

# Asad Waqar Malik

Associate Professor  
School of Electrical Engineering and Computer Science

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## About

Dr. Asad Waqar Malik is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Asad Waqar Malik has a PhD in Parallel And Distributed Simulation. Dr. Asad Waqar Malik has published 90 research articles & conference papers having a citation count of 1695, carried out 0 projects and filed 1 intellectual property.

## Qualifications

<b>PhD in Parallel And Distributed Simulation</b> NUST, Islamabad , Pakistan	2005 - 2012
<b>MS in Parallel And Distributed Simulation</b> NUST, Islamabad , Pakistan	2003 - 2005
<b>BS in Computer Science</b> Hamdard University , Pakistan	1999 - 2003
<b>F.Sc in Gen science</b> FBISE, Islamabad , Pakistan	1997 - 1999
<b>Matric (SSC) in Science</b> FBISE, Islamabad , Pakistan	1995 - 1997

## Experience

<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2023- Present
<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2020 - 2023
<b>Assistant Professor</b> School of Electrical Engineering and Computer Science	2012 - 2020
<b>Senior Lecturer</b> University of Malaya , Kuala lumpur	2019 - 2020
<b>Research Scholar</b> North Dakota State University , Fargo, USA	2014 - 2014
<b>Member Technical</b> Center for Advanced Research in Engineering , G-5, ISLAMABAD	2009 - 2012
<b>Visiting Scholar</b> Georgia Tech , Atlanta, USA	2007 - 2008

## Awards

Higher Education Comm.  
HEC IRSIP program

## Research Articles

<b>Leveraging on-board computing in autonomous ferries to identify malicious network connections</b> <i>Kadhim Hayawi Junaid Sajid Asad Waqar Malik Zouheir Trabelsi Ayaz Ur Rehman</i> <i>Journal of Transportation Security</i> , Volume:17, Issue:1, Article Number 18 <b>Impact Factor: 1.000   Quartile: 4   Citations: 1</b>	2024
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DOI: <a href="https://doi.org/10.1007/s12198-024-00286-4">https://doi.org/10.1007/s12198-024-00286-4</a>	
<b>DRIFTNET-EnVACK: Adaptive Drift Detection in Cloud Data Streams with Ensemble Variational Auto-encoder Featuring Contextual Network</b>	2024
Tajwar Mehmood Seemab Latif Rabia Latif Hammad Majeed Asad Waqar Malik IEEE Access , Volume 12, Pages 80020-80034	
Impact Factor: 3.400   Quartile: 2	
DOI: 10.1109/ACCESS.2024.3409433	
<b>LSTMDD: an optimized LSTM-based drift detector for concept drift in dynamic cloud computing</b>	2024
Tajwar Mehmood Seemab Latif Nor Shahida Mohd Jamail Asad Waqar Malik Rabia Latif PeerJ Computer Science , Volume 10, Article Number e1827	
Impact Factor: 3.8   Quartile: 2   Citations: 3	
DOI: <a href="https://doi.org/10.7717/peerj-cs.1827">https://doi.org/10.7717/peerj-cs.1827</a>	
<b>Mapping smart farming: Addressing agricultural challenges in data-driven era</b>	2024
Dongyang Huo Asad Waqar Malik Sri Devi Ravana Anis Ur Rahman Ismail Ahmedy Renewable and Sustainable Energy Reviews , Volume 189, Part A, Article Number 113858	
Impact Factor: 15.9   Quartile: 1   Citations: 52	
DOI: 10.1016/j.rser.2023.113858	
<b>Predicting Device Anomalous Condition in a Collaborated Industrial Environment</b>	2024
Unaiza Alvi Asad Waqar Malik Anis Ur Rahman Muazam Ali Khan Samee U. Khan IEEE Transactions on Industrial Informatics , Volume 20, Issue 1, Pages 390-398	
Impact Factor: 12.3   Quartile: 1	
DOI: 10.1109/TII.2023.3262815	
<b>Clustering-based re-routing framework for network traffic congestion avoidance on urban vehicular roads</b>	2023
Muhammad Ali Asad Waqar Malik Anis Ur Rahman The Journal of Supercomputing , Volume 79, Issue 18, Pages 21144-21165	
Impact Factor: 3.3   Quartile: 2   Citations: 4	
DOI: <a href="https://doi.org/10.1007/s11227-023-05455-1">https://doi.org/10.1007/s11227-023-05455-1</a>	
<b>Airborne Computing: A Toolkit for UAV-Assisted Federated Computing for Sustainable Smart Cities</b>	2023
Kadhim Hayawi Zahid Anwar Asad Waqar Malik Zouheir Trabelsi IEEE Internet of Things Journal , Volume 10, Issue 21, Pages 18941-18950	
Impact Factor: 10.6   Quartile: 1   Citations: 8	
DOI: 10.1109/JIOT.2023.3292308	
<b>A Fog Computing Framework for Intrusion Detection of Energy-Based Attacks on UAV-Assisted Smart Farming</b>	2023
Junaid Sajid Kadhim Hayawi Asad Waqar Malik Zahid Anwar Zouheir Trabelsi Applied Sciences , Volume:13, Issue:6, Article Number: 3857	
Impact Factor: 2.7   Quartile: 2   Citations: 23	
DOI: 10.3390/app13063857	
<b>SUDV: Malicious fog node management framework for software update dissemination in connected vehicles</b>	2023
Nadia Kalsoom Asad Waqar Malik Anis Ur Rahman Muhammad Ahsan Arsalan Ahmad The Journal of Supercomputing , Volume:79, Issue:4, Page:4534-4555	
Impact Factor: 3.3   Quartile: 2	
DOI: <a href="https://doi.org/10.1007/s11227-022-04829-1">https://doi.org/10.1007/s11227-022-04829-1</a>	
<b>Over-the-air software-defined vehicle updates using federated fog environment</b>	2022
Asad Waqar Malik Anis Ur Rahman Arsalan Ahmad Max Mauro Dias Santos IEEE Transactions on Network and Service Management , Volume 19, Issue 4, Pages 5078-5089	
Impact Factor: 4.758   Quartile: 2   Citations: 26	
DOI: 10.1109/TNSM.2022.3181027	
<b>An analysis of zero-trust architecture and its cost-effectiveness for organizational security</b>	2022
Zillah Adahman Asad Waqar Malik Zahid Anwar Computers and Security , Volume 122, Article Number 102911	
Impact Factor: 5.105   Quartile: 2   Citations: 26	
DOI: <a href="https://doi.org/10.1016/j.cose.2022.102911">https://doi.org/10.1016/j.cose.2022.102911</a>	

