

# Moazzam Ali Khan Khattak

Associate Professor

School of Electrical Engineering and Computer Science

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## About

Dr. Moazzam Ali Khan Khattak is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Moazzam Ali Khan Khattak has a PhD in Wireless Sensor Networks. Dr. Moazzam Ali Khan Khattak has published 82 research articles & conference papers having a citation count of 1238, carried out 0 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Wireless Sensor Networks</b> International Islamic University , Pakistan	2008 - 2011
<b>MS in Mobile Adhoc Networks</b> International Islamic University , Pakistan	2006 - 2008
<b>BS in Computer Networks</b>	2001 - 2005

## Experience

<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2020- Present
<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2017 - 2020
<b>Assistant Professor</b> School of Electrical Engineering and Computer Science	2017 - 2017
<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2013 - 2017
<b>Post Doctorate</b> University of Missouri , United States	2016 - 2023
<b>Assistant Prof/Chair CS Deptt</b> Abdul Wali Khan University Mardan , Mardan KPK	2012 - 2013
<b>Assistant Professor</b> CECOS University of IT & Emerging Sciences , Phase 6 Hayatabad Peshawar	2011 - 2012
<b>Lecturer</b> International Islamic University Islamabad , H-10 Islamabad Pakistan	2010 - 2011
<b>Research Scholar</b> University of Missouri USA , Kansas City USA.	2010 - 2010
<b>Lecturer/AP</b> Abasyn University Peshawar , Peshawar	2008 - 2010

## Awards

<b>Mobilty Grant</b> University of Missouri, KC USA.	2016
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## Research Articles

