

PERSONAL INFORMATION



Muhammad Tanveer Riaz

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📅 Date of birth 17 July 1993 | 🇵🇰 Nationality Pakistani

EDUCATIONAL BACKGROUND

Sep/2016–Jul/2018 Masters in Electrical Engineering

Chongqing University, Chongqing 400044, P.R. China

- Thesis Title: Analysis of HVDC Transmission Modes and Simulation the Law of Grounding Current Dispersion
- Supervisor: Prof. Dr. Yang Fan
- Overall CGPA: 3.60/4.00

Oct/2011–Jul/2015 Bachelor of Science in Electrical Engineering

University of Engineering & Technology, Lahore, Pakistan

- Thesis Title: Android Based Home Automation System Using Wi-Fi Module
- Supervisor: Prof. Dr. Muhammad Akram
- Overall CGPA: 3.58/4.00

WORK EXPERIENCE

May/2019 – Present Lecturer

University of Engineering & Technology Lahore, Faisalabad Campus, Pakistan

- Teaching and labs demonstration to undergraduate students.
- In-charge for Renewable Energy Resources Labs.
- Preparation of laboratory manuals.
- Coordinator for Continuous Professional Development (CPD) programs in the department.
- Advisor to Mechatronics & Control Society (MACS).
- Member for Online Distance Learning (ODL) Committee.
- Supervising Final Year Projects of undergraduate students.

Aug/2018 – May/2019 Lecturer

The University of Faisalabad, Engineering Campus, Pakistan

- Teaching and labs demonstration to undergraduate students.
- Preparation of laboratory manuals.
- Assisted the faculty in development of learning materials and maintaining records to monitor student progress and achievement.
- Participated in the administration and marking of exams and other assessments.
- Supervised undergrad Final Year Projects.
- Developed two research societies in the department and engaged with them.

