



M Khuram Shahzad

Trainer AI, DS, Cloud



Date of Birth: June. 6, 1979



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Google Scholar: M.K. Shahzad



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Research Interests —



Artificial Intelligence



Data Science



Evolutionary Computing

Highlights —



Assoc. Prof., NUST Univ., Pakistan



PhD (SKKU) (QS/THE Top 150)



7+ years post-PhD experience



40x pubs including 20 peer-reviewed



33 courses, 80%+ avg. evaluations



25x PhD, MS, BS supervised



18x Unique and 33 total Subjects



16x ICT Industry Cert./Courses

Short Bio —

Shahzad received a PhD from Sungkyunkwan University (world #118 - 2016 QS ranking) in 2016 in computer engineering with mainstream research in AI. Currently, he works as an Associate Professor at NUST University, with about 7 years of post-PhD Teaching, Research and Administrative Services experience. He has taught over 20x Unique courses to UG and PG students. He has supervised/supervising around 37 UG and PG students. As a researcher, he has around 40x publications including 20x SCI(E) Journals.

Education

2013.03.02 – 2016.08.25	Ph.D. in Computer Engineering Title: Network Lifetime Extension based on Sink Mobility and Re-clustering in the Wireless Sensor Networks (mainstream area - Artificial Intelligence). Supervisor: Prof. Tae Ho Cho Grade: A, CGPA: 4.20 of 4.50 THE Rank 102 in 2025, 153 in 2016, QS Rank 123 in 2025, 118 in 2016	Sunkyunkwan, South Korea
2004.11.08 – 2007.12.06	M.Sc. in Information Technology Title: Energy-efficient Time Synchronization Protocol on WSNs. Supervisor: Prof. Arshad Ali, Grade: B, CGPA: 3.17 of 4.00 Synchronization Sensor Networks Energy-efficiency	NUST, Pakistan
1999.11.15 – 2004.02.27	B.Sc. in Information Technology Project Title: IPv6 Migration Plan (A study based Project). Supervisor: Mr. Naeem Zia, Grade: B+, CGPA: 3.29 of 4.00	Univ. of Lahore, Pakistan
1996.09.19 – 1999.08.30	F.Sc. (HSSC) Grade: B, 66%, 728/1100	Govt. Degree College Sheikhupura, Pakistan
1994.06.10 – 1996.07.07	Matric (SSC) Grade: A+, 83%, 700/850	Govt. High School Sheikhupura, Pakistan

Experience - Seven+ Years Post-PhD

2022.11.11 – ongoing	Associate Professor - 2Y3M0D (PstPhD 7Y3M4D) NUST Uni., Pakistan Teaching, research, and institutional services Dpt. Services	
	Fostering (Quetta /UAE) Campus – FacI. of Computing 2023.11.29–current Fostering CS-SE Programs in new NUST Campuses (Quetta /UAE)	
	PhD Evaluation Committee Fall 2023 2023.07.04 Interviews and Evaluation of PhD Candidates	
	MSCS Course contetns/outlines for NUST website 2024.09.09 Updating courses outlines on prescribed format to be uploaded	
	Focal Person NIPIS - CS/ SEECS 2024.07.01-2024.08.1 Trained/Supervised 6x Intl. students under NUST Internship Program for Intl. Students (NIPS)	
	SEECS Representation for NUST Survey/Condemnation Board 2024.05.15 The condemnation of all MS thesis and digitization (PDF) copies at Library	
2019.01.14 – 2022-11-10	Assistant Professor - 03Y09M28D (5Y0M4D) NUST University, Pakistan Teaching, research, and following administrative services Dpt. Services	
	Head PG Coordinator – Faculty of Computing 2020.10.28–2021.09.07 Student cases, interviews, re-take exams, and thesis guidance.	
	PG Coordinator – Computer Science 2019.02.26–2020.10.27 Student cases, interviews, re-take exams, and thesis guidance.	
	QS Rubrics Lead – Dept. of Computing 2019.03.05–2019.08.27 Department QS Ranking.	
	Student Interviews – Computer Science 2019.06.17–2019.06.18 MSCS Fall 2019 Intake.	
	PG DS Coordinator – Computer Science 2019.07.20–2020.01.09 Student cases, interviews, re-take exams, and thesis guidance.	
	UG CS FYP Coord – Computer Science 2020.05.29-2020.08.04 UG FYP students guidance and support - makeshift duty.	
2017.09.01 – 2018.07.05	Assistant Professor 10M05D (01Y02M06D) Keimyung Univ., South Korea Assistant Professor of dept. of electrical energy engineering.	
2016.09.01 – 2016.12.31	Postdoctoral Researcher - 3M31D Sungkyunkwan Univ., South Korea Member of PhD research at IT Convergence Research Institute.	
2008.11.10 – 2013.02.10	Regional Manager Sengabi LLC., Amman Content creation, SEO, and Industry Projects	
2008.01.01 – 2008.10.31	Lab Supervisor NUST Univ., Pakistan Worked as a full-time Lab supervisor at WiSNet Lab.	