<b>Robust Method for Semantic Segmentation of Whole-Slide Blood Cell Microscopic Images</b> <i>Muhammad Shahzad Arif Iqbal Umar Muazzam A. Khan Syed Hamad Shirazi Zakir Khan Waqas Yousaf</i> <i>Computational and Mathematical Methods in Medicine</i> , Volume 2020, Article ID 4015323, 13 pages	2020
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<b>Impact Factor:</b> 2.238   <b>Quartile:</b> 3   <b>Citations:</b> 47 <b>DOI:</b> <a href="https://doi.org/10.1155/2020/4015323">https://doi.org/10.1155/2020/4015323</a>	
<b>Congestion avoidance in vehicular networks: A contemporary survey</b> <i>Balawal Shabir Muazzam Ali Khan Anis-ur-Rahman Asad Waqar Malik Abdul Wahid</i> <i>IEEE Access</i> , Volume 7, Pages 173196-173215 <b>Impact Factor:</b> 3.745   <b>Quartile:</b> 1   <b>Citations:</b> 28 <b>DOI:</b> DOI: 10.1109/ACCESS.2019.2955142	2019
<b>Classification of Melanoma and Nevus in Digital Images for Diagnosis of Skin Cancer</b> <i>MUHAMMAD QASIM KHAN AYYAZ HUSSAIN SAEED UR REHMAN UMAIR KHAN MUAZZAM MAQSOOD KASHIF MEHMOOD MUAZZAM A. KHAN</i> <i>IEEE Access</i> , Volume 7, Pages 90132-90144 <b>Impact Factor:</b> 3.745   <b>Quartile:</b> 1   <b>Citations:</b> 194 <b>DOI:</b> 10.1109/ACCESS.2019.2926837	2019
<b>Congestion Avoidance for Smart Devices by Caching Information in MANETS and IoT</b> <i>Nousheen Akhtar Muazzam A. Khan ATA ULLAH Muhammad Younas Javed</i> <i>IEEE Access</i> , Volume 7, Pages 71459-71471 <b>Impact Factor:</b> 3.745   <b>Quartile:</b> 1   <b>Citations:</b> 46 <b>DOI:</b> 10.1109/ACCESS.2019.2918990	2019
<b>VFog: A Vehicle-Assisted Computing Framework for Delay-Sensitive Applications in Smart Cities</b> <i>Syed Sarmad Shah Muhammad Ali Asad Waqar Malik Muazzam A. Khan Sri Devi Ravana</i> <i>IEEE Access</i> , IEEE Access Journal <b>Impact Factor:</b> 3.745   <b>Quartile:</b> 1   <b>Citations:</b> 50 <b>DOI:</b> 10.1109/ACCESS.2019.2903302	2019
<b>A Novel Image Encryption Scheme Based on Orthogonal Matrix, Skew Tent Map and XOR Operation</b> <i>Fadia Ali Khan Jameel Ahmed Jan Sher Khan Jawad Ahmad Muazzam Ali Khan</i> <i>Neural Computing and Applications</i> , NULL <b>Impact Factor:</b> 4.664   <b>Quartile:</b> 1   <b>Citations:</b> 60 <b>DOI:</b> 10.1007/s00521-017-2970-3	2018
<b>FogNetSim++: A Toolkit for Modeling and Simulation of Distributed Fog Environment</b> <i>Tariq Qayyum Asad Waqar Malik Muazzam Ali Khan Osman Khalid Samee U. Khan Samee U. Khan</i> <i>IEEE Access</i> , Vol.6, Article No.8502760, Pages 63570-63583 <b>Impact Factor:</b> 4.098   <b>Quartile:</b> 1   <b>Citations:</b> 155 <b>DOI:</b> 10.1109/ACCESS.2018.2877696	2018
<b>Fundus Images-Based Detection and Grading of Macular Edema Using Robust Macula Localization</b> <i>Adeel M. Syed Muhammad Usman Akram Tahir Akram Muhammad Muzammal Shehzad Khalid Muazzam Ahmed Khan</i> <i>IEEE Access</i> , Volume 6, Pages 58784-58793 <b>Impact Factor:</b> 4.098   <b>Quartile:</b> 1   <b>Citations:</b> 44 <b>DOI:</b> 10.1109/ACCESS.2018.2873415	2018
<b>A Compression Sensing and Noise Tolerant Image Encryption Scheme based on Chaotic Maps and Orthogonal Matrices</b> <i>Jawad ahmad Muazzam A. Khan Seong Oun Hwang Jan Sher Khan</i> <i>Neural Computing and Applications</i> , Volume: 28 Pages: S953-S967 Supplement: 1 <b>Impact Factor:</b> 4.215   <b>Quartile:</b> 1   <b>Citations:</b> 62 <b>DOI:</b> 10.1007/s00521-016-2405-6	2017
<b>An Improved Image Encryption Scheme Based on a Non-Linear Chaotic Algorithm and Substitution Boxes</b> <i>Jan Sher Khan Muazzam Ali Khan Jawad Ahmad Seong Oun Hwang Waqas Ahmed</i> <i>Informatica</i> , NULL <b>Impact Factor:</b> 1.386   <b>Quartile:</b> 2   <b>Citations:</b> 27 <b>DOI:</b> 10.15388/Informatica.2017.149	2017
<b>A Novel Image Encryption Based on Lorenz Equation, Gingerbreadman chaotic map and S 8 permutation</b> <i>Fadia Ali Khan Jameel Ahmed Jan Sher Khan Jawad Ahmad Muazzam A Khan</i> <i>Journal of Intelligent &amp; Fuzzy Systems</i> , NULL <b>Impact Factor:</b> 1.426   <b>Quartile:</b> 3   <b>Citations:</b> 59 <b>DOI:</b> 10.3233/JIFS-17656	2017

