# **Muhammad Khuram Shahzad**

## Associate Professor

School of Electrical Engineering and Computer Science

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## **About**

Dr. Muhammad Khuram Shahzad is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Muhammad Khuram Shahzad has a PhD in Computer Engineering. Dr. Muhammad Khuram Shahzad has published 38 research articles & conference papers having a citation count of 543, carried out 0 projects and filed 0 intellectual property.

## Qualifications

PhD in Computer Engineering Sung Kyun Kwan University , Korea	2013 - 2016
MS in Information Technology NUST, Islamabad , Pakistan	2004 - 2007
BS in Information Technology University of Lahore , Pakistan	1999 - 2004
Experience	
Associate Professor School of Electrical Engineering and Computer Science	2022- Present
Assistant Professor School of Electrical Engineering and Computer Science	2019 - 2022
Associate Professor NUST University , H-12, Islamabad	2022 - 2023
Assistant Professor  NUST University , H-12 Islamabad	2019 - 2022
Assistant Professor Keimyung University , Daegu, S. Korea	2017 - 2018
Post doctorate Sungkyunkwan University , Suwon, South Korea	2016 - 2017
Lab Supervisor  NUST University , H-12 Islamabad	2008 - 2008
Research Assistant NUST University (NIIT) , H-12 Islamabad	2006 - 2007
Research Articles	

### Improved Urdu-English Neural Machine Translation with a fully Convolutional Neural Network Encoder

Huma Israr Muhammad Khuram Shahzad Shahid Anwar

International Journal of Mathematics and Mathematical Sciences, Volume 9, No. 5, Pages 1067-1088

Impact Factor: 1.300 | Quartile: 2 | Citations: 2 DOI: https://doi.org/10.33889/IJMEMS.2024.9.5.056

