

Muhammad Usman Shahid

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About

Dr. Muhammad Usman Shahid is working as Associate Professor in the School of Interdisciplinary Engineering & Sciences. Dr. Muhammad Usman Shahid has a PhD in Electrical and Computer Engineering. Dr. Muhammad Usman Shahid has published 43 research articles & conference papers having a citation count of 871, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Electrical and Computer Engineering North Dakota State University , United States	2012 - 2015
MS in Information Security Military College of Signals , Pakistan	2005 - 2008
BS in Computer Science BZU, Multan , Pakistan	2000 - 2005

Experience

Associate Professor School of Interdisciplinary Engineering & Sciences	2024- Present
Associate Professor School of Interdisciplinary Engineering & Sciences	2024 - 2024
Associate Professor COMSATS University Islamabad, Abbottabad Campus , Abbottabad	2023 - 2024
Assistant Professor COMSATS University Islamabad, Abbottabad Campus , Abbottabad	2015 - 2023
Lecturer COMSATS University Islamabad, Abbottabad Campus , Abbottabad	2008 - 2015

Research Projects

National Projects	
Blockage of Unwanted YouTube Videos in Network Traffic Funding Agency: NUST Amount: PKR 1,000,000.00 Status: Approved_inprocess	2024
International Projects	

Research Articles

Improved Open World Object Detection Using Class-Wise Feature Space Learning Muhammad Usman Shahid Khan Muhammad Ali Iqbal Yeo Chan Yoon Soo Kyun Kim IEEE Access , Volume 11, Pages 131221-131236 Impact Factor: 3.900 Quartile: 2 Citations: 1 DOI: https://doi.org/10.1109/ACCESS.2023.3335602	2023
Explainable YouTube Video Identification Using Sufficient Input Subsets Muhammad Usman Shahid Khan Waleed Afandi Syed Muhammad Ammar Hassan Bukhari Tahir Maqsood Muhammad A. B. Fayyaz Ali R. Ansari Raheel Nawaz IEEE Access , Volume 11, Pages 33178-33188	2023