<b>Security Vulnerabilities and Improvements of SPAM: A Secure Password Authentication Mechanism for Seamless Handover in Proxy Mobile IPv6 Networks</b> <i>Mohammad Sabzinejad Farash Shehzad Ashraf Chaudhry SK Hafizul Islam Muazzam A. Khan Khattak Ajiad Albeshri</i> <i>Journal of Information Technology and Control</i> , Volume: 46 Issue: 2 Pages: 205-218 <b>Impact Factor:</b> 0.8   <b>Quartile:</b> 4   <b>Citations:</b> 1 <b>DOI:</b> 10.5755/j01.itc.46.2.12118	2017
<b>TD-ERCS Map Based Confusion and Diffusion of Autocorrelated Data</b> <i>Jan Sher Khan Jawad Ahmad Muazzam A. Khan</i> <i>Nonlinear Dynamics</i> , Volume: 87 Issue: 1 Pages: 93-107 <b>Impact Factor:</b> 4.339   <b>Quartile:</b> 1   <b>Citations:</b> 35 <b>DOI:</b> 10.1007/s11071-016-3028-2	2017
<b>An effective empirical approach to VoIP traffic classification</b> <i>Nazar Abbas Saqib Yaqoot Shakeel Muazzam Khattak Hasan Mehmood Muhammad Zia</i> <i>Turkish Journal of Electrical Engineering and Computer Sciences</i> , Volume: 25 Issue: 2 Pages: 888-900 <b>Impact Factor:</b> 0.580   <b>Quartile:</b> 4   <b>Citations:</b> 5 <b>DOI:</b> 10.3906/elk-1501-126	2017
<b>An Efficient and Secure Partial Image Encryption for Wireless Multimedia Sensor Networks using Discrete Wavelet Transform , Chaotic maps and Substitution Box</b> <i>Jawad Ahmad Muazzam A. Khan Qaisar Javaid Nazar Abbas Saqib</i> <i>Journal of Modern Optics</i> , Volume: 64 Issue: 5 Pages: 531-540 <b>Impact Factor:</b> 1.269   <b>Quartile:</b> 3   <b>Citations:</b> 39 <b>DOI:</b> 10.1080/09500340.2016.1246680	2017
<b>Optimizing SIEM throughput on the cloud using parallelization</b> <i>Masoom Alam Asif Ihsan Muazzam A.Khan Qaisar Javaid Abid Khan Jawad Manzoor Adnan Akhundzada M Khurram Khan Sajid Farooq</i> <i>PLoS One</i> , Volume 11, Issue 11, Article Number e0162746 <b>Impact Factor:</b> 2.806   <b>Quartile:</b> 1   <b>Citations:</b> 3 <b>DOI:</b> 10.1371/journal.pone.0162746	2016
<b>Spread Spectrum Based Energy Efficient Collaborative Communication in Wireless Sensor Networks</b> <i>Anwar Ghan Husnain Naqvi Muhammad Sher Muazzam Ali Khan Imran Khan Azeem Irshad</i> <i>PLOS ONE</i> , Volume 11, Issue 7, Article Number e0159069 <b>Impact Factor:</b> 2.806   <b>Quartile:</b> 1   <b>Citations:</b> 13 <b>DOI:</b> 10.1371/journal.pone.0159069	2016
<b>Person identification using vascular and non-vascular retinal features</b> <i>Zahra Waheed M. Usman Akram Amna Waheed Muazzam A. Khan Arsalan Shaukat Mazhar Ishaq</i> <i>Computers &amp; Electrical Engineering</i> , Volume: 53 Pages: 359-371 <b>Impact Factor:</b> 1.57   <b>Quartile:</b> 3   <b>Citations:</b> 27 <b>DOI:</b> 10.1016/j.compeleceng.2016.03.010	2016
<b>On Generating High Quality Random Numbers</b> <i>Nazar Abbas Saqib Muhammad Zia Hassan Mahmood Moazzam Ali Khan Khattak</i> <i>Journal of Circuits, Systems and Computers</i> , Volume 26, Issue 2, Article Number 1750019 <b>Impact Factor:</b> 0.481   <b>Quartile:</b> 4   <b>Citations:</b> 2 <b>DOI:</b> <a href="http://dx.doi.org/10.1142/S0218126617500190">http://dx.doi.org/10.1142/S0218126617500190</a>	2016
<b>Performance Analysis of VoIP over IPV4, IPv6 and 6-to-4 Tunneling Networks</b> <i>Muhammad Fawad Syed Irfan Ullah Haseena Noureen Arbab Wajid Khan Zar Khitab Shahab Khan Abdus Salam Muazzam Ali Khan</i> <i>International Journal of Computer Science and Information Security</i> , Vol. 14, No.6, Pages 368-372 <b>Impact Factor:</b> - <b>DOI:</b> -	2016
<b>A Novel Real Time Framework for Cluster Based Multicast Communication in Vehicular Ad Hoc Network</b> <i>Waqar Farooq Muazzam Ali Khan Saad Rehman</i> <i>International Journal of Distributed Sensor Networks</i> , Article Number: 8064908 <b>Impact Factor:</b> 1.236   <b>Quartile:</b> 3   <b>Citations:</b> 31 <b>DOI:</b> <a href="https://doi.org/10.1155/2016/8064908">https://doi.org/10.1155/2016/8064908</a>	2016
<b>A Novel Real Time Framework for Cluster-based Multicast Communication in Vehicular Ad Hoc Networks.</b>	2016

Waqar Farooq Muazzam Ali Khan Saad Rehman

International Journal of Distributed Sensor Networks, Article Number: 8064908

**Impact Factor:** 1.236 | **Quartile:** 3 | **Citations:** 31

**DOI:** 10.1155/2016/8064908

**Improving the Robustness of Neural Networks using K-Support Norm based Adversarial Training**

2016

Sheikh Waqas Akhtar Saad Rehman Mahmood Akhtar Farhan Riaz Muazzam A. Khan Qaiser Chaudry Rupert Young