RESEARCH PUBLICATIONS

International Journals

1. Muhammad Zia Ur Rahman, Umair Raza, Muhammad Azeem Akbar, **Muhammad Tanveer Riaz**, Abdu H. Gumaei and Nasir Ahmad "Radio-Controlled Intelligent UGV as a Spy Robot with Laser Targeting for Military Purposes" in *Axions*, 2023, 12(02), 176. DOI: 10.3390/ax-ions12020176
2. Muhammad Zia Rahman, Muhammad Azeem Akbar, Víctor Leiva, Abdullah Tahir, **Muhammad Tanveer Riaz**, Carlos Martin-Barreiro "An intelligent health monitoring and diagnosis system based on the internet of things and fuzzy logic for cardiac arrhythmia COVID-19 patients" in *Computers in Biology and Medicine*, 2023, 154, 106583. DOI: 10.1016/j.compbiomed.2023.106583
3. Ahmed Mateen Buttar, Adeel Khalid, Mamdouh Alenezi, Muhammad Azeem Akbar, Saima Rafi, Abdu H. Gumaei and **Muhammad Tanveer Riaz** "Optimization of DevOps Transformation for Cloud-Based Applications" in *Electronics*, 2023, 12(02), 357. DOI: 10.3390/electronics12020357
4. Muhammad Zia Ur Rahman, Ali Hassan Raza, Abeer Abdulaziz AlSanad, Muhammad Azeem Akbar, Rabia Liaquat, **Muhammad Tanveer Riaz**, Lulwah AlSuwaidan, Halah Abdulaziz Al-Alshaikh, Hatoon S Alsagri, "Real-time artificial intelligence based health monitoring, diagnosing and environmental control system for COVID-19 patients" in *Mathematical Biosciences and Engineering*, 19(8), 456-472, 2022. DOI: 10.3934/mbe.2022357
5. **Muhammad Tanveer Riaz**, Abeer Abdulaziz AlSanad, Saeed Ahmad, Muhammad Azeem Akbar, Lulwah AlSuwaidan, Halah Abdulaziz AL-ALShaikh, Hatoon S AlSagri, "A wireless controlled intelligent healthcare system for diplegia patients" in *Mathematical Biosciences and Engineering*, 19(1), 456-472, 2022. [ISI] DOI: 10.3934/mbe.2022022
6. Muhammad Zia Ur Rahman, **Muhammad Tanveer Riaz**, M. M. Sayed Al Mahmud, Mohsin Rizwan, Muhammad Ahmad Choudhry, "The Prescribed Fixed Structure Intelligent Robust Control of an Electrohydraulic Servo System", in *Hindawi: Mathematical Problems in Engineering*, vol. 2022, Article ID 5144602, 12 pages, 2022. DOI: 10.1155/2022/5144602
7. **Muhammad Tanveer Riaz**, Umar Saeed, Saba Waseem, Sidra Riaz, Eman Manzoor Ahmed, "PWM Controlled Bidirectional Converter having Load-Independent Voltage-Gain", in *Journal of Engineering Research and Sciences*, Volume 1, Issue 5, 34-40, 2022. DOI: 10.55708/js0105004
8. Waqas Qaisar, **Muhammad Tanveer Riaz**, Abdul Basit, Yasir Naseem, Zohaib Nazir, "Disinfecting Omnidirectional Mobile Robot with Vision Capabilities", in *Journal of Engineering Research and Sciences*, Volume 1, Issue 3, 153-163, 2022. DOI: 10.55708/js0103016
9. Haider Ali Javaid, Mohsin Islam Tiwana, Ahmed Alsanad, Javaid Iqbal, **Muhammad Tanveer Riaz**, Saeed Ahmad and Faisal Abdulaziz Almisned, "Classification of Hand Movements Using MYO Armband on an Embedded Platform" in *Electronics*, 2021, 10(11), 1322. [ISI]. DOI: 10.3390/electronics10111322
10. Muhammad Azeem Akbar, Hussain Alsalman, Arif Ali Khan, Sajjad Mahmood, Chandrashekhra Meshram, Abdu H. Gumaei, **Muhammad Tanveer Riaz**, "Multicriteria Decision Making Taxonomy of Cloud-Based Global Software Development Motivators" in *IEEE Access*, vol. 8, pp. 185290-185310, 2020. [ISI] DOI: 10.1109/ACCESS.2020.3030124
11. Muhammad Azeem Akbar, Sajjad Mahmood, Hussain Alsalman, Abdul Razzaq, Abdu Gumaei, **Muhammad Tanveer Riaz**, "Identification and Prioritization of Cloud Based Global Software Development Best Practices" in *IEEE Access*, vol. 8, pp. 191242-191262, 2020. [ISI] DOI: 10.1109/ACCESS.2020.3031365
12. Muhammad Azeem Akbar, Wishal Naveed, Abeer Abdulaziz Alsanad, Lulwah Alsuwaidan, Ahmed Alsanad, Abdu Gumaei, **Muhammad Tanveer Riaz**, "Requirements Change Management Challenges of Global Software Development: An Empirical Investigation" in *IEEE Access*, vol. 8, pp. 203070-203085, 2020. [ISI] DOI: 10.1109/ACCESS.2020.3035829.
13. Aashir Waleed, Umar Siddique Virk, **Muhammad Tanveer Riaz**, Shaikh Bilal Mehmood "Effectiveness and Comparison of Digital Substations Over Conventional Substations" in *Advances in Science, Technology and Engineering Systems Journal*, Vol. 4, No. 4, 431-439, 2019. DOI: 10.25046/aj040452
14. Syed Zulqadar Hassan, Tariq Kamal, Muhammad Hussnain Riaz, Syed Samir Hussain Shah, Muhammad Sarmad, Hina Gohar Ali, **Muhammad Tanveer Riaz**, Amir Zahoor, Muhammad Abbas Khan, Julio Pascual Miqueleiz, "Intelligent Control of Wind-Assisted PHEVs Smart Charging Station" in *Energies*, 2019, 12(5), 909. [ISI] DOI: 10.3390/en12050909