Honours and Awards

March 2025	Lead Guest Editor of Special Issue	IEEE JBHI, USA
July 2024	AI Trainer as part of local outreach program	GB and NUST., Pakistan
Oct 2017-18	New Faculty Seed Grant \$8,813.99	Keimyung Uni., South Korea
Jun 2013-16	Ph.D. Scholarship #2013R1A2A2A01013971	NRF, S. Korea
Jul 2006-07	Establishing Grid node at SEECS (Thesis) Rs.150,000	HEC, Pakistan
Jun 2005	MS: Best Case-study analysis on CISCO	Univ. of Lahore, Pakistan
2003.09	Group Lead for University Website	The Uni. of Lahore, Pakistan
Nov 2004-06	MEGA-IT HEC 5000 (MS Coursework) Rs.180,000	HEC, Pakistan
Jun 2003	2nd position at painting-contest	Univ. of Lahore, Pakistan

Skills

Hands-on:

CISCO Switching

CISCO Routing

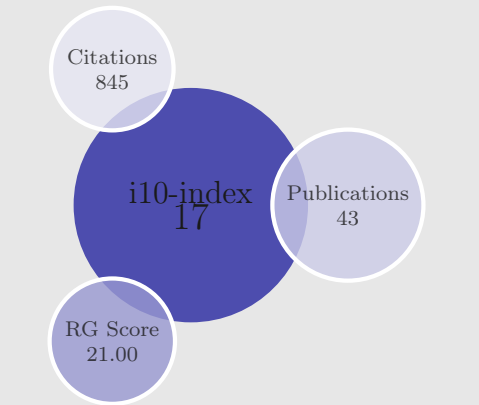
Tools and Techniques:

Fuzzy Logic Systems

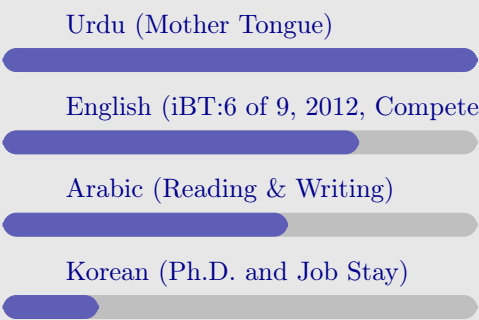
Genetic Algorithms

Graph Theory

Metrics



Languages



Teaching - Seven+ Years Post-PhD - 33 subjects (18 Unique titles)

