

Alina Mirza

Associate Professor

Military College of Signals

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LinkedIn:



About

Dr. Alina Mirza is working as Associate Professor in the Military College of Signals. Dr. Alina Mirza has a PhD in Communication System And Dsp. Dr. Alina Mirza has published 44 research articles & conference papers having a citation count of 277, carried out 4 projects and filed 1 intellectual property.

Qualifications

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| PhD in Communication System And Dsp | 2010 - 2016 |
| NUST, Islamabad , Pakistan | |
| MS in Communication System And Dsp | 2008 - 2010 |
| NUST, Islamabad , Pakistan | |
| BE in Computer Engineering | 2003 - 2007 |
| UET Taxila , Pakistan | |

Experience

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| Associate Professor | 2024- Present |
| Military College of Signals | |
| Associate Professor | 2022 - 2024 |
| Military College of Signals | |
| Associate Professor | 2021 - 2022 |
| Military College of Signals | |
| Assistant Professor | 2017 - 2021 |
| Military College of Signals | |
| Associate Prof | 2021 - 2022 |
| MCS , HUMAYUN ROAD | |
| Assistant Prof | 2017 - 2021 |
| MCS , HUMAYUN ROAD | |
| Assistant Professor | 2017 - 2017 |
| APCOMS , HUMAYUN ROAD, RAWALPINDI | |
| Lecturer | 2014 - 2017 |
| APCOMS , Humayun Road, Rawalpindi | |
| Lecturer | 2011 - 2014 |
| National University of Modern Languages (NUML) , H-9, Islamabad | |

Awards

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| MS leading PhD scholarshi |
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Research Projects

National Projects

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| PIE (Partnership in Equality) for UK-Pakistan Women in Robotics & AI Funding Agency: British Council Amount: PKR 1,056,208,566.00 Status: Approved_inprocess | 2023 |
| Speech Recognition System Using Wav2Vec Model (Punjabi Language) Funding Agency: Pakistan Engineering Council -PEC Amount: PKR 60,000.00 Status: Approved_inprocess | 2024 |
| CubeSat mission for glacier monitoring and disaster prediction Funding Agency: APSCO Amount: PKR 27,815,300.00 Status: Approved_inprocess | 2024 |
| Bridging Gender Gap in STEM Pakistan: Workshop on Female Role Model Outreach Funding Agency: AlumNode Funding 2021. UK Amount: PKR 876,945.00 Status: Completed | 2021 |

International Projects

Research Articles

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| An Insight on the Timely Diagnosis of Diabetic Retinopathy Using Traditional and AI-Driven Approaches <i>MALAICA ASIF FASIH UR REHMAN ZOYA RASHID ALTAF HUSSAIN Alina Mirza WAQAR SHAHID QURESHI</i> <i>IEEE Access</i> , Volume: 13, Pages:116869-116886 Impact Factor: 3.6 Quartile: 2 DOI: https://doi.org/10.1109/ACCESS.2025.3583647 | 2025 |
| PHARFF: A Pipeline-Based Graceful Live Migration and Checkpointing Framework for Achieving High Availability and Reliability in FPGA Applications on Cloud <i>Sajid Gul Khawaja Muhammad Usman Akram Muhammad Asad Shoab Ahmad Khan Alina Mirza Yame Asfia</i> <i>IEEE Access</i> , Volume:13, Pages 63203-63218 Impact Factor: 3.400 Quartile: 2 DOI: 10.1109/ACCESS.2025.3557303 | 2025 |
| New FxLMAT based Algorithms for Active Control of Impulsive Noise <i>Alina Mirza Farkhanda Afzal Ayesha Zeb Abdul Wakeel Waqar Shahid Qureshi Ali Akgul</i> <i>IEEE Access</i> , Volume 11, Pages 81279-81288 Impact Factor: 3.9 Quartile: 2 Citations: 8 DOI: 10.1109/ACCESS.2023.3293647 | 2023 |
| Construction of nonlinear component of block cipher using coset graph <i>Adil Waheed Fazli Subhan Mazlihan Mohd Soud Muhammad Yasir Hayat Malik Alina Mirza Farkhanda Afzal</i> <i>AIMS Mathematics</i> , Volume 8(9), Pages 21644-21667 Impact Factor: 2.2 Quartile: 1 Citations: 9 DOI: 10.3934/math.20231104 | 2023 |
| Optimum power allocation for an energy harvesting wireless communication system considering energy storage losses <i>Abdul Basit Abdul Wakeel Ayaz Ahmad Mir Yasir Umair Alina Mirza Muhammad Imran Humayun Zubair Khan</i> <i>Ad Hoc Networks</i> , Volume 144, Article Number 103138 Impact Factor: 4.816 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1016/j.adhoc.2023.103138 | 2023 |
| AI-Enabled Wearable Medical Internet of Things in Healthcare System: A Survey <i>Fazli Subhan Alina Mirza Mazliham Bin Mohd Su'ud Muhammad Mansoor Alam Shibli Nisar Usman Habib Muhammad Zubair Iqbal</i> <i>Applied Sciences</i> , Volume 13(3), Article Number 1394 Impact Factor: 2.838 Quartile: 2 Citations: 65 DOI: https://doi.org/10.3390/app13031394 | 2023 |

