

Muhammad Zeeshan

Associate Professor

College of Electrical & Mechanical Engineering

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About

Dr. Muhammad Zeeshan is working as Associate Professor in the College of Electrical & Mechanical Engineering. Dr. Muhammad Zeeshan has a PhD in Wireless Communication. Dr. Muhammad Zeeshan has published 54 research articles & conference papers having a citation count of 228, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Wireless Communication NUST, Islamabad , Pakistan	2010 - 2015
MS in Communication And Signal Processing NUST, Islamabad , Pakistan	2008 - 2010
BE in Electrical Engineering UET Taxila , Pakistan	2004 - 2008
F.Sc in Pre-Engineering FBISE, Islamabad , Pakistan	2002 - 2004
Matric (SSC) in Science FBISE, Islamabad , Pakistan	2000 - 2002

Experience

Associate Professor College of Electrical & Mechanical Engineering	2022- Present
Associate Professor College of Electrical & Mechanical Engineering	2021 - 2021
Associate Professor College of Electrical & Mechanical Engineering	2021 - 2021
Assistant Professor College of Electrical & Mechanical Engineering	2021 - 2021
Assistant Professor College of Electrical & Mechanical Engineering	2016 - 2021
Member Technical Staff Center for Advanced Research in Engineering ,	2014 - 2016
Senior Design Engineer Center for Advanced Research in Engineering ,	2010 - 2014

Awards

Gold Medal	2012
Gold Medal	2009

Research Projects

National Projects

Design of Adaptive Multiband Networking Waveform with USRP Implementation for Ad hoc Wireless Heterogeneous Networks 2022
Funding Agency: HEC
Amount: PKR 17,997,600.00
Status: Approved_inprocess

International Projects

Research Articles

- FIPAM: Fuzzy Inference based Placement and Migration Approach for NFV-based IoTs** 2022
Muhammad Arslan Tariq Muhammad Umar Farooq Muhammad Zeeshan Ali Hassan Adnan Akhunzada
IEEE Transactions on Network and Service Management, Volume 19, Issue 4, Pages 4298-4309
Impact Factor: 5.3 | Quartile: 2 | Citations: 6
DOI: 10.1109/TNSM.2022.3145658
- A Novel Cooperative Micro-Caching Algorithm Based on Fuzzy Inference Through NFV in Ultra-Dense IoT Networks** 2022
Muhammad Umar Farooq Muhammad Zeeshan Muhammad Talha Jahangir Muhammad Asif
Journal of Network and Systems Management, Volume 30, Issue 1, Article Number 20
Impact Factor: 2.198 | Quartile: 3 | Citations: 7
DOI: 10.1007/s10922-021-09632-6
- A novel minimal set decode-amplify-forward (MS-DAF) relaying scheme for MIMO-NOMA** 2022
Muhammad Zeeshan Mahnoor Ajmal Muhammad Umar Farooq Tabinda Ashraf
Telecommunication Systems, Volume 80, Issue 1, Pages 141-152
Impact Factor: 2.5 | Quartile: 3 | Citations: 1
DOI: 10.1007/s11235-022-00894-2
- Dynamic link adaptation for filterband multicarrier in networks with diverse service quality and throughput requirements** 2022
Amna Javed Tiwana Muhammad Zeeshan Tabinda Ashraf Muhammad Umar Farooq Kashif Shahzad Adnan Akhunzada
Telecommunication Systems, Volume 79, Issue 1, Pages 109-122
Impact Factor: 2.5 | Quartile: 3 | Citations: 3
DOI: 10.1007/s11235-021-00845-3
- Joint carrier frequency and phase offset estimation algorithm for CPM-DSSS based secure point-to-point communication** 2021
Shahzad Amin Sheikh Qasim Umar Khan Saima Shehzadi Farzana Kulsoom Muhammad Zeeshan
Turkish Journal of Electrical Engineering and Computer Sciences, Volume 29, Issue 7, Pages 3020-3035
Impact Factor: 0.853 | Quartile: 4 | Citations: 5
DOI: 10.3906/elk-2105-1
- Connected Dominating Set Enabled On-demand Routing (CDS-OR) for Wireless Mesh Networks** 2021
Muhammad Umar Farooq Muhammad Zeeshan
IEEE Wireless Communications Letters, Volume 10, Issue 11, Pages 2393-2397
Impact Factor: 4.348 | Quartile: 1 | Citations: 11
DOI: 10.1109/LWC.2021.3101476
- A Robust Timing and Phase Offset Estimation Technique for CPM-DSSS-Based Secured Communication Link** 2021
Saima Shehzadi Shahzad Amin Sheikh Farzana Kulsoom Muhammad Zeeshan Qasim Umar Khan
IEEE Access, Volume 9, Pages 111143 - 111151
Impact Factor: 3.367 | Quartile: 2 | Citations: 9
DOI: 10.1109/ACCESS.2021.3102308
- A novel hybrid spreading and scrambling based multiple access (SSMA) technique for capacity improvement** 2021
Tabinda Ashraf Muhammad Zeeshan Muhammad Umar Farooq
Telecommunication Systems, Page 1-13
Impact Factor: 2.336 | Quartile: 3