<b>Mobility-aware hierarchical fog computing framework for Industrial Internet of Things (IIoT)</b> <i>Tariq Qayyum Zouheir Trabelsi Asad Waqar Malik Kadhim Hayawi</i> <i>Journal of Cloud Computing</i> , Volume 11, Issue 1, Article Number 72 <b>Impact Factor:</b> 3.418   <b>Quartile:</b> 2   <b>Citations:</b> 21 <b>DOI:</b> <a href="https://doi.org/10.1186/s13677-022-00345-y">https://doi.org/10.1186/s13677-022-00345-y</a>	2022
<b>On Collective Intellect for Task Offloading in Vehicular Fog Paradigm</b> <i>Balawal Shabir Anis Ur Rahman Asad Waqar Malik Muazzam A. Khan</i> <i>IEEE Access</i> , Volume 10, Pages 101445-101457 <b>Impact Factor:</b> 3.9   <b>Quartile:</b> 2   <b>Citations:</b> 6 <b>DOI:</b> 10.1109/ACCESS.2022.3208243	2022
<b>Do Charging Stations Benefit from Cryptojacking? A Novel Framework for Its Financial Impact Analysis on Electric Vehicles</b> <i>Asad Waqar Malik Zahid Anwar</i> <i>Energies</i> , Volume 15(16), Article Number 5773 <b>Impact Factor:</b> 3.252   <b>Quartile:</b> 3   <b>Citations:</b> 4 <b>DOI:</b> <a href="https://doi.org/10.3390/en15165773">https://doi.org/10.3390/en15165773</a>	2022
<b>Adaptive Learning-based Vehicle-to-vehicle Opportunistic Resource Sharing Framework</b> <i>Arpita Chopra Anis U. Rahman Asad Waqar Malik Sri Devi Ravana</i> <i>IEEE Internet of Things Journal</i> , Volume 9, Issue 14, Pages 12497-12504 <b>Impact Factor:</b> 10.238   <b>Quartile:</b> 1   <b>Citations:</b> 6 <b>DOI:</b> 10.1109/JIOT.2021.3137264	2022
<b>Developing Engagement in the Learning Management System Supported by Learning Analytics</b> <i>Suraya Hamid Shahrul Nizam Ismail Muzaffar Hamzah Asad Waqar Malik</i> <i>Computer Systems Science and Engineering</i> , Volume 42, Issue 1, Pages 335-350 <b>Impact Factor:</b> 4.397   <b>Quartile:</b> 1   <b>Citations:</b> 11 <b>DOI:</b> <a href="https://doi.org/10.32604/csse.2022.021927">https://doi.org/10.32604/csse.2022.021927</a>	2022
<b>Trajectory Design for UAV-Based Data Collection Using Clustering Model in Smart Farming</b> <i>Tariq Qayyum Zouheir Trabelsi Asad Waqar Malik Kadhim Hayawi</i> <i>Sensors</i> , Volume 22(1), Article Number 37 <b>Impact Factor:</b> 3.576   <b>Quartile:</b> 1   <b>Citations:</b> 26 <b>DOI:</b> <a href="https://doi.org/10.3390/s22010037">https://doi.org/10.3390/s22010037</a>	2021
<b>Blockchain-Enabled Adaptive-Learning-Based Resource-Sharing Framework for IIoT Environment</b> <i>Sarah Iqbal Rafidah MD Noor Asad Waqar Malik Anis U. Rahman</i> <i>IEEE Internet of Things</i> , Volume 8, Issue 19, Pages 14746-14755 <b>Impact Factor:</b> 9.471   <b>Quartile:</b> 1   <b>Citations:</b> 23 <b>DOI:</b> 10.1109/JIOT.2021.3071562	2021
<b>Real-time adaptive object detection and tracking for autonomous vehicles</b> <i>Joao Eduardo Hoffmann Hilkija Gaius Tosso Max Mauro Dias Santos Joao Francisco Justo Asad Waqar Malik Anis Ur Rahman</i> <i>IEEE Transactions on Intelligent Vehicles</i> , Volume 6, Issue 3, Pages 450-459 <b>Impact Factor:</b> 5.009   <b>Quartile:</b> 1   <b>Citations:</b> 48 <b>DOI:</b> 10.1109/TIV.2020.3037928	2021
<b>Towards Distributed Heterogeneous Simulation using Internet of Things</b> <i>Muhammad Haseeb Asad Waqar Malik Anis Ur Rahman Mian Muhammad Hamayun</i> <i>IEEE Internet of Things Journal</i> , Volume 6, Issue 6, Pages 10472-10482 <b>Impact Factor:</b> 10.238   <b>Quartile:</b> 1   <b>Citations:</b> 1 <b>DOI:</b> 10.1109/JIOT.2019.2939361	2021
<b>Symbiotic robotics network for efficient task offloading in smart industry</b> <i>Asad Waqar Malik Anis-ur-Rahman Muhammad Ali Max Mauro Santos</i> <i>IEEE Transactions on Industrial Informatics</i> , Volume 17, Issue 7, Pages 4594-4601 <b>Impact Factor:</b> 11.648   <b>Quartile:</b> 1   <b>Citations:</b> 26 <b>DOI:</b> 10.1109/TII.2020.3032238	2021
<b>A novel approach for heart disease prediction using strength scores with significant predictors</b> <i>Armin Yazdani Kasturi Dewi Varathan Asad Waqar Malik Wan Azman Wan Ahmad Yin Kia Chiam Yin Kia Chiam</i> <i>BMC Medical Informatics and Decision Making</i> , Volume 21, Article Number 194 <b>Impact Factor:</b> 3.298   <b>Quartile:</b> 3   <b>Citations:</b> 69	2021

