

GHULAM FIZA

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PEC No. TELE/06742

EDUCATION

Joint Master of Engineering, Telecommunication Engineering & Management
University of Malaga, Spain (Worked as a Researcher)
Mehran University of Engineering and Technology, Jamshoro, Pakistan 2019
CGPA: 4.00/4.00

Bachelor of Engineering, Telecommunication
Mehran University of Engineering and Technology, Jamshoro, Pakistan
CGPA: 3.88/ 4.00 (1st Position) 2017

WORK EXPERIENCE

NED University of Engineering and Technology, Karachi 21st April 2022- to- date

- Lecturer, Department of Telecommunications Engineering

University of Sindh, Jamshoro 19 Jan 2022- 19th April 2022

- Lab Engineer at Department of Telecommunication Engineering
- Conducted labs and theory subjects of Optical Fiber Communication, Mobile & Wireless Communication, Computer Communication Networks, and Microprocessors & Microcontrollers.

Mehran University of Engineering & Technology, Jamshoro Aug 2020-Jan 2022

- Research Assistant under HEC National Centre of Robotics and Automation in Condition Monitoring System Lab.
- Designed, tested and made publications on projects related to road and railway condition monitoring systems.

Management Institute of Technology, Affiliated with University of Sindh Feb 2019–Feb 2021

- Taught computer communication and networks and microprocessor subjects to BSIT students as a lecturer.

University of Malaga, Spain Sept 2018-Jan 2019

- Worked on research project titled “Anti-Smog Radar Application for Vehicles” using Arduino Software, Android Studio, and Firebase Database.

Mehran University of Engineering and Technology, Jamshoro Feb 2017-Aug 2017

- Worked as a researcher under PSEB ICT Prime Minister’s Internship Program.
- Designed and implemented IoT based environmental monitoring system.

Govt. Girls Degree College, Qasimabad, Hyderabad 2017-2018

- Worked as an Internee under Prime Minister Youth Training Scheme.
- Taught Computer Communication & Networks and Electronic Circuit subjects to the BCS students.

ACHIEVEMENTS/CERTIFICATIONS

- Achieved a significant milestone by securing a pivotal role as a member of the project “Mobility for bilateral stakeholder mapping for creating IoT networks for climate change”, under the PAK-UK Education Gateway Mobility Partnership for Faculty, funded by the British Council and Higher Education Commission (HEC) Pakistan in 2023.
- Assisted students as a course instructor in the IC Design Summer School, focusing on logic implementation in Verilog and its downloading to FPGA (Altera DE1 board) from May 2022

to September 2022.

- Awarded with Erasmus+ (ICM KA107) scholarship at University of Malaga, Spain, 2018-2019.
- Awarded with silver medal and excellence certificate for securing 1st position in undergraduate studies, 2017.
- Conducted successful training session on “Sensing and Controlling Real World Using Arduino” at Dept. of Telecommunication Engineering, MUET, Jamshoro, 2018.
- Conducted successful training session on “Internet of things and Arduino” at Dept. of Telecommunication Engineering, MUET, Jamshoro, 2017.
- Designed Internet of Things laboratory in Telecommunication Department, MUET, 2017.

TRAININGS/WORKSHOPS

- QEC Training on “Presentation Skills”, Feb 2023, NEDUET.
- QEC Training on “Technical Writing & Research Manuscripts”, Jan 2023, NEDUET.
- 4 days QEC Training on “Manual of OBE System Framework”, Oct 2022, NEDUET.
- QEC Training on “Faculty Development Programme”, Dec-Jan 2022, NEDUET.
- Participated in the webinar of 7th edition of the International Conference on Multimedia Computing and Systems, organized by Tetouan-Morocco, 1-2 Oct 2020.
- Participated in 5 days Business Model Generation training held at MUISTD, MUET, 2017.
- Participated in 1 week training on RF Engineering held at MUET, 2016.
- Participated in 3 days training on Wearable Wireless Sensor Network held at MUET, 2015.

RESEARCH INTERESTS

- Wireless Sensor Networks, Wireless Body Area Networks, IoT/IoV, Machine/Deep Learning, Neural Networks, 5G/6G.

SKILLS

- C/C++, Python, PHP, Optisystem, Packet Tracer, MATLAB, Proteus, MultiSim, LATEX, Android Studio, HFSS, OMNET++, Data Analytics.