DOI: 10.1007/s11235-021-00814-w	
Adaptive Multi-Input Medium Access Control (AMI-MAC) Design using Physical Layer Cognition for Tactical SDR Networks	2021
<i>Muhammad Zeeshan Kashif Shahzad Muhammad Umar Farooq Shoab Ahmad Khan</i> <i>IEEE Access</i> , Vol. 9, pp. 58364-58377	
Impact Factor: 3.745 Quartile: 2 Citations: 7	
DOI: 10.1109/ACCESS.2021.3073030	
Performance Analysis of Multi-User Downlink PD-NOMA Under SUI Fading Channel Models	2021
<i>Asif Mahmood Sagheer Khan Sajjad Hussain Muhammad Zeeshan</i> <i>IEEE Access</i> , Volume 9, Pages 52851-52859	
Impact Factor: 3.476 Quartile: 2 Citations: 20	
DOI: 10.1109/ACCESS.2021.3070147	
Implementation and analysis of MultiCode MultiCarrier Code Division Multiple Access (MC–MC CDMA) in IEEE 802.11ah for UAV Swarm communication	2020
<i>Sagheer Khan Muhammad Zeeshan Yasar Ayaz</i> <i>Physical Communication</i> , Volume 42, Article Number 101159	
Impact Factor: 1.810 Quartile: 3 Citations: 15	
DOI: https://doi.org/10.1016/j.phycom.2020.101159	
A novel algorithm for frequency de-hopping in radars using agile bandpass sampling for electronic support measurement	2020
<i>Muhammad Jawad Muhammad Zeeshan</i> <i>Telecommunication Systems</i> , Volume 73, Pages 443-454	
Impact Factor: 2.314 Quartile: 3 Citations: 2	
DOI: 10.1007/s11235-019-00618-z	
QoS-aware traffic scheduling framework in cognitive radio based smart grids using multi-objective optimization of latency and throughput	2020
<i>Muhammad Waqas Khan Muhammad Zeeshan Asma Farid Muhammad Usman</i> <i>Ad Hoc Networks</i> , Volume 97, Article Number 102020	
Impact Factor: 4.111 Quartile: 2 Citations: 21	
DOI: https://doi.org/10.1016/j.adhoc.2019.102020	
Fuzzy inference based adaptive channel allocation for IEEE 802.22 compliant smart grid network	2019
<i>Muhammad Waqas Khan Muhammad Zeeshan</i> <i>Telecommunication Systems</i> , Volume 72, Issue 3, pp 339–353	
Impact Factor: 1.734 Quartile: 3 Citations: 6	
DOI: 10.1007/s11235-019-00570-y	
A novel hybrid narrowband/wideband networking waveform physical layer for multiuser multiband transmission and reception in software defined radio	2019
<i>Kashif Shahzad Sumbul Gulzar Muhammad Zeeshan Shoab Ahmed Khan</i> <i>Physical Communication</i> , Volume: 36 Article Number: UNSP 100790	
Impact Factor: 1.594 Quartile: 3 Citations: 7	
DOI: 10.1016/j.phycom.2019.100790	
High resolution target localization using rotating linear array radar	2019
<i>Nauman Anwar Baig Mohammad Bilal Malik Muhammad Zeeshan Muhammad Anwar Baig</i> <i>Multidimensional Systems and Signal Processing</i> , Volume 30, Issue 4, Pages 2059-2079	
Impact Factor: 1.810 Quartile: 2 Citations: 1	
DOI: 10.1007/s11045-019-00641-y	
QoS-based dynamic channel selection algorithm for cognitive radio based smart grid communication network	2019
<i>Muhammad Waqas Khan Muhammad Zeeshan</i> <i>Ad Hoc Networks</i> , Volume 87, Pages 61-75	
Impact Factor: 3.643 Quartile: 1 Citations: 26	
DOI: 10.1016/j.adhoc.2018.11.007	
Joint algorithm for burst detection and AGC improvement in high throughput software defined radio waveform	2018
<i>Syed Ali Jabir Waqar Ahmed Muhammad Zeeshan</i> <i>Microprocessors and Microsystems</i> , Volume 60, Pages 77-85	

