

Imran Shafi

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College of Electrical & Mechanical Engineering
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About

Dr. Imran Shafi is working as Defence Faculty in the College of Electrical & Mechanical Engineering. Dr. Imran Shafi has a PhD in time frequency analysis. Dr. Imran Shafi has published 45 research articles & conference papers having a citation count of 718, carried out 2 projects and filed 4 intellectual property.

Qualifications

PhD in time frequency analysis	2005 - 2009
UET Taxila , Pakistan	
MS in DSP	2001 - 2003
UET Taxila , Pakistan	
BE in Aerospace	1995 - 1999
NUST, Islamabad , Pakistan	

Experience

Defence Faculty	2015- Present
College of Electrical & Mechanical Engineering	

Research Projects

National Projects	
Indigenous development of automatic robotic cleaner for rifled barrels of SH15, SP & Arty Guns	2023
Funding Agency: DGMP	
Amount: PKR 2,499,000.00	
Status: Approved_inprocess	
Development of a Comprehensive Universal Gun Barrel Cleaning Mechanism	2020
Funding Agency: NCRA	
Amount: PKR 8,550,000.00	
Status: Completed	

International Projects

Research Articles

Aerodynamic model identification of supersonic aircraft using Bayesian approach-based Box–Jenkins structure	2025
Muhammad Fawad Mazhar Muhammad Wasim Manzar Abbas Imran Shafi Jamshed Riaz Tai-hoon Kim Imran Ashraf	
Alexandria Engineering Journal , Volume 127, Pages 472-485	
Impact Factor: 6.8 Quartile: 1	
DOI: https://doi.org/10.1016/j.aej.2025.04.059	
ANN-based software cost estimation with input from COCOMO: CANN model	2025
Chaudhry Hamza Rashid Imran Shafi Bilal Hassan Ahmed Khattak MejdI Safran Sultan Alfarhood Imran Ashraf	
Alexandria Engineering Journal , Volume: 113, Pages: 681-694	
Impact Factor: 6.200 Quartile: 1 Citations: 1	
DOI: https://doi.org/10.1016/j.aej.2024.11.042	
Intelligent Decision Making for Commodities Price Prediction: Opportunities, Challenges and Future Avenues	2025
Natasha Saeed Imran Shafi Sidra Pervez Ernesto Bautista Thompson Angel Kuc Castilla Md Abdus Samad Imran Ashraf	
Computational Economics , Pages 1-59	

