

Fawad Khan

Assistant Professor
Military College of Signals

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About

Dr. Fawad Khan is working as Assistant Professor in the Military College of Signals. Dr. Fawad Khan has a PhD in Cryptography And Information Security. Dr. Fawad Khan has published 33 research articles & conference papers having a citation count of 337, carried out 6 projects and filed 0 intellectual property.

Qualifications

PhD in Cryptography And Information Security Xidian University , China	2015 - 2018
MS in Communication Cecos Univeristy of Information Technology , Pakistan	2012 - 2014
BS in Communication UET Peshawar , Pakistan	2006 - 2010

Experience

Assistant Professor Military College of Signals	2025- Present
Assistant Professor Military College of Signals	2023 - 2021
Assistant Professor Military College of Signals	2021 - 2023
Assistant Professor Military College of Signals	2018 - 2023
Assistant Professor Military College of Signals	2018 - 2018
Lab Engineer FAST-National University of Computer and Emerging Sciences, Peshawar Campus , 160 Industrial Estate, Jamrud Road, Peshawar	2011 - 2015

Awards

Gold Medal Gold Medal in Masters of Science in Electrical Engineering	2018
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Professional Memberships

PEC	Since 2010
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Research Projects

National Projects

Exploiting Algebraic Properties and Developing STS for Block Ciphers	2020
Funding Agency: NESCOM	
Amount: PKR 200,000.00	
Status: Completed	
Interpolation Analysis, New Criteria for Cryptanalytic Attack Toolset	2020
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Completed	
Exploiting algebraic properties of block ciphers and suggesting statistical test for its identification	2020
Funding Agency: NESCOM	
Amount: PKR 200,000.00	
Status: Completed	
Invariant attacks: a new tool for cryptanalysis toolset	2020
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Approved_inprocess	
Interpolation analysis. New criteria for cryptanalytic attack toolset	2020
Funding Agency: NESCOM	
Amount: PKR 150,000.00	
Status: Completed	
Temper resistant database log update via blockchain	2019
Funding Agency: Higher Education Commission	
Amount: PKR 348,300.00	
Status: Completed	

International Projects

Research Articles

Privacy Preserving Inference for Deep Neural Networks: Optimizing Homomorphic Encryption for Efficient and Secure Classification	2024
Aftab Akram Dr Fawad Khan Dr Shahzaib Tahir Syed Aziz Shah Asif Iqbal Abdullah Baz	
IEEE Access , Volume:12, Page:15684-15695	
Impact Factor: 3.9 Quartile: 2 Citations: 10	
DOI: 10.1109/ACCESS.2024.3357145	
A homomorphic approach for security and privacy preservation of Smart Airports	2023
Haroon Malik Shahzaib Tahir Hasan Tahir Musfirah Ihtasham Fawad Khan	
Future Generation Computer Systems , Volume 141, Pages 500-513	
Impact Factor: 7.5 Quartile: 1 Citations: 8	
DOI: 10.1016/j.future.2022.12.005	
A Novel Image-Based Homomorphic Approach for Preserving the Privacy of Autonomous Vehicles Connected to the Cloud	2023
Aiman Sultan Shahzaib Tahir Hasan Tahir Tayyaba Anwer Fawad Khan Muttukrishnan Rajarajan Omer Rana	
IEEE Transactions on Intelligent Transportation Systems, Volume 24, Issue 2, Pages 1936-1948	
Impact Factor: 9.551 Quartile: 1 Citations: 9	
DOI: 10.1109/TITS.2022.3219591	
A Novel Approach to Reduce Breaches of Aircraft Communication Data	2022
Shahzaib Tahir Muhammad Arslan Shahbaz Hasan Tahir Muhammad Awais Fawad Khan Ruhma Tahir Saqib Saeed Abdullah M. Almuhaideb	
Electronics , Volume 12, Issue 1, Article Number 172	
Impact Factor: 2.690 Quartile: 3 Citations: 3	
DOI: 10.3390/electronics12010172	
Privacy preserving content based image retrieval	2022
Maamoon Farooq M. Mohsin Riaz Abdul Ghafoor Fawad Khan	
Multimedia Tools and Applications , Pages 1-24	