<b>DOI:</b> <a href="https://doi.org/10.1186/s12911-021-01527-5">https://doi.org/10.1186/s12911-021-01527-5</a>	
<b>On-demand multi-hop forwarding for sustainable vehicular data transfer network</b> <i>Ayoub El Bendali Anis Ur Rahman Asad Waqar Malik Muazzam Ali Khan Sri Devi Ravana</i> <i>International Journal of Distributed Sensor Networks</i> , Volume 17(5), Pages 1-13 <b>Impact Factor:</b> 1.938   <b>Quartile:</b> 3   <b>Citations:</b> 1 <b>DOI:</b> <a href="https://doi.org/10.1177%2F15501477211015147">https://doi.org/10.1177%2F15501477211015147</a>	2021
<b>Multi-Level Resource Sharing Framework Using Collaborative Fog Environment for Smart Cities</b> <i>Tariq Qayyum Zouheir Trabelsi Asad Waqar Malik Kadhim Hayawi</i> <i>IEEE Access</i> , Volume 9, Pages 21859-21869 <b>Impact Factor:</b> 3.476   <b>Quartile:</b> 2   <b>Citations:</b> 31 <b>DOI:</b> 10.1109/ACCESS.2021.3054420	2021
<b>A Water Evaluation and Planning-based framework for the long-term prediction of urban water demand and supply</b> <i>Arfa Saleem Imran Mahmood Hessam Sarjoughian ASAD WAQAR MALIK Hasan Arshad Nasir</i> <i>Simulation</i> , Pages 1-23 <b>Impact Factor:</b> 1.699   <b>Quartile:</b> 3   <b>Citations:</b> 18 <b>DOI:</b> <a href="https://doi.org/10.1177/0037549720984250">https://doi.org/10.1177/0037549720984250</a>	2021
<b>Time-bound single-path opportunistic forwarding in disconnected industrial environments</b> <i>Saad Kabbaj Anis-ur-Rahman Asad Waqar Malik Asif Iqbal Baba Sri Devi Ravana</i> <i>Vehicular communication</i> , Volume 27, Article Number 100302 <b>Impact Factor:</b> 8.373   <b>Quartile:</b> 1   <b>Citations:</b> 7 <b>DOI:</b> <a href="https://doi.org/10.1016/j.vehcom.2020.100302">https://doi.org/10.1016/j.vehcom.2020.100302</a>	2021
<b>Modeling, simulation and forecasting of wind power plants using agent-based approach</b> <i>Imran Mahmood Anis-ur-Rahman Mahe Mobeen Shahzad Younis Asad Waqar Malik Muhammad Moazam Fraz Kafait Ullah</i> <i>Journal of Cleaner Production</i> , Volume 276, Article Number 124172 <b>Impact Factor:</b> 9.297   <b>Quartile:</b> 1   <b>Citations:</b> 15 <b>DOI:</b> <a href="https://doi.org/10.1016/j.jclepro.2020.124172">https://doi.org/10.1016/j.jclepro.2020.124172</a>	2020
<b>On-demand resource provisioning for vehicular networks using flying fog</b> <i>Naman Madan Sri devi Naman Madan Asad Waqar Malik Anis-ur-Rahman Sri devi</i> <i>Vehicular Communication</i> , Volume 25, Article Number 100252 <b>Impact Factor:</b> 6.910   <b>Quartile:</b> 1   <b>Citations:</b> 27 <b>DOI:</b> <a href="https://doi.org/10.1016/j.vehcom.2020.100252">https://doi.org/10.1016/j.vehcom.2020.100252</a>	2020
<b>Fingerprinting SDN Policy Parameters: An Empirical Study</b> <i>Bilal Ahmed Nadeem Ahmed Asad Waqar Malik Muhammad Mohsin Raza Jafri Taimur Hafeez</i> <i>IEEE Access</i> , Volume 8, Pages 142379-142392 <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 13 <b>DOI:</b> 10.1109/ACCESS.2020.3012176	2020
<b>Context-aware opportunistic computing in vehicle-to-vehicle networks</b> <i>Anis-ur-Rahman Asad Waqar Malik Vishwani Sati Arpita Chopra Sri Devi Ravan</i> <i>Vehicular Communication</i> , Volume 24, Article Number 100236 <b>Impact Factor:</b> 6.910   <b>Quartile:</b> 1   <b>Citations:</b> 37 <b>DOI:</b> <a href="https://doi.org/10.1016/j.vehcom.2020.100236">https://doi.org/10.1016/j.vehcom.2020.100236</a>	2020
<b>A Comprehensive Study on IoT Based Accident Detection Systems for Smart Vehicles</b> <i>Unaiza Alvi Muazzam Ali Khan Balawal Shabir Asad Waqar Malik Sher Ramzan Muhammad</i> <i>IEEE Access</i> , Volume: 8 , Pages 122480-122497 <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 93 <b>DOI:</b> 10.1109/ACCESS.2020.3006887	2020
<b>Toward scalable cloud data center simulation using high-level architecture</b> <i>Bakhtawar Elahi Asad Waqar Malik Anis-ur-Rahman Muazam Ali Khan Khattak</i> <i>Software: Practice and Experience</i> , Volume 50, Issue 6, Pages 827-843 <b>Impact Factor:</b> 2.028   <b>Quartile:</b> 2   <b>Citations:</b> 8 <b>DOI:</b> 10.1002/spe.2769	2020
<b>MedCloud: Cloud-based disease surveillance and information management system</b> <i>Asad Waqar Malik Anis-ur-Rahman Muhammad Sohail Iqbal Paul Robert Cleary Adnan Bashir Aamer Ikram</i> <i>IEEE Access</i> , Volume 8, Pages 81271 - 81282	2020

