

Muhammad Hasanat khan

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EDUCATION

- 2019-2023 BS (Mechatronics Engineering) (CGPA 3.05/4)
University of Engineering and Technology, Peshawar, Pakistan
- 2016 – 2018 HSSC (Pre-Engineering) (Marks 902/1100)
The Lamps College System, Peshawar, Pakistan
- 2014 – 2016 SSC (Science) (Marks 981/1100)
Ittefaq Model School Surizai Bala, Peshawar, Pakistan

ACADEMIC REASEARCH PROJECTS

- **Bachelor's Final Year Project** “Design and Fabrication of 3D Bioprinter for Tissue Engineering.”
 - Software: SolidWorks, Simplify3D, MS office, MATLAB
 - (Supervised by Dr. Izhar Ul Haq, Associate Professor at University of Engineering and Technology, Peshawar, Pakistan)
- **Semester's Project** “Real Time IOT-Based weather monitoring system.”
 - Software: Proteus, Arduino IDE, MS office
 - (Supervised by Dr. Tufail Khan, Associate Professor at University of Engineering and Technology, Peshawar, Pakistan)
- **Semester's Project** “PLC-Based multi-channel Fire Alarm system.”
 - Software: Siemen's TIA portal, Wincc Software, MS office
 - (Supervised by Dr. Muhammad Zubair, Associate Professor at University of Engineering and Technology, Peshawar, Pakistan)
- **Semester's Project** “RFID Based automatic car parking system.”
 - Software: MS office, Arduino IDE
 - (Supervised by Dr. Shahbaz khan, Assistant Professor at University of Engineering and Technology, Peshawar, Pakistan)
- **Semester's Project** “Line follower and Obstacle Avoiding Robot”.
 - Software: MS office, Arduino IDE
 - (Supervised by Sir Wahad Ur Rehman, Lecturer at University of Engineering and Technology, Peshawar, Pakistan)

JOURNAL PUBLICATIONS

1. **Muhammad Hasanat khan**, Amjid Khan, Mazhar Ali (2023), “*The Impact of Artificial Intelligence on Labor market dynamics: Challenges and Opportunities*”, Presented in International Conference on CPEC and BRI, Journal of Pakistan Development review (PDR) [Published in CPEC & BRI Magazine]
2. **Muhammad Hasanat khan**, Asfand Yar Bahadar khan, Dr. Izhar Ul Haq, Muhammad Umar Farooq (2023), “*Design and Fabrication of 3D Bioprinter for Tissue Engineering: Current Innovations and Future Perspectives*”, [Presented at 18th IEEE International Conference on Emerging Technologies, ICET'23] Published on IEEE Explore(<https://ieeexplore.ieee.org/document/10374864>).

WORKSHOPS, TRAININGS & CERTIFICATIONS

- Attended workshop on **PLC Training** organized by IEEE UET from Jan 22- Jan 24, 2021.
- Attended workshop on **Learn DATASCIENCE with DATACAMP** organized by GOOGLE Developer student club, UET Peshawar.
- Complete a training course **English for STEM MOOC** offered by US Department of State on 20 Nov 2022.
- Attended workshop on **Workshop on ETAP** organized by IEEE PES team on Jan 27, 2021.
- Attended Seminar on **Modern Applications of AI in Healthcare Industry** organized by IEEE Society UET Peshawar on Jan 27, 2021.

- **01 Feb 2024- Present University of Engineering and Technology, Jalozai Campus, Pakistan**
Position: Teacher Assistant in Industrial Engineering Department (UET Peshawar).
Tasks: Supporting Professor in research activities, including Data collection, Experimentation, and delivering Lectures.
- **Aug 2023 – Sep 2023 Al Syed Foods Private limited, Mansehra, Pakistan**
Tasks: Studied and observe operation and maintenance of Hybrid systems. The maintenance period of all the machines. Hands-on experience in Food processing and Supply chain.
- **Aug 2022 – Sep 2022 Water and Power Development Authority, Mangla, Azad Kashmir, Pakistan**
Tasks: Studied and observe operation and maintenance of Electrical generators, Turbine and Expander, Engines, and Transformers. The maintenance period of all the machines. Hands-on experience in power generations systems.
- **Sep 2021 – Sep 2021 Radio Pakistan and Broadcasting Company, Peshawar, Pakistan**
Tasks: Studied and observe the functionality and operation of transmitters, receivers, amplifiers, and various other signal processing units. The main aspect of my work involved understanding and working with different electrical and electronics components.

SOFTWARE SKILLS

- **MS Office**
(Used in every subject lab report, project reports and Assignments)
- **MATLAB Software**
(Used in Control system, Robotics, Numerical methods, and Digital signal processing labs)
- **SIMULINK & LINKAGE Software**
(Used in Transducer and instrumentation labs)
- **COMSOL Multiphysics Software**
(Used in Mechanics of material labs)
- **PROTEUS 8 Software**
(Used in Electronic Circuit Design Labs)
- **SOLIDWORKS Software**
(Used in Engineering Drawing and CAD/CAM labs)
- **SIMPLIFY3D Software**
(Used in CAD/CAM labs and Final Year Project)
- **EES (Engineering Equation Solver) Software**
(Currently Using for solving complex engineering equations)
- **LOGIX pro, WPL Soft and SEIMEN TIA portal Software's**
(Used in Industrial Automation labs)
- **PYTHON 3.7 and PYCHARM**
(Currently Using for python Programming)

COURSERA COURSES

- Digital Signal Processing Course.
- Fundamentals of Machine Learning Course.
- Python for Everybody.
- Fundamentals of Programming with Python.
- Exploratory Data analysis with MATLAB.

AWARDS & ACHIEVEMENTS

- Secured **2nd** Position in bachelor's Final Year Project.
- Remained in **Top 10** position holders throughout my engineering career in the Mechatronics Engineering Department, UET Peshawar.
- Recipient of **Merit scholarship** in The Lamps College system Peshawar for two Years of Pre-Engineering.
- Secured **1st Position** in The Lamps College system Peshawar in Pre-Engineering HSSC Board exams.
- Secured **3rd Position** in Ittefaq Model School Surizai Bala of Peshawar Board in SSC Board Exam.

PROFESSIONAL RECOGNITION & VOLUNTEER WORK

- IEEE society member in Mechatronics Department, Peshawar (2022- 2023)
- Youth Robotic Society Student member (2021- 2023)
- Transportation Head (IEEE event) Mechatronic Engineering Department, University of Engineering and Technology Peshawar (2023- 2023)

REFERENCES

- **Engr. Amjid khan**
PhD Student
Oklahoma State University, Stillwater
Oklahoma, USA
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