

Muhammad Zeeshan

Associate Professor

College of Electrical & Mechanical Engineering

Email: ranazeeshan@ceme.nust.edu.pk

Contact: 0512842736

LinkedIn: <https://www.linkedin.com/in/dr-muhammad-zeeshan-b1109141/>



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 229, 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:** 7
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 <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	2021
Performance Analysis of Multi-User Downlink PD-NOMA Under SUI Fading Channel Models <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	2021
Implementation and analysis of MultiCode MultiCarrier Code Division Multiple Access (MC–MC CDMA) in IEEE 802.11ah for UAV Swarm communication <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	2020
A novel algorithm for frequency de-hopping in radars using agile bandpass sampling for electronic support measurement <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	2020
QoS-aware traffic scheduling framework in cognitive radio based smart grids using multi-objective optimization of latency and throughput <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	2020
Fuzzy inference based adaptive channel allocation for IEEE 802.22 compliant smart grid network <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	2019
A novel hybrid narrowband/wideband networking waveform physical layer for multiuser multiband transmission and reception in software defined radio <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	2019
High resolution target localization using rotating linear array radar <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	2019
QoS-based dynamic channel selection algorithm for cognitive radio based smart grid communication network <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	2019
Joint algorithm for burst detection and AGC improvement in high throughput software defined radio waveform <i>Syed Ali Jabir Waqar Ahmed Muhammad Zeeshan</i> <i>Microprocessors and Microsystems</i> , Volume 60, Pages 77-85	2018

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

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

<i>2018 21st International Symposium on Wireless Personal Multimedia Communications (WPMC), res.country(217,)</i>	
Citations: N/A	
DOI: 10.1109/WPMC.2018.8712933	
On the Performance of Multiuser CDMA System using Separate Channel Streams	2018
<i>Sabahat Sherien Muhammad Zeeshan</i>	
<i>18th International Conference on Communication Technology, res.country(48,)</i>	
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
<i>Muhammad Waqas Khan Muhammad Zeeshan Kashif Shahzad</i>	
<i>4th IEEE International Smart Cities Conference 2018, res.country(233,)</i>	
Citations: N/A	
DOI: 10.1109/isc2.2018.8656948	
Common Frequency Extraction for Bandpass Sampling based Frequency De-hopper	2018
<i>Muhammad Jawad Muhammad Zeeshan</i>	
<i>12th IEEE International ELEKTRO Conference, res.country(56,)</i>	
Citations: N/A	
DOI: https://ieeexplore.ieee.org/document/8398256	
PAPR Reduction of FBMC-OQAM using A-law and Mu-law Companding	2018
<i>Abdullah Hasan Dr. Muhammad Zeeshan Muhammad Ali Mumtaz Muhammad Waqas Khan</i>	
<i>12th International Conference ELEKTRO, res.country(56,)</i>	
Citations: N/A	
DOI: 10.1109/ELEKTRO.2018.8398246	
Performance Analysis of Power Domain NOMA under Fading Channels	2018
<i>Haleema Sadia Muhammad Zeeshan Shahzad Amin Sheikh</i>	
<i>12th IEEE International ELEKTRO Conference, res.country(56,)</i>	
Citations: N/A	
DOI: 10.1109/ELEKTRO.2018.8398247	
Performance Analysis of Downlink Power Domain NOMA under Fading Channels	2018
<i>Haleema Sadia Muhammad Zeeshan Shahzad Amin Sheikh</i>	
<i>12th International Conference ELEKTRO held from 21-23 May 2018 in Czech Republic, res.country(56,)</i>	
Citations: N/A	
DOI: 10.1109/ELEKTRO.2018.8398247	
Range Estimation in Radar using Maximum Likelihood Estimator	2017
<i>Haleema Sadia Sabahat Sherien Hafsa Iqbal Muhammad Zeeshan Aimal Khan Saad Rehman</i>	
<i>20th International Conference of Computer and Information Technology (ICCIT), res.country(19,)</i>	
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
<i>Muhammad Zeeshan Muhammad Waqas Khan</i>	
<i>2017 IEEE 2nd International Conference on Opto-Electronic Information Processing (ICOIP), res.country(197,)</i>	
Citations: N/A	
DOI: 10.1109/OPTIP.2017.8030689	
Digital Hopping of Narrowband Waveform using Wideband Frontend	2017
<i>Sumbul Gulzar Shoab A.Khan Muhammad Zeeshan</i>	
<i>19th International Conference on Advanced Communications Technology, res.country(121,)</i>	
Citations: N/A	
DOI: 10.23919/ICACT.2017.7890205	
A Novel Digital Frequency De-hopper using Bandpass Sampling Technique	2015
<i>Muhammad Zeeshan Shoab Ahmed Khan</i>	
<i>2015 9th International Conference on Electrical and Electronics Engineering (ELECO), res.country(224,)</i>	
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 <i>Muhammad Zeeshan Zain Mehtab SHOAIB AHMED KHAN</i> 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	2014
A novel algorithm for link adaptation using fuzzy rule based system for wideband networking waveform of SDR <i>Muhammad Zeeshan Shaob A Khan</i> 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	2014
An Efficient Capacity Improvement Technique for Multiuser DS-CDMA based Fixed Wireless Applications <i>Muhammad Zeeshan M. Waqas Khan Shoab A. Khan Sabahat A. Malik</i> 2012 International Conference on Open Source Systems and Technologies, res.country(177,) Citations: N/A DOI: 10.1109/ICOSST.2012.6472833	2012
A Secure DS- CDMA Technique with Capacity Enhancement for Ad Hoc Wireless Networks <i>Muhammad Zeeshan Shoab Ahmad Khan Muhammad Yasir Malik</i> 2nd International Conference on IT Convergence and Security, res.country(121,) Citations: N/A DOI: 10.1007/978-94-007-5860-5_19	2012
A Modified FFT and Biquadratic Interpolation based Algorithm for Carrier Frequency Offset Estimation in MC-CDMA based Ad Hoc Networks <i>Muhammad Zeesha Shoab Ahmed Khan</i> 2012 International Conference on Emerging Technologies, res.country(177,) Citations: N/A DOI: 10.1109/ICET.2012.6375425	2012
Comparative Performance Evaluation of LDPC coded and Turbo Coded OFDM systems in SUI Multipath Channel Models <i>M. Shahzad Anwar M. Zeeshan Saira Aslam M. Asim Ajaz M. Salman</i> International Conference on Computer Applications & Industrial Electronics, res.country(157,) Citations: N/A DOI: 10.1109/ICCAIE.2010.5771165	2010

Editorial Activities

Edited Journal Issue / Proceeding / Book Impact Factor: 3.24	2021
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