IEEE Access , Volume: 4

**Impact Factor:** 3.244 | **Quartile:** 1 | **Citations:** 10

**DOI:** 10.1109/ACCESS.2016.2643678

**A Rule Based Genetic Algorithm Technique for Conflicts Resolution in Requirements Engineering**

2016

Qasim Khan Muazzam A. Khan Qaisar Javaid Irfan Ullah Kamran Ullah M. Fawad

Journal of Computational and Theoretical Nanoscience, Vol. 13, 8427–8433

**Impact Factor:** 0 | **Citations:** 2

**DOI:** <https://doi.org/10.1166/jctn.2016.5993>

**A Survey of Multicast Routing Protocols for Vehicular Ad Hoc Networks**

2015

Waqar Farooq Muazzam Ali Khan Nazar Abbas Saqib Saad Rehman

International Journal of Distributed Sensor Networks , Article Number: 923086, Pages 1-12

**Impact Factor:** 0.906 | **Quartile:** 3 | **Citations:** 43

**DOI:** <http://dx.doi.org/10.1155/2015/923086>

**Hybrid Features and Mediods Classification based Robust Segmentation of Blood Vessels**

2015

Amna Waheed Muhammad Usman Akram Shehzad Khalid Zahra Waheed Muazzam Khattak Arsalan Shaukat

Journal of Medical System, Volume: 39 Issue: 10

**Impact Factor:** 2.456 | **Quartile:** 2 | **Citations:** 26

**DOI:** 10.1007/s10916-015-0316-1

**Discrimination of acidic and alkaline enzyme using Chou's pseudo amino acid composition in conjunction with probabilistic neural network model**

2015

Zaheer Ullah Khan Maqsood Hayat Muazzam Khattak

Journal of Theoretical Biology, Volume: 365 Pages: 197-203

**Impact Factor:** 2.049 | **Quartile:** 1 | **Citations:** 132

**DOI:** 10.1016/j.jtbi.2014.10.014

**Intelligent algorithm design of the LFSR based stream cipher**

2014

Syed Irfan Ullah Muazzam A. Khan Malik Sikandar Hayat Khiyal

World Applied Sciences Journal, Volume 30, Issue 4, Pages 498-505

**Impact Factor:** 0 | **Citations:** 1

**DOI:** 10.5829/idosi.wasj.2014.30.04.9

**Secure Actor Directed Localization in Wireless Sensor and Actor Networks**

2013

Muazzam A. Khan Amir Hayat Masoom Alam Muhammad Ali Tamleek Ali

International Journal of Distributed Sensor Networks, Article Number: 126327

**Impact Factor:** 0.923 | **Quartile:** 3 | **Citations:** 3

**DOI:** 10.1155/2013/126327

**Energy Efficient Workload Balancing Algorithm for Real-Time Tasks over Multi-Core**

2013

Nadia Dilawar Muazzam Ali Khattak Maqssod Hayat Muhammad Zakraya

World Applied Sciences Journal, Volume 22, Issue 10, Pages 1431-1439

**Impact Factor:** 0 | **Citations:** 13

**DOI:** 10.5829/idosi.wasj.2013.22.10.602

**A QoS Based Secure Multicast Communication Frame work for Wireless Sensor & Actor Networks**

2011

Muazzam Ali Khan Muhammad Sher Ghalib A. Shah

International journal of innovative computing, information & control: IJICIC, Volume 7, Issue no 12

