 2023***

* Hybrid solar water heater
* Designing of alternate power source for district Swabi Peshawar

**Certification and Awards**

* + Gained best behavior prize in school.
  + Gained prize for neat and clean uniform in school.

### PRESENTATION

**Conference Presentation- 23rd January 2023 3rd International Conference on Artificial Intelligence (ICAI) NUST, Islamabad, Pakistan**

## **Topic:** Automatic Detection of Paediatric Congenital Heart Diseases from Phonocardiogram Signals.

**Publications**

Z. Ahmad et al., "Automatic Detection of Paediatric Congenital Heart Diseases from Phonocardiogram Signals," 2023 3rd International Conference on Artificial Intelligence (ICAI), Islamabad, Pakistan, 2023, pp. 188-195, doi: 10.1109/ICAI58407.2023.10136668.

**Skills**

***Programming:*** MATLAB, Python Language, C++, Assembly Language.

***Software:*** Packet Tracer, AutoCAD, Proteus, Keil, Arduino, PSpice, scymatic, audacity, Homor (for designing of power source for any area) and MS Office

***Language:*** English, Urdu and Pashto.

# References

## 1. Dr. Muhammad Salman Khan

Assistant Professor, Department of Electrical Engineering, College of Engineering, Qatar University, Doha, Qatar Email: [salman@qu.edu.qa](mailto:salman@qu.edu.qa)

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