

Dr. Muhammad Bilal

Lecturer IET, HoD IET Additional Director ORIC

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Educational Profile

- Doctor of Philosophy (PhD) in Electrical Engineering, CECOS University of IT and Emerging Sciences Peshawar.
- Master of Science in Computer System Engineering, University of Engineering and Technology Peshawar, Nov 2007-OCT 2013.
- Bachelor of Science (BSc) in Computer System Engineering (Hons.), University of Engineering & Technology Peshawar, Pakistan, Jan 2003-Sept 2007.
- Faculty of Science (FSc) in Pre-Engineering, Board of Intermediate & Secondary Education Peshawar, 1st Division, 2002.
- Matric (Science Group), Board of Intermediate & Secondary Education Peshawar, Pakistan, 1st Division, 2000.

Professional Profile

- Lecturer (September 23, 2021 Till date)
 Department of Information and Engineering Technology, UOT Nowshera.
- **HoD IET** (July 3rd, 2023–Till date)
 Office of Research Innovation and Commercialization, UOT Nowshera.
- Additional Director ORIC (May 26th, 2022– Till date)
 Office of Research Innovation and Commercialization, UOT Nowshera.
- **Final Project-Coordinator** (September 26th, 2021–Till date) Department of Information and Engineering Technology, UOT Nowshera.
- Industrial Training Coordinator IET (September 26th, 2021– Till date) Department of Information and Engineering Technology, UOT Nowshera.
- FYDP-Coordinator (March, 2015–21 September 2021)
 Department of Electrical Engineering, CECOS University of Information Technology and Emerging Sciences, Peshawar, Pakistan.
- Lecturer (August 02, 2007 21 September 2021)
 Department of Electrical Engineering, CECOS University of Information Technology and Emerging Sciences, Peshawar, Pakistan.
- Internee (May 2005 July 2005). North West Research (Nuovo System Inc Co).

• Internee (May 2004 - July 2004) First national Equities

Research Interests

Pattern recognition, Image Compression, Pose estimation, Communication technologies.

Research Articles

- 1. Owais Khan, Shahid Khan, Safdar Nawaz Khan Marwat, Neelam Gohar , Muhammad Bilal and Mariana Dalarsson "A Novel Densely Packed 4×4 MIMO Antenna Design for UWB Wireless Applications" 2023.
- 2. Fida Mohammad, Mukhtaj Khan, Safdar Nawaz Khan Marwat, Naveed Jan, Neelam Gohar, Muhammad Bilal, Amal Al-Rasheed. "Text Augmentation-Based Model for Emotion Recognition Using Transformers" Computers, Materials & Continua (2023).
- 3. Bari, I., Iqbal, J., Ali, H., Rauf, A., Bilal, M., Jan, N.,& Ghoniem, R. M. Bandwidth Enhancement and Generation of CP of Yagi-Uda-Shape Feed on a Rectangular DRA for 5G Applications. Micromachines, 13(11), 1913 (2022).
- 4. Javed, Muhammad Haris, Muhammad Ali Sikandar, Waqas Ahmad, Muhammad Tariq Bashir, Raid Alrowais, and Muhammad Bilal Wadud. "Effect of various biochars on physical, mechanical, and microstructural characteristics of cement pastes and mortars." Journal of Building Engineering (2022).
- 5. Bilal, Muhammmad, Zahid Ullah, and Ihtesham Ul Islam. "Fast Codebook Generation Using Pattern Based Masking Algorithm for Image Compression." IEEE Access (2021).
- 6. A. Qazi, Z. Ullah, K. Rehman, M. H. Khan and M. Bilal, "Optimization of access latency in DRAM," 2016 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), Quetta, 2016, pp. 163-168.
- 7. M. Khan, Bilal Wadud et al., "The effect of malicious nodes on Tor security," 2015 International Conference on Applied Research in Computer Science and Engineering (ICAR), Beirut, 2015, pp. 1-5.
- 8. M.bilal wadud et al.Model-based Pose Estimation Using Genetic Algorithm for Obstacle Avoidance, International Conference on Intelligence and Information Technology (ICIIT 2010)

Professional Affiliations

• Registered Engineer with Pakistan Engineering Council (PEC reg. No.: COMP-4397).

Awards

- Winner of COMPPEC 2022 in IoT and Digital System (supervisor)
- Best supervisor award 2013 Electrical Department CECOS University
- Best Teacher award 2010 CECOS University
- Merit Scholarship awarded by the University of Engineering & Technology, Peshawar, Pakistan in all four years of B.Sc. Engineering.

Research Grants

• Bomb disposal Robot

- Funded by ICT (NGIRI) Ignite 2016
- Accident detection and alert system Funded by ICT (NGIRI) Ignite 2016
- Vehicle theft detection and jamming Immune system Funded by ICT (NGIRI) Ignite 2019
- Gesture controlled quadcopter
 Funded by ICT (NGIRI) Ignite 2019
- Prosthetic leg using flex sensor
 Funded by ICT (NGIRI) Ignite 2020
- AI based home automation system Funded by ICT (NGIRI) Ignite 2022

Supervision

- MS Students
 - Supervised: 1
- BS Students
 - Supervised: 18

Computer Skills

- **Programming Languages:** C, C++, Visual C++ (Win 32 API programming), Java (network programming), Arduino IDE
- Tools: Microsoft Word, Microsoft Power Point, Microsoft Excel, MATLAB, Spice, Hspice, Electronic Workbench, Dreamweaver, Dia, Origin, LaTex, Xilinx Design Suite.
- Operating Systems: Installation, troubleshooting of Window (10,8,7), Linux
- Computer Networking: Router configuration and troubleshooting