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| <p>Towards sweetness classification of orange cultivars using short-wave NIR spectroscopy</p> <p><i>Ayesha Zeb Waqar Shahid Qureshi Abdul Ghafoor Aman Ullah Malik Muhammad Imran Alina Mirza Mohsin Islam Tiwana Eisa Alanazi</i></p> <p><i>Scientific Reports</i> , Volume 13, Issue 1, Article Number 325</p> <p>Impact Factor: 4.996 Quartile: 2 Citations: 17</p> <p>DOI: https://doi.org/10.1038/s41598-022-27297-2</p> | 2023 |
| <p>Web semantics and ontologies-based framework for software component selection from online repositories</p> <p><i>Nazia Bibi Tauseef Ahmed Rana Ayesha Maqbool Alina Mirza Zeshan Iqbal Muhammad Attique Khan Majed Alhaisoni Usman Tariq Robertas Damaševičius</i></p> <p><i>International Journal of Web and Grid Services</i>, Volume 19, No. 3, Pages 318-349</p> <p>Impact Factor: 1.0 Quartile: 4 Citations: 1</p> <p>DOI: https://doi.org/10.1504/ijwgs.2023.133503</p> | 2023 |
| <p>Federated learning based nonlinear two-stage framework for full-reference image quality assessment: An application for biometric</p> <p><i>LanTianyi Saleem Riaz Zhang Xuande Alina Mirza Farkhanda Afzal Zeshan Iqbal Muhammad Attique Khan Majed Alhaisoni Abdullah Alqahtani</i></p> <p><i>Image and Vision Computing</i>, Volume 128, Article Number 104588</p> <p>Impact Factor: 3.860 Quartile: 1 Citations: 5</p> <p>DOI: https://doi.org/10.1016/j.imavis.2022.104588</p> | 2022 |
| <p>Achieving Stepwise Construction of Cyber Physical Systems in EX-MAN Component Model</p> <p><i>Tauseef Ahmad Rana Ayesha Maqbool Toqir A.Rana Alina Mirza Zeeshan iqbal Muhammad Attique Khan Majed Alhaisoni Abdullah Alqahtani Ye Jin Kim</i></p> <p><i>Byoungchol Chang</i></p> <p><i>Journal of King Saud University - Computer and Information Sciences</i>, Article in Press</p> <p>Impact Factor: 9.000 Quartile: 1 Citations: 1</p> <p>DOI: https://doi.org/10.1016/j.jksuci.2022.10.024</p> | 2022 |
| <p>Data dense chipless RFID tag with efficient band utilization</p> <p><i>Ayesha Habib Alina Mirza Mir Yasir Umair Muhammad Nabeel Salimi Sagheer Ahmed Yasar Amin</i></p> <p><i>AEU - International Journal of Electronics and Communications</i>, Volume:152, Article Number 154220</p> <p>Impact Factor: 3.183 Quartile: 2 Citations: 12</p> <p>DOI: https://doi.org/10.1016/j.aeue.2022.154220</p> | 2022 |
| <p>Robust and Least Complex Online Secondary Path Estimation in Broadband Feed-Forward Active Control of Impulsive Noise using FxLMAT Family</p> <p><i>HAHSIR ALI KHAN Alina Mirza Abdul Wakeel MIR YASIR UMAIR Fareeha Jabeen Farkhanda Afzal</i></p> <p><i>IEEE Access</i> , Volume 10, Pages 58667-58676</p> <p>Impact Factor: 3.367 Quartile: 2 Citations: 1</p> <p>DOI: 10.1109/ACCESS.2022.3178598</p> | 2022 |
| <p>System-Level Performance Analysis of Cooperative Multiple Unmanned Aerial Vehicles for Wildfire Surveillance Using Agent-Based Modeling</p> <p><i>Ayesha Maqbool Alina Mirza Farkhanda Afzal Tajamul shah Wazir Zada Khan Yousaf Bin Zikria Sung Won Kim</i></p> <p><i>Sustainability</i> , Volume 14(10), Article Number 5927</p> <p>Impact Factor: 3.251 Quartile: 2 Citations: 5</p> <p>DOI: https://doi.org/10.3390/su14105927</p> | 2022 |
| <p>New Degree-Based Topological Indices of Toroidal Polyhex Graph by Means of M-Polynomial</p> <p><i>Farkhanda Afzal Mohammad Zeeshan Deebea Afzal Sufian Munawar Dhan Kumari Thapa Alina Mirza</i></p> <p><i>Journal of Mathematics</i> , Volume 2022, Article ID 1228203, 5 pages</p> <p>Impact Factor: 0.971 Quartile: 2</p> <p>DOI: https://doi.org/10.1155/2022/1228203</p> | 2022 |
| <p>DepTSol: An Improved Deep-Learning- and Time-of-Flight- Based Real-Time Social Distance Monitoring Approach under Various Low-Light Conditions</p> <p><i>Adina Rahim Ayesha Maqbool Alina Mirza Farkhanda Afzal Ikram Asghar</i></p> <p><i>Electronics</i> , 11(3), 458</p> <p>Impact Factor: 2.397 Quartile: 3 Citations: 7</p> <p>DOI: 10.3390/electronics11030458</p> | 2022 |
| <p>A new method for pixel classification for rice variety identification using spectral and time series data from Sentinel-2 satellite imagery</p> <p><i>Usman Rauf Waqar Shahid Qureshi Hamid Jabbar Ayesha Zeb Alina Mirza Eisa Alanazi Umar Shahbaz Khan Nasir Rashid</i></p> <p><i>Computers and electronics in agriculture</i>, Volume 193, Article Number 106731</p> <p>Impact Factor: 5.565 Quartile: 1 Citations: 16</p> | 2022 |