<b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 4 <b>DOI:</b> 10.1109/ACCESS.2020.2990967	
<b>Toward Sustainable Micro-Level Fog-Federated Load Sharing in Internet of Vehicles</b> <i>Zeseya Sharmin Asad Waqar Malik Anis-ur-Rahman Rafidah Md Noor Zeseya Sharmin Rafidah Md Noor</i> <i>IEEE Internet of Things Journal</i> , Volume 7, No. 4, Pages 3614-3622 <b>Impact Factor:</b> 9.471   <b>Quartile:</b> 1 <b>DOI:</b> 10.1109/JIOT.2020.2973420.	2020
<b>Leveraging fog computing for sustainable smart farming using distributed simulation</b> <i>Asad Waqar Malik Tariq Qayyum Sri Devi Ravana Anis-ur-Rahman Tariq Qayyum Sri Devi Ravana</i> <i>IEEE Internet of Things Journal</i> , Volume: 7, Issue: 4 , Pages 3300-3309 <b>Impact Factor:</b> 9.471   <b>Quartile:</b> 1   <b>Citations:</b> 46 <b>DOI:</b> 10.1109/JIOT.2020.2967405	2020
<b>Blockchain-Based Reputation Management for Task Offloading in Micro-Level Vehicular Fog Network</b> <i>Sarah Iqbal Asad Waqar Malik Rafidah Md Noor Sarah Iqbal Anis-ur-Rahman Rafidah Md Noor</i> <i>IEEE Access</i> , Volume 8, Pages 52968 - 52980 <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 47 <b>DOI:</b> 10.1109/ACCESS.2020.2979248	2020
<b>Emergency Message Dissemination in Vehicular Networks: A Review</b> <i>Muhammad Uzair Ghazi Muazzam Ali Khan Balawal Shabir Asad Waqar Malik Muhammad Sher Ramzan</i> <i>IEEE Access</i> , Volume 8, Pages 38606-38621 <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 80 <b>DOI:</b> 10.1109/ACCESS.2020.2975110	2020
<b>Sustainable vehicle-assisted edge computing for big data migration in smart cities</b> <i>Maria Kanwal Anis-ur-Rahman Muhammad Shahzad Maria Kanwal Asad Waqar Malik Imran Mahmood</i> <i>IEEE Internet of Things Journal</i> , Volume: 7 , Issue: 3, Pages 1857-1871 <b>Impact Factor:</b> 9.471   <b>Quartile:</b> 1   <b>Citations:</b> 14 <b>DOI:</b> 10.1109/JIOT.2019.2957127	2020
<b>Impact of data center placement on the power consumption of flexible-grid optical networks</b> <i>Ihtesham Khan Arsalan Ahmad Muhammad U. Masood Nadeem Ahmed Vittorio Curri Ihtesham Khan Muhammad U. Masood Asad Waqar Malik</i> <i>Optical Engineering</i> , Volume 59(1), Article Number 016115 <b>Impact Factor:</b> 1.084   <b>Quartile:</b> 4   <b>Citations:</b> 8 <b>DOI:</b> https://doi.org/10.1117/1.OE.59.1.016115	2020
<b>Utilization Driven Model for Server Consolidation in Cloud Data Centers</b> <i>Hammad Ur-Rehman Qaiser Gao Shu Asad Waqar Malik</i> <i>IEEE Access</i> , Volume 8, Pages 1998-2007 <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 7 <b>DOI:</b> DOI: 10.1109/ACCESS.2019.2962272	2020
<b>SEECSSim: A toolkit for parallel and distributed simulations for mobile devices</b> <i>Fahad Maqbool Asad Waqar Malik Syed Meesam Raza Nadeem Ahmed Gabriele D'Angelo Imran Mahmood</i> <i>Journal of Simulation</i> , Pages 1-26 <b>Impact Factor:</b> 1.214   <b>Quartile:</b> 3   <b>Citations:</b> 1 <b>DOI:</b> 10.1080/17477778.2019.1701958	2019
<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>Virtual Infrastructure Orchestration For Cloud Service Deployment</b> <i>Arslan Qadeer Asad Waqar Malik Anis-ur-Rahman Mian Hamayun Arsalan Ahmad</i> <i>Computer Journal</i> , Pages 1-13 <b>Impact Factor:</b> 1.077   <b>Quartile:</b> 3   <b>Citations:</b> 6 <b>DOI:</b> 10.1093/comjnl/bxz125	2019
<b>Exploiting cooperative sensing for accurate target tracking in industrial Internet of things</b> <i>Muneeb A Khan Muazzam A Khan Anis-ur-Rahman Asad Waqar Malik Safdar Abbas Khan</i>	2019