15. Muhammad Azeem Akbar, Muhammad Shafiq, Tahir Kamal, **Muhammad Tanveer Riaz**, Muhammad Kashif Shad, "An empirical Study Investigation of Task Allocation Process Barriers in the Context of Offshore Software Development Outsourcing: An Organization Size Based Analysis" in *International Journal of Computing and Digital Systems*, 8(4), 2019. DOI: 10.12785/ijcds/080403
16. Saeed Ahmad, Aashir Waleed, Umar Siddique Virk, **Muhammad Tanveer Riaz**, Aamish Sharjeel, Nasir Ahmad, "Multiple Damage Detections in Plate-like Structures Using Curvature Mode Shapes and Gapped Smoothing Method" in *Advances in Mechanical Engineering*, 11(5), May 6, 2019. [ISI] DOI: 10.1177/1687814019848921
17. Tariq Kamal, Murat Karabacak, Syed Zulqadar Hassan, Luis M. Fernández-Ramírez, Muhammad Hussnain Riaz, **Muhammad Tanveer Riaz**, Muhammad Abbas Khan, Laiq Khan, "Energy Management and Switching Control of PHEV Charging Stations in a Hybrid Smart Micro-Grid System" in *Electronics MDPI*, 2018, 7, 156. [ISI] DOI: 10.3390/electronics7090156
18. **Muhammad Tanveer Riaz**, Eman Manzoor Ahmed, Fariha Durrani, Muhammad Asim Mond, "Wireless Android Based Home Automation System" in *Advances in Science, Technology and Engineering Systems Journal*, 2(1), 234-239, 2017. DOI: 10.25046/aj020128
19. Jawad Ahmad, Ammar Mohsin Butt, **Muhammad Tanveer Riaz**, Shoaib Bhutta, "Multiclass Myoelectric Identification of Five Fingers Motion using Artificial Neural Network and Support Vector Machine" in *Advances in Science, Technology and Engineering Systems Journal*, 2(3), 1026-1033, 2017. DOI: 10.25046/aj0203130

Peer-Reviewed International Conferences

1. Muhammad Azeem Akbar, Sajjad Mahmood, Dominik Siemon, **Muhammad Tanveer Riaz**, "Change Management in Cloud-Based Offshore Software Development: A Researchers Perspective" in Springer, *PROFES 2022: Product-Focused Software Process Improvement*, pp 243–251, 2022. DOI: 10.1007/978-3-031-21388-5_17
2. Muhammad Azeem Akbar, Sajjad Mahmood, Dominik Siemon, **Muhammad Tanveer Riaz**, "Toward Effective and Efficient DevOps using Blockchain" *EASE '22: Proceedings of the International Conference on Evaluation and Assessment in Software Engineering 2022*, Pages 421–427, 2022. DOI: 10.1145/3530019.3531344
3. **Muhammad Tanveer Riaz**, Wajahat Saleem Hashmi, Saeed Ahmad, Sabir Husnain, Hassan Mujtaba, Haider Ali, Shahid Atiq, "Design of Optimization Methodology for Economic Dispatch of Thermal Generating Units," *2022 5th International Conference on Energy Conservation and Efficiency (ICECE)*, 2022, pp. 1-6, doi: 10.1109/ICECE54634.2022.9758959.
4. Muhammad Jamal Sarwar, **Muhammad Tanveer Riaz**, Muhammad Imran, Muhammad Hamza, Rashid Hussain, Muhammad Fakhar e Moosa, "Design and Development of IoT-Based Hybrid Bike with Multiple Modes of Charging," *2022 5th International Conference on Energy Conservation and Efficiency (ICECE)*, 2022, pp. 1-6, doi: 10.1109/ICECE54634.2022.9758959.
5. **Muhammad Tanveer Riaz**, Waheed Ur Rehman, Haider Ali, Sabir Husnain, Guiyun Jiang, Ehtisham Lodhi, Sheikh Muhammad Aaqib, Muhammad Mustafa Qureshi "Design and Experimental Validation of a Small-Scale Prototype Active Aerostatic Thrust Bearing" in *2021 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube)*, 2021, pp. 1-6, doi: 10.1109/ICECube53880.2021.9628270.
6. **Muhammad Tanveer Riaz**, Sheikh Muhammad Aaqib, Saeed Ahmad, Sundas Amin, Haider Ali, Sabir Husnain, Sidra Riaz "The Intelligent Transportation Systems with Advanced Technology of Sensor and Network" in *2021 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube)*, 2021, pp. 1-6, doi: 10.1109/ICECube53880.2021.9628331.
7. **Muhammad Tanveer Riaz**, Aurang Zaib, Muhamamad Zeeshan Khan, Sidra Riaz, Saeed Ahmad, Haider Ali, Muhammad Mustafa Qureshi "Investigation of Electrical Properties of Epoxy Resin Composite with the Surface Modification of SiO₂ Nanoparticles" in *2021 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube)*, 2021, pp. 1-5, doi: 10.1109/ICECube53880.2021.9628354.
8. **Muhammad Tanveer Riaz**, Saeed Ahmed, Sheikh Muhammad Aaqib, Umar Farooq and Haider Ali, "Wireless Model for High Voltage Direct Current Measurement using Hall Sensor" in *18th International Bhurban Conference on Applied Sciences & Technologies (IBCAST-2021)*, January 12th-16th 2021, Islamabad, Pakistan.