Impact Factor: 3.900 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1109/ACCESS.2023.3261562	
E-Ensemble: A Novel Ensemble Classifier for Encrypted Video Identification <i>Muhammad Usman Shahid Khan Waleed Afandi Syed M. A. H. Bukhari Tahir Maqsood Muhammad B. Qureshi Muhammad A. B. Fayyaz Raheel Nawaz Electronics</i> , Volume 11, Issue 24, Article Number 4076 Impact Factor: 2.900 Quartile: 2 Citations: 2 DOI: https://doi.org/10.3390/electronics11244076	2022
Fingerprinting Technique for YouTube Videos Identification in Network Traffic <i>Muhammad Usman Shahid Khan Waleed Afandi Syed Muhammad Ammar Hassan Bukhari Tahir Maqsood Samee U. Khan IEEE Access</i> , Volume 10, Pages 76731-76741 Impact Factor: 3.900 Quartile: 2 Citations: 17 DOI: https://doi.org/10.1109/ACCESS.2022.3192458	2022
SCNN-Attack: A Side-Channel Attack to Identify YouTube Videos in a VPN and Non-VPN Network Traffic <i>Muhammad Usman Shahid Khan Syed M. A. H. Bukhari Tahir Maqsood Muhammad A. B. Fayyaz Darren Dancey Raheel Nawaz Electronics</i> , Volume 11, Issue 3, Article Number 350 Impact Factor: 2.900 Quartile: 2 Citations: 15 DOI: https://doi.org/10.3390/electronics11030350	2022
Beyond the horizon, backhaul connectivity for offshore iot devices <i>Muhammad Usman Shahid Khan Khurram Shabih Zaidi Sadaf Hina Muhammad Jawad Ali Nawaz Khan Haris Bin Pervaiz Raheel Nawaz Energies</i> , Volume 14, Issue 21, Article Number 6918 Impact Factor: 3.252 Quartile: 3 Citations: 10 DOI: https://doi.org/10.3390/en14216918	2021
Adadb: Adaptive diff-batch optimization technique for gradient descent <i>Muhammad Usman Shahid Khan Muhammad Jawad Samee U. Khan IEEE Access</i> , Volume 9, Pages 99581-99588 Impact Factor: 3.476 Quartile: 2 Citations: 13 DOI: https://doi.org/10.1109/ACCESS.2021.3096976	2021
A robust optimization technique for energy cost minimization of cloud data centers <i>Muhammad Usman Shahid Khan Muhammad Jawad Muhammad B. Qureshi Sahibzada M. Ali Arshad Mehmood Bilal Khan Xiaoyu Wang Samee U. Khan IEEE Transactions on Cloud Computing</i> , Volume 9, Issue 2, Pages 447-460 Impact Factor: 5.697 Quartile: 1 Citations: 40 DOI: https://doi.org/10.1109/TCC.2018.2879948	2021
Blockchain-based decentralized workload and energy management of geo-distributed data centers <i>Muhammad Usman Shahid Khan Sara Sajid Muhammad Jawad Kanza Hamid Sahibzada M. Ali Assad Abbas Samee U. Khan Sustainable Computing: Informatics and Systems</i> , Volume 29, Part B, Article Number 100461 Impact Factor: 4.923 Quartile: 1 Citations: 15 DOI: https://doi.org/10.1016/j.suscom.2020.100461	2021
HateClassify: A Service Framework for Hate Speech Identification on Social Media <i>Muhammad Usman Shahid Khan Assad Abbas Attiqa Rehman Raheel Nawaz IEEE Internet Computing</i> , Volume 25, Issue 1, Pages 40-49 Impact Factor: 2.680 Quartile: 2 Citations: 44 DOI: https://doi.org/10.1109/MIC.2020.3037034	2021
SeSPHR: A Methodology for Secure Sharing of Personal Health Records in the Cloud <i>Muhammad Usman Shahid Khan Mazhar Ali Assad Abbas Samee U. Khan IEEE Transactions on Cloud Computing</i> , Volume 9, Issue 1, Pages 347-359 Impact Factor: 5.697 Quartile: 1 Citations: 15 DOI: https://doi.org/10.1109/TCC.2018.2854790	2021
Machine learning based energy management model for smart grid and renewable energy districts <i>Muhammad Usman Shahid Khan Waqar Ahmed Hammad Ansari Bilal Khan Zahid Ullah Sahibzada Muhammad Ali Chaudhry Arshad Arshad Mehmood Muhammad B. Qureshi Iqrar Hussain Muhammad Jawad Amjad Ullah Raheel Nawaz IEEE Access</i> , Volume 8, Pages 185059-185078 Impact Factor: 3.367 Quartile: 2 Citations: 86 DOI: https://doi.org/10.1109/ACCESS.2020.3029943	2020
An Ancillary Services Model for Data Centers and Power Systems	2020