### **Deep Learning Based Fabric Defect Detection**

Syeda Rabia Arshad Muhammad Khuram Shahzad

Research Reports on Computer Science, Volume 3, Issue 1, Pages 1-11

Impact Factor: N/A

**DOI:** https://doi.org/10.37256/rrcs.3120244156

Neural Machine Translation Models with Attention-Based Dropout Layer	2023
Huma Israr Safdar Abbas Khan Muhammad Ali Tahir Muhammad Khuram Shahzad Muneer Ahmed Mohamad Zain	
Computers, Materials and Continua, Volume 75, Issue 2, Pages 2981-3009	
Impact Factor: 3.860   Quartile: 2   Citations: 13  DOI: https://doi.org/10.32604/cmc.2023.035814	
Translytics: A Novel Approach for Runtime Selection of Database Layout Based on User's Context	2022
Muhammad Makhshif Tanvir Muhammad Khuram Shahzad Muhammad Anwar Su Man Nam Scientific Programming , Volume 2022, Article ID 4301944, 11 pages	
Impact Factor: 1.672   Quartile: 3	
<b>DOI:</b> https://doi.org/10.1155/2022/4301944	
Transfer Learning Auto-Encoder Neural Networks for Anomaly Detection of DDoS Generating IoT Device	2022
Unsub Shafiq Muhammad Khuram Shahzad Muhammad Anwar Qaisar Shaheen Muhammad Shiraz Abdullah Gani	
Security and Communication Networks, Volume 2022, Article ID 8221351, 13 pages  Impact Factor: N/A   Citations: 22	
DOI: https://doi.org/10.1155/2022/8221351	
MIYOLO: Modification of Improved YOLO-v3	2022
Muhammad Nawaz Mahrukh Khalil Muhammad Khuram Shahzad	
IETE Journal of Research, Pages 1-10 Impact Factor: 2.333   Quartile: 3   Citations: 3	
DOI: https://doi.org/10.1080/03772063.2022.2048709	
EPFG: Electricity Price Forecasting with Enhanced GANS Neural Network	2022
Maria Hanif Muhammad Khuram Shahzad Vaneeza Mehmood Inshaal Saleem	
IETE Journal of Research, Pages 1-10	
Impact Factor: 2.333   Quartile: 3   Citations: 7  DOI: https://doi.org/10.1080/03772063.2021.2000510	
Protocol-Based Deep Intrusion Detection for DoS and DDoS Attacks Using UNSW-NB15 and Bot-IoT	2022
Data-Sets Set	
Muhammad Zeeshan Qaiser Riaz Muhammad Ahmad Bilal Muhammad Khuram Shahzad Hajira Jabeen Syed Ali Haider Azizur Rahim IEEE Access, Volume 10, Pages 2269-2283	
Impact Factor: 3.367   Quartile: 2   Citations: 137	
<b>DOI:</b> 10.1109/ACCESS.2021.3137201	
A review of phishing attacks and countermeasures for internet of things-based smart business applications in industry 4.0	2021
Ashina Sadiq Muhammad Anwar Rizwan A. Butt Farhan Masud Muhammad Khuram Shahzad Shahid Naseem Muhammad Younas	
Human Behavior and Emerging Technologies, Volume 3, Issue 5, Pages 854-864  Impact Factor: N/A   Citations: 49	
<b>DOI:</b> https://doi.org/10.1002/hbe2.301	
Encrypted Network Traffic Analysis of Secure Instant Messaging Application: A Case Study of Signal Messenger App	2021
Mehdi Hussain Asmara Afzal Shahzad Saleem M. Khuram Shahzad Anthony T.S.HO Ki-Hyun Jung Applied Sciences, Volume 11, Issue 17, Article Number 7789	
Impact Factor: 2.838   Quartile: 2   Citations: 19  DOI: https://doi.org/10.3390/app11177789	
GAFOR: Genetic Algorithm Based Fuzzy Optimized Re-Clustering in Wireless Sensor Networks	2020
Muhammad Khuram Shahzad S. M. Riazul Islam Mahmud Hossain Mohammad Abdullah-Al-Wadud Atif Alamri Mehdi Hussain  Mathematics, Volume 9(1), Article Number 43	
Mathematics , Volume 9(1), Article Number 43  Impact Factor: 2.258   Quartile: 1   Citations: 22	
<b>DOI:</b> https://doi.org/10.3390/math9010043	
Secure and Blockchain-Based Emergency Driven Message Protocol for 5G Enabled Vehicular Edge	2019
Computing  Lewis Nkenyereye Bayu Adhi Tama Muhammad Khurram Shahzad Yoon-Ho Choi	
Lewis Nkenyereye Bayu Adni Tama Munammad Knurram Shanzad Yoon-Ho Chol Sensors , Volm 20(1), Article Number 154	
Impact Factor: 3.275   Quartile: 1   Citations: 48	
<b>DOI:</b> doi:10.3390/s20010154	

