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PAKISTAN

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KHURRAM SHAHZAD KHALID

OBJECTIVE

Seeking for a suitable position which utilizes most of my potential through skill development in multidisciplinary and multicultural environment towards a sound career growth.

EDUCATION

2013 – Present **Ph.D. in Electrical Engineering (Specialization in Electronics Engineering)**
University of Engineering and Technology (UET) Taxila **(In progress)**

2009 – 2011 **Master of Science in Electrical Engineering (Specialization in Electronics Engineering)**
University of Engineering and Technology (UET) Taxila **with CGPA: 3.54 (85.37%)**

2003 – 2007 **Bachelor of Science in Computer Engineering**
COMSATS Institute of Information Technology (CIIT), Wah Campus **with CGPA: 3.35 (81.67%)**

2001 – 2003 **High Secondary School Certificate FSc (Pre-Engineering)**
POF Science Degree College, Wah Cantt **with Division: 1st**

1999 – 2001 **Secondary School Certificate Matriculation (Science Group)**
Sir Syed College, Wah Cantt **with Division: 1st**

EXPERIENCE

January 2009–Present
LECTURER
UNIVERSITY OF WAH (WAH ENGINEERING COLLEGE), WAH CANTT PAKISTAN

- **Courses Taught :**
  - Laser and Optical Communication
  - Digital Signal Processing
  - Instrumentation & Control Theory
  - Microprocessor & Interfacing
  - Computer Communication Networks
  - Digital Image Processing
  - Object Oriented Programming
  - Modern Electronics
  - Wireless Sensor & Mesh Networks
  - Electronic Devices & Circuit - I
  - Electronic Circuit Design
  - Network Analysis
  - Electric Circuit Analysis
  - Signal and System
  - Digital Logic Design
  - Power Electronics
- **Other Duties & Responsibilities:**
  - Performed various administrative duties like, member of Recruitment committee WEC, member of Purchase committee WEC, member of convocation organizing committee UW, member of Entry test committee WEC and coordinator for accreditation visits (PEC & HEC).
  - Supervised various final year and semester projects.
  - Modified course catalog descriptions to reflect full technical content of course offering.

December 2007– December 2008
LAB ENGINEER
UNIVERSITY OF WAH (WAH ENGINEERING COLLEGE), WAH CANTT PAKISTAN

- **Labs Conducted :**
  - Electronic Devices & Circuit - I
  - Microprocessor & Interfacing
  - Digital Logic Design
  - Control Engineering
- **Other Duties & Responsibilities:**
  - Worked in the development of Digital Electronics, Industrial Electronics, Microprocessor & Embedded Systems Labs
  - Worked on DSP Kits, PLC's, Microcontroller kits, Analog and Digital Communication kits
  - Performed duties of coordinator to manage the faculty and student time tables & final year projects reports

RESEARCH

JOURNAL PUBLICATIONS

- **K. S. Khalid**, M. Zafrullah, S. M. Bilal, M. A. Mirza, "Simulation and Analysis of Gaussian Apodized Fiber Bragg Grating Strain Sensor", Published in the Journal of Optical Technology, Vol. 79, Issue 10, pp. 77-85 (2012) **[Impact Factor 0.288]**

BOOKS / MONOGRAPHS PUBLICATIONS

- **Khurram Shahzad Khalid**, Muhammad Zafrullah, Muhammad Aleem Mirza, "Apodized Fiber Bragg Grating Strain Sensor", published by LAP Publishing, Germany, 2012, ISBN: 978-3-8484-4066-5

POST GRADUATE THESIS

TITLE: **Investigation of Optimized Fiber Bragg Grating Sensor with Side lobe Suppression and Various Strain Optic Effects**

Description: This research is aimed to develop the mathematical model of the optimized Apodized FBG Scheme in order to suppress side lobes, while maintaining the reflectivity and narrow bandwidth. MATLAB codes are written to solve the coupled mode equations for the analysis of optimized reflection spectra under FBG Strain Sensor.
Finally the simulation results of MATLAB are compared with the results obtained by using the standard software of Opti-wave (Opti-grating 4.2)

UNDER GRADUATE FINAL YEAR PROJECT/THESIS

TITLE: **Simulation and Analysis of Quality of Service Parameters in Mobile WiMAX (IEEE 802.16e)**

Description: Mobile WiMAX, or the IEEE 802.16e standard for broadband wireless access, is enable the high-speed signal necessary for communications with users moving at vehicular speeds. Major focus is on Latency and Jitter that affects Quality of Service. Network Simulator version 2 (NS-2) is used to simulate the quality of service parameters. MAC frame formats are also implemented using Tcl and awk languages implemented in NS-2.

ENGINEERING PROJECTS

- Unmanned underwater vehicle (UUV) for Rescue and Search operations
- Microcontroller based Heart beat and temperature monitoring System
- Defense Security System using Infrared transmitter and receiver
- Simulation of Single & Multi Stage Polyphone Decimation
- On board simple computer using Microcontrollers 8051
- Traffic Signals implementation using PLC Programmer
- Automation of POF Entrance System.
- Implementation of Digital Clock
- Temperature control motor
- Control of mouse through Key Board
- Database for Library System

TECHNICAL SKILLS

Tools
MATLAB ® , Lab View ® NI, Opti Grating 4.2, HOL Theorem Prover, Proteus, Model Sim, Trilogi, PSpice , OrCAD, PCB Express, Keil uVision, MASM, Microsoft Visual Studio, Micro wind 3.1, MS Office (Word, PowerPoint, Excel, Access, Office Project)

EDA Tools
• Xilinx ISE

Platforms
• Windows 9x/2000/XP, Linux, MS Dos

Hardware
• DSP Kit (TMS320C6416)
• Xilinx FPGAs (Spartan 3E)
• 8051 & PIC Microcontrollers
• PCB Designing

Software Progamming
• C, VC++, MATLAB ®

Hardware Progamming
• Verilog™ HDL, Assembly, PLC Ladder Logic

ACHIEVEMENTS / AWARDS

- **Campus Silver Medal Award**
- **Awarded Scholarship** in all years of Engineering
- **Head Proctor** of Engineering Department from 2006-2007

POST GRADUATE SUBJECTS

- Optical Communication
- Opto- electronics Devices
- Computer Communication Networks
- Neural Networks
- Advanced VLSI Design
- Digital Image Processing
- Signal Processing Techniques
- Digital Video Systems

PERSONAL DETAILS

- Date Of Birth : July 28, 1985
- CNIC : 37406-1356902-7
- Citizenship: Pakistan

REFERENCES

Prof. Dr. Muhammad Ahmad Choudhry
Dean, Department of Electronics & Electrical Engineering
University of Engineering and Technology, Taxila, Pakistan
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