
Muhammad Jaffar Khan

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Objective

To be part of a well reputed research oriented international university as a Faculty Member of Computer Science/ Information Technology that will allow me to utilize my research, problem solving skills and attention to detail to further develop my abilities in the field of CS/ IT and will help me to grow my career.

Education

PhD in Computer Science

Medical Imaging and Diagnostic Lab (MIDL)

COMSATS University, Islamabad, Pakistan.

Sep 2019- Continue

14-Sep-2020 to 13-Mar-2021

Thesis Supervisor/ Co-supervisor: Dr. Basit Raza and Dr. Ahmed Raza Shahid

MS in Electrical Engineering

COMSATS Institute of Information Technology, Islamabad, Pakistan

Acquired theoretical as well as hands-on training focusing on the engineering approach of switching system design, computer networks and management of telecommunication systems.

Master's Thesis: "Comparison of Hierarchical Energy Efficient Routing Protocols for Wireless Sensor Networks"

Thesis Supervisor/ Co-supervisor: Dr. Nadeem Javaid and Dr. Safdar Hussain Bouk

Awarded Grade: Distinction

Feb 2011-Aug 2012

BS Telecommunication Systems

Baha-ud-din Zakariya University, Multan, Pakistan

Completed four years bachelor of Telecommunication Systems with major in Networks and Communications.

Final Year Project: "Measuring QoS of IP Data Over UMTS Networks"

Project Advisor: Engineer Nauman Basheer, *Lecturer:* Department of Telecommunication Systems, Baha-ud-din Zakariya University, Multan, Pakistan

Awarded Grade: Distinction

Jan 2006-Mar 2010

Research Interests

Digital image processing, Pattern Recognition, Machine Learning, Wireless/ Body Sensor Networks, Performance Evaluation of Communication Networks, 3G/4G Cellular Networks, Mobility and Session Management in 3G/4G networks and Experimental Validation of QoS implementation on real test beds.

Awards/Achievements

Award/Achievement	Year
Participated in different debates competition during HSSC	2000-02
Got different prizes in debating competitions in school	1998-00

Experience

Research Experience

Thesis and Project Supervision

Feb. 2016—Present

(*Computer Science Department, Federal Urdu University, Islamabad, Pakistan*)

- Supervising a Bachelor Honors student (Muhammad Awais Javaid) at Department of Computer Science, Federal Urdu University, “*Performance and Analysis of RIP v2 protocol in wired and unwired network using GNS3*”
- Supervised the bachelor Honors (Research) thesis of Haider Naseem (who is now working with Microsoft, UBL, Pakistan): “*Energy Efficient Routing for Cars in VANETs*”
- Supervised the bachelor Honors (Research) thesis of Fawad Hayat “*Energy Efficient Clustering in Multi-hop Networks*”

Publications

Conference Publications/Workshops/Poster Presentations

1. Latif, K.; **Jaffar, M.**; Javaid, N.; Saqib, M.N.; Qasim, U.; Khan, Z.A., "Performance Analysis of Hierarchical Routing Protocols in Wireless Sensor Networks," Broadband, Wireless Computing, Communication and Applications (BWCCA), 2012 Seventh International Conference on , vol., no., pp.620,625, 12-14 Nov. 2012. doi: 10.1109/BWCCA.2012.108.
2. Khan, N. A.; Javaid, N. ; Khan, Z. A.; **Jaffar, M.**; Rafiq, U.; Bibi, A., "Ubiquitous HealthCare in Wireless Body Area Networks," Trust, Security and Privacy in Computing and Communications (Trust Com), 2012 IEEE 11th International Conference on, vol., no., pp.1960,1967, 25-27 June 2012. doi: 10.1109/TrustCom.2012.289.

Workshops Participations

3. Microwave Transmission (MTP) Workshop, held on 22nd-23rd May, 2017 in Department of Electrical Engineering at Federal Urdu University of Arts, Science and Technology, Islamabad, Pakistan.