**Impact Factor:** 1.613 | **Quartile:** 4 | **Citations:** 12

**DOI:** 10.1177/1550147719892203

**A vehicular network–based intelligent transport system for smart cities**

2019

Tayyaba Zaheer Muhammad Moazam Fraz Asad Waqar Malik Ayesha Zahir Anis-ur-Rahman

International Journal of Distributed Sensor Networks., Volume: 15, issue: 11, Article Number: 1550147719888845

**Impact Factor:** 1.151 | **Quartile:** 4 | **Citations:** 21

**DOI:** <https://doi.org/10.1177/1550147719888845>

**SecureSurgiNET: A framework for ensuring security in telesurgery**

2019

Muhammad Sohail Iqbal Shahzad Farooq Khuram Shahzad Asad Waqar Malik Mian Hamayun Osman Hassan

International Journal of Distributed Sensor Networks, Volume: 15 Issue: 9 Article Number: 1550147719873811

**Impact Factor:** 1.151 | **Quartile:** 4 | **Citations:** 19

**DOI:** 10.1177/1550147719873811

**Locality-aware process placement for parallel and distributed simulation in cloud data centers**

2019

Saad Zaheer Asad Waqar Malik Anis-ur-Rahman Safdar Abbas Khan

Journal of Supercomputing, Volume 75, Issue 11, Pages 7723-7745

**Impact Factor:** 2.469 | **Quartile:** 2 | **Citations:** 10

**DOI:** 10.1007/s11227-019-02973-9

**Position-based emergency message dissemination for Internet of vehicles**

2019

Muhammad Ali Asad Waqar Malik Anis U Rahman Muhammad Sohail Iqbal Mian Hamayun

International Journal of Distributed Sensors Network, Volume: 15, Issue: 7

**Impact Factor:** 1.151 | **Quartile:** 4 | **Citations:** 47

**DOI:** 10.1177/1550147719861585

**A machine learning framework for investigating data breaches based on semantic analysis of adversary’s attack patterns in threat intelligence repositories**