DOI: <https://doi.org/10.1016/j.compag.2022.106731>

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| Blockchain Based Enhanced ERP Transaction Integrity Architecture and PoET Consensus <i>Iqra Shahzad Ayesha Maqbool Maham Akhtar Alina Mirza Muhammad Anees Khan Wazir Zada Khan Shadab Alam</i> <i>Computers, Materials & Continua</i> , Volume 70, No.1, Pages 1089-1109 Impact Factor: 3.772 Quartile: 2 Citations: 30 DOI: 10.32604/cmc.2022.019416 | 2021 |
| FxRLS Algorithms Based Active Control of Impulsive Noise with Online Secondary Path Modeling <i>Fareeha Jabeen Alina Mirza Ayesha Zeb Muhammad Imran Farkhanda Afzal Ayesha Maqbool</i> <i>IEEE Access</i> , Volume 9, Pages 117471-117485 Impact Factor: 3.476 Quartile: 2 Citations: 9 DOI: 10.1109/ACCESS.2021.3105902 | 2021 |
| Blockchain-based green big data visualization: BGbV <i>Iqra Shehzad Ayesha Maqbool Tauseef Rana Alina Mirza Wazirzada Khan Sung Won Kim Yousaf Bin Zikria Sadia Din</i> <i>Complex & Intelligent Systems</i> , Pages 1-12 Impact Factor: 6.700 Quartile: 1 Citations: 9 DOI: https://doi.org/10.1007/s40747-021-00466-y | 2021 |
| Enhanced Fingerprinting Based Indoor Positioning Using Machine Learning <i>Waleed Pasha Mir Yasir Umair Alina Mirza Rao Muhammad Faizan Gull Safia Akram Fazli Subhan Wazir Zada Khan Abdul Wakeel</i> <i>CMC-Computers, Materials & Continua</i> , Volume 69, No.2, Pages 1631-1652 Impact Factor: 3.860 Quartile: 2 Citations: 5 DOI: 10.32604/cmc.2021.018205 | 2021 |
| Extended Kalman Filter-Based Power Line Interference Canceller for Electrocardiogram Signal <i>Muneeb Masood Raja Wazir Zada Khan Sung Won Kim Yousaf Bin Zikria Nauman Razzaq Alina Mirza Suleman Tahir</i> <i>Big Data</i> , Pages 1-20 Impact Factor: 4.426 Quartile: 1 Citations: 10 DOI: https://doi.org/10.1089/big.2021.0043 | 2021 |
| Thermodynamics Inspired Co-operative Self-Organization of Multiple Autonomous Vehicles <i>Farkhanda Afzal Tauseef Rana Alina Mirza Ayesha Maqbool</i> <i>Intelligent Automation & Soft Computing</i> , Volume 28, No.3, Pages 653-667 Impact Factor: 3.401 Quartile: 2 Citations: 2 DOI: doi:10.32604/iasc.2021.017506 | 2021 |
| Modified 2-Way Wavefront (M2W) Algorithm for Efficient Path Planning <i>Ayesha Maqbool Alina Mirza Farkhanda Afzal</i> <i>International Journal of Computational Intelligence Systems</i> , Volume 14, Issue 1, Pages 1066-1077 Impact Factor: 2.259 Quartile: 3 DOI: https://doi.org/10.2991/ijcis.d.210305.002 | 2021 |
| Position Vectors Based Efficient Indoor Positioning System <i>Ayesha Javed Mir Yasir Umair Alina Mirza Abdul Wakeel Fazli Subhan Wazir Zada Khan</i> <i>CMC-Computers, Materials & Continua</i> , Volume 67, No.2, Pages 1781-1799 Impact Factor: 3.860 Quartile: 2 Citations: 5 DOI: 10.32604/cmc.2021.015229 | 2021 |
| Less complex solutions for active noise control of impulsive noise <i>Alina Mirza Ayesha Zeb Mir Yasir Umair Danish Ilyas Shahzad Amin Sheikh</i> <i>Analog Integrated Circuits and Signal Processing</i> , Volume 102, Pages 507–521 Impact Factor: 1.337 Quartile: 4 DOI: https://doi.org/10.1007/s10470-019-01565-0(0123456789()).-volV)(0123456789()).-volV | 2020 |
| New hybrid technique for impulsive noise suppression in OFDM systems <i>Alina Mirza Ayesha Zaib Shahzad Amin Sheikh</i> <i>Mehran University Research Journal of Engineering & Technology</i> , ISSN:0254-7821, EISSN:2413-7219, , Jul 2017, Volume 36, Issue 3, Pages 543-558 Impact Factor: - DOI: 10.22581/muet1982.1703.11 | 2017 |
| Improving performance of FxRLS algorithm for active noise control of impulsive noise <i>Qasim Umar Khan Ayesha Zeb Alina Mirza Shahzad Amin Sheikh</i> <i>Applied Acoustics</i> , Volume: 116 Pages: 364-374 | 2017 |

