

Engr. Asma Khan

Professional Engineer

Assistant Professor

Department of Software Engineering

NED University of Engineering and Technology.

Karachi

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OBJECTIVE

As an educator in the field of software Engineering and programming, my primary goal is to inspire and empower students to become proficient, creative, and responsible problem solvers and enable students to transform ideas into tangible, working solutions, and my role as an instructor is to guide them on this journey.

STRENGTHS

Proficient in a wide range of programming languages, databases, and client-server applications, with a strong ability to deliver high-quality solutions under tight deadlines. Committed to continuous professional development, I stay updated with the latest technological advancements to ensure the integration of cutting-edge tools and methodologies into my work.

ACADEMICS

POST GRADUATE

Department of Information Technology, M.U.E.T Jamshoro

Department : Information Technology

Degree : M.E (IT)

Status : 3.87 CGPA

Thesis Topic: Mathematical model and software was designed for the time synchronization of Mobile sensor node for mobile wireless sensor networks.

GRADUATE

Department of computer Systems Engineering, M.U.E.T Jamshoro.

Department : Computer systems engineering

Degree : B.E (Computer Systems)

Percentage : 91.55% (3rd Position)

HIGHER SCNDARY, 1991

Board of Intermediate and Secondary Education, Hyderabad

Institution : Govt. Nazareth (girls) College, Hyderabad

Major : Pre-Engineering

Percentage : 77.41%

SECONDARY, 1989

Board of Intermediate and Secondary Education, Hyderabad

Institution : Govt. Girls Pilot School, Hyderabad

Major : Science
Percentage : 78.27%

WORK EXPERIENCE (26+ years)

- **Assistant Professor | Department of Software Engineering,NED University, Karachi Campus (March 28,2018 to Date)** (8+ years teaching experience as an Assistant Professor)
- **Assistant Professor | Department of Computer Science, Bahria University, Karachi Campus (Feb14,2014 to March 2018)** (13+ years teaching experience as an Assistant Professor)
- **Assistant Professor | Department of Computer Science, Isra University, Hyderabad | Oct 2005 to March 2018.**
- **Lecturer | Department of Computer Science, Isra University, Hyderabad | Oct 2000-Oct 2005** (5 years teaching experience as a Lecturer)
- **Demonstrator |Department of Computer Science, Isra University, Hyderabad | Oct 1999-Oct 2000** (1 year teaching experience as a Demonstrator)
- **Trainee Demonstrator | Department of Computer Science, Isra University, Hyderabad | Oct 1998-Oct 1999.** (1 year teaching experience as a Trainee Demonstrator)

SOFTWARES DEVELOPED

- **Smart Tutor an Intelligent Tutoring System for C Sharp Programming**
- **Image processing based desktop Application.**
- **Computerization of ANSARI Petroleum Pump in Visual Basic.net**
- **E.N.T Expert System in clips**
- **Software of Image Processing Technique in Visual Basic 6**
- **Computerization of Philips Industries Pvt. Limited in Microsoft Access and Visual Basic.net**
- **And many other internal and external projects**
- **Have been supervised many outstanding projects and websites**

SKILLS

Operating Systems: MS-Windows 10 and XP (Installation and Configuration)

Programming Languages: C#, Visual Basic, VB.Net, C/ C++, Pascal, SQL and Clips ,Python

Database: Developer 2000, Access, SQL SERVER 2000,MongoDB

Internet Tools: HTML, DHTML, ASP, ASP.NET, PHP ,React, ReactJS,and XML

Others: Microsoft Office, Corel Draw, Macromedia Flash, I Photo Plus, and Adobe Photoshop 7, Dream weaver , Word press.

RESEARCH PAPERS

- **AI-Powered Genetic Algorithm-Based System for Predicting Diabetics Risk in Future Generations, published in Sindh University Journal, Vol. 57 No. 1 (2025): Sindh University Research Journal (Science Series) SURJ 2025**

- An AI-Enabled Framework Employs Deep Neural Models for Forecasting Climate Data in the Smart Agriculture System , **International Conference on Emerging Technologies in Electronics, Computing and Communication.2022**
- Automatic Jammer Signal Classification using Deep learning in the spectrum of AI enabled CR-IOT, ICICT 7th International Congress on Information and Communication Technology, 21-22 Feb)
- SUMRATE PERFORMANCE OF PRECODING TECHNIQUES IN MULTIUSER MIMO SYSTEMS
Asma Khan Aisha Danish, Farukh Shahid
ENGINEERING SCIENCE AND TECHNOLOGY INTERNATIONAL RESEARCH JOURNAL, 2 (1), 6
- Smart Tutor an Intelligent Tutoring System for C Sharp Programming
Asma Khan, Junaid Quadri
International Journal of Computer Applications 180 (180(27):28-33), 6
- HEPO: The hepatitis ontology for abductive medical diagnostic systems
Asma Khan, A Sadia, S Ahmed, H Tabassum, MS Khan
Communication, Computing and Digital Systems (C-CODE), International ...
- “Designing of dual band patch antenna using U-slot technique for wireless communication” has been published in Bahria University Research Journal BUJICT.
- “Modeling and simulation of Mean Square Error for Packet Loss Criterion in Multiplexing Environment”, published in Mehran University of Engg. & Technology Research Journal, Volume 22, Number 2, April, 2003, pp 129-132.
- “Sensitivity of compressed speech signal energies in relation to human perception”, published in Sindh University Research Journal.(Sci.Ser), Vol: 34-B(02) September 2002 pp.117-119.
- “Analysis of MANNET Routing Protocols using scenario based Mobility Models”, has been published in **International Conference** at Pakistan Navy Engineering College.
- “A study of software protection techniques”, has been published in CISSE 2007(**International Conference**)
- “Analysis of MANET Routing Protocols under TCP VEGAS with Mobility Consideration” , has been published in IMTIC'08 11- 12 April 2008 (**International Conference**)
- “Performance comparison of Non Criterion based Schemes for low bit rate speech based multiplexer Architecture” ,has been presented in IEEE Sconest 2003 at Bahria University Karachi
- “Time Synchronization for mobile wireless sensor network” International Journal of Computer and Electrical Engineering, Vol. 6, No. 2, April 2014
- “Analysis of Proactive and Reactive MANnet routing protocols under selected TCP variants”.
International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC) Vol.4, No.4, August 2013.
- “Information Leakage in Cloud “, has been presented in IEEE ICOSST 2014, 8th international Conference on open Source Systems and Technologies.