**Impact Factor:** 0

**DOI:** -

**Conference Proceedings**

**Unified Methodology for Cloud Storage Providers' APIs and Performance Analysis for Effectiveness of the Approach**

2019

Hira Zahid Muazzam A. Khan Muhammad Usman Akram Abdul Wahid Asad W. Malik

17th International Conference E-Society 2019, res.country(165,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.33965/es2019_201904L024	
<b>Unified Methodology for Cloud Storage Providers, APIs and Performance Analysis for Effectiveness of the Approach</b>	2019
<i>Hira Zahid Muazzam A. Khan M Usman Akram Abdul Wahid</i>	
17 th International Conference on e-Society (ES 2019), res.country(165,)	
<b>Citations:</b> N/A	
<b>DOI:</b> N/A	
<b>Identification of Remote IoT Users Using Sensor Data Analytics</b>	2019
<i>Muazzam A. Khan Nazar A. Saqib Ali Hassan Samera Batool</i>	
FICC: Future of Information and Communication Conference, res.country(233,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1007/978-3-030-12388-8_24	
<b>The Applications of Model Driven Architecture (MDA) in Wireless Sensor Networks (WSN) - Techniques and Tools</b>	2019
<i>Muhammad Waseem Anwar Muazzam A. Khan Wasi Haider Butt Farooque Azam</i>	
Future of Information and Communication Conference FICC 2019, res.country(233,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1007/978-3-030-12388-8_2	
<b>Congestion Aware and Adaptive Routing Protocols for MANETs - A Survey</b>	2019
<i>Muazzam A. Khan Ata Ullah Muhammad Younus Javed Nousheen Akhtar</i>	
Recent Trends and Advances in Wireless and IoT-enabled Networks, res.country(177,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1007/978-3-319-99966-1_15	
<b>A Review: Ubiquitous Healthcare Monitoring with Mobile Phone</b>	2018
<i>M Uzair Muazzam A. Khan Shaiza Mann Muhammad Imran</i>	
9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (IEEE UEMCON 2018), res.country(233,)	
<b>Citations:</b> N/A	
<b>DOI:</b> N/A	
<b>Visual Meaningful Encryption Scheme Using Intertwinning Logistic Map</b>	2018
<i>Muazzam A. Khan Saadullah Farooq Abbasi Jawad Ahmad Jan Sher Khan Shehzad Amin Sheikh</i>	
SAI Computing Conference 2018, res.country(231,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1007/978-3-030-01177-2_56	
<b>Visual Meaningful Encryption Scheme using Intertwining Logistic Map</b>	2018
<i>Saadullah Farooq Abbasi Jawad Ahmad Jan Sher Khan Muazzam A. Khan Shehzad Amin Sheikh Saadullah Farooq Abbasi Jawad Ahmad Jan Sher Khan</i>	
<i>Muazzam A. Khan Shehzad Amin Sheikh</i>	
SAI: Science and Information Conference, res.country(231,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1007/978-3-030-01177-2_56	
<b>Detection and Prevention of Black Hole Attacks in IOT Networks</b>	2018
<i>Shoukat Ali Dr. Muazzam A Khan Jawad Ahmad Asad W. Malik Anis ur Rehman</i>	
IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2018), res.country(68,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/FMEC.2018.8364068	
<b>Detection and prevention of Black Hole Attacks in IOT &amp; WSN</b>	2018
<i>Muazzam A Khan Jawad Ahmad Asad W. Malik Anis ur Rehman Shoukat Ali</i>	
2018 Third International Conference on Fog and Mobile Edge Computing (FMEC), res.country(68,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/FMEC.2018.8364068	
<b>Evaluation of trust management approaches in wireless sensor networks</b>	2018
<i>Farwa Kazmi Muazzam A. Khan Ayesha Saeed Nazar Abbas Saqib Muhammad Abbas</i>	
2018 15th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	
<b>Citations:</b> N/A	