9. **Muhammad Tanveer Riaz**, Syed Muhammad Umer, Haris Baig, Muhammad Talha, Aqsa Fatima, Hafiz Muhammad Ahmad Ejaz, "Design of a Free Energy Generator using Gravity Wheel & Dynamo" in *4th International Conference on Energy Conservation and Efficiency (ICECE-2021)*, 16-17 March 2021, Lahore, Pakistan.
10. **Muhammad Tanveer Riaz**, Muhammad Muneeb Afzal, Sheikh Muhammad Aaqib, Haider Ali, "Analysis and Evaluating the Effect of Harmonic Distortion Levels in Industry" in *4th International Conference on Energy Conservation and Efficiency (ICECE-2021)*, 16-17 March 2021, Lahore, Pakistan.
11. **Muhammad Tanveer Riaz**, Muhammad Muneeb Afzal, Sheikh Muhammad Aaqib, Haider Ali, "Analysis and Evaluating the Effect of Harmonic Distortion Levels in Industry" in *4th International Conference on Energy Conservation and Efficiency (ICECE-2021)*, 16-17 March 2021, Lahore, Pakistan.
12. Muhammad Rameez Javed, Aashir Waleed, **Muhammad Tanveer Riaz**, Saeed Ahmad, Umar Siddique Virk, Muhammad Nasir, Umair Hussan "Protection Scheme Design for Star Connected PMSG based Wind Farm Against Line Faults" in *3rd International Conference on Computing, Mathematics and Engineering Technologies (iCoMET) 2020*, IBA Sukkar University, January 29-30, 2020, Sukkar Pakistan.
13. Aashir Waleed, Muhammad Rameez Javed, **Muhammad Tanveer Riaz**, Sana Khan, Umar Siddique Virk, Asad Mujtaba, Saeed Ahmad, Gulshaan Arshad "Study on Hybrid Wind-Solar System for Energy Saving Analysis in Energy Sector" in *3rd International Conference on Computing, Mathematics and Engineering Technologies (iCoMET) 2020*, IBA Sukkar University, January 29-30, 2020, Sukkar Pakistan.
14. Muhammad Shafiq, Qinghua Zhang, Muhammad Azeem Akbar, Tahir Kamal, Faisal Mehmood, **Muhammad Tanveer Riaz**, "Towards successful global software development", *EASE '20: Proceedings of the Evaluation and Assessment in Software Engineering* Pages 445–450, April 2020.
15. Ms. Taiyaba, Muhammad Azeem Akbar, Bushra Qureshi, Muhammad Shafiq, Muhammad Hamza, **Muhammad Tanveer Riaz**, "Secure V2X Environment using Blockchain Technology", in *EASE '20: Proceedings of the Evaluation and Assessment in Software Engineering* Pages 69–474, April 2020.
16. Muhammad Rameez Javed, Aashir Waleed, **Muhammad Tanveer Riaz**, Umar Siddique Virk, Saeed Ahmad, Kamran Daniel, Umair Hassan and Muhammad Abbas Khan "A Comparative Study of Maximum Power Point Tracking Techniques for Solar Systems" in *22nd IEEE International Multi Topic Conference 2019 (INMIC2019)*, FAST-National University, November 29-30, 2019, Islamabad Pakistan.
17. Umer Farooq, Yang Fan, Yi Jun, Muhammad Arshad, Nouman Faiz, **Muhammad Tanveer Riaz**, Li Jinxian and Jamshed Ali "A Reliable Approach to Protect and Control of Wind Solar Hybrid DC Microgrids" in *2019 3rd IEEE Conference on Energy Internet and Energy System Integration (EI2)*, November 8-10, 2019, Changsha, China.
18. Muhammad Idrees, **Muhammad Tanveer Riaz**, Aashir Waleed, Zahir Javed Paracha, Hafiz Ahmad Raza, Muhammad Abbas Khan, Wajahat Saleem Hashmi "Fuzzy Logic Based Calculation and Analysis of Health Index for Power Transformer Installed in Grid Stations" in *2019 International Symposium on Recent Advances in Electrical Engineering (RAEE2019)*, Pakistan Institute of Engineering Sciences, August 28-29, 2019, Islamabad Pakistan.
19. Aashir Waleed, **Muhammad Tanveer Riaz**, Muhammad Fazeel Muneer, Muhammad Aftab Ahmad, Ayesha Mughal, Malik Awais Zafar and Muhammad Mudassar Shakoor, "Solar (PV) Water Irrigation System with Wireless Control" in *International Symposium on Recent Advances in Electrical Engineering 2019 (RAEE2019)*, Pakistan Institute of Engineering Sciences, August 28-29, 2019, Islamabad Pakistan.
20. **Muhammad Tanveer Riaz**, Awais Ahmed, Eman Manzoor Ahmed, Muhammad Abbas Khan, Aurang Zaib and Muhammad Fraz Anwar, "Steady State Analysis of HVDC Transmission System Based on MATLAB/SIMULINK" in *International Conference on Electrical, Communication and Computer Engineering (ICECCE-2019)*, July 24, 2019, Swat Pakistan.
21. Ahmad Raza, **Muhammad Tanveer Riaz**, Muhammad Idrees, Muhammad Muneeb Afzal, Wajahat Saleem Hashmi and Muhammad Waleed Asif, "Analysis the effect of 500kv High-Voltage Power Transmission Line on the Output Efficiency of Solar-Panels" in *International Conference on Electrical, Communication and Computer Engineering (ICECCE-2019)*, July 24th-25th 2019, Swat Serina Hotel Pakistan.