2019

Umara Noor Zahid Anwar Asad Waqar Malik Sharifullah Khan Shahzad Saleem

Future Generation Computer Systems, Volume 95, Pages 467-487

**Impact Factor:** 6.125 | **Quartile:** 1 | **Citations:** 50

**DOI:** 10.1016/j.future.2019.01.022

**An Integrated Modeling, Simulation and Analysis Framework for Engineering Complex Systems**

2019

Tameen Kausar Naveed Riaz Imran Mahmood Asad Waqar Malik Hessam Sarjoughian

IEEE Access, Volume 7, Pages 67497-67514

**Impact Factor:** 3.745 | **Quartile:** 1 | **Citations:** 27

**DOI:** 10.1109/ACCESS.2019.2917652

**Big Data in Motion: A Vehicle-Assisted Urban Computing Framework for Smart Cities**

2019

Murk Asad Waqar Malik Imran Mahmood Nadeem Ahmed Zahid Anwar

IEEE Access, Volume 7 Pages 55951-55965

**Impact Factor:** 3.745 | **Quartile:** 1 | **Citations:** 24

**DOI:** 10.1109/ACCESS.2019.2913150

**Pattern Matching for DNA Sequencing Data using Multiple Bloom Filters**

2019

Asad Waqar Malik Maleeha Najam Raihan Ur Rasool Hafiz Farooq Ahmad Usman Ashraf

BioMed Research International, -

**Impact Factor:** 2.276 | **Quartile:** 3 | **Citations:** 16

**DOI:** 10.1155/2019/7074387

**VFog: A Vehicle-Assisted Computing Framework for Delay-Sensitive Applications in Smart Cities**

2019

Syed Sarmad Shah Muhammad Ali Asad Waqar Malik Muazzam A. Khan Sri Devi Ravana

IEEE Access, IEEE Access Journal

**Impact Factor:** 3.745 | **Quartile:** 1 | **Citations:** 50

**DOI:** 10.1109/ACCESS.2019.2903302

**Time Barrier based Emergency Message Dissemination in Vehicular Ad-hoc Networks**

2019

Syed Sarmad Shah Asad Waqar Malik ANIS U. RAHMAN Muhammad Sohail Iqbal SAMEE U. KHAN

IEEE Access, Volume: 7 Pages: 16494-16503

**Impact Factor:** 3.745 | **Quartile:** 1 | **Citations:** 85

**DOI:** 10.1109/ACCESS.2019.2895114

<b>Services and simulation frameworks for vehicular cloud computing: a contemporary survey</b> <i>Bilal Ahmed Asad Waqar Malik Taimur Hafeez Nadeem Ahmed</i> <i>EURASIP Journal on Wireless Communications and Networking</i> , Article Number: 4 <b>Impact Factor:</b> 1.408   <b>Quartile:</b> 3   <b>Citations:</b> 65 <b>DOI:</b> 10.1186/s13638-018-1315-y	2019
<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>Computational Methods for Exudates Detection and Macular Edema Estimation in Retinal Images: A Survey</b> <i>M. Bader Dr Asad Waqar Malik S. A. Barman Muhammad Moazam Fraz</i> <i>Archives of Computational Methods in Engineering</i> <b>Impact Factor:</b> 7.242   <b>Quartile:</b> 1   <b>Citations:</b> 17 <b>DOI:</b> 10.1007/s11831-018-9281-4	2018
<b>IoT Operating System Based Fuzzy Inference System for Home Energy Management System in Smart Buildings</b> <i>Qurat-ul Ain Muhammad Sohail Iqbal Safdar Abbas Khan Asad Waqar Malik Iftikhar Ahmad Nadeem Javaid</i> <i>Sensors</i> , Volume 18, Issue 9, Article Number 2802 <b>Impact Factor:</b> 3.031   <b>Quartile:</b> 1   <b>Citations:</b> 75 <b>DOI:</b> 10.3390/s18092802	2018
<b>Multi-Agent Framework for Cloud-based Management of Collaborative Robots</b> <i>Omar Arif Tooba Samad Sohail Iqbal Peter Bloodsworth Asad Waqar Malik</i> <i>International Journal of Advanced Robotic Systems</i> , - <b>Impact Factor:</b> 1.223   <b>Quartile:</b> 4   <b>Citations:</b> 8 <b>DOI:</b> 10.1177/1729881418785073	2018
<b>A Multi-Agent Framework for Cloud-based Management of Collaborative Robots</b> <i>Tooba Samad Muhammad Sohail Iqbal Asad Waqar Malik Omar Arif Peter Bloodsworth</i> <i>International Journal of Advanced Robotic Systems</i> , Pages 1-13 <b>Impact Factor:</b> 1.223   <b>Quartile:</b> 4 <b>DOI:</b> 0.1177/1729881418785073	2018
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<b>A generic framework for application streaming service</b> <i>Asad Waqar Malik Raihan ur Rasool Zahid Anwar Shahid Nawaz</i> <i>Computers &amp; Electrical Engineering</i> , Volume 66, Pages 149-161 <b>Impact Factor:</b> 2.189   <b>Quartile:</b> 2   <b>Citations:</b> 1 <b>DOI:</b> 10.1016/j.compeleceng.2017.09.029	2018
<b>Classification and Mapping of Adaptive Security for Mobile Computing</b> <i>Maryam Sajjad Asad Waqar Malik Aakash Ahmad Ahmed B. Altamimi Ibrahim Alseadoon</i> <i>IEEE Transactions on Emerging Topics in Computing, Electronic</i> , Page(s): 1 - 1 <b>Impact Factor:</b> 4.989   <b>Quartile:</b> 1   <b>Citations:</b> 14 <b>DOI:</b> 10.1109/TETC.2018.2791459	2018
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<b>CloudNetSim++: A GUI Based Framework for Modeling and Simulation of Data Centers in OMNeT++</b> <i>Asad Waqar Malik Kashif Bilal S. U. Malik Zahid Anwar Khurram Aziz Dzmitry Kliazovich Nasir Ghani Samee U. Khan Rajkumar Buyya</i>	2017