2025 Spring	National University of Sciences and Technology (NUST), Pakistan CS-432 3+1, Eval. 81.65% Parallel & Distributed Computing, (Sec-A) CS-432 3+1, Eval. 79.30% Parallel & Distributed Computing, (Sec-B)
2024 Fall	National University of Sciences and Technology (NUST), Pakistan EE-347 2+1, Eval. 85.60% Computer Networks, (Section-C) EE-347 2+1, Eval. 82.20% Computer Networks, (Section-D) EE-347 2+1, Eval. 80.80% Computer Networks, (Section-E)
2024 Summer	National University of Sciences and Technology (NUST), Pakistan EE-343 3+0, Eval. 90.08%, Data Struct. and Algos., (Difr. Sections)
2024 Spring	National University of Sciences and Technology (NUST), Pakistan CS-871 3+0, Eval. 79.95% Machine Learning (PG) CS-432 3+1, Eval. 86.42% Parallel & Distributed Computing
2023 Fall	National University of Sciences and Technology (NUST), Pakistan EE-981 3+0, Eval. 84.95% Network Routing and Switching, (PG) CS-344 3+0, Eval. N.A. Web Engineering (minor)
2023 Summer	National University of Sciences and Technology (NUST), Pakistan EE-343 3+0, Eval. N.A., Computer Networks, (Different Sections)
2023 Spring	National University of Sciences and Technology (NUST), Pakistan CS-332 3+0, Eval. 62.9% Distributed Computing, Sec-A CS-332 3+0, Eval. 65.9% Distributed Computing, Sec-B
2022 Fall	National University of Sciences and Technology (NUST), Pakistan CS-812 3+0, Eval. 88.2% Object Oriented Analysis and Design (PG) CS-344 3+0, Eval. 82.3% Web Engineering (minor)
2022 Spring	National University of Sciences and Technology (NUST), Pakistan CS-251 3+0, Eval. 71.9% Design and Analysis and Algos., Sec-A CS-251 3+0, Eval. 67.4% Design and Analysis and Algos., Sec-B CSL401 3+0, Eval. 87.6% Community Service Learning
2021 Fall	National University of Sciences and Technology (NUST), Pakistan CS-212 3+1, Eval. 79.1% Object Oriented Prog. (C++) Sec-C CS-212 3+1, Eval. 76.0% Object Oriented Prog. (C++) Sec-D
2021 Spring	National University of Sciences and Technology (NUST), Pakistan CS-332 3+0, Eval. 74.0% Distributed Computing
2020 Fall	National University of Sciences and Technology (NUST), Pakistan DS-808 3+0, Eval. 86.0% Tools and Techniques for Data Science (PG)
2020 Spring	National University of Sciences and Technology (NUST), Pakistan CS-422 3+0, Eval. 62.0% Data Analytics
2019 Fall	National University of Sciences and Technology (NUST), Pakistan DS-808 3+0, Eval. 75.0% Tools and Techniques for Data Science (PG) CS-473 3+0, Eval. 78.4% Theory of Intelligent Systems
2019 Summer	National University of Sciences and Technology (NUST), Pakistan CS-885 3+0, Eval. 77.0% Cloud Computing (PG) CS-473 3+0, Eval. 78.0% Theory of Intelligent Systems
2019 Spring	National University of Sciences and Technology (NUST), Pakistan CS-251 3+0, Eval. 77.0% Design and Analysis and Algos., Sec-A CS-251 3+0, Eval. 68.0% Design and Analysis and Algos., Sec-B
2017-18 Fall	Keimyung University, South Korea 21808-01 3+0, Eval. 95.4% Intro. To Electrical and Electro. Engr. 1 21808-02 3+0, Eval. 89.4% Intro. To Electrical and Electro. Engr. 2 25148-01 3+0, Eval. 89.5% Practical Computing 26415-01 3+1, Eval. 86.2% Computer Environment 34405-02 3+0, Eval. 92.9% Electric Lab 01

ICT: Training/ Courses/ Certifications

2025.07.13	16. AWS Hands-on: Devp. with Lambda, SQS, and SNS	Company Alison
	Type: Certificate, Duration: 2 weeks, Grade: 80.0%	
2025.07.13	15. Mastering Time Mang. and Orgl. Skills at Work	Company Alison
	Type: Certificate, Duration: 2 weeks, Grade: 84.0%	
2025.07.11	14. AI for Educators	Company Alison
	Type: Certificate, Duration: 2 weeks, Grade: 92.0%	
2025.07.05	13. AWS for Beginner	Company Great Learning
	Type: Course, Duration: 1 weeks, Grade: 100%	
2025.05.11	12. Scholarly Communication	Company Moscow Inst. of Physics and Tech.
	Type: Coursera Course, Duration: 4 weeks, Grade: 88.40%	
2025.02.11	11. Learning to Teach Online	Company UNSW Sydney
	Type: Coursera Course, Duration: 6 weeks, Grade: 86.95%	
2023.07.10	10. Building Inter. in Univs. in Pak.	Company Cardiff Metropolitan Univ.
	Type: Course/Training, Duration: 8 weeks, Grade: 93%	
2022.05.07	9. Introduction to Forensic Science	Company Nanyang Tech. Univ., Singapore
	Type: Coursera Course, Duration: 8 weeks, Grade: 93%	
2020.11.17	8. AI For Everyone	Company DeepLearning.AI
	Type: Coursera Course, Duration: 4 weeks, Grade: 95%	
2020.10.10	7. Work Smarter, Not Harder: Time Managt.	Company Uni. of Cali., Irvin
	Type: Coursera Course, Duration: 4 weeks, Grade: 87%	
2020.10.04	6. Introduction to Graph Theory	Company HSE Nat. Res. Univ.
	Type: Coursera Course, Duration: 5 weeks, Grade: 96%	
2020.09.30	5. Comm. Theory: Bridging Acad. and Practice	Company HSE N.R. Univ.
	Type: Coursera Course, Duration: 9 weeks, Grade: 88%	
2020-08-22	4. Effective Prob.-Solving & Decision-Making	Company Uni. of Cali., Irvin
	Type: Coursera Course, Duration: 4 weeks, Grade: 87%	
2009.09.03	3. JNCIS-ER (Enterprise Routing, Specialist	Company Juniper Nets., USA
	Type: Certification, Code: JPR34116, Grade: 82%	
2008.02.29	2. JNCIA-ER (Enterprise Routing, Associate)	Company Juniper Net., USA
	Type: Certification, Code: JPR34116, Grade: 91%	
2004.10.11	1. CCNA - CISCO Certified. Network Associate	Company CISCO Systems
	Type: Certification, Code: CSC010367289, Grade: 97%	