<i>Muhammad Usman Shahid Khan Sahibzada Muhammad Ali Muhammad Jawad Kashif Bilal Jacob Glower Scott C. Smith Samee U. Khan Keqin Li Albert Y. Zomaya</i> <i>IEEE Transactions on Cloud Computing</i>, Volume 8, Issue 4, Pages 1176-1188 Impact Factor: 5.938 Quartile: 1 Citations: 12 DOI: https://doi.org/10.1109/TCC.2017.2700838	
A cost-effective electric vehicle intelligent charge scheduling method for commercial smart parking lots using a simplified convex relaxation technique <i>Muhammad Usman Shahid Khan Muhammad Jawad Muhammad Bilal Qureshi Sahibzada Muhammad Ali Noman Shabbir Afnan Aloraini Raheel Nawaz</i> <i>Sensors</i>, Volume 20, Issue 17, Article Number 4842 Impact Factor: 3.576 Quartile: 1 Citations: 17 DOI: https://doi.org/10.3390/s20174842	2020
Requirement Validation for Embedded Systems in Automotive Industry through Modeling <i>Muhammad Usman Shahid Khan Danish Iqbal Assad Abbas Mazhar Ali Raheel Nawaz</i> <i>IEEE Access</i>, Volume 8, Pages 8697-8719 Impact Factor: 3.367 Quartile: 2 Citations: 16 DOI: https://doi.org/10.1109/ACCESS.2019.2963774	2020
An Adaptive Distributed Averaging Integral Control Scheme for Micro-Grids with Renewable Intermittency and Varying Operating Cost <i>Muhammad Usman Shahid Khan M. A. Rustam B. Khan S. M. Ali M. B. Qureshi C. A. Mehmood R. Nawaz</i> <i>IEEE Access</i>, Volume 8, Pages 455-464 Impact Factor: 3.367 Quartile: 2 Citations: 9 DOI: https://doi.org/10.1109/ACCESS.2019.2960855	2020
Adaptive filtering on gps-aided mems-imu for optimal estimation of ground vehicle trajectory <i>Muhammad Usman Shahid Khan Haseeb Ahmed Haseeb Ahmed Uzair Khan Muhammad Bilal Qureshi Sajjad Manzoor Nazeer Muhammad Raheel Nawaz</i> <i>Sensors</i>, Volume 19, Issue 24, Article Number 5357 Impact Factor: 3.275 Quartile: 1 Citations: 19 DOI: https://doi.org/10.3390/s19245357	2019
Towards a fog enabled efficient car parking architecture <i>Kamran Sattar Awaisi Assad Abbas Mahdi Zareei Hasan Ali Khattak Muhammad Usman Shahid Khan Mazhar Ali Ikram Ud Din Sajid Shah</i> <i>IEEE Access</i>, Volume 7, Pages 159100-159111 Impact Factor: 3.745 Quartile: 1 Citations: 92 DOI: DOI: 10.1109/ACCESS.2019.2950950	2019
An optimal ride sharing recommendation framework for carpooling services <i>Muhammad Usman Shahid Khan Hajra Qadir Osman Khalid Atta Ur Rehman Khan Raheel Nawaz</i> <i>IEEE Access</i>, Volume 6, Pages 62296-62313 Impact Factor: 4.098 Quartile: 1 Citations: 41 DOI: https://doi.org/10.1109/ACCESS.2018.2876595	2018
Segregating Spammers and Unsolicited Bloggers from Genuine Experts on Twitter <i>Muhammad Usman Shahid Khan Mazhar Ali Assad Abbas Samee U. Khan Albert Y. Zomaya</i> <i>IEEE Transactions on Dependable and Secure Computing</i>, Volume 15, Issue 4, Pages 551-560 Impact Factor: 6.404 Quartile: 1 Citations: 34 DOI: https://doi.org/10.1109/TDSC.2016.2616879	2018
On the Correlation of Sensor Location and Human Activity Recognition in Body Area Networks (BANs) <i>Muhammad Usman Shahid Khan Assad Abbas Mazhar Ali Muhammad Jawad Samee U. Khan Keqin Li Albert Y. Zomaya</i> <i>IEEE Systems Journal</i>, Volume 12, Issue 1, Pages 82-91 Impact Factor: 4.463 Quartile: 1 Citations: 44 DOI: https://doi.org/10.1109/JSYST.2016.2610188	2018
Analysis of online social network connections for identification of influential users: Survey and open research issues <i>Muhammad Usman Shahid Khan Mohammed Ali Al-Garadi Kasturi Dewi Varathan Sri Devi Ravana Ejaz Ahmed Ghulam Mujtaba Samee U. Khan</i> <i>ACM Computing Surveys</i>, Volume 51, Issue 1, Article Number 16 Impact Factor: 6.131 Quartile: 1 Citations: 102 DOI: https://doi.org/10.1145/3155897	2018
MobiContext: A Context-Aware Cloud-Based Venue Recommendation Framework	2017