Impact Factor: 1.900 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1007/s10614-024-10837-5	
Enhancing flood monitoring and prevention using machine learning and IoT integration <i>Syed Asad Shabbir Bukhari Imran Shafi Jamil Ahmad Hammad Tanveer Butt Tahir Khurshaid Imran Ashraf</i> <i>Natural Hazards</i> , Pages 1-28 Impact Factor: 3.300 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1007/s11069-024-06986-3	2024
Enhancing photovoltaic systems using Gaussian process regression for parameter identification and fault detection <i>Aqdas Javaid Imran Shafi Ihsan Ullah Khalil Shazor Ahmad MejdI Safran Sultan Alfarhood Imran Ashraf</i> <i>Energy Reports</i> , Volume 11, Pages 4485-4499 Impact Factor: 5.200 Quartile: 2 Citations: 6 DOI: https://doi.org/10.1016/j.egyr.2024.04.026	2024
Profitability trend prediction in crypto financial markets using Fibonacci technical indicator and hybrid CNN model <i>BILAL HASSAN AHMED KHATTAK Dr Imran Shafi CHAUDHARY HAMZA RASHID MejdI Safran Sultan Alfarhood Dr Imran Ashraf</i> <i>Journal of Big Data</i> , Volume: 11, Article Number: 58 Impact Factor: 8.1 Quartile: 1 Citations: 5 DOI: 10.1186/s40537-024-00908-7	2024
Design and development of patient health tracking, monitoring and big data storage using Internet of Things and real time cloud computing <i>Imran Shafi Sadia Din Siddique Farooq Isabel De La Torre Díez Jose Breñosa Julio César Martínez Espinosa Imran Ashraf</i> <i>PLoS ONE</i> , Volume 19(3), Article Number e0298582 Impact Factor: 3.700 Quartile: 2 Citations: 11 DOI: https://doi.org/10.1371/journal.pone.0298582	2024
Cancer detection and classification using a simplified binary state vector machine <i>Imran Shafi Sana Ansari Sadia Din Imran Ashraf</i> <i>Medical and Biological Engineering and Computing</i> , Pages 1-11 Impact Factor: 3.2 Quartile: 2 Citations: 4 DOI: 10.1007/s11517-023-03012-9	2024
Fault detection and computation of power in PV cells under faulty conditions using deep-learning <i>Amir Sohail Naeem UI Islam Azhar UI Haq Siraj UI Islam Imran Shafi Jaebyung Park</i> <i>Energy Reports</i> , Volume 9, Pages 4325-4336 Impact Factor: 4.937 Quartile: 2 Citations: 18 DOI: https://doi.org/10.1016/j.egyr.2023.03.094	2023
A Systematic Survey of AI Models in Financial Market Forecasting for Profitability Analysis <i>BILAL HASSAN AHMED KHATTAK Dr Imran Shafi ABDUL SABOOR KHAN Emmanuel Soriano Flores ROBERTO GARCÍA LARA MD. ABDUS SAMAD Dr Imran Ashraf</i> <i>IEEE ACCESS</i> , Volume: 11, Page(s): 125359-125380 Impact Factor: 3.9 Quartile: 2 Citations: 22 DOI: 10.1109/ACCESS.2023.3330156	2023
A Meta Modeling-Based Interoperability and Integration Testing Platform for IoT Systems <i>Qasim Ali Shah Imran Shafi Jamil Ahmad Sultan Alfarhood MejdI Safran Imran Ashraf</i> <i>Sensors</i> , Volume 23(21), Article Number 8730 Impact Factor: 3.9 Quartile: 2 Citations: 6 DOI: https://doi.org/10.3390/s23218730	2023
Teeth Lesion Detection Using Deep Learning and the Internet of Things Post-COVID-19 <i>Imran Shafi Muhammad Sajad Anum Fatima Daniel Gavilanes Aray Vivian Lipari Isabel de la Torre Díez Imran Ashraf</i> <i>Sensors</i> , Volume 23, Issue 15, Article Number 6837 Impact Factor: 3.9 Quartile: 2 Citations: 12 DOI: https://doi.org/10.3390/s23156837	2023
A Systematic Review of Disaster Management Systems: Approaches, Challenges, and Future Directions <i>Saad Mazhar Khan Imran Shafi Wasi Haider Butt Isabel De La Torre Díez Miguel Angel López Flores Juan Castanedo Galán Imran Ashraf</i> <i>Land</i> , Volume 12(8), Article Number 1514	2023