22. Awais Ahmed, **Muhammad Tanveer Riaz**, Ali Raza, Aurang Zaib, Muhammad Azeem Akbar and Muhammad Bilal Sarwar, "Modeling and simulation of office desk illumination using ZEMAX" in *International Conference on Electrical, Communication and Computer Engineering (ICECCE-2019)*, July 24th-25th 2019, Swat Serina Hotel Pakistan.
23. Muhammad Awais, Syed Zulqadar Hassan, Tariq Kamal, Amir Zahoor, Muhammad Abbas Khan and **Muhammad Tanveer Riaz**, "Control System for Spinning Machine Induction Motor using PLC" in *International Conference on Electrical, Communication and Computer Engineering (ICECCE-2019)*, July 24th-25th 2019, Swat Serina Hotel Pakistan.
24. **Muhammad Tanveer Riaz**, Yang Fan, Jawad Ahmad, Muhammad Zeeshan Khan, Eman Manzoor Ahmed, "Research on the Protection of Hybrid HVDC System" in *4th International IEEE Conference on Power Generation Systems and Renewable Energy Technologies (PGSRET18)*, Islamic International University, September 10-12, 2018, Islamabad Pakistan.
25. Jawad Ahmad, Jian Li, Mohsin Hussain, **Muhammad Tanveer Riaz**, Muhammad Azeem Akbar, "Study of Physio-chemical Properties of POSS/ Mineral Oil based Nanofluids" in *4th International IEEE Conference on Power Generation Systems and Renewable Energy Technologies*, Islamic International University, September 10-12, 2018, Islamabad Pakistan.
26. Muhammad Azeem Akbar, Nasrullah, Muhammad Shafiq, Jawad Ahmad, Muhammad Ma-teen, **Muhammad Tanveer Riaz**, "AZ-Model of software requirements change management in global software development" *International IEEE Conference on Computing Electronic and Electrical Engineering (ICE-CUBE18)*, Balochistan University of Information Technology, Engineering and Management Sciences, November 12-13, 2018, Quetta Pakistan.
27. Luo Hanwu, Zou Lekai, Yang Fan, **Muhammad Tanveer Riaz**, Cui Shigang, Gao Bing, "Regularity of Current Dispersal in Different Kinds of Grounding Electrode", *International IEEE Conference on High Voltage Engineering and Application (ICHVE2018)*, National Technical University, from September 10-13, 2018, Athens, Greece.