<i>Muhammad Usman Shahid Khan Rizwana Irfan Osman Khalid Camelia Chira Rajiv Ranjan Fan Zhang Samee U. Khan Bharadwaj Veeravalli Keqin Li Albert Y. Zomaya</i> <i>IEEE Transactions on Cloud Computing</i>, Volume 5, Issue 4, Pages 712-724 Impact Factor: 7.928 Quartile: 1 DOI: https://doi.org/10.1109/TCC.2015.2440243	
MacroServ: A Route Recommendation Service for Large-Scale Evacuations <i>Muhammad Usman Shahid Khan Osman Khalid Ying Huang Rajiv Ranjan Fan Zhang Junwei Cao Bharadwaj Veeravalli Samee U. Khan Keqin Li Albert Y. Zomaya</i> <i>IEEE Transactions on Services Computing</i>, Volume 10, Issue 4, Pages 589-602 Impact Factor: 4.418 Quartile: 1 Citations: 37 DOI: https://doi.org/10.1109/TSC.2015.2497241	2017
Personalized healthcare cloud services for disease risk assessment and wellness management using social media <i>Muhammad Usman Shahid Khan Assad Abbas Mazhar Ali Samee U. Khan</i> <i>Pervasive and Mobile Computing</i>, Volume 28, Pages 81-99 Impact Factor: 2.349 Quartile: 2 Citations: 40 DOI: https://doi.org/10.1016/j.pmcj.2015.10.014	2016
EvacSys: A Cloud-Based Service for Emergency Evacuation <i>Muhammad Usman Shahid Khan Osman Khalid Ying Huang Samee U. Khan Albert Zomaya</i> <i>IEEE Cloud Computing</i>, Volume 3, Issue 1, Pages 60-68 Impact Factor: N/A Citations: 27 DOI: https://doi.org/10.1109/MCC.2016.10	2016
A survey on energy-efficient methodologies and architectures of network-on-chip <i>Muhammad Usman Shahid Khan Assad Abbas Mazhar Ali Ahmad Fayyaz Ankan Ghosh Anshul Kalra Samee U. Khan Thiago De Menezes Sayantica Pattanayak Alarka Sanyal Saeeda Usman</i> <i>Computers & Electrical Engineering</i>, Volume 40, Issue 8, Pages 333-347 Impact Factor: 0.817 Quartile: 3 Citations: 44 DOI: https://doi.org/10.1016/j.compeleceng.2014.07.012	2014
OmniSuggest: A ubiquitous cloud-based context-aware recommendation system for mobile social networks <i>Muhammad Usman Shahid Khan Osman Khalid Samee U. Khan Albert Y. Zomaya</i> <i>IEEE Transactions on Services Computing</i>, Volume 7, Issue 3, Pages 401-414 Impact Factor: 3.049 Quartile: 1 Citations: 77 DOI: https://doi.org/10.1109/TSC.2013.53	2014

Conference Proceedings

Enhancing Android Platform Security: Investigating Malware Patterns with Sufficient Input Subset <i>Farrakh Nazir Neeli Khan Muhammad Usman Shahid Ahmad Fayyaz</i> <i>2023 International Conference on Frontiers of Information Technology (FIT)</i>, res.country(177,) Citations: N/A DOI: 10.1109/FIT60620.2023.00059	2023
Encrypted video identification - Normalization and activation function perspective <i>Syed M. A. H. Bukhari Waleed Afandi Tahir Maqsood Muhammad Usman Shahid</i> <i>2023 International Conference on Communication, Computing and Digital Systems (C-CODE)</i>, res.country(177,) Citations: N/A DOI: 10.1109/C-CODE58145.2023.10139861	2023
Analysis of Intrusion Detection Using Ensemble Stacking-Based Machine Learning Techniques in IoT Networks <i>Rao Naveed Bin Rais Osman Khalid Jazib -e Nazar Muhammad Usman Shahid</i> <i>International Conference on Advances in Computing Research 2023</i>, res.country(233,) Citations: N/A DOI: https://link.springer.com/chapter/10.1007/978-3-031-33743-7_27	2023
Examining Malware Patterns in Android Platform using Sufficient Input Subset (SIS) <i>Farrakh Nazir Muhammad Usman Shahid Neeli Khan Ahmad Fayyaz</i> <i>2023 International Multi-disciplinary Conference in Emerging Research Trends (IMCERT)</i>, res.country(177,)	2023