<b>DOI:</b> 10.1109/IBCAST.2018.8312329	
<b>Evaluation of clustering algorithms for wireless sensor and actor networks</b> <i>Ayesha Saeed Wasi Haider Butt Farwa Kazmi Muazzam A. Khan</i> 2018 15th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	2018
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/IBCAST.2018.8312331	
<b>Evaluation of Trust Management Approaches in Wireless Sensor Networks</b> <i>Muazzam Khattak Farwa Kazmi Ayesha Saeed Dr. Nazar Abbas Saqib Dr. Muhammad Abbas</i> 15th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	2018
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/IBCAST.2018.8312329	
<b>Energy Efficient Target Tracking in Wireless Sensor and Actor Networks Based on NS-2</b> <i>Umair Shafiq Nazar A. Saqib Muazzam A. Khan</i> Smart Trends in Systems, Security and Sustainability, res.country(68,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1007/978-981-10-6916-1_3	
<b>A Novel Technique for Recognition and Tracking of Moving Objects Based on E-MACH and Proximate Gradient (PG) Filters</b> <i>Muazzam Khattak Haris Masood Dr. Saad Rahman Dr. Qaiser Chaudhary Dr. Muhammad Abbas M.Alam2 Rupert Young</i> 20th IEEE International Conference of Computer and Information Technology (ICCIT) , res.country(19,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICCITECHN.2017.8281849	
<b>AAGV: A Cluster Based Multicast Routing Protocol for Autonomous Aerial and Ground Vehicles Communication in VANET</b> <i>Muazzam Khattak Waqar Farooq Saad Rehman Nazar Abbas Saqib Muhammad Abbas</i> 15th International Conference on Frontiers of Information Technology (FIT 2017), res.country(177,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/FIT.2017.00063	
<b>Efficient Routing Strategy for Congestion Avoidance in MANETs</b> <i>Muazzam Khattak Nousheen Akhtar Ata Ullah Muhammad Younus Javed</i> 15th International Conference on Frontiers of Information Technology (FIT 2017), res.country(177,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/FIT.2017.00061	
<b>Secure?AODV?Protocol?for Mobile Networks using Short Digital Signatures</b> <i>Muazzam Khattak Tahir Abbas Ahmad Khaliq Dr. Nazar Abbas Saqib Dr. Saad Rahman Jawad Ahmad</i> 2017 4th International Conference on Computational Science and Computational Intelligence, res.country(233,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/CSCI.2017.111	
<b>A Survey of Routing Protocols for Underwater Wireless Sensor Networks</b> <i>Muazzam Khattak Nazar A. Saqib Saad Rehman Samera Batool</i> 2nd IEEE Future Technologies Conference held from 29-30 Nov 2017 in Canada, res.country(38,)	2017
<b>Citations:</b> N/A <b>DOI:</b> <a href="http://saiconference.com/Downloads/FTC2017/Proceedings/138_Paper_38-A_Survey_of_Routing_Protocols_for_Underwater_Wireless_Sensor_Networks.pdf">http://saiconference.com/Downloads/FTC2017/Proceedings/138_Paper_38-A_Survey_of_Routing_Protocols_for_Underwater_Wireless_Sensor_Networks.pdf</a>	
<b>Security Risk Detection Algorithms in Artificial Immune Systems</b> <i>Muazzam Khattak Saad Rehman Kanza Sheikh Farhan Riaz</i> 2nd International Conference on Information Technologies, Systems and Networks, (ITSN-2017)	2017
<b>Citations:</b> N/A <b>DOI:</b> <a href="https://ibn.idsi.md/ro/vizualizare_articol/60424">https://ibn.idsi.md/ro/vizualizare_articol/60424</a>	
<b>Quality of The Software Products and Their Successfulness.</b> <i>Muazzam Khattak Maryam Gillani Muhammad Abbas Saad Rehman Ata Ullah</i> 2nd International Conference on Information Technologies, Systems and Networks (ITSN-2017)	2017
<b>Citations:</b> N/A <b>DOI:</b> <a href="https://ibn.idsi.md/ro/vizualizare_articol/60414">https://ibn.idsi.md/ro/vizualizare_articol/60414</a>	
<b>A New Technique for Designing 8 X 8 Substitution Box for Image Encryption Applications</b>	2017