PROJECTS SUPERVISED

Graduate Projects

1. Optimization Methodology for Economic Dispatch of Thermal Generating Units Using Modified Firefly Algorithm.
2. Analysis the effect of 500kv High-Voltage Power Transmission Line on Output Power Generation of Solar Panel.
3. Fuzzy Logic Based Calculation and Analysis of Health Index for Power Transformer Installed in Grid Stations.
4. Analysis of Harmonic Distortion Levels in Industry Using ETAP and its Mitigation

Undergraduate Projects

1. PLC based Smart Irrigation System using Internet of Things
2. Disinfecting Omnidirectional Mobile Robot with Vision Capabilities. (2022)
3. An Industrial Automated Paint Mixer. (2022)
4. Remote Controlled Mine Detection and Surveillance Robot for Rough Terrains. (2021)
5. IOT Based Smart Waste Management System. (2020)
6. Free Energy Generator using Dynamo Flywheel. (2019)
7. A Bidirectional Soft-Switching Series-Resonant Converter with PWM Control and Load-Independent Voltage-Gain Characteristics. (2018)

WORKSHOPS & TRAININGS

1. Completed the Managing Safely an approved course by Institutional of Occupational Safety and Health IOSH Cert. No 858627 on September 23, 2022.
2. One day workshop/short course on Practical Approach for High-End Embedded System Design by Engr. Khalil Rashid, Consultant Embedded System Development Germany, One CPD Credit Point, at FAST National University September 26, 2019.
3. One day workshop/short course on Assessment in Engineering Education with Outcome Based Education (OBE) System by Dr. M Irfan Abid, Riphah International University Pakistan, Point Five CPD Credit Point, at The University of Faisalabad February 28, 2019.
4. One day workshop/short course on Design & Development of Hybrid Energy Test Beds in Pakistan by Dr. Shoaib Khalid, FAST National University Pakistan, Point Five CPD Credit Point, at Riphah International University Faisalabad February 14, 2019.
5. One day workshop/short course on Defeating Disability with Bio-Mechatronics: An Application in Lower Limb Amputees by Dr. Farhan Maqbool, UET Lahore Pakistan, Point Five CPD Credit Point, at Faisalabad Campus UET Lahore December 19, 2018.
6. Microcontroller and its Applications: 3-day workshop, COMSATS IIT Abbottabad, Pakistan.
7. Two days workshop/short course on IoT in Energy Sector and SCADA System by Prof. Dr. Akhtar Kalam, Victoria University Australia, at The University of Faisalabad November 29, 2018.

REFERENCES

Prof. Dr. Hassan Ijaz

Chairman of the Department

Department of Mechanical, Mechatronics and Manufacturing Engineering

University of Engineering and Technology Lahore, Pakistan

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Prof. Dr. Asim Khan

Head of the Department

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