Citations: N/A DOI: https://doi.org/10.1109/IMCERT57083.2023.10075203	
YouTube Video Identification in Encrypted Network Traffic —A Case of Attacking Assumptions <i>Syed S. Hassan Syed M. A. H. Bukhari Muhammad Usman Shahid Tahir Maqsood</i> <i>2022 19th International Bhurban Conference on Applied Sciences and Technology (IBCAST) , res.country(233,)</i> Citations: N/A DOI: 10.1109/IBCAST54850.2022.9990455	2022
A Bucket-Based Data Pre-Processing Method for Encrypted Video Detection <i>Waleed Afandi Syed M. A. H. Bukhari Muhammad Usman Shahid Tahir Maqsood Samee U. Khan</i> <i>35th International Conference on Computer Applications in Industry and Engineering, res.country(233,)</i> Citations: N/A DOI: https://doi.org/10.29007/4rnp	2022
Traffic Pattern Plot: Video Identification in Encrypted Network Traffic <i>Ali S. Kamal Syed M. A. H. Bukhari Muhammad Usman Shahid Tahir Maqsood Muhammad A. B. Fayyaz</i> <i>6th WorldS4 2022 , res.country(231,)</i> Citations: N/A DOI: https://link.springer.com/chapter/10.1007/978-981-19-7663-6_8	2022
Malware Detection and Classification along with Trade-off Analysis for Number of Features, Feature Types, and Speed <i>Duaa Baig Muhammad Usman Shahid Darren Dancey Assad Abbas Mazhar Ali Raheel Nawaz</i> <i>2021 International Conference on Frontiers of Information Technology (FIT) , res.country(177,)</i> Citations: N/A DOI: 10.1109/FIT53504.2021.00053	2021
Malware Detection in Android via Neural Network using Entropy Features <i>Neeli Khan Duua Baig Muhammad Usman Shahid Assad Abbas Mazhar Ali</i> <i>2021 International Conference on Frontiers of Information Technology (FIT), res.country(177,)</i> Citations: N/A DOI: 10.1109/FIT53504.2021.00052	2021
ISP can identify YouTube videos that you just watched <i>Muhammad Usman Shahid Syed M. A. H. Bukhari Shazir A. Khan Tahir Maqsood</i> <i>2021 International Conference on Frontiers of Information Technology (FIT), res.country(177,)</i> Citations: N/A DOI: 10.1109/FIT53504.2021.00011	2021
Social media, AI, and political affiliation <i>Syed M. A. H. Bukhari Muhammad Usman Shahid Tariq Khan Mazhar Ali</i> <i>2021 International Conference on Innovative Computing (ICIC) , res.country(177,)</i> Citations: N/A DOI: 10.1109/ICIC53490.2021.9709624	2021
AdaDiffGrad: An Adaptive Batch Size Implementation Technique for DiffGrad Optimization Method <i>Wajid Khan Sara Ali Muhammad Usman Shahid Muhammad Jawad Mazhar Ali Raheel Nawaz</i> <i>2020 14th International Conference on Innovations in Information Technology (IIT), res.country(2,)</i> Citations: N/A DOI: 10.1109/IIT50501.2020.9299013	2020
Malware Classification Framework using Convolutional Neural Network <i>Mamoona Khan Duua Baig Muhammad Usman Shahid Ahmad Karim</i> <i>2020 International Conference on Cyber Warfare and Security (ICWS), res.country(177,)</i> Citations: N/A DOI: 10.1109/ICWS48432.2020.9292384	2020
Synonym-based Attack to Confuse Machine Learning Classifiers Using Black-box Setting <i>Aasher Khan Suriya Rehman Muhammad Usman Shahid Mazhar Ali</i> <i>2019 4th International Conference on Emerging Trends in Engineering, Sciences and Technology (ICEEST), res.country(177,)</i> Citations: N/A DOI: 10.1109/ICEEST48626.2019.8981685	2019
A Conditional-Constraint Optimization for Joint Energy Management of Data Center and Electric Vehicle Parking-Lot	2019

Sara Sajid Muhammad Bilal Qureshi Muhammad Jawad Muhammad Usman Shahid Sahibzada Muhammad Ali Samee U. Khan
2019 Tenth International Green and Sustainable Computing Conference (IGSC), res.country(233,)

Citations: N/A
DOI: 10.1109/IGSC48788.2019.8957214

Editorial Activities

Big Data-Enabled Internet of Things
Edited Journal Issue / Proceeding / Book
Impact Factor: N/A