**An HLA Based Real Time Simulation Engine for Man-in-Loop Net Centric System**

2010

Asad Waqar Malik Shoab A Khan S. Rauf ul Hassan

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**Enhancing Intrusion detection: Leveraging Federated Learning and Hybrid Machine Learning**

2023

**Algorithms On ToN\_IoT Dataset**

Faiza Naeem Asad Waqar Malik Safdar Abbas Khan Farzana Jabeen

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DOI: <https://doi.org/10.1109/FIT60620.2023.00023>

**UrbanEVSIM: Open-Source Electric Vehicle Mobility and Charging Simulation Platform**

2023

Hamna Rauf Syeda Sana Zehra Zaidi Hamna Naveed Dawood Mehmood Farzana Jabeen Farzana Jabeen Asad Waqar Malik

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**Preventing Adversarial Attacks on Autonomous Driving Models**

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Citations: N/A

DOI: 978-3-031-27041-3

**A Reliable Learning Based Task Offloading Framework for Vehicular Edge Computing**

2022

Balawal Shabbir Asad Waqar Malik ANIS Rahman Muazzam A. Khan ZAHID ANWAR

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**Offloading Scheme**

Sarah Iqbal Rafidah MD Noor Asad Waqar Malik

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

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

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Muhammad Majid Sharif Muhammad Usman Akram Asad Waqar Malik

2018 IEEE 20th International Conference on e-Health Networking, Applications and Services (Healthcom), res.country(56,)

Citations: N/A

DOI: 10.1109/HealthCom.2018.8531101

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<p><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,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/FMEC.2018.8364068</p>	
<p><b>Crowdsourced System to Report Traffic Violations</b></p> <p><i>Maryam Jameela Hammad Afzal Khawar Khurshid Asad Waqar Malik</i>  4th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS), res.country(183,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.5220/0006680303150322</p>	2018
<p><b>Crowdsourced System to Report Traffic Violations RoadCop: Bi-Modular System</b></p> <p><i>Maryam Jameela Hammad Afzal Khawar Khurshid Asad Waqar Malik</i>  4th International Conference on Vehicle Technology and Intelligent Transport Systems, res.country(183,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.5220/0006680303150322</p>	2018
<p><b>Optimization of Decision Support System based on Three-Stage Threat Evaluation and Resource Management</b></p> <p><i>Afshan Naseem Shoab Ahmed Khan Asad Waqar Malik</i>  IEEE International Conference on Industrial Engineering and Engineering Management, res.country(197,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/IEEM.2017.8289950</p>	2017
<p><b>Crash Me Inside The Cloud: A Fault Resilient Framework for Discrete Event Simulation</b></p> <p><i>Asad W. Malik Imran Mahmood</i>  2017 SUMMER SIMULATION MULTI-CONFERENCE , res.country(233,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> N/A</p>	2017
<p><b>Classification of Vessels as Arteries Verses Veins Using Hybrid Features for Diagnosis of Hypertensive Retinopathy</b></p> <p><i>Samra Irshad Muhammad Ahmad M. Usman Akram Asad Waqar Malik Sarmad Abbas</i>  IEEE International Conference on Imaging Systems and Techniques (IST), res.country(88,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/IST.2016.7738272</p>	2016
<p><b>Energy consumption of traditional simulation protocol over SmartPhones: an empirical study (WIP)</b></p> <p><i>Asad W. Malik Imran Mahmood Aakash Parkash</i>  Summer Computer Simulation Conference (SCSC '16), res.country(38,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> <a href="https://dl.acm.org/citation.cfm?id=3015597">https://dl.acm.org/citation.cfm?id=3015597</a></p>	2016
<p><b>Real-Time Decision Support System for Resource Optimization &amp; Management of Threat Evaluation and Weapon Assignment Engineering in Air Defence</b></p> <p><i>Afshan Naseem Shoab A.Khan Asad Waqar Malik</i>  2014 IEEE International Conference on Industrial Engineering and Engineering Management, res.country(157,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/IEEM.2014.7058701</p>	2014
<p><b>Distributed Autonomous System Based Design Technique to Enhance Synchronization Productivity in Simulations</b></p> <p><i>Asad Waqar Malik Shoab Ahmad Khan</i>  AMS 2008 – 2nd Asia International Conference on Modelling &amp; Simulation, res.country(157,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/AMS.2008.18</p>	2008
<p><b>Context Aware Network Enabled Distributed Modeling and Simulation Framework</b></p> <p><i>Asad Waqar Malik Sulieman Khan SHOAIB AHMED KHAN</i>  Asia International Conference on Modelling &amp; Simulation (AMS'07), res.country(217,)</p> <p><b>Citations:</b> N/A  <b>DOI:</b> 10.1109/AMS.2007.29</p>	2007