AEF: Adaptive En-Route Filtering to Extend Network Lifetime in Wireless Sensor Networks	2019
S. M. Riazul Islam Kyung-Sup Kwak Lewis Nkenyereye Muhammad K Shahzad Sensors , Volume 19, Issue 18	
Impact Factor: 3.275   Quartile: 1   Citations: 14  DOI: 10.3390/s19184036	
PKSM: Pre-key Distribution and Sink Mobility in Commutative Cipher Based En-route Filtering to Extend the Network Lifetime in WSNs	2018
M Khuram Shahzad Tae Ho Cho	
Ad Hoc & Sensor Wireless Networks, Volume: 42, Issue: 1-2, Pages: 19-33	
Impact Factor: 0.948   Quartile: 4  DOI: https://www.oldcitypublishing.com/journals/ahswn-home/ahswn-issue-contents/ahswn-volume-42-number-1-2-2018/ahswn-42-1-2-p-19-33/	
LNDIR: A Light-Weight Non-Increasing Delivery-Latency Interval-Based Routing for Duty-Cycled Sensor Networks	2018
Muhammad Khuram Shahzad Dang Tu Nguyen V. Zalyubovskiy H. Choo	
International Journal of Distributed Sensor Networks, Volume 14, Issue 4, Pages 1-16	
Impact Factor: 1.614   Quartile: 3   Citations: 8  DOI: https://doi.org/10.1177%2F1550147718767605	
A Network Density-adaptive Improved CCEF Scheme for Enhanced Network Lifetime, Energy efficiency, and Filtering in WSNs	2017
M Khuram Shahzad Tae Ho Cho	
Ad-Hoc and Sensor Wireless Networks, Volume: 35, Issue: 1-2, Pages: 129-149	
Impact Factor: 0.753   Quartile: 4  DOI: https://www.oldcitypublishing.com/journals/ahswn-home/ahswn-issue-contents/ahswn-volume-35-number-1-2-2017/ahswn-35-1-2-p-129-149/	
Smart Distribution Networks: A Review of Modern Distribution Concepts from a Planning Perspective	2017
Syed Ali Abbas Kazmi Muhammad Khuram Shahzad Akif Zia Khan Dong Ryeol Shin	
Energies , Volume 10, Issue 4, Article Number 501	
Impact Factor: 2.676   Quartile: 2   Citations: 81  DOI: 10.3390/en10040501	
Voltage Stability Index for Distribution Network connected in Loop Configuration	2017
Syed Ali Abbas Kazmi Muhammad Khuram Shahzaad Dong Ryeol Shin	
IETE Journal of Research, Volume: 63 Issue: 2 Pages: 281-293	
Impact Factor: 0.829   Quartile: 4   Citations: 29  DOI: 10.1080/03772063.2016.1257376	
Multi-Objective Planning Techniques in Distribution Networks: A Composite Review	2017
Ali Abbas Kazmi Muhammad K. Shahzad Dong Ryeol Shin	
Energies , Volume 10, Issue 2, Article Number 208	
Impact Factor: 2.676   Quartile: 2   Citations: 42  DOI: 10.3390/en10020208	
An Energy-aware Routing and Filtering node (ERF) selection in CCEF to extend Network lifetime in WSNs	2017
M Khuram Shahzad Tae Ho Cho	
IETE Journal of Research, Volume: 63, Issue: 3, Pages: 368-380	
Impact Factor: 0.829   Quartile: 4   Citations: 21 DOI: 10.1080/03772063.2016.1241721	
Witness-Header and Next-Node Selection to Extend Network Lifetime in Energy-Efficient Clone-Node Detection in WSNs	2016
M Khuram Shahzad Quang-Ngoc Phung	
I.J. Information Technology and Computer Science, Volume 8, Issue 10, Pages 22-28	
Impact Factor: 0	
<b>DOI:</b> 10.5815/ijitcs.2016.10.03	
ERCA: Energy-aware Routing and re-Clustering Algorithm for CCEF to extend Network Lifetime in WSNs	2016
M Khuram Shahzad Jae Kwan Lee Tae Ho Cho	
Advanced Computational Intelligence: An International Journal, Volume 3, Issue 1, Pages 11-24	
Impact Factor: 0  DOI: 10.5121/acii.2016.3102	

Sink mobility for commutative cipher based en-route filtering to prolong the network lifetime in wireless 2015 sensor networks M Khuram Shahzad Tae Ho Cho International Journal of Advanced Research, Volume 3, Issue 12, pages 1055-1062. Impact Factor: 0 DOI: -Extending the Network Lifetime by Pre-deterministic Key Distribution in CCEF in Wireless Sensor 2015 M Khuram Shahzad Tae Ho Cho Wireless Networks, Volume: 21, Issue: 8, Pages: 2799-2809 Impact Factor: 1.006 | Quartile: 3 | Citations: 9 DOI: 10.1007/s11276-015-0941-0 Modified CCEF for Energy-efficiency and Extended Network Lifetime in WSNs 2015 Muhammad Khuram Shahzad Tae Ho Cho International Journal of Ubicomp (IJU), Volume 6, No.4, Pages 1-12 Impact Factor: N/A DOI: 10.5121/iju.2015.6401 An Enhanced Detection and Energy-efficient en-route Filtering (EDEF) Scheme in Wireless Sensor 2015 Muhammad Khuram Shahzad Tae Ho Cho Informatics Engineering: an International Journal (IEIJ), Volume 3, No.3, Pages 11-26 Impact Factor: N/A DOI: 10.5121/ieij.2015.3302 Points-based Safe Path Planning of Continuum Robots 2015 Muhammad Khuram Shahzad Muhammad Sohail Igbal Peter Bloodsworth International Journal of Advanced Robotic Systems, Sage Publications, Volume 12, Article Number 12 Impact Factor: 0.615 | Quartile: 4 | Citations: 17 **DOI:** 10.5772/60857 **Conference Proceedings** A Large-Scale Font-Diverse Sindhi Ligature Recognition System 2023 Zeeshan Ali Safdar Abbas Khan M. Khuram Shahzad H. S. M. Bilal 2023 International Conference on Frontiers of Information Technology, FIT 2023, res.country(177,) Citations: N/A DOI: 10.1109/FIT60620.2023.00033 A Forensic Framework for Webmail Threat Detection Using Log Analysis 2022 Abdul Saboor Malik Muhammad Khuram Shahzad Mehdi Hussain Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) res.country(188,) Citations: N/A **DOI:** 10.1007/978-3-031-17510-7\_5 2022 Classification of IoT based DDOS Attack using Machine Learning Techniques Muhammad Fasih Ashfaq Maryam Malik Urooj Fatima Muhammad Khuram Shahzad 14th International Conference on Security for Information Technology and Communications (SECITC 2021), res.country(121,) Citations: N/A DOI: 10.1109/IMCOM53663.2022.9721740 Steel Defect Classification Using Machine Learning 2022 Syeda Rabia Arshad Ishwa Obaid Rameesha Gull Muhammad Khurram Shahzad The 16th International Conference on Ubiquitous Information Management and Communication (IMCOM 2022), res.country(121,) Citations: N/A DOI: 10.1109/IMCOM53663.2022.9721728 Hybrid ResNet: A Shallow Deep Learning Architecture for Moderate Datasets 2021 Ghulam Murtaza Obaid-ur-Rehman Obaid-ur-Rehman Muhammad K. Shahzad S. M. Riazul Islam Mahmud Hossain Kyung-Sup Kwak 2021 International Conference on Information and Communication Technology Convergence (ICTC), res.country(121,) Citations: N/A

