TAYYAB ALI

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OBJECTIVES:

To work in a challenging environment for acquiring knowledge and enhancing my capabilities with the latest trends in today's professional world.

EDUCATION:

1. PhD in Electrical Engineering (PhD-EE) [In progress]   **2018 to date**
   CGPA: **3.91/4.00**
   International Islamic University, Islamabad

2. MS in Electronic Engineering (MSEE)   **2014 - 2017**
   (Majors in Control Systems)
   CGPA: **3.90/4.00**, Aggregate: **86%**
   International Islamic University, Islamabad

3. BS in Electronic Engineering (BSEE)   **2008 - 2012**
   CGPA: **3.73/4.00**, Aggregate: **82%**
   International Islamic University, Islamabad

4. Intermediate in Pre-Engineering   **2006 - 2008**
   Marks: **822/1100**, Aggregate: **75%**, Grade: **A**
   FBISE, Islamabad

5. Matriculation in Science   **2004 - 2006**
   Marks: **809/1050**, Aggregate: **77%**, Grade: **A**
   FBISE, Islamabad

COMPUTER SKILLS:

1. Proteus, PSpice and Multisim software for Electronic & Digital Circuit Design.
2. Dip Trace for Printed Circuit Boards (PCBs).
3. Programming in C++ Language.
4. MATLAB Applications for Power and Embedded Systems.
5. MS Office Applications.

WORK EXPERIENCE:

1. **Lab Engineer in International Islamic University Islamabad (IIUI)**

   Currently, I am working as a Lab Engineer in the Department of Electrical Engineering of IIUI since September 2013. My job is to instruct different labs and manage lab's equipment along with the lab's staff. I have successfully conducted the following lab courses at the undergraduate level yet.

   i. Electrical Workshop Practice
   ii. Basic Electronics
   iii. Circuit Analysis
   iv. Electronic Circuit Design
   v. Digital Logic Design
   vi. Microprocessors & Microcontrollers
   vii. Signals and Systems
   viii. Communication Systems
   ix. Control Systems
   x. Power Electronics
   xi. Power Generation and Utilization
   xii. Power Transmission and Distribution
   xiii. Switchgear and Protective Devices (Theory)

2. **Pakistan Telecommunication Company Limited (PTCL), Islamabad**

   As an Internee, I have worked in PTCL from June 2011 to August 2011.

3. **Smart PCB's (KRL), Islamabad**

   As an Internee, I have worked in Smart PCB's (KRL) from August 2011 to October 2011.

RESEARCH EXPERIENCE:

1. I have done my MSEE research in **"Stability control of Ball and Beam System using Evolutionary Computational Techniques"**. Following research papers related to my research work have been published in HEC recognized journals of Pakistan.

   i. Ali, Engr Tayyab, Suheel Abdullah, Muhammad Amir, and Engr Muhammad Adeel. "Stability Control of Ball and Beam System Using Heuristic Computation Based PI-D and PI-PD Controller." *Technical Journal* 24, no. 01 (2019): 21-29.

   ii. Ali, T., Malik, S. A., Adeel, M., & Amir, M. (2019). Set point tracking of Ball and Beam System Using Genetic Algorithm based PI-PD Controller. *NUST Journal of Engineering Sciences*, *11*(1), 12-16.

   iii. Ali, Tayyab, Muhammad Adeel, Suheel Abdullah, Muhammad Amir, Nazeer Ahmad, and Wajahat Ullah Khan Tareen. "Nature Inspired Computation based Fractional Order I-TD and TID Controllers for Magnetic Levitation System." *Technical Journal* 24, no. 03 (2019): 24-32.

2. Following research papers have been submitted in HEC recognized journal (Technical Journal, UET Taxila).

   i. "IoT based Smart Patient Health Monitoring with Ambulance Tracking System for Pakistan" has been submitted in HEC category 'X' Journal (Technical Journal, UET Taxila, ISSN: 2313-7770). (Status: Under Review)

   ii. "IoT based Real-Time Smart Energy Monitoring, Management and Theft Detection System" has been submitted in HEC category 'X' Journal (Technical Journal, UET Taxila, ISSN: 2313-7770). (Status: Under Review)

3. I have also done my Final Year Project (FYP) entitled **"Object Recognition Using Unsupervised Features Extraction"** for the completion of my undergraduate degree (BSEE).

4. I have supervised following Final Year Projects (FYPs) at the undergraduate level.

   i. Smart Egg Incubator

   ii. A Team of Autonomous Robots for Agricultural Applications

   iii. Smart Gate using DIP

   iv. Fire Fighting Robot

   v. Fault Tolerant Embedded System

   vi. Web Based Patient Monitoring & Medication System

   vii. Smart Gas Management and Safety Control System using IoT

   viii. Raspberry Pi Based Industrial Process Monitoring and Control

   ix. IoT based Smart Patient Health Monitoring Systems

   x. IoT based Smart Energy Management System

5. Being a Lab Engineer in International Islamic University Islamabad, I have supervised many semester level projects in the field of *Basic Electronics, Electronic Circuit Design, Digital Logic Design, Microprocessors & Microcontrollers, Signals and Systems, Communication Systems, Control Systems, Power Distribution and Utilization and Power Electronic etcs*.

RESEARCH INTERESTS:

➢ Power Electronics and Power Systems

AFFILIATIONS:

➢ Registered Engineer in Pakistan Engineering Council (PEC)

REFERENCES:

1. **Dr. Abdul Basit**

   Assistant Professor, DEE, FET, IIU, Islamabad, Pakistan

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2. **Dr. Wasim Khan**

   Assistant Professor, DEE, FET, IIU, Islamabad, Pakistan

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3. **Dr. Muhammad Iqbal**

   Assistant Professor, DEE, FET, IIU, Islamabad, Pakistan

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