Impact Factor: 3.9 Quartile: 2 Citations: 68 DOI: https://doi.org/10.3390/land12081514	
An Artificial Neural Network-Based Approach for Real-Time Hybrid Wind–Solar Resource Assessment and Power Estimation <i>Dr Imran Shafi Harris Khan Muhammad Siddique Farooq Isabel De La Torre Díez Yini Miró Juan Manuel Castanedo Dr Imran Ashraf Energies</i> , Volume: 16, Issue 10, Article Number: 4171 Impact Factor: 3.252 Quartile: 3 Citations: 11 DOI: 10.3390/en16104171	2023
Spare Parts Forecasting and Lumpiness Classification Using Neural Network Model and Its Impact on Aviation Safety <i>Imran Shafi Jamil Ahmad Julio César Martínez Espinosa Luis Alonso Dzul López Ernesto Bautista Thompson Imran Ashraf Amir Sohail Applied Sciences</i> , Volume 13(9), Article Number 5475 Impact Factor: 2.838 Quartile: 2 Citations: 8 DOI: https://doi.org/10.3390/app13095475	2023
Impact of Innovation-Oriented Human Resource on Small and Medium Enterprises' Performance <i>Mahvish Aslam Imran Shafi Jamil Ahmad Mirtha Silvana Garat de Marin Emmanuel Soriano Flores Marco Antonio Rojo Gutiérrez Imran Ashraf Sustainability</i> , Volume 15, Issue 7, Article Number 6273 Impact Factor: 3.889 Quartile: 2 Citations: 16 DOI: https://doi.org/10.3390/su15076273	2023
Deep Learning-Based Multiclass Instance Segmentation for Dental Lesion Detection <i>Anum Fatima Imran Shafi Hammad Afzal Khawar Mahmood Isabel De La Torre Díez Vivian Lipari Julien Brito Ballester Imran Ashraf Healthcare</i> , Volume 11(3), Article Number 347 Impact Factor: 3.160 Quartile: 2 Citations: 31 DOI: https://doi.org/10.3390/healthcare11030347	2023
Deep Learning-Based Real Time Defect Detection for Optimization of Aircraft Manufacturing and Control Performance <i>Imran Shafi Muhammad Fawad Mazhar Anum Fatima Roberto Marcelo Alvarez Yini Miró Julio César Martínez Espinosa Imran Ashraf Drones</i> , Volume 7, Issue 1, Article Number 31 Impact Factor: 5.532 Quartile: 2 Citations: 32 DOI: https://doi.org/10.3390/drones7010031	2023
An Analytical Framework for Innovation Determinants and Their Impact on Business Performance <i>Mahrukh Aslam Imran Shafi Jamil Ahmad Roberto Marcelo Alvarez Yini Miró Emmanuel Soriano Flores Imran Ashraf Sustainability</i> , Volume 15(1), Article Number 458 Impact Factor: 3.889 Quartile: 2 Citations: 2 DOI: https://doi.org/10.3390/su15010458	2022
IoT Enabled Intelligent Stick for Visually Impaired People for Obstacle Recognition <i>Muhammad Siddique Farooq Imran Shafi Harris Khan Isabel De La Torre Díez Jose Breñosa Julio César Martínez Espinosa Imran Ashraf Sensors</i> , Volume 22(22), Article Number 8914 Impact Factor: 3.847 Quartile: 2 Citations: 26 DOI: https://doi.org/10.3390/s22228914	2022
An Effective Method for Lung Cancer Diagnosis from CT Scan Using Deep Learning-Based Support Vector Network <i>Imran Shafi Sadiya Din Asim Khan Isabel De La Torre Díez Ramón del Jesús Palí Casanova Kilian Tutusaus Pifarre Imran Ashraf Cancers</i> , Volume 14(21), Article Number 5457 Impact Factor: 6.575 Quartile: 1 Citations: 84 DOI: https://doi.org/10.3390/cancers14215457	2022
Design and Development of Smart Weight Measurement, Lateral Turning and Transfer Bedding for Unconscious Patients in Pandemics <i>Imran Shafi Muhammad Siddique Farooq Isabel De La Torre Díez Jose Breñosa Julio César Martínez Espinosa Imran Ashraf Healthcare</i> , Volume 10(11), Article Number 2174 Impact Factor: 3.160 Quartile: 2 Citations: 4 DOI: https://doi.org/10.3390/healthcare10112174	2022
Internal defects detection and classification in hollow cylindrical surfaces using single shot detection and MobileNet <i>Imran Shafi Awais Mazahir Anum Fatima Imran Ashraf Measurement: Journal of the International Measurement Confederation</i> , Volume 202, Article Number 111836	2022