<p><i>Muazzam Khattak Fadia Ali Khan Jameel Ahmed Jan Sher Khan Jawad Ahmad Seong Oun Hwang</i>  9th Computer Science and Electronic Engineering (CEECE), res.country(231,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/CEECE.2017.8101591</p>	
<p><b>A Study on Word Spotting Techniques for Document Image Analysis</b></p> <p><i>Muazzam Khattak Hafiz Adnan Niaz Usman Akram Anam Usman Awais Rafique</i>  2nd International Conference on Multimedia Systems and Signal Processing, res.country(227,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1145/3145511.3145525</p>	2017
<p><b>A Novel Substitution Box for Encryption Based on Lorenz Equations</b></p> <p><i>Muazzam Khattak</i>  2017 International Conference on Circuits, System and Simulation (ICCSS), res.country(231,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/CIRSYSSIM.2017.8023176</p>	2017
<p><b>A Study on Word Spotting Techniques for Document Image Analysis</b></p> <p><i>Hafiz Adnan Niaz M. Usman Akram Muazzam A Khan Anam Usman Awais Rafique</i>  International Conference on Computer, Software and Modeling, res.country(154,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1145/3145511.3145525</p>	2017
<p><b>Botnet Traffic Analysis Using Flow Graphs</b></p> <p><i>Wahid Hussain Nazar Abbas Saqib Muazzam A. Khan Wasi Haider Butt</i>  6th International Conference on Bioinformatics and Biomedical Science ICBBS '17, res.country(197,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1145/3121138.3121184</p>	2017
<p><b>Botent Traffic Analysis using Flow Graphs</b></p> <p><i>Wahid Hussain Nazar Abbas Saqib Muazzam A. Khan Wasi Haider Butt</i>  International Conference on Biometric and Forensic Engineering, res.country(197,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1145/3121138.3121184</p>	2017
<p><b>Unicast Routing Protocols in Vehicular Ad-hoc Networks: A Comparative Analysis</b></p> <p><i>Muhammad Uzair Muazzam A. Khan Nazar A. Saqib Jawad Ahmad</i>  International Conference on Information and Network Technologies, res.country(100,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.18178/JACN.2017.5.2.243</p>	2017
<p><b>Internet of Things data analytics for user authentication and activity recognition</b></p> <p><i>Samera Batool Nazar A. Saqib Muazzam.A. Khan</i>  2nd International Conference on Fog and Mobile Edge Computing (FMEC), res.country(68,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/FMEC.2017.7946428</p>	2017
<p><b>Fully Invariant Wavelet Enhanced Minimum Average Correlation Energy Filter for Object Recognition in Cluttered and Occluded Environments</b></p> <p><i>Sara Tehsin Saad Rehman Farhan Riaz Omer Saeed Ali Hassan Muazzam Khan Muhammad S. Alam</i>  Pattern Recognition and Tracking XXVIII(2017), res.country(233,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1117/12.2262434</p>	2017
<p><b>Secure speech communication algorithm via DCT and TD-ERCS chaotic map</b></p> <p><i>Zeeshan Habib Jan Sher Khan Jawad Ahmad Muazzam A. Khan Fadia Ali Khan</i>  4th International Conference on Electrical and Electronic Engineering (ICEEE), res.country(224,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/ICEEE2.2017.7935827</p>	2017
<p><b>The Applications of Natural Language Processing (NLP) for Software Requirement Engineering – A Systematic Literature Review</b></p> <p><i>Farhana Nazir Wasi Haider Butt Muhammad Waseem Anwar Muazzam A. Khan Khattak</i>  International Conference on Information Science and Applications, res.country(48,)</p> <p><b>Citations:</b> N/A</p>	2017

DOI: 10.1007/978-981-10-4154-9_56	
<b>AMVR: A multicast routing protocol for autonomous military vehicles communication in VANET</b> <i>Waqar Farooq Muazzam Ali Khan Saad Rehman</i> 14th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	2017
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/IBCAST.2017.7868128	
<b>Tracking of Fixed Shape Moving Objects based on Modified Particle Filters</b> <i>Haris Masood Saad Rehman Muazzam Khan Qaiser Javed M.Abbas M.Alam Rupert Young</i> 19th International Conference on Computer and Information Technology, res.country(19,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICCITECHN.2016.7860202	
<b>Detection and Prevention of Distributed Denial of Service Attacks in VANETs</b> <i>Munazza Shabbir Muazzam A. Khan Umair Shafiq Khan Nazar A. Saqib</i> 2016 International Conference on Computational Science and Computational Intelligence (CSCI), res.country(233,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/CSCI.2016.0186	
<b>Management of road lights system using Vehicular Ad-hoc Networks.</b> <i>Mudassar Adeel Ahmed Imran Ahsan Muazzam A. Khan Saad Rahman</i> 2016 2nd IEEE International Conference on Computer and Communications (ICCC), res.country(48,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/CompComm.2016.7925108	
<b>A Surrogate Channel Based Analysis of EEG Signals for Detection of Epileptic Seizure</b> <i>Saqib Ejaz Sajid Gul Khawaja Muazzam A. Khan M. Usman Akram</i> 2016 IEEE International Conference on Imaging Systems and Techniques (IST) , res.country(88,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/IST.2016.7738256	
<b>AutoDrop: Automatic DDoS Detection and its Mitigation with Combination of OpenFlow and Sflow</b> <i>Faisal Shahzad Muazzam A. Khan Shoab A. Khan Saad Rehman</i> 1st International Conference on Future Intelligent Vehicular Technologies, res.country(183,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1007/978-3-319-51207-5_11	
<b>Intelligent Actor Mobility with Event Tracking in Wireless Sensor and Actor Networks</b> <i>Amna W. Awan Nazar A. Saqib Muazzam A. Khan</i> 45th International Conference on Parallel Processing Workshops (ICPPW), res.country(233,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICPPW.2016.16	
<b>Identification of Heart Failure by Using Unstructured Data of Cardiac Patients</b> <i>Muhammad Saqlain Wahid Hussain Nazar A. Saqib Muazzam A. Khan</i> 2016 45th International Conference on Parallel Processing Workshops (ICPPW), res.country(233,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICPPW.2016.66	
<b>A Novel Security System for Preventing DoS Attacks on 4G LTE Networks</b> <i>Sundus Ayyaz Muazzam A. Khan Jawad Ahmad Cory Beard Baek Y. Choi Nazar A. Saqib</i> ICWN'16 - The 15th International Conference on Wireless Networks, res.country(233,)	2016
<b>Citations:</b> N/A <b>DOI:</b> N/A	
<b>A Cluster based Multicast routing protocol for Autonomous Unmanned Military Vehicles (AUMVs) communication in VANET</b> <i>Waqar Farooq Muazzam Ali Khan Saad Rehman</i> 2016 International Conference on Computing, Electronic and Electrical Engineering, ICE Cube 2016, res.country(177,)	2016
<b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICECUBE.2016.7495251	
<b>DeVANET: Decentralized Software-Defined VANET Architecture</b> <i>Afza Kazmi Muazzam A. Khan M. Usman Akram</i> 2016 IEEE International Conference on Cloud Engineering Workshop (IC2EW), res.country(57,)	2016