- Impact Factor:** 1.045 | **Quartile:** 3 | **Citations:** 1
DOI: 10.1016/j.micpro.2018.04.005
- Symbol Error Probability Performance of Rectangular QAM with MRC Reception over Generalized α - μ Fading Channels** 2018
Furqan Haider Qureshi Shahzad Amin Sheikh Qasim Umar Khan Muhammad Zeeshan
IEICE Transactions on Fundamentals of Electronics Communications And Computer Sciences, Vol.E101-A, No.3, Pages 577-584, 01 March 2018
Impact Factor: 0.368 | **Quartile:** 4 | **Citations:** 3
DOI: 10.1587/transfun.E101.A.577
- Frequency Diversity Array for DOA Estimation** 2017
Nauman Anwar Baig Muhammad Bilal Malik Muhammad Zeeshan
Mehran University Research Journal of Engineering and Technology, Volume 36, No. 4, Pages 797-806
Impact Factor: 0
DOI: 10.22581/muet1982.1704.05
- Efficient Target Detection and Joint Estimation of Target Parameters with a Two-Element Rotating Antenna** 2016
Muhammad Zeeshan Nauman Anwar Baig Mohammad Bilal Malik Muhammad Zafar Ullah Muhammad Asim Ajaz
IEEE Access, Volume 4, Pages 4442-4451
Impact Factor: 3.244 | **Quartile:** 1 | **Citations:** 8
DOI: 10.1109/ACCESS.2016.2598965
- A Novel Fuzzy Inference-Based Technique for Dynamic Link Adaptation in SDR Wideband Waveform** 2016
Muhammad Zeeshan Shoab Ahmed Khan
IEEE Transactions on Communications, Volume 64, Issue 6, Pages 2602-2609
Impact Factor: 4.058 | **Quartile:** 1 | **Citations:** 12
DOI: 10.1109/TCOMM.2016.2560164
- A novel algorithm for link adaptation using fuzzy rule based system for wideband networking waveform of SDR** 2015
Muhammad Zeeshan Shoab Ahmad Khan
AEU - International Journal of Electronics and Communications, Volume 69, Issue 9, Pages 1366-1373
Impact Factor: 0.786 | **Quartile:** 3 | **Citations:** 6
DOI: doi:10.1016/j.aeue.2015.06.001
- A Novel Algorithm for Burst Detection in Wideband Networking Waveform of Software Defined Radio** 2015
Shoab Ahmed Khan Muhammad Zeeshan
IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, Online ISSN:1745-1337, Print ISSN:0916-8508, Vol.E98-A, No.6, Pages 1225-1233, Jun 2015, Volume: E98A Issue: 6 Pages: 1225-1233
Impact Factor: 0.236 | **Quartile:** 4 | **Citations:** 2
DOI: 10.1587/transfun.E98.A.1225
- Adaptive fuzzy multivariable controller design based on genetic algorithm for an air handling unit** 2015
Mohammad Ahmad Choudhry Ahsan Ali Muhammad Zeeshan Muhammad Waqas Khan
Energy, Volume: 81 Pages: 477-488
Impact Factor: 4.292 | **Quartile:** 1 | **Citations:** 42
DOI: 10.1016/j.energy.2014.12.061
- A Two Stage Algorithm for Carrier Frequency Offset Recovery with DSP Implementation on SDR Platform** 2014
Shoab Ahmad Khan Ibtasam Haq Muhammad Zeeshan
IEICE Transactions on Communications, Volume E97-B, No.11, Pages 2449-2458
Impact Factor: 0.227 | **Quartile:** 4 | **Citations:** 7
DOI: 10.1587/transcom.E97.B.2449
- Comparative Analysis of SSRLS and SSRLS with Adaptive Memory for Wireless Channel Equalization** 2013
Ihsan Ullah Muhammad Zeeshan
International Journal of Future Computer and Communication, Volume 2, No. 6, Pages 604-607
Impact Factor: 0
DOI: DOI: 10.7763/IJFCC.2013.V2.236
- Robust Sampling Clock Recovery Algorithm for wideband networking waveform of SDR** 2013
Shoab Ahmad Khan Muhammad Zeeshan
International Journal of Communication Networks and Information Security, Volume 5, No. 1, Pages 10-18

Impact Factor: N/A

DOI: -

A robust carrier frequency offset estimation algorithm in burst mode multicarrier CDMA based ad hoc networks