Professional Memberships

Mar 2018-22	IEEE Membership (ID: 90254808)	N.Y., United States
Mar 2021-22	IEEE Computer Society (ID: 90254808)	N.Y., United States
Mar 2018-22	IEEE Biometrics Council (ID: 90254808)	N.Y., United States
Mar 2018-22	IEEE Council on Electronic Design Automation	N.Y., United States
Mar 2021-22	IEEE Council on RFID (ID: 90254808)	N.Y., United States
Feb 2008-12	Juniper Networks (ID: JPR34116)	S.V., United States
Oct 2004-07	CISCO Systems (ID: CSC010367289)	S.J., United States

References

Ref. 1	Prof. Tae Ho Cho (PhD Supervisor)	Sungkyunkwan Univ., South Korea.
	thcho@skku.edu, +82 31 290 7221	
Ref. 2	Prof. Dong-Woo Kang (HoD Energy)	Keinyung Univ., South Korea.
	dwkang@kmu.ac.kr, +82 53 580 5441	
Ref. 3	Prof. M. Moazam Fraz (HoD AI&DS)	NUST University, Pak..
	moazam.fraz@seecs.edu.pk, +92 51 9085 2189	
Ref. 4	Dr. Asad Waqar Malik (HoD SE)	Missouri Univ., USA.
	asad.malik@mst.edu, +92 345 5916690	
Ref. 5	Dr. Safdar Abbas Khan. (HoD IT)	NUST Univ., Pakistan.
	safdar.abbas@seecs.edu.pk, +92 333 5734215	

Academic Supervision

	PhD	MS	UG	Total
Supervised	1	16	8	25
Supervising	3	6	3	12

Completion	Research Supervised	Program
2025 March	Knowledge-Grounded Attention-Based Neural Machine Translation Model	Ph.D.
2025 May	FOND: Fuzzy-based Optimized Fake News Detection using Big-Bird and Longformer	MSCS-22
2025 March	Enabling Transfer Learning for Generalized and Explainable Drug-Repurposing Employing Reinforcement Learning	MSCS-23
2025 January	A Novel Regularization Approach for Loss Functions to Reduce Instance Imbalance in Biomedical Image Segmentation	MSCS-22
2024 December	HINT Initial and Optimized: Employing Hperparameter Optimisation and Transfer Learning	MSCS-22
2024 July	An Efficient Smart Car Parking System using Machine Learning based on iFogSim	MSDS-20
2024 January	Fabric Defect Detection using Deep Learning	MSDS-20
2023 August	An Optimized Cancer Classification Approach using Deep Learning	MSCS-19
2023 August	Patent Semantic Annotation for Practitioners	MSCS-19
2023 August	Gender and Age Group Profiling of Telecom Customers Using Machine Learning	MSDS-20
2023 July	Depression Detection from Textual Data using Deep Learningm	MSDS-19
2023 July	ASRB: A Novel Automatic Speech Recognition for Spoken Burushaski Language	MSDS-19
2023 July	Fake news detection identification and classification using multimodal approach	MSDS-19
2023 May	Coronary Heart Disease Prediction CHDP	MSDS-20
2022 July	Translytics - A new approach for runtime selection of database layout based on users context	MSCS-18
2022 July	Transfer Learning Autoencoder Neural Networks for Anomaly Detection in Malware Infected IoT Devices	MSCS-18
2022 May	A Forensic Framework for Webmail Threats Monitoring and Log Analysis	MSIS-18
2022 June	Plug and Play Cryptocurrency Payment Gateway	BSCS-18
2021 May	Tourrific: An AI Based Trip Planner	BSCS-17
2021 May	Embedded Systems based Home automation using Mobile Application	BSCS-17
2021 May	DIGITWIN - An AI based concept and infrastructure testing using Digital Twins	BSCS-17
2021 May	Deep Learning for sleep quality monitoring using physiological signals	BSCS-17
2021 May	An AI based Construction Materials and Services Optimization	BSCS-17
2020 July	Generating Structured Queries from Natural Language without Reinforcement Learning	BSCS-15
2020 May	IServ	BESE-17