Impact Factor: 5.131 Quartile: 1 Citations: 33 DOI: https://doi.org/10.1016/j.measurement.2022.111836	
Reduced features set neural network approach based on high-resolution time-frequency images for cardiac abnormality detection <i>Imran Shafi Aesar Aziz Sadia Din Imran Ashraf</i> <i>Computers in Biology and Medicine</i> , Volume 145, Article Number 105425 Impact Factor: 6.698 Quartile: 1 Citations: 16 DOI: https://doi.org/10.1016/j.combiomed.2022.105425	2022
Intelligent autonomous underwater vehicle mobility with energy efficient routing in sensor networks <i>Imran Shafi Muhammad Junaid Ashraf Gyu Sang Choi Sadia Din Imran Ashraf</i> <i>Environment, Development and Sustainability</i> , Pages 1-13 Impact Factor: 3.219 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1007/s10668-022-02153-5	2022
Adaptable Reduced-Complexity Approach Based on State Vector Machine for Identification of Criminal Activists on Social Media <i>Imran Shafi Sadia Din Zahid Hussain Imran Ashraf Gyu Song Choi</i> <i>IEEE Access</i> , Volume 9, Pages 95456-95468 Impact Factor: 3.367 Quartile: 2 Citations: 7 DOI: 10.1109/ACCESS.2021.3094532	2021
A computationally intelligent neural network-based nonlinear autoregressive exogenous balancing approach for real-time processing in industrial applications using big data <i>Imran Shafi Zeeshan Malik Sadia Din Gwanggil Jeon Jamil Ahmad</i> <i>Concurrency and Computation Practice and Experience</i> , Article Number e6382, Pages 1-17 Impact Factor: 1.831 Quartile: 3 Citations: 3 DOI: https://doi.org/10.1002/cpe.6382	2021
License plate identification and recognition in a non-standard environment using neural pattern matching <i>Imtiaz Ahmad Jamil Ahmad Imran Shafi Pyoung Won Kim Gyu Sang Choi Imran Ashraf Sadia Din</i> <i>Complex & Intelligent Systems</i> , Pages 1-13 Impact Factor: 6.700 Quartile: 1 Citations: 25 DOI: https://doi.org/10.1007/s40747-021-00419-5	2021
Artificial neural networks as clinical decision support systems <i>Imran Shafi Sana Ansari Sadia Din Gwanggil Jeon Anand Paul</i> <i>Concurrency and Computation Practice and Experience</i> , Pages 1-29, Article Number e6342 Impact Factor: 1.831 Quartile: 3 Citations: 12 DOI: https://doi.org/10.1002/cpe.6342	2021
A big data analytical framework for analyzing solar energy receptors using evolutionary computing approach <i>Shahzad Yousaf Imran Shafi Sadia Din Anand Paul Jamil Ahmad</i> <i>Journal of Ambient Intelligence and Humanized Computing</i> , Volume 10, Issue 10, Pages 4071-4083 Impact Factor: 4.594 Quartile: 1 Citations: 16 DOI: https://doi.org/10.1007/s12652-019-01443-7	2019
A methodological review of 3D reconstruction techniques in tomographic imaging <i>Imran Shafi Usman Khan AmanUllah Yasin Muhammad Abid Shoab Ahmed Khan</i> <i>Journal of Medical Systems</i> , Journal of Medical Systems Volume: 42 Issue: 10 Impact Factor: 2.415 Quartile: 2 Citations: 44 DOI: 10.1007/s10916-018-1042-2	2018
An adaptive hybrid fuzzy-wavelet approach for image steganography using bit reduction and pixel adjustment <i>Imran Shafi Muhammad Noman Moneeb Gohar Awais Ahmad Murad Khan Sadia Din Syed Hassan Ahmad Jamil Ahmad</i> <i>Soft Computing</i> , Volume 22, Issue 5, Pages 1555–1567 Impact Factor: 2.784 Quartile: 2 Citations: 22 DOI: 10.1007/s00500-017-2944-5	2018

Conference Proceedings

Improving Federated Learning Efficiency with PruneFL: A Healthcare Perspective <i>Alvina Muneeb Dr Farooque Azam Dr Imran Shafi Muhammad Waseem Anwar Muhammad Muneeb Arshad</i> <i>13th International Conference on Computing and Pattern Recognition (ICCPR 2024), res.country(48,)</i> Citations: N/A DOI: Accepted	2024
Computing Wake-Capture effect on aerodynamic forces by varying Reynolds number for an insect <i>Rabeyia Manzoor Illahi Dr Imran Shafi</i> <i>4th International Conference on Digital Futures and Transformative Technologies (ICoDT2), res.country(177,)</i> Citations: N/A DOI: 10.1109/ICoDT262145.2024.10740233	2024

Intellectual Property

Copyrights

Patents

Industrial Designs

Storage Case for Automatic Bore and Pipeline Cleaning Robot Status: Filed	2023
Automatic Bore and Pipeline Cleaning Robot Status: Filed	2023
Safe Recoil Spring Ejection Tool for 14.5 mm Gun Status: Granted	2021
Mobile Diesel Fuel Filtration and Dispensing Sys Status: Granted	2019

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