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| Impact Factor: 1.721 Quartile: 2 Citations: 40 DOI: 10.1016/j.apacoust.2016.10.011 | |
| Reduction of Impulsive Noise in OFDM Systems Using a Hybrid Method <i>Alina Mirza Sumrin Mehak Kabir Shahzad Amin Sheikh</i> <i>International Journal of Signal Processing Systems</i> , Vol. 4, No. 3, Pages 226-230 Impact Factor: - DOI: doi:10.18178/ijsp.4.3.226-230 | 2016 |
| Robust adaptive algorithm for active control of Impulsive Noise <i>Ayesha Zeb Alina Mirza Shahzad Amin Sheikh</i> <i>EURASIP Journal of Advances in Signal Processing</i> , Article Number: 44 Impact Factor: 1.961 Quartile: 2 Citations: 8 DOI: 10.1186/s13634-016-0344-0 | 2016 |
| Impulsive Noise Reduction Method Based on Clipping and Adaptive Filters in AWGN Channel <i>Sumrin M. Kabir Alina Mirza Shahzad Amin Sheikh</i> <i>International Journal of Future Computer and Communication</i> , Volume 4, No. 5, Pages 341-345 Impact Factor: N/A DOI: - | 2015 |
| Performance Comparison of Turbo Decoding Algorithms <i>Alina Mirza Shahzad Amin Sheikh</i> <i>Canadian Journal on Signal Processing</i> , Volume 1, No. 2, Pages 7-11 Impact Factor: - DOI: NIL | 2010 |
| Conference Proceedings | |
| Optimized LDPC Code Concatenated with Trellis Shaping for PAPR Reduction in SISO-OFDM Systems <i>Amna Arif Abdul Wakeel Alina Mirza Mir Yasir Umair</i> 2022 19th International Bhurban Conference on Applied Sciences and Technology, IBCAST 2022, res.country(282,) Citations: N/A DOI: 10.1109/IBCAST54850.2022.9990252 | 2022 |
| Framework for Live Migration of FPGA based ECB-mode AES-128 accelerator <i>Yame Asfia Sajid Gul Khawaja Muhammad Asad Alina Mirza</i> 2022 2nd International Conference on Digital Futures and Transformative Technologies (ICoDT2), res.country(282,) Citations: N/A DOI: 10.1109/ICoDT255437.2022.9787468 | 2022 |
| A Modified Filtered-x LMAT Algorithm for Active Noise Control of Impulsive Noise <i>Abid Hussain Alina Mirza Ayesha Zeb Mir Yasir Umair Abid Hussain Alina Mirza Ayesha Zeb Mir Yasir Umair Abid Hussain</i> <i>IEEE International Symposium on Signal Processing and Information Technology (ISSPIT)</i> , res.country(2,) Citations: N/A DOI: 10.1109/ISSPIT47144.2019.9001759 | 2019 |
| SSLMS Algorithm based Impulsive Noise Cancellation from ECG Signal <i>Ayesha Zeb Javeria Habib Alina Mirza Shahzad A. Sheikh</i> 2016 International Conference on Multimedia Systems and Signal Processing, res.country(227,) Citations: N/A DOI: 10.1109/ICMSSP.2016.010 | 2016 |
| Filtered-x RLS Algorithm based Active-Noise-Control of Impulsive Noise <i>Shahzad Amin Sheikh Ayesha Zeb Alina Mirza</i> 2015 7th International Conference on Modelling, Identification and Control (ICMIC), res.country(221,) Citations: N/A DOI: 10.1109/ICMIC.2015.7409414 | 2015 |
| Filtered-x RLS Algorithm based Active Noise Control of Impulsive Noise <i>Ayesha Zeb Alina Mirza Shahzad A. Sheikh</i> 7th International Conference on Modelling, Identification and Control (ICMIC 2015), res.country(221,) Citations: N/A DOI: 10.1109/ICMIC.2015.7409414 | 2015 |

