Ibrahim Tariq Javed
House14J, Gulistan Colony,
Rawalpindi, Pakistan
+92-0345-5914252
Ibrahim.tariq@hotmail.com

RESEARCH INTERESTS

Wireless Communications, Nano Networks, Ultra Broad Band Communication

EXPERIENCE

Mar 13-Present   **BAHRIA UNIVERSITY (Islamabad)**

Lecturer (Electrical Engineering Department)

Courses Taught: **Wireless Communications (continuing), Digital Signal processing (continuing), Mobile communications, Signal and Systems, Probability and Statistics, Electrical Network Analysis**

Jan-Dec 2012   **UNIVERSITY OF SOUTH ASIA (Lahore)**

Lecturer (Computer Science Department)

Courses Taught: **Introduction to computers, Data Communication and Networks, Computer Logic Design & Architecture, Computer Networks, Network Security**

Aug-Dec 2012   **LUMS- SBASSE (Lahore)**

Graduate Teacher Assistant (Electrical Engineering Department)

Course: **Applied Probability (Graduate level)**

Instructor: Dr Ihsan Ayyub Qazi

Aug-Dec 2010   **LUMS- SBASSE (Lahore)**

Graduate Teacher Assistant (Electrical Engineering Department)

Course: **Electromagnetic Fields & Waves Course**

Instructor: Dr Mumtaz Ali Sheikh

Jun-Jul 2009   **NUCES-FAST (Islamabad)**

Internee at Engineering and Robotics lab

EDUCATION

2010-2012	**LAHORE UNIVERSITY OF MANAGEMENT SCIENCES (LUMS)**
	SCHOOL OF SCIENCE AND ENGINEERING (SBASSE)
	Master of Science Electrical Engineering
	Major Courses: Mobile Networks, Embedded Systems, Design & Analysis of Algorithms, Robotics & Control

2006-2010	**NATIONAL UNIVERSITY OF COMPUTER & EMERGING SCIENCES (NUCES-FAST)**
	Bachelor of Science Telecommunication Engineering
	Major Courses: Next Generation Networks, Wireless Communications, Transmission & Switching Systems, Digital communications, Telecommunication Systems, Wave Propagation and Antenna Theory, Microwave Engineering

2003-2006	**ARMY PUBLIC COLLEGE**
	Higher Secondary School Certificate (Pre-Engineering)

2000-2003	**BEACON HOUSE SCHOOL SYSTEM**
	O-levels

CERTIFICATION

30 Nov 2013	**INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM (IELTS)**
	Overall Band Score 7.5

AWARDS

2010-2012	**LAHORE UNIVERSITY OF MANAGEMENT SCIENCES (LUMS-SBASSE)**
	Fully funded Scholarship for Masters in Electrical Engineering

PROJECTS

- **MS THESIS "Communication in Tera Hertz for Wireless Nano Sensor Networks (WNSN)"** Supervisor Dr Ijaz Haider Naqvi

  Nanotechnology have allowed generation of various Nano scale peripherals that will allow future Nano sensors to sense or stimulate any action, store and process data and most importantly transmit electromagnetic signals in terahertz range (0.1-10Thz). For any of the future Nano sensor applications to exist enabling communication and formation of a network of Nano sensors is necessary. The aim of this thesis is to conduct physical layer channel modeling in terahertz frequency for Wireless Nano sensor networks (WNSN). Path loss has been evaluated for two different mediums air and human body in which most of the future Nano sensor applications will operate. Simplified path loss models have been developed to approximate path loss models for short and medium range Nano sensor applications. Channel capacity has been evaluated for both of these mediums in the presence of molecular noise and molecular attenuation. Pulse based communication chain for WNSN has been developed for bit error rate evaluation for different modulation schemes in the presence of non-white Molecular noise.

- **BS Final Year Project "GPS Based mobile navigation System"**

  Developed four wheel robot that was capable of navigating itself autonomously to the specified coordinates while being able to detect and avoid obstacles.

- **Implementation of Incremental Sampling-based Algorithms for Optimal Motion Planning.**

- **GSM-GPS Based Telemetry for Automobiles.**

- **FPGA implementation of Digital piano.**

- **Library Management System C++**

SUPERVISED PROJECTS

- Terahertz Channel modeling using Graphene Nano Antennas
- Multipath Modeling in Terahertz for Ultra-Broad Band Communications (continuing)
- Implementation of MIMO for Massive Multicore Architectures using Graphene Nano Antennas (continuing)

PUBLICATIONS

1. **"Frequency Band Selection and Channel Modeling for WNSN Applications using SimpleNano"** Ibrahim Tariq Javed, Ijaz Haider Naqvi **IEEE ICC 2013**, Budapest, Hungary, June 2013

2. Submitted paper title "**OLSR Performance Analysis for mobile Ad hoc Networks using TCP and UDP**" to EURASIP Journal on wireless communications and networking

3. Submitted paper title "**Traffic analysis of reactive and proactive protocols in Mobile Ad Hoc networks** " ELSEVIER Journal on Ad hoc networks Journal

WORKSHOPS/CONFRENCES

1. **"3G & 4G – Impetus to Growth"** conference at 14th ITCN Asia IT & Telecom Show organized by Information & Communication Technology (ICT) Forum Pakistan

2. **"Hands-on Workshop on Writing Winning Research Proposals"**. By Office of Research, Innovation & Commercialization (ORIC) – Comsat Institute of Information Technology Islamabad

3. **"How to Write a Technical Research Paper"** Organized by Military College of Signals, Adiala Road, Rawalpindi, Punjab, Pakistan

4. **"Professional Workshop on Emerging Trends in Microwave Engineering for Wireless Communications"** Organized by Samar Mubarakmand Research Institute for Microwave and Millimeter-wave Studies (SMRIMMS) Faculty of Electrical Engineering, SEECS, NUST.

5. Continuing Professional Development Short Course Series "**Environmental impact assessment**" Pakistan Engineering Council, HQ, Islamabad.

6. "**Teaching the Teachers: Fundamentals and Advances in Wireless Communications**" organized by the Electrical Engineering Department, UET Taxila conducted by Dr. Muhammad Ali Imran

TOOLS

MATLAB, C/C++/C#, Verilog, Latex

SKILLS

Quick Learning abilities, Research oriented, Effective Communication Skills