Editorial Activities

Lead Guest Editor	Special Issue: AI-driven Decision-making for Healthcare Data Science, in IEEE Journal of Biomedical and Health Informatics
Lead Guest Editor	Special Issue: Artificial Intelligence and Intelligent Systems for Robotics, in Journal of Intelligent Systems and Internet of Things
Journals Review	IEEE Access (10 reviews), The Journal of Supercomputing (4), Wireless Personal Communications (1 reviews), Journal of Ambient Intelligence and Humanized Computing (1 review)
Conferences	ACM IMCOM - Proceedings (25),

Research Publications

SCIE Journals

In review

25. Anam Zulfiqar, [Muhammad K. Shahzad](#). "IRRL: Interpretability-Driven Drug Repurposing with Task-Adaptive Attention in Reinforcement Learning," In: Procedia Computer Science, XX(YY), pp. xx-yy, In review (2025.02.07).
24. Anam Zulfiqar, [Muhammad K. Shahzad](#). "GTRL: Generalizable Task-Adaptive Reinforcement Learning for Drug Repurposing," In: Machine Learning with Applications, XX(YY), pp. xx-yy, In review (2025.02.07).
23. Laiba Bukhari, [Muhammad K. Shahzad](#), Huma Israr, Ahsan Saadat, Safdar Abbas Khan. "Enabling Urbanization Analysis and Planning using a Model-Driven Visualization Framework," In: Journal of Building Engineering, XX(YY), pp. xx-yy, In review (2025.01.02) IF: 6.7.
22. Laiba Bukhari, [Muhammad K. Shahzad](#), Huma Israr, Ahsan Saadat, Muhammad Anwar. "Modeling-Visualization Solution for Modern Embedded Systems using a Model-Driven Framework," In: Ecological Modelling, XX(YY), pp. xx-yy, In review (2024.12.31) IF: 2.6.
21. [Muhammad K. Shahzad](#), Gyuhong Lee, CTO., Mehdi Hussain, Muhammad Zeeshan, Su Man Nam. "GAFOM: Genetic Algorithm based Fuzzy Optimized Mobility in Sensor Networks," In: Expert Systems With Applications, XX(YY), pp. xx-yy, In review (2024.12.29) IF: 7.5.