PUBLICATIONS

- Bhawani Shankar Chowdhry, Salman ul Mouzam , Ali Akbar Shah, Ghulam Fiza Mirza and Mohammad Aslam Uqaili, “Development of TTGO Wireless Microcontroller Based Smart SpO2 Band for the In-Time Diagnosis of the COVID’19 Infected Patients”, *Wireless Personal Communications*, Springer. (Accepted)
- Muhammad Haashir Absar; Ghulam Fiza Mirza; Warisha Zakai; Youail John; Noman Mansoor, "Novel IoT-Based Plant Monitoring System", *Engineering Proceedings*, 2023, 32(1):12. <https://doi.org/10.3390/engproc2023032012>.
- Ghulam Fiza Mirza, Yahya Sameen Junejo, Faisal Kareem Shaikh, Bhawani Shankar Chowdhry and Ali Akbar Shah, "Smart Railway Level Crossing System for Avoiding Accidents," *2023 International Conference on Robotics and Automation in Industry (ICRAI)*, Peshawar, Pakistan, 2023, pp. 1-8, doi: 10.1109/ICRAI57502.2023.10089536.
- Ali Akbar Shah, Ghulam Fiza Mirza, Ghulam Hyder Palli, Tanweer Hussain, Bhawani Shankar Chowdhry, Muhammad Zakir Shaikh, "Development of a Rail Flaw Measuring Stick Using Binary Image Classifier", in J. Pombo, (Editor), "Proceedings of the Fifth International Conference on Railway Technology: Research, Development and Maintenance", Civil-Comp Press, Edinburgh, UK, Online volume: CCC 1, Paper 10.28, 2022, doi:10.4203/ccc.1.10.28.
- Ali Akbar Shah, Tanweer Hussain, Bhawani Shankar Chowdhry, Muhammad Zakir Shaikh & Ghulam Fiza Mirza. (2022). Three Staged Railway Track Fault Diagnosis Using Stereo-Imaging, Canny Edge Filter, and Binary Image Classifier. 159-165.

10.1109/BlackSeaCom54372.2022.9858274.

- Ghulam Hyder Palli, Ghulam Fiza Mirza, Bhawani Shankar Chowdhry, “Novel IoT-Based E-Health System: Hospital Management, Telemedicine and Quarantine Management for COVID-19” in 2022 IEEE, Third International Conference on Latest trends in Electrical Engineering and Computing Technologies (INTELLECT), 2022.
- Ghulam Fiza Mirza, Ali Akbar Shah, Bhawani Shankar Chowdhry, Tanweer Hussain, Yahya Sameen Junejo, "Road Condition Monitoring Using Axle-Based Acceleration Method and K-Means Clustering Algorithm," in 2021 IEEE 18th International Conference on Smart Communities: Improving Quality of Life Using ICT, IoT and AI (HONET-ICT), 2021.
- Ghulam Hyder Palli, Ali Akbar Shah, Bhawani Shankar Chowdhry, Tanweer Hussain, Ubaid Ur Rehman, Ghulam Fiza Mirza, “Recognition of Train Driver’s Attention Using Haar Cascade”, in 2021 IEEE 18th International Conference on Smart Communities: Improving Quality of Life Using ICT, IoT and AI (HONET-ICT), 2021.
- Ghulam Hyder Palli, Ghulam Fiza Mirza, Ali Akbar Shah, Bhawani Shankar Chowdhry, Tanweer Hussain and Ubaid Ur Rehman, “Defects Detection & Condition Assessment of Road Infrastructure Using Deep Learning Algorithm”, in 2021 IEEE 4th International Conference on Robotics and Automation in Industry”, (ICRAI) 2021.
- Noorain Mukhtiar, B.S Chowdhary, Tanweer Hussain, Burhan Aslam, Fiza Mirza, “Railway Track Condition Monitoring with ABA Methodology By using Smart IMU Sensors”, Engineering, Science and Technology International Research Journal, vol. 5, no. 3, Sept 2021.
- Mirza, Ghulam Fiza and Umrani, A. W. and Jawad, Abdul Razzaque and Bohra, Nafeesa and Chowdhry, B. S. and Umrani, Fahim Aziz, "Anti-fog System for High Speed Vehicles Using WI-FI", Wireless Personal Communications, 1-13, Springer, 2019. DOI: 10.1007/s11277- 019-06263-8.
- Ghulam Fiza Mirza, Abdul Razzaque Jawad, Hyder Bux Mangrio, Ghulam Rubab Mirza, "Anti-Smog Radar Application for Vehicles", International Journal of Modern Research in Engineering & Management (IJMREM), vol.2, no. 2, pp.22-33, Feb 2019.
- Ghulam Rubab Mirza, Mukhtiar Ahmed Mahar, Abdul Sattar Larik, Abdul Razzaque Jawad, Ghulam Fiza Mirza, "IoT based Environmental Monitoring and Control System", International Journal of Modern Research in Engineering & Management (IJMREM), vol.2, no. 2, pp.12-21, Feb 2019.
- Ghulam Fiza Mirza, Aqeel Ahmed, Nafeesa Bohra, Sorath Khan, Azam Rafique Memon & Anum Talpur, "Performance Analysis of Location Based Smart Catastrophe Monitoring System Using WSN", Wireless Personal Communications, 1-20, Springer, 2018.
- Ghulam Fiza, Uzair Uddin, Sobia Rasheed, Tooba Israr, Attiq Rehman, 2016. 'Internet of Things (IoT) and Wireless Sensor Networks (WSNs) Based Smart Catastrophe Monitoring System for Factories'. In: Harijan, K. ed., Proceedings of the 4th International Conference on Energy, Environment and Sustainable Development, November 01-03, 2016.