DOI: 10.1109/ICTC52510.2021.9620864

BPTE: Bitcoin Price Prediction and Trend Examination using Twitter Sentiment Analysis  Muhammad K. Shahzad Laiba Bukhari Tayyeba Muhammad Khan S. M. Riazul Is Mahmud Hossain Kyung-Sup Kwak  International Conference on Information and Communication Technology Convergence, ICTC 2021, res.country(121,)  Citations: N/A  DOI: 10.1109/ICTC52510.2021.9620216	2021
A Fuzzy System based Approach to Extend Network Lifetime for En-Route Filtering Schemes in WSNs  M Khuram Shahzad Lewis Nkenyereye S.M. Riazul Islam  2019 11th International Conference on Computer and Automation Engineering, res.country(13,)  Citations: N/A  DOI: 10.1145/3313991.3314004	2019
Modeling Optimum ETSP Protocol for WSN  Muhammad Khuram Shahzad  IEEE International Multitopic Conference, res.country(177,)  Citations: N/A  DOI: 10.1109/INMIC.2008.4777798	2008
Complexity Reduction of Markov Channel Models for Wireless Networks using Graph Theory  Hassaan Khaliq Qureshi Khurram Shahzad Syed Ali Khayam Muttukrishnan Rajarajan Veselin Rakocevic  Military Communication, res.country(233,)  Citations: N/A  DOI: 10.1109/MILCOM.2008.4753575	2008
SRVF: An Energy-Efficient Link Layer Protocol for Reliable Transmission over Wireless Sensor  Networks  Adnan Iqbal Muhammad Khuram Shahzad Syed Ali Khayam  IEEE International Conference on Communications, res.country(48,)  Citations: N/A  DOI: 10.1109/ICC.2008.35	2008
ETSP: An Energy-efficient Time Synchronization Protocol on Wireless Sensor Networks  Muhammad Khuram Shahzad Arshad Ali Nasiruddin Gohar  IEEE 22nd International Conference on Advanced Information Networking and Applications, res.country(113,)  Citations: N/A  DOI: 10.1109/WAINA.2008.181	2008

## **Editorial Activities**

Editorial Activities	
Cluster Computing	2024
Reviewed Papers for Journals	
Impact Factor: 3.6	
Journal of Intelligent Systems and Internet of Things	2024
Edited Journal Issue / Proceeding / Book	
Impact Factor: N/A	
IEEE Access	2024
Reviewed Papers for Journals	
Impact Factor: 3.476	
IEEE Access	2024
Reviewed Papers for Journals	
Impact Factor: 3.9	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
Wireless Personal Communications	2023
Reviewed Papers for Journals	
Impact Factor: 2.2	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.476	
Journal of Supercomputing	2022
Reviewed Papers for Journals	
Impact Factor: 2.557	