2012

Shoab Ahmed Khan Muhammad Zeeshan

International Journal of Communication Networks and Information Security, Volume 4, Issue 3, Pages 174-181

Impact Factor: -

DOI: <http://www.ijcnis.org/index.php/ijcnis/article/view/221>

Conference Proceedings

Challenges in Transition of Software Defined Radio Implementation from Bare Metal to Real-Time Operating System

2021

Kashif Shahzad Muhammad Zeeshan Muhammad Umar Farooq Shoab Ahmed Khan

2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: 10.1109/ICRAI54018.2021.9651406

Near-Far Problem as a Function of Analog to Digital Converter Resolution in Software Defined Radio Tactical Network

2021

Kashif Shahzad Muhammad Zeeshan Muhammad Umar Farooq Shoab Ahmed Khan

12th International Conference on Information, Intelligence, Systems & Applications (IISA), res.country(88,)

Citations: N/A

DOI: 10.1109/IISA52424.2021.9555577

Performance Analysis of XQAM in Log-Normal Turbulence with Pointing Error and Non-zero Boresight

2019

Muhammad Nabeel Shahid Shahzad Amin Sheikh Furqan Haider Qureshi Muhammad Zeeshan Qasim Umar Khan

Proceedings of the 2019 8th International Conference on Networks, Communication and Computing, res.country(48,)

Citations: N/A

DOI: 10.1145/3375998.3376033

Multimode wideband waveform for Software Defined Radio based on hybrid CPM-CDMA concept

2019

Saima Shehzadi Muhammad Zeeshan Shahzad Amin Sheikh Qasim Umar Khan Saima Shehzadi Saima Shehzadi

22nd International Multitopic Conference (INMIC), res.country(177,)

Citations: N/A

DOI: 10.1109/INMIC48123.2019.9022794

EMG data acquisition and flight control of quadcopter on different EMG signals

2019

Sagheer Khan Kiran Khurshid Muhammad Zeeshan

2019 14th Iberian Conference on Information Systems and Technologies (CISTI), res.country(183,)

Citations: N/A

DOI: 10.23919/CISTI.2019.8760908

Improved Frequency Limited Model Reduction

2018

Hamid Imtiaz Toor Muhammad Imran Abdul Ghafoor Muhammad Zeeshan Abdul Rauf

2018 IEEE Conference on Systems, Process and Control (ICSPC), res.country(157,)

Citations: N/A

DOI: 10.1109/SPC.2018.8703981

Analysis of Timing Synchronization Techniques in OFD for SDR waveform: Performance Comparison

2018

Muhammad Ali Mumtaz Muhammad Zeeshan Qasim Umar Khan Abdullah Hasan

21st International Symposium on Wireless Personal Multimedia Communications (WPMC), res.country(217,)

Citations: N/A

DOI: 10.1109/WPMC.2018.8712953

Performance and Throughput Analysis of IEEE 802.11ah for Multiband Multimode Operation

2018

SAGHEER KHAN MUHAMMAD ZEESHAN

2018 21st International Symposium on Wireless Personal Multimedia Communications (WPMC), res.country(217,)

Citations: N/A

DOI: 10.1109/WPMC.2018.8712956

Effect of Carrier Frequency Offset on the Performance of FBMC and GFDM under Multipath Fading Channels