Enhanced Impulsive Noise OFDM Suppressor in AWGN Channel

2015

Sumrin Mehak Kabir Shahzad Amin Sheikh Alina MIRZA

The 6th International Conference on Computational Methods (ICCM 2015)., res.country(170,)

Citations: N/A

DOI: <https://www.sci-en-tech.com/ICCM/index.php/ICCM2021/2015/index>

Performance Comparison of Clipping Technique with Adaptive Filters for Impulsive Noise Reduction in AWGN environment

2015

Shahzad Amin Sheikh Sumrin Mehak Kabir Alina Mirza

11th Advanced International Conference on Telecommunications (AICT 2015), res.country(20,)

Citations: N/A

DOI:

https://www.researchgate.net/publication/295861671_Performance_Comparison_of_Clipping_Technique_with_Adaptive_Filters_for_Impulsive_Noise_Reduction_in_AWGN_environment

Enhanced Impulsive Noise Cancellation based on SSRLS

2015

Sumrin Mehak Kabir Sara Ayub Muhammad Arsalan Shahzad Amin Sheikh Alina MIRZA

2015 IEEE 2015 International Conference on Computer, Communication, and Control Technology (I4CT 2015)., res.country(157,)

Citations: N/A

DOI: EC Accession Number: 15403474 DOI: 10.1109/I4CT.2015.7219531

An adaptive approach to subband domain convolutive blind source separation

2015

Sara Ayub Muhammad Arsalan Muhammad Sulaman Alina Mirza Huma Ayub Hiba Amanat LUBNA AZIZ Eram Asghar

2015 IEEE 2015 International Conference on Computer, Communication, and Control Technology (I4CT 2015)., res.country(157,)

Citations: N/A

DOI: DOI: 10.1109/I4CT.2015.7219550

Impulsive Noise Cancellation of ECG signals based on SSRLS

2015

Shahzad Amin Sheikh Alina Mirza S.Mehak Kabir Sara Ayub

International Conference on Soft Computing & Software Engineering (SCSE 2015), res.country(233,)

Citations: N/A

DOI: 10.1016/j.procs.2015.08.440

Generating texture of images using efficient numerical analysis technique

2013

Sadaf Khurshid MUHAMMAD SOHAIL IQBAL Alina Mirza

16th International Multi Topic Conference (INMIC), 2013, res.country(177,)

Citations: N/A

DOI: 10.1109/INMIC.2013.6731339

Editorial Activities

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|------------------------------|------|
| Wiley | 2025 |
| Reviewed Papers for Journals | |
| Impact Factor: 0.5 | |
| Sensors | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 3.847 | |
| Remote Sensing | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 5.439 | |
| IET Signal Processing | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 1.819 | |
| Agronomy-Basel | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 3.949 | |
| | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 1.819 | |
| | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 1.486 | |
| | 2022 |
| Reviewed Papers for Journals | |
| Impact Factor: 0.592 | |
| | 2021 |
| Reviewed Papers for Journals | |
| Impact Factor: 3.774 | |

Intellectual Property

Copyrights

Patents

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|--|------|
| LaserCom- Efficient Communication Via LASER Diode | 2020 |
| Status: Filed | |

Industrial Designs

Trademarks