Impact Factor: 3.6 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1007/s11042-023-17168-x	
A novel searchable encryption scheme to reduce the access pattern leakage <i>Muhammad Awais Shahzaib Tahir Fawad Khan Hasan Tahir Ruhma Tahir Rabia Latif Mir Yasir Umair</i> <i>Future Generation Computer Systems</i> , Volume 133, Pages 338-350 Impact Factor: 7.5 Quartile: 1 Citations: 10 DOI: https://doi.org/10.1016/j.future.2022.03.031	2022
ENCVIDC: an innovative approach for encoded video content classification <i>Faiqa Amjad Fawad Khan Shahzaib Tahir Tahreem Yaqoob Haider Abbas</i> <i>Neural Computing and Applications</i> , Pages 1-18 Impact Factor: 6.0 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1007/s00521-022-07480-2	2022
A Novel Homomorphic Approach for Preserving Privacy of Patient Data in Telemedicine <i>Yasir Iqbal Shahzaib Tahir Hasan Tahir Fawad Khan Saqib Saeed Abdullah M. Almuhaideb Adeel M. Syed</i> <i>Sensors</i> , Volume 22(12), Article Number 4432 Impact Factor: 3.576 Quartile: 1 Citations: 16 DOI: https://doi.org/10.3390/s22124432	2022
HLSBD2: a quantum secure hybrid level source based data deduplication for the cloud <i>Waqas Ajmal Khan Fawad Khan Shahzaib Tahir Yinghui Zhang Muhammad Faisal Amjad Jawad Ahmad</i> <i>Journal of Ambient Intelligence and Humanized Computing</i> , Pages 1-14 Impact Factor: 7.104 Quartile: 1 Citations: 1 DOI: https://doi.org/10.1007/s12652-022-03875-0	2022
FBASHI: Fuzzy and Blockchain-Based Adaptive Security for Healthcare IoTs <i>Zeeshan Zulkifl Fawad Khan Shahzaib Tahir Mehreen Afzal Mian Muhammad Waseem Iqbal Abdul Rehman Saqib Saeed Abdullah M. Almuhaideb</i> <i>IEEE Access</i> , Volume 10, Pages 15644-15656 Impact Factor: 3.367 Quartile: 2 Citations: 63 DOI: 10.1109/ACCESS.2022.3149046	2022
Encryption and Re-Randomization Techniques for Malware Propagation <i>Ahsan Rasheed Abbasi Mehreen Afzal Mian Muhammad Waseem Iqbal Shynar Mussiraliyeva Fawad Khan Awais Ur Rehman</i> <i>IEEE Access</i> , Volume 9, Pages 132522-132532 Impact Factor: 3.367 Quartile: 2 Citations: 2 DOI: http://dx.doi.org/10.1109/access.2021.3112750	2021
Privacy-preserving COVID-19 Contact Tracing using Blockchain <i>Shahzaib Tahir Hasan Tahir Ali Sajjad Muttukrishnan Rajarajan Fawad Khan</i> <i>Journal of Communications and Networks</i> , - Impact Factor: 3.240 Quartile: 2 Citations: 25 DOI: 10.23919/JCN.2021.000031	2021
PUF-Based Key Generation Scheme for Secure Group Communication Using MEMS <i>Mubarak Mehdi Muhammad Taha Ajani Hasan Tahir Shahzaib Tahir Zahoor Alizai Fawad Khan Qaiser Riaz Mehdi Hussain</i> <i>Electronics</i> , Volume 10(14), Article Number 1691 Impact Factor: 2.690 Quartile: 3 Citations: 11 DOI: https://doi.org/10.3390/electronics10141691	2021
Granular Data Access Control with a Patient-Centric Policy Update for Healthcare <i>Fawad Khan Saad Khan Shahzaib Tahir Jawad Ahmad Hasan Tahir Syed Aziz Shah</i> <i>Sensors</i> , Volume 21(10), Article Number 3556 Impact Factor: 3.847 Quartile: 2 Citations: 16 DOI: https://doi.org/10.3390/s21103556	2021
A new secure authentication based distance bounding protocol <i>Ahmed Raheeq Sultan Imran Rashid Fawad Khan Shahzaib Tahir Maruf Pasha Aiman Sultan</i> <i>PeerJ Computer Science</i> , Volume 7, Article Number e517 Impact Factor: 2.411 Quartile: 2 Citations: 3 DOI: https://doi.org/10.7717/peerj-cs.517	2021
Chaos-based Confusion and Diffusion of Image Pixels using Dynamic Substitution <i>Abdullah Qayyum Jawad Ahmad Wadii Boulila Saeed Rubaiee Arshad Fawad Masood Fawad Khan William J. Buchanan</i> <i>IEEE Access</i> , Volume 8, Paes 140876-140895	2020