Thesis

4. *Master's Thesis: Comparison of Hierarchical Energy Efficient Routing Protocols for Wireless Sensor Networks, (COMSATS Institute of IT, Islamabad, Pakistan) 2012*
5. *Bachelor's Thesis: Measuring Quality of Service (QoS) of IP (Internet Protocol) Data Over UMTS Networks (Baha-Ud-Din Zakariya University, Multan, Pakistan) 2010*

Membership

IEEE, ACM and IET

Teaching Experience

Lecturer

March 2017-Present

Computer Science Department, Federal Urdu University, Islamabad, Pakistan

I am currently working as Lecturer in Computer Science Department at Federal Urdu University of Arts, Science and Technology, Islamabad. Since last one year, i am teaching different network courses at bachelor and master level. I am actively involved in research. At the moment i am supervising two bachelor students.

Lecturer

November 2016-March 2017

Computer Science Department, Mohi-Ud-Din Islamic University, Nerian Sharif, AJ&K, Camp office, Islamabad, Pakistan

I had been working on different positions in Computer Science Department at Mohi-Ud-Din Islamic University of Nerian Sharif during the last one year. I have worked as Course Coordinator for undergraduate subjects CS-454 (Design and Performance Analysis of Computer Networks), CS-452 (Data Encryption and Security) and CS-474 (Network Administration). The duties included preparation of student's assignments, assignments marking, preparation of university mid semester and final exams and their marking, preparing the tutorial material, providing demonstration to the tutors, course website maintenance and student consultation. Further I have worked as postgraduate and undergraduate tutor. The undergraduate courses that I have taught include CS-116 (Basic Electronics), CS-452 (Data Encryption and Security), CS-454 (Design and Performance Analysis of Computer Networks), CS-322 (Data Communication and Computer Networks) and CS-474 (Network Administration). The postgraduate courses that I have taught include CS-322 (Computer Networks), CS-113 (Programming Fundamentals) and CS-222 (Operating System Concepts). Along with this, I have worked as IT help desk in CS department.

Private Teaching

Feb. 2016-March 2017

Federal Urdu University of Arts, Science and Technology, Islamabad, Pakistan

Previously, I had been working as a Visiting Lecturer in Department of Computer Science. Further I have also worked as postgraduate and undergraduate tutor. The undergraduate courses that I have taught include (Computer Communication Networks), (Multimedia Technologies) and (Digital Image Processing). The postgraduate courses that I have taught include (Discrete Structures).

Visiting Faculty Member

June 2016- To Till Date

Mohi-Ud-Din Islamic University, Nerian Sharif, AJ&K, Camp office, Islamabad.

The duties included preparation of student's assignments, assignments marking, preparation of university mid semester and final exams and their marking, preparing the tutorial material, providing demonstration to the tutors and student consultation. Further I have worked as postgraduate and undergraduate tutor. The undergraduate courses that I have taught include CS-116 (Basic Electronics), CS-452 (Data Encryption and Security), CS-454 (Design and Performance Analysis of Computer Networks), and CS-322 (Data Communication and Computer Networks). The postgraduate courses that I have taught includes CS-114 (Discrete Structures).

Visiting Faculty Member

Dec. 2014-Jan. 2017

Baha-Ud-Din Zakariya University, Multan, Pakistan

The duties included preparation of student's assignments, assignments marking, preparation of university mid semester and final exams and their marking, preparing the tutorial material, providing demonstration to the tutors, course website maintenance and student consultation. Further I have worked as postgraduate and undergraduate tutor. The undergraduate courses that I have taught include (Information and Communication Technologies). The postgraduate courses that I have taught include (Computer Applications in Education) and (Discrete Structures).

Skills

- ✓ MS Office
- ✓ LaTeX
- ✓ Python/ Spider IDE
- ✓ LINUX
- ✓ C, C++
- ✓ MATLAB, SIMULINK
- ✓ Configuration of Cisco/3Com Routers and Switches, D-Link, Linksys, Siemens Speedstream and other different types of modems, Hubs, Switches etc.

References

1. *Dr. Nadeem Javaid*

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Department of Computer Science,
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2. *Dr. Safdar H. Bouk*

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3. *Prof. Dr. Iftikhar Ahmad*

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4. *Dr. Basit Raza*

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