2018

Bilal Ahmed Muhammad Zeeshan

- 2018 21st International Symposium on Wireless Personal Multimedia Communications (WPMC), res.country(217.)
Citations: N/A
DOI: 10.1109/WPMC.2018.8712933
- On the Performance of Multiuser CDMA System using Separate Channel Streams** 2018
Sabahat Sherien Muhammad Zeeshan
18th International Conference on Communication Technology, res.country(48.)
Citations: N/A
DOI: 10.1109/ICCT.2018.8600025
- On Performance Analysis of IEEE 802.22 PHY for Cognitive Radio based Smart Grid Communications** 2018
Muhammad Waqas Khan Muhammad Zeeshan Kashif Shahzad
4th IEEE International Smart Cities Conference 2018, res.country(233.)
Citations: N/A
DOI: 10.1109/isc2.2018.8656948
- Common Frequency Extraction for Bandpass Sampling based Frequency De-hopper** 2018
Muhammad Jawad Muhammad Zeeshan
12th IEEE International ELEKTRO Conference, res.country(56.)
Citations: N/A
DOI: <https://ieeexplore.ieee.org/document/8398256>
- PAPR Reduction of FBMC-OQAM using A-law and Mu-law Companding** 2018
Abdullah Hasan Dr. Muhammad Zeeshan Muhammad Ali Mumtaz Muhammad Waqas Khan
12th International Conference ELEKTRO, res.country(56.)
Citations: N/A
DOI: 10.1109/ELEKTRO.2018.8398246
- Performance Analysis of Power Domain NOMA under Fading Channels** 2018
Haleema Sadia Muhammad Zeeshan Shahzad Amin Sheikh
12th IEEE International ELEKTRO Conference, res.country(56.)
Citations: N/A
DOI: 10.1109/ELEKTRO.2018.8398247
- Performance Analysis of Downlink Power Domain NOMA under Fading Channels** 2018
Haleema Sadia Muhammad Zeeshan Shahzad Amin Sheikh
12th International Conference ELEKTRO held from 21-23 May 2018 in Czech Republic, res.country(56.)
Citations: N/A
DOI: 10.1109/ELEKTRO.2018.8398247
- Range Estimation in Radar using Maximum Likelihood Estimator** 2017
Haleema Sadia Sabahat Sherien Hafsa Iqbal Muhammad Zeeshan Aimal Khan Saad Rehman
20th International Conference of Computer and Information Technology (ICCIT), res.country(19.)
Citations: N/A
DOI: 10.1109/ICCITECHN.2017.8281856
- Adaptive Equalization in Hybrid DS-TH CDMA System using State-Space RLS with Adaptive Memory** 2017
Muhammad Zeeshan Muhammad Waqas Khan
2017 IEEE 2nd International Conference on Opto-Electronic Information Processing (ICOIP), res.country(197.)
Citations: N/A
DOI: 10.1109/OPTIP.2017.8030689
- Digital Hopping of Narrowband Waveform using Wideband Frontend** 2017
Sumbul Gulzar Shoab A.Khan Muhammad Zeeshan
19th International Conference on Advanced Communications Technology, res.country(121.)
Citations: N/A
DOI: 10.23919/ICACT.2017.7890205
- A Novel Digital Frequency De-hopper using Bandpass Sampling Technique** 2015
Muhammad Zeeshan Shoab Ahmed Khan
2015 9th International Conference on Electrical and Electronics Engineering (ELECO), res.country(224.)
Citations: N/A
DOI: 10.1109/ELECO.2015.7394589

- Data Aided Algorithm for Burst Detection in Wideband Networking Waveform with FPGA Implementation on SDR Platform** 2014
Muhammad Zeeshan Zain Mehtab SHOAIB AHMED KHAN
2014 11th Annual High Capacity Optical Networks and Emerging/Enabling Technologies (Photonics for Energy), res.country(233,)
Citations: N/A
DOI: 10.1109/HONET.2014.7029381
- A novel algorithm for link adaptation using fuzzy rule based system for wideband networking waveform of SDR** 2014
Muhammad Zeeshan Shaob A Khan
The 33rd IEEE International Performance Computing and Communications Conference (IPCCC 2014), res.country(233,)
Citations: N/A
DOI: 10.1016/j.aee.2015.06.001
- An Efficient Capacity Improvement Technique for Multiuser DS-CDMA based Fixed Wireless Applications** 2012
Muhammad Zeeshan M. Waqas Khan Shoab A. Khan Sabahat A. Malik
2012 International Conference on Open Source Systems and Technologies, res.country(177,)
Citations: N/A
DOI: 10.1109/ICOSST.2012.6472833
- A Secure DS- CDMA Technique with Capacity Enhancement for Ad Hoc Wireless Networks** 2012
Muhammad Zeeshan Shoab Ahmad Khan Muhammad Yasir Malik
2nd International Conference on IT Convergence and Security, res.country(121,)
Citations: N/A
DOI: 10.1007/978-94-007-5860-5_19
- A Modified FFT and Biquadratic Interpolation based Algorithm for Carrier Frequency Offset Estimation in MC-CDMA based Ad Hoc Networks** 2012
Muhammad Zeesha Shoab Ahmed Khan
2012 International Conference on Emerging Technologies, res.country(177,)
Citations: N/A
DOI: 10.1109/ICET.2012.6375425
- Comparative Performance Evaluation of LDPC coded and Turbo Coded OFDM systems in SUI Multipath Channel Models** 2010
M. Shahzad Anwar M. Zeeshan Saira Aslam M. Asim Ajaz M. Salman
International Conference on Computer Applications & Industrial Electronics, res.country(157,)
Citations: N/A
DOI: 10.1109/ICCAIE.2010.5771165

Editorial Activities

Edited Journal Issue / Proceeding / Book

Impact Factor: 3.24

2021