**Citations:** N/A  
**DOI:** 10.1109/IC2EW.2016.12

**Liver Image Analysis Using Color and Texture Descriptors**

2016

*M. Usman Akram Madiha Naveed Muazzam A. Khan Sarah Gul*  
*International Conference on Digital Information Processing, Electronics, and Wireless Communications (DIPEWC2016)*, res.country(2,)

**Citations:** N/A  
**DOI:** <http://paper.researchbib.com/view/paper/67616>

**Survey Based Analysis of Internet of Things Based Architectural Framework for Hospital Management System**

2015

*Amna Pir Muhammad Usman Akram Muazzam A. Khan*  
*2015 13th International Conference on Frontiers of Information Technology (FIT)*, res.country(177,)

**Citations:** N/A  
**DOI:** 10.1109/fit.2015.54

**Internet of Things Based Context Awareness Architectural Framework for HMIS**

2015

*Amna Pir M. Usman Akram Muazzam A. Khan*  
*2015 17th International Conference on E-health Networking, Application & Services (HealthCom)*, res.country(233,)

**Citations:** N/A  
**DOI:** 10.1109/HealthCom.2015.7454473

**ECG Based Biometric Identification for Population with Normal and Cardiac Anomalies using Hybrid HRV and DWT Features**

2015

*Muhammad Najam Dar Muhammad Usman Akram Arslan Shaukat Muazzam Ali Khan*  
*2015 5th International Conference on IT Convergence and Security (ICITCS)*, res.country(157,)

**Citations:** 28  
**DOI:** 10.1109/ICITCS.2015.7292977

**Prediction Recovery Based Smart Target Tracking Mechanism for WSNs**

2015

*Jahan Zeb Rida Nisar Muazzam A. Khan Nazar A. Saqib*  
*14th International Conference on Wireless Networks, (ICWN'15)*, res.country(233,)

**Citations:** N/A  
**DOI:** <https://www.semanticscholar.org/paper/Prediction-and-Recovery-based-Smart-Target-Tracking-Nisar-Khan/bec772527acb05fd965f9b27ae86df2c8e3e3e46>

**FPGA accelerated computing platform for MATLAB and C/C++**

2013

*Rizwan Rasul Abdul Mutaal Nazar Abbas Saqib Mohammad Kaleem Arslan Shaukat Aasia Khanum Muazzam A. Khan*  
*2013 11th International Conference on Frontiers of Information Technology*, res.country(177,)

**Citations:** 4  
**DOI:** 10.1109/FIT.2013.38

## Book Chapters

**Congestion Aware and Adaptive Routing Protocols for MANETs: A Survey**

2019

*Nousheen Akhtar Muazzam Ali Khan Khattak Ata Ullah Muhammad Younus Javed*  
In: *Book on Recent Trends and Advances in Wireless and IoT-enabled Networks*, Pages 159-169

**Citations:** 10  
**DOI:** [https://doi.org/10.1007/978-3-319-99966-1\\_15](https://doi.org/10.1007/978-3-319-99966-1_15)

## Editorial Activities

2017

Reviewed Papers for Journals  
**Impact Factor:** 2.617