**Engr. Sadia Ali** (d/o Mumtaz Ali)

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Domicile: Islamabad, date of birth: 3$^{rd}$ April, 1992

## Objective

Seeking position of responsibility in academics, teaching, research and development (R&D) to fulfill my dream of serving my people.

## Work Experience                                    (6 years & 10 months)

### Lab Engineer (May 2014 – to date)

Department of Electrical Engineering (DEE), Faculty of Engineering & Technology (FET), International Islamic University Islamabad (IIUI)

**Job Description:**

1. I have conducted various Laboratory Experiments including the labs of Control systems, electrical machines, digital logic design, signals and systems, power electronics; Microcontroller based system design, antenna & wave propagation, workshop practice, Electronic circuit design and circuit analysis.
2. I have worked as a Teaching Research assistant for the courses of Control systems, Electrical Machines and Antenna & wave propagation multiple times.
3. I have handled the Internship and Career development committee of Department of Electrical Engineering, IIUI as the Focal person under the supervision of the Head of the Department.
4. I have performed my duties as an in-charge of student activities of the Department of Electrical Engineering, IIUI.
5. I have performed my duties as an in-charge of the workshop committee of the Department of Electrical Engineering IIUI arranging different workshops from time to time on departmental level.
6. I have performed my duties as the focal person for QEC committee of the Department of Electrical Engineering IIUI.
7. I am currently posted in the Electrical Machines & Control Systems Lab where I am managing the lab staff efficiently and working tirelessly for the betterment of the laboratory.
8. I have also served as a co-supervisor for the final year projects of various groups of students.

### Paid internee (January 2014 – May 2014)

Pakistan Telecommunication Company Limited (PTCL)

**Job Description:**

1. During my tenure I have worked on Customer retention (TOS 1 way/2 way , win back, marketing), CRM(daily faults report, CRM reporting, repeated faults, active connections ), BNCC (reporting on restoration for overdue on daily basis)
2. I managed a team to effectively perform all the above mentioned tasks.

## Education

1. **Masters in Electrical Engineering**              **(2018)**
   Specialization: Automation & Control systems
   Comsats University Islamabad
   Cumulative GPA: 3.71/4.00

2. **Bachelors in Electrical Engineering**              **(2013)**
   University of Engineering & Technology, Taxila
   Cumulative GPA: 3.62/4.00

3. **Higher Secondary school certificate (FSc)**       **(2009)**
   Federal Government College for women, F-7/2 Islamabad
   Marks=949/1100                    percentage: 86.3%

4. **Secondary school certificate (Matric)**           **(2007)**
   Islamabad Model College for girls i-10/4 Islamabad
   Marks=708/850                     percentage: 83.3%

## Teaching and Research Interests

Control systems, Electrical machines, Digital Logic Design, Electronic circuit design, Circuit analysis, Power electronics, Signals and systems and Non-linear control techniques.

## Technical Skills

MS Office, AutoCAD, Visio, Matlab, Verilog, Proteus, Xilinx, Modelsim, CRM, Bncc.

## Projects & Master's Thesis

1. Fan regulator
2. Fire alarm
3. BCD to 7 segment LED display
4. **Electronic voting machine using finger print recognition technique (final year project)**
   (Project was designed fully in matlab, and a GUI was designed for voting and for displaying results. Error percentage in fingerprint recognition was reduced from 6% to 4%. Important features include: 1- only registered voters could cast their votes 2- registered voters were not able to vote twice. 3- Voting results were displayed.)
5. **Application of Non-Linear Control Techniques for the Speed Control of a Three Phase Induction Motor (MS Thesis)**
   This work centers on the application of different non-linear control techniques for the speed tracking of a 3 phase induction motor including uncertainty in load torque. In this thesis a number of non-linear control techniques have been applied to the mathematical model of the motor to study disturbance rejection and speed tracking characteristics. These techniques include: Sliding mode control, Back-stepping control, back-stepping Sliding mode control, back-stepping super-twisting control, back-stepping super-twisting

control with exact differentiation and adaptive control. In the end a comparison has been conducted through regression analysis of all the control techniques applied to the 3 phase induction motor to achieve optimum control.

## Workshops, Conferences, Seminars, and Trainings

1. Contributed as an organizing committee member in the International Conference on Intelligent Systems Engineering (ICISE 2016) conducted by FET at Islamabad Pakistan
2. Contributed as Organizing Committee Member in the international conference on Power Generation Systems and Renewable Energy Technologies (PGSRET 2015) conducted by FET at Islamabad Pakistan
3. Attended a 2 day CPD workshop on OBE based curriculum.
4. Organized a workshop on Arduino for the students of FET IIUI.
5. Organized a workshop on PCB Designing for the students of FET IIUI.
6. Attended a seminar on technology development fund conducted by HEC.
7. Organized a workshop on "CV making and Career counseling" for the students of FET IIUI.
8. Organized an exhibition for projects developed by the students of FET IIUI.

## References

References are available on request.