Impact Factor: 3.367 Quartile: 2 Citations: 95 DOI: 10.1109/ACCESS.2020.3012912	
Efficient Attribute Based Encryption with Repeated Attributes Optimization <i>Fawad Khan Hui Li Yinghui Zhang Haider Abbas Tahreem Yaqoob</i> <i>International Journal of Information Security</i> , 1-14 Impact Factor: 1.988 Quartile: 2 Citations: 3 DOI: https://doi.org/10.1007/s10207-020-00505-8	2020
Control of Hybrid Diesel/PV/Battery/Ultra-Capacitor Systems for Future Shipboard Microgrids <i>Fawad Khan Muhammad Umair Mutarraf Yacine Terriche Kamran Ali Khan Niazi Juan C. Vasquez Josep M. Guerrero</i> <i>Energies</i> , Volume 12, Issue 18, article no. 3460 Impact Factor: 2.702 Quartile: 3 Citations: 35 DOI: 10.3390/en12183460	2019
Ensuring Trust and Confidentiality for Adaptive Video Streaming in ICN <i>Fawad Khan Hui Li</i> <i>Journal of Communications and Networks</i> , Pages 1-9 Impact Factor: 1.733 Quartile: 3 DOI: 10.1109/JCN.2019.000026	2019
Owner Specified Excessive Access Control for Attribute Based Encryption <i>Fawad Khan Li Hui Zhang Liangxuan</i> <i>IEEE Access</i> , Volume 4, Pages 8967-8976 Impact Factor: 3.244 Quartile: 1 Citations: 15 DOI: 10.1109/ACCESS.2016.2632132	2016
Conference Proceedings	
Efficient, Immutable and Privacy Preserving E-Healthcare Systems using Blockchain <i>Nigam Naveed Aiman Sultan Fawad Khan Shahzaib Tahir</i> <i>4th International Conference on Communication Technologies, ComTech 2023</i> , res.country(177,) Citations: N/A DOI: 10.1109/ComTech57708.2023.10164855	2023
An ANN-BP based Multi-Alcohol Classification Model Through Different QCM Gas Sensors <i>Aiman Sultan Dr. Asif Masood Dr Shahzaib Tahir Dr Fawad Khan Ahmed Raheeq Sultan</i> <i>2023 International Conference on Communication Technologies (ComTech)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ComTech57708.2023.10165110	2023
Machine Learning Based Encrypted Content Type Identification <i>Zeeshan Mehmood Aiman Sultan Fawad Khan Shahzaib Tahir</i> <i>2023 International Conference on Communication Technologies (ComTech)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ComTech57708.2023.10164955	2023
The Implementation of Encryption Algorithms in MQTT Protocol for IoT Constrained devices <i>Yasir Iqbal Muhammad Faisal Amjad Fawad Khan Haider Abbas</i> <i>2022 14th IEEE International Conference on Computational Intelligence and Communication Networks, CICON 2022</i> res.country(192,) Citations: N/A DOI: 10.1109/CICON56167.2022.10008320	2022
Automated Grading of Diabetic Macular Edema Using Color Retinal Photographs <i>Muhammad Zubair Jawad Ahmad Fehaid Alqahtani Fawad Khan Syed Aziz Shah Qammer H. Abbasi Sana Ullah Jan</i> <i>2022 2nd International Conference of Smart Systems and Emerging Technologies (SMARTTECH)</i> , res.country(192,) Citations: N/A DOI: 10.1109/SMARTTECH54121.2022.00016	2022
Enhancing Security of Cloud-based IoT Systems through Network Access Control (NAC) <i>Awais Khan Shahzaib Tahir Fawad Khan Hasan Tahir Zeeshan Zulkifl</i> <i>2021 International Conference on Communication Technologies (ComTech)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ComTech52583.2021.9616855	2021

A Novel Fog-based Framework for Preventing Cloud Lock-in while Enabling Searchable Encryption <i>Mariam Raj Shahzaib Tahir Fawad Khan Hasan Tahir Zeeshan Zulkifl</i> 2021 <i>International Conference on Digital Futures and Transformative Technologies (ICoDT2)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ICoDT252288.2021.9441477	2021
Trusted Network Slicing among Multiple Mobile Network Operators <i>Jehanzaib Yousuf Muhammad Mingjun Wang Zheng Yan Fawad Khan</i> 2020 <i>IEEE 19th International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)</i> res.country(48,) Citations: N/A DOI: 10.1109/TrustCom50675.2020.00150	2020
Privacy-Preserving Attribute-Based Encryption Supporting Expressive Access Structures <i>Liangxuan Zhang Hui Li Yinghui Zhang Fawad Khan</i> 2017 <i>IEEE Second International Conference on Data Science in Cyberspace (DSC)</i> , res.country(48,) Citations: N/A DOI: 10.1109/DSC.2017.61	2017
An Expressive Hidden Access Policy CP-ABE <i>Fawad Khan Hui Li Liangxuan Zhang Jian Shen</i> 2017 <i>IEEE Second International Conference on Data Science in Cyberspace (DSC)</i> , res.country(48,) Citations: N/A DOI: 10.1109/DSC.2017.29	2017
Efficient privacy-preserving decentralized ABE supporting expressive access structures <i>Liangxuan Zhang Hui Li Yinghui Zhang Fawad Khan Fawad Khan</i> 2017 <i>IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)</i> , res.country(233,) Citations: N/A DOI: DOI: 10.1109/INFOCOMW.2017.8116436	2017
Content Security Scheme for Content Centric Networks <i>Fawad Khan Sarmad Ullah Khan Inam Bari</i> <i>International Conference on Security and Privacy in Communication Systems</i> , res.country(48,) Citations: N/A DOI: https://doi.org/10.1007/978-3-319-23829-6_41	2014
NUST Hybrid (WDM/TDM) EPON based Access Network with Triple Play Support <i>Fawad Khan Raheeb Muzaffar S.M.Hassan Zaidi Yasin Akhtar Raja</i> 2007 <i>International Symposium on High Capacity Optical Networks and Enabling Technologies, HONET</i> , res.country(2,) Citations: N/A DOI: 10.1109/HONET.2007.4600247	2007

Editorial Activities

Reviewed Papers for Journals Impact Factor: 5.102	2021
Reviewed Papers for Journals Impact Factor: 5.102	2021