Subjects Taught:

- Programming Fundamentals(Python)
- Visual Programming (C # and VB.NET)
- Web Engineering.
- Software Engineering.
- Object oriented Programming (C++)
- Introduction to Computers.
- Calculus and Analytical Geometry.
- Database Management System.
- Database Administration.(SQL Server 2000)
- Oracle 9i.
- Digital Logic and Design.
- Web site Development.(HTML, CSS, Java Script ,Adobe Photoshop, Dreamweaver, Macromedia Flash)
 - Web Engineering(All web Theory, HTML5,CSS, Javascript,React,Reactjs,Mongodb,PHP)
- Internet Programming and Management.(ASP, ASP.net, XML)
- Linear Algebra and Differential Equations
- Office Applications.
- Data Communications and Networks
- Computer Networks
- Content Management System(CMS)

CONFERENCES and WORKSHOP ATTENDED

- **Conducted Training session for the faculty on Health and Safety measures, 2025**
- **Completed , one day training on Fundamentals of Deep Learning arranged by NVidia ,Feb 2025**
- **Visited FAST University as Master's Thesis Evaluator , 2023, 2024**
- **Arranged a workshop on Machine Learning and Data Science students of Software Engineering Department 2025**
- **Received HEC Teachers development training (Duration 10 weeks)2020**
- **5 days workshop on Active Citizen Program (ACP) conducted by British Council on 18th January 2016.**
- **2 Days workshop on Microsoft Azure and Microsoft SharePoint.**
- **Workshop on Developing Industry Driven Technologies.7th January 2015.**
- **ICOSST 2014 ,IEEE Conference at UET . Lahore**
- **Sconest 2003 IEEE Conference**
- **Expo Asia Conference 2001-2002 Hyderabad**
- **Expo Asia Conference 2000-2001 Hyderabad**
- **One day Seminar on “ HP & Microsoft Product Road Map For Educational Institutions of Pakistan” 1st April 2008**
- **IEEE mentoring session & innovative technology. 15th Feb 2013**
- **HEC seminar on Cloud Computing on Microsoft Azure 2016 at Bahria University Karachi.**
- **HEC Teachers development training (Duration 10 weeks)**
- **One day Training On Deep Learning Techniques offered by NVidia Company 2025**
- **Attended ICONIC's 2024(International Conference)**

PAPERS PRESENTED

- Presented paper in International Conference at UET Lahore. ICOSST 2014
- Presented paper on line through video conferencing in CISSE 2007 (International Conference)
- Presented paper in Sconest 2003 IEEE Conference held at Bahria Karachi
- Presented paper in Expo Asia Conference 2001-2002 Hyderabad
- Presented paper in NACTICT 2016 at Bahria University Karachi

MEMBERSHIP

Pakistan Engineering Council (PEC)

AWARDS AND PARTICIPATION

- Received Award of Appreciation and Excellence from Director, Bahria University Karachi Campus, 2017.
- Received Award of Appreciation from Rector Bahria University Karachi Campus, 2016.
- Received letter of Appreciation from VC, Isra University Hyderabad 2012
- Performed the Duties of External Examiner at Mehran University for CS, TL and Electronics Dept

Master's Guided Thesis:

1. **Mobility of Manet Routing Protocols Under TCP Vegas with Mobility Consideration.**

Student Name: Razia Nisar (Msc)

Dissertation Date: August 2007

2. **Analysis of Proactive and Reactive routing protocols under selected TCP variants**

Student Name: Iffat Arshad Syed (Msc)

Dessertation Date: October 2007.

3. **Evaluating On-line Analytical Processing in decision support systems using Multidimensional Environment.**

Student Name: Iftikhar Ahmed Ansari

Dessertation Date: October 2007

4. **Analysis of MANET Routing Protocols based on the comparasion of MANET routing protocols (AODV, DSR, TORA and DSDV) using scenario based mobility models.**

Student Name: Sehrish Abrejo

Dessertation Date: October 2007

External Examiner /Moderator for:

1. Masters Thesis Examiner (FAST University, city Campus)
2. Programming Competition Judge (Sir Syed University Karachi, SMEC 23, SMEC24)
3. IBA (Sukkar)

Examination: Final, Fall 2007.

Class: BS-I (CS)/BS-I (TS)

Subject: Basic Electronics

4. **Mehran University of engineering and Technology**
Subject: Introduction to Programming languages
 5. **Mehran University of engineering and Technology**
Department of Tele Communications and Civil Engineering
Introduction to Computing and C++ Programming
Introduction to Simulation tools.
Computer Aided Engineering drawing
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REFERENCES:

Dr. Hameedullah Kazi(hkazi@yahoo.com)

Pro Vice Chancellor and Professor, Faculty of Engineering and Computer Sciences

Isra University, Hyderabad

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Dr. Aftab Memon (memon_aftab@yahoo.com)

Professor, Mehran University of Engineering and Technology

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International Islamic University Malaysia

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