



Faiz-UI-Hassan

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📍 Ward # 06, Fateh Pur, Layyah, Pakistan

Objective: Establish myself as dynamic and competent employee and prove myself to be a valuable resource for the organization.

Academic Qualifications

09/2014 – 09/2016	COMSATS University Islamabad, Master of Science in Electrical Engineering (3.33/4.00) (Specialized in Systems and Control) Thesis work: Design and Model Automatic Blood Glucose Control in Diabetics <ul style="list-style-type: none">MATLAB based designing and simulation of robust controller for exogenous infusion of insulin for diabetes patient
09/2008 – 09/2012	GC University Lahore, Bachelor of Science in Electronics Engineering (3.22/4.00) Thesis work: Microfluidic Analysis in T-Junction using ANSYS <ul style="list-style-type: none">To measure pressure and velocity variations in T-shaped channel at micron level

Work Experiences

04/2017 – Present	Lab Engineer COMSATS University Islamabad <ul style="list-style-type: none">Conduct research, supervise lab sessions, deliver practical demonstration to the studentsAnalyze and grade student's class work, laboratory work, papers and assignmentsDevelopment, implementation and evaluation of course materials and laboratory curriculum for research activitiesOrganizing workshops and projects competition to develop skills which help students to become innovators and problem solverOverseeing innovation program for hands-on approach of students to physical computing, artificial intelligence and robotics
01/2016 – 03/2017	Control Engineer Robotics and Control Research Group (COMSATS University Islamabad) Projects Assisted <i>Temperature Control of Nanoparticle Hyperthermia in Cancer Therapy</i> <ul style="list-style-type: none">Feedback control system is designed for temperature control during hyperthermia therapyRobust controller is designed using sliding mode control (SMC) for desired temperature rangePerformance of the controller is analyzed on the basis of steady state error and settling time <i>Propofol Infusion to Regulate Depth of Hypnosis during Surgery</i> <ul style="list-style-type: none">Control law is designed for optimum delivery of propofol anesthesia to track the desired conscious level suitable for surgeryBackstepping based robust controller is designed for parametric variations and model uncertaintiesSystem is Lyapunov stable which minimizes the steady state error while maintaining the patient's DOH level
11/2014 – 12/2015	Research Associate COMSATS University Islamabad <ul style="list-style-type: none">Supervision of research projects of bachelor and master studentsDemonstration of practical courses to bachelor studentsMaintenance and operations of laboratory equipmentTroubleshooting of Electronic/Electrical equipment including oscilloscopes, power supplies, voltmeters etc.
01/2013 – 07/2014	Customer Service Representative K M Communication Private Limited Lahore <ul style="list-style-type: none">Outgoing calls in the United KingdomCustomer service representative of multiple companies of electricity and gas in the United KingdomSwitching and renewal of customer's contract from different companies to our suppliers (British Gas, Opus energy, EON energy, EDF energy, Scottish power) in the United KingdomKeeping the records of customer interactions, transactions and complaints

Skills	Microsoft Office (very good), LaTeX (very good), MATLAB/Simulink (very good), Python (good)
Semester Projects	
	<p>Designing of Luxmeter to Measure Intensity of Light</p> <ul style="list-style-type: none"> Microcontroller ATME89S51 is interfaced with ADC (0804), LDR and output of microcontroller is shown on 7-segment display Interfacing of microcontroller with 7-segment display is done via IC 7447 using proteus 7 software and Pinnacle 52 to write program for interfacing ADC and 7-segment display <p>Supervisory and Control System for Industrial Environment</p> <ul style="list-style-type: none"> Control system design for paint industry environment Application of proposed control system using AT89C52 Microcontroller for paint manufacturing and mixing processes (constant monitoring of raw materials in source tanks) <p>Application of H Bridge Circuit for DC Motor Control</p> <ul style="list-style-type: none"> H bridge circuit is designed using bi-polar transistors Speed of motor is controlled via input voltage and application of designed circuit on RC car
Online Courses	
	<ul style="list-style-type: none"> Python programming by Mosh Hamedani Machine learning by Andrew Ng
Attended Conferences and Workshops	
2014 – 2016	<p>COMSATS University Islamabad</p> <ul style="list-style-type: none"> Robotics, Automation and Control Conference Workshop on Art of Technical Writing Workshop on Robot Operating System (ROS) Workshop on Engineering and Project Management Pak-China Business Forum Conference
2011 – 2012	<p>GC University Lahore</p> <p>IEEE events participation</p> <ul style="list-style-type: none"> Participated in speed wiring competition Participated in photo essay competition
Scholarships and Awards	
	<ul style="list-style-type: none"> HEC Talent Farming Scheme Scholarship for MS (2014 - 2016) HEC Talent Award of Merit Laptop for Master's Study (2014 - 2016) HEC Talent Award of Merit Laptop for Bachelor's Study (2008 - 2012)
Languages	Urdu (Native), English (Fluent), Hindi (Practical), Chinese (Practical)
Competencies	Leadership, self motivated, team spirit, confident in handling new tasks
Publications	<p>Faiz-UI-Hassan, Muhammad Adil, Ali Khaqan, Moazzam Islam Tiwana, Qadeer-ul-Hassan, Shahzad Malik, Raja Ali Riaz, "Closed loop blood glucose control in diabetics," Biomedical Research, 2017. http://www.alliedacademies.org/articles/closed-loop-blood-glucose-control-in-diabetics-8244.html</p> <p>Faiz-UI-Hassan, Tariq Bashir, Shaista Jabeen, "Analysis of Pressure and Velocity Variation in T-shaped Channel at Micron Level," Pakistan Journal of Engineering and Technology, PakJET, 2020. https://www.hpej.net/journals/index.php/pakjet/article/view/193</p> <p>Adeel Bashir; Muhammad Nabil Bashir; Faiz-UI-Hassan; Muhammad Adil; Sikandar Khan, "State-of-the-Art Temperature Controller for Nanoparticles Hyperthermia," Arabian Journal for Science and Engineering (AJSE), 2021. (Submitted)</p>