Published

20. Muhammad Aqib Javed, [Muhammad K. Shahzad](#), Hafiz Syed Muhammad Bilal Ali. "A Novel Regularization Approach for Loss Functions to Reduce Instance Imbalance in Biomedical Image Segmentation," In: Computational Biology and Chemistry, XX(YY), pp. xx-yy, Accepted (2025.06.12). {IF: 2.60, Cite: 0, 1476-9271, DOI, HEC: X, UK}
19. Huma Israr, Safdar Abbas Khan, Muhammad Ali Tahir, [Muhammad K. Shahzad](#), Muhammad Ali Tahir, Muneer Ahmad, Jasni Mohamad Zain. "Knowledge Grounded Attention-based Neural Machine Translation Model," In: Applied Computational Intelligence and Soft Computing, 2025(6234949), pp. 1–21, (2025.01.17). {IF: 3.93, Cite: 0, 2981-3009, DOI, HEC: X, Egypt}
18. Huma Israr, [Muhammad K. Shahzad](#), Shahid Anwar., "Improved Urdu-English Neural Machine Translation with a fully Convolutional Neural Network Encoder," In: International Journal of Mathematical, Engineering and Management Sciences, 9(5), pp. 1067–1088, (2024.07.25). {IF: 1.8, Cite: 1, 2455-7749, DOI, HEC: X, India}
17. Huma Israr, Safdar Abbas Khan, Muhammad Ali Tahir, [Muhammad K. Shahzad](#), Muneer Ahmad, Jasni Mohamad Zain. "Neural Machine Translation Models with Attention-Based Dropout Layer," In: Computers, Materials & Continua (CMC), 75(2), pp. 2981-3009, (2023.03.31). {IF: 3.1, Cite: 10, 2981-3009, DOI, HEC: W, USA}
16. Muhammad Makhshif Tanvir, [Muhammad K. Shahzad](#), Muhammad Anwar, and Su Man Nam. "Translytics: A Novel Approach for Runtime Selection of Database Layout Based on Users Context," In: Scientific Programming, 2022 (1), pp. 1–11, (2022.08.10). {IF: 1.672, Cite: 1, 1058-9244, DOI, Scopus, HEC: X, Egypt}
15. Muhammad Nawaz, Mahrukh Khalil, and [Muhammad K. Shahzad](#). "MIYOLO: Modification of Improved YOLO-v3," In: IETE Journal of Research, 69(11), pp. 8036-8044, (2022.03.14). {IF: 1.5, Cite: 4, 0377-2063, DOI, HEC: X, UK}
14. Maria Hanif, [Muhammad K. Shahzad](#), Vaneeza Mehmood, and Inshaal Saleem. "EPFG: Electricity Price Forecasting with Enhanced GANS Neural Network," In: IETE Journal of Research, 69(9), pp. 6473–6482, (2022.02.01). {IF: 1.5, Cite: 8, 0377-2063, DOI, HEC: X, UK}
13. Muhammad Zeeshan, Qaiser Riaz, Muhammad A. Bilal, [Muhammad K. Shahzad](#), Hajira Jabeen, Syed Ali Haider, and Azizur Rehman. "Protocol-Based Deep Intrusion Detection for DoS and DDoS Attacks Using UNSW-NB15 and Bot-IoT Data-Sets," In: IEEE Access, 75(2), pp. 2269-2283, (2021.12.21). {IF: 3.36, Cite: 166, 2169-3536, DOI, HEC: W, USA}
12. Asmara Afzal, Mehdi Hussain, Shahzad Saleem, [Muhammad K. Shahzad](#), Anthony TS Ho, and Ki-Hyun Jung. "Encrypted Network Traffic Analysis of Secure Instant Messaging Application: A Case Study of Signal Messenger App," In: Applied Sciences, MDPI, 11(17), pp. 7789, (2021.08.24). {IF: 2.67, Cite: 29, 2076-3417, DOI, HEC: X, Switzerland}
11. [Muhammad K. Shahzad](#), S. M. Riazul Islam, Mahmud Hossain, M. Abdullah Al Wadud, Atif Alamri, and Mehdi Hussain. "GAFOR: Genetic Algorithm based Fuzzy Optimized Re-Clustering in WSNs," In: Mathematics, MDPI, 9(1), pp. 2227-7390, (2020.12.28). {IF: 2.25, Cite: 28, DOI, HEC: X, Switzerland}