## Book Chapters

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<b>Vehicle-assisted framework for delay-sensitive applications in smart cities</b> <i>Tayyaba Zaheer Sarah Iqbal Asad Waqar Malik Anis U. Rahman Zeseya Sharmin</i> In: <i>Book on Communication Technologies for Networked Smart Cities</i> , Chapter 8, Pages 175-199 <b>Citations:</b> N/A	2021
<b>Modeling and Simulation of Distributed Fog Environment using FogNetSim++</b> <i>Tariq Qayyum Asad Waqar Malik Muazzam A. Khan Samee U. Khan</i> In: <i>Book on Fog Computing: Theory and Practice</i> , Chapter 11, Pages 293-307 <b>Citations:</b> 9 <b>DOI:</b> <a href="https://doi.org/10.1002/9781119551713.ch11">https://doi.org/10.1002/9781119551713.ch11</a>	2020
<b>An Insight into 5G Networks with Fog Computing</b> <i>Osman Khalid Imran Ali Rao Naveed Bin Rais Asad Waqar Malik</i> In: <i>Book on Fog Computing: Theory and Practice</i> , Chapter 20, Pages 505-527 <b>Citations:</b> 8 <b>DOI:</b> <a href="https://doi.org/10.1002/9781119551713.ch20">https://doi.org/10.1002/9781119551713.ch20</a>	2020
<b>Centralized to Decentralized Social Networks: Factors that Matter</b> <i>Maryam Qamar Mehwish Malik Saadia Batool Sidra Mehmood Asad Waqar Malik Anis-ur-Rahman</i> In: <i>Book on Managing and Processing Big Data in Cloud Computing</i> , Chapter 3, Pages 37-54 <b>Citations:</b> N/A <b>DOI:</b> <a href="https://doi.org/10.4018/978-1-4666-9767-6.ch003">doi:10.4018/978-1-4666-9767-6.ch003</a>	2016
<b>Ceaseless Virtual Appliance Streaming: Creation and Transmission of Virtual Packs over Network</b> <i>Shahid Nawaz Asad Waqar Malik Raihan-ur-Rasool</i> In: <i>Book on Managing and Processing Big Data in Cloud Computing</i> , Chapter 5, Pages 70-84 <b>Citations:</b> N/A <b>DOI:</b> <a href="https://doi.org/10.4018/978-1-4666-9767-6.ch005">doi:10.4018/978-1-4666-9767-6.ch005</a>	2016
<b>Mobile Cloud Computing Future Trends and Opportunities</b> <i>Sajid Umair Umair Muneer Muhammad Nauman Zahoor Asad Waqar Malik</i> In: <i>Book on Managing and Processing Big Data in Cloud Computing</i> , Chapter 7, Pages 105-120 <b>Citations:</b> N/A <b>DOI:</b> <a href="https://doi.org/10.4018/978-1-4666-9767-6.ch007">doi:10.4018/978-1-4666-9767-6.ch007</a>	2016

## Editorial Activities

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<b>IEEE Internet of Things Journal</b> Reviewed Papers for Journals <b>Impact Factor:</b> 10.6	2023
<b>IEEE Access</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.9	2023
<b>IEEE Access</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.9	2023
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.9	2022
<b>IEEE Access</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.9	2022
<b>IEEE Access</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.9	2022
<b>IEEE Access</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.9	2022

<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.3	2022
<b>Frontiers in Future Transportation</b> Reviewed Papers for Journals <b>Impact Factor:</b> 0.1	2022
<b>High Voltage</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.967	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2022
<b>IEEE Internet of Things Journal</b> Reviewed Papers for Journals <b>Impact Factor:</b> 9.9	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.3	2022
<b>IEEE Access</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.476	2021
Editor in Chief of Journal <b>Impact Factor:</b> 3.3	2021
Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.3	2021
Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.3	2021
Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.3	2021
Reviewed Papers for Journals <b>Impact Factor:</b> 9.1	2021
Reviewed Papers for Journals <b>Impact Factor:</b> 3.7	2021
Edited Journal Issue / Proceeding / Book	2021

<b>Impact Factor: 3.3</b>	
Reviewed Papers for Journals	2021
<b>Impact Factor: 0.858</b>	
Edited Journal Issue / Proceeding / Book	2021
<b>Impact Factor: 3.3</b>	
Reviewed Papers for Journals	2021
<b>Impact Factor: 3.453</b>	
Edited Journal Issue / Proceeding / Book	2021
<b>Impact Factor: 3.3</b>	
Reviewed Papers for Journals	2021
<b>Impact Factor: 9.1</b>	
Reviewed Papers for Journals	2021
<b>Impact Factor: 3.367</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 9.471</b>	
Edited Journal Issue / Proceeding / Book	2020
<b>Impact Factor: 3.3</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 3.7</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 8.63</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 5.33</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 3.734</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 4.98</b>	
Reviewed Papers for Journals	2020
<b>Impact Factor: 6.66</b>	
Reviewed Papers for Journals	2019
<b>Impact Factor: 9.5</b>	
Reviewed Papers for Journals	2019
<b>Impact Factor: 4.098</b>	
Reviewed Papers for Journals	2019
<b>Impact Factor: -</b>	
	2019

Reviewed Papers for Journals  
**Impact Factor:** 4.463

2019

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Over-the-air software-defined vehicle updates using federated fog environment  
**Status:** Filed

2021

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