10. Lewis Nkenyereye, Bayu Adhi Tama, [Muhammad K. Shahzad](#), and Yoon-Ho Choi. "Secure and Blockchain-Based Emergency Driven Message Protocol for 5G Enabled Vehicular Edge Computing," In: Sensors, MDPI, 11(17), 154, (2019.12.25). {[IF: 3.275](#), [Cite: 71](#), [1424-8220](#), [DOI](#), [HEC: W](#), [Switzerland](#)}
9. [Muhammad K. Shahzad](#), S. M. Riazul Islam, Kyung-Sup Kwak, and Lewis Nkenyereye. "AEF: Adaptive En-route Filtering to Extend Network Lifetime in Wireless Sensor Networks," In: Sensors, MDPI, 19(18), 4036, (2019.12.19). {[IF: 3.275](#), [Cite: 15](#), [1424-8220](#), [DOI](#), [HEC: W](#), [Switzerland](#)}
8. [Muhammad K. Shahzad](#), and Tae Ho Cho. "PKSM: Pre-key Distribution and Sink Mobility in CCEF to Extend the Network Lifetime in WSNs," In: Ad Hoc & Sensor Wireless Networks, Old City Publishing, 42(1-2), pp. 19-33, (2018.09.15). {[IF: 1.13](#), [Cite: 1](#), [1551-9899](#), [DOI](#), [HEC: W](#), [USA](#)}
7. [Muhammad K. Shahzad](#), Dang Tu Nguyen, V. Zalyubovskiy, and H. Choo. "LNDIR: A Light-Weight Non-Increasing Delivery-Latency Interval-Based Routing for Duty-Cycled Sensor Networks," In: International Journal of Distributed Sensor Networks, SAGE Pub., 14(4), pp. 1–17, (2018.04.16). {[IF: 1.68](#), [Cite: 12](#), [1550-1477](#), [DOI](#), [HEC: W](#), [USA](#)}
6. [Muhammad K. Shahzad](#), and Tae Ho Cho. "A Network Density-adaptive Improved CCEF Scheme for Enhanced Network Lifetime, Energy efficiency, and Filtering in WSNs," In: Ad Hoc & Sensor Wireless Networks, Old City Publishing, 35(1-2), pp. 129-149, (2017.04.24). {[IF: 0.79](#), [Cite: 10](#), [DOI](#), [HEC: W](#), [USA](#)}
5. S. Ali Abbas Kazmi, [Muhammad K. Shahzad](#), A.Z. Khan, and Dong Ryeol Shin. "Smart Distribution Networks: A Composite Review of Modern Distribution Concepts from Planning Perspectives," In: Energies, MDPI, 10(4), pp. 1–47, (2017.04.07). {[IF: 2.67](#), [C281-293](#), [Cite: 127](#), [501](#), [1996-1073](#), [DOI](#), [HEC: W](#), [Switzerland](#)}
4. Ali Abbas Kazmi, [Muhammad K. Shahzad](#), and Dong Ryeol Shin. "Voltage Stability Index for Distribution Network connected in Loop Configuration," In: IETE Journal of Research, Taylor & Francis Group, pp. 281-293, 63(2), (2017.02.22). {[IF: 0.79](#), [Cite: 32](#), [0377-2063](#), [DOI](#), [HEC: W](#), [UK](#)}
3. Ali Abbas Kazmi, [Muhammad K. Shahzad](#), and Dong Ryeol Shin. "Multi-objective Planning Techniques in Distribution Networks: A Composite Review ," In: Energies, MDPI, 10(2), pp. 1–44, (2017.02.12). {[IF: 2.70](#), [Cite: 56](#), [1996-1073](#), [DOI](#), [HEC: W](#), [Switzerland](#)}
2. [Muhammad K. Shahzad](#), and Tae Ho Cho. "An Energy-aware Routing and Filtering node (ERF) selection in CCEF to extend Network lifetime in WSNs," In: IETE Journal of Research, Taylor & Francis Group, 63(3), pp. 368–380,(2017.02.08). {[IF: 0.87](#), [Cite: 27](#), [0377-2063](#), [DOI](#), [HEC: W](#), [UK](#)}
1. [Muhammad K. Shahzad](#), and Tae Ho Cho. "Extending the Network Lifetime by Pre-deterministic Key Distribution in CCEF in Wireless Sensor Networks," In: Wireless Networks, Springer International Publishing AG, 21, pp. 2799-2809, (2017.04.22). {[IF: 1.00](#), [Cite: 19](#), [1022-0038](#), [DOI](#), [HEC: W](#), [Netherland](#)}

Other International Journals

Published

9. Syeda Rabia Arshad, [Muhammad K. Shahzad](#). "Deep Learning Based Fabric Defect Detection," In: Research Reports on Computer Science, 2024, 3(1), pp. 1-11, (2024.03.20). {[Cite: 1](#), [2578-1863](#), [DOI](#)}
8. Ashina Sadiq, Muhammad Anwar, Rizwan A. Butt, Farhan Masud [Muhammad K. Shahzad](#), Shahid Naseem, and Muhammad Younas. "A review of phishing attacks and countermeasures for internet of things-based smart business applications in industry 4.0.," In: Behavior and Emerging Technologies, Wiley, 2021, pp. 854-864, (2021.10.21). {[Cite: 65](#), [Scopus](#), [2578-1863](#), [DOI](#)}
7. [Muhammad K. Shahzad](#), and Quang-Ngoc Phung. "Witness-Header and Next-Node Selection to Extend Network Lifetime in Energy-Efficient Clone-Node Detection in WSNs," In: I.J. Information Technology and Computer Science, MECS Press, 2016, vol. 8 (10), pp. 22-28, (2016.10.03). {[Cite: 0](#), [2074-9015](#), [DOI](#)}
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