Dr Nayeem Ahmad Khan

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Objectives:

To apply my expertise as an Associate Professor in Cybersecurity to contribute to an educational institution or research organization, furthering cybersecurity knowledge, mentoring students, and advancing the field through research and collaboration.

Area of Interest:

Cyber Security, Network Security, Wireless Communication, Machine Learning

Education:

Degree	Year	Specialization/Field	Thesis Title (if applicable)	Institution
PhD	2018	Computer Science, Cyber Security	Ensemble Classifier on Malicious JavaScript Attacks Detection Using Extended Features	University Malaysia Sarawak, Sarawak, Malaysia
Master of Computer Applications	2011	Computer Science		Islamic University of Sciences & Technology, Kashmir, India
Bachelor of Computer Applications	2008	Computer Science		University of Kashmir, India

Experience:

Position	From	To	Year/Months	Area	University/Institution
Associate Professor	05-Sep-2023	Till date	-	Cybersecurity	AlBaha University, AlBaha, Saudi Arabia
Assistant Professor	11-Nov-2018	04-Sep-2023	4 years, 9 months	Cybersecurity	AlBaha University, AlBaha, Saudi Arabia
Teaching Associate	18-Oct-2014	29-Aug-2018	3 years, 10 months,	Computer Science	University Malaysia Sarawak, Malaysia
Lecturer	Sep-2011	May-2014	2 years, 9 months	Computer Science	Government Degree College Bandipora, Kashmir, India

Administrative Responsibilities:

- Coordinator Faculty Quality and Development Committee for National Commission for Academic Accreditation and Assessment, Saudi Arabia
- Coordinator Cybersecurity Track Courses
- Chairperson, Faculty Laboratory Committee

List of Publications:

- **Khan, Nayeem Ahmad**, and Mohammed Al Qurashi. "Security Tradeoff in Network Virtualization and Their Countermeasures." In *Inventive Computation and Information Technologies: Proceedings of ICICIT 2022*, pp. 741-749. Singapore: Springer Nature Singapore, 2023.

- Alarfaj, Fawaz Khaled, and **Nayeem Ahmad Khan**. "Enhancing the Performance of SQL Injection Attack Detection through Probabilistic Neural Networks." *Applied Sciences* 13, no. 7 (2023): 4365.

- Kilat, Veronica Sima, Adnan Shahid Khan, Eunice James, and **Nayeem Ahmad Khan**. "Recapitulation of Survey on Taxonomy: Security Unmanned Aerial Vehicles Networks." *Journal of Computing and Social Informatics* 2, no. 1 (2023): 21-31.

- **Khan, Nayeem Ahmad.** "5G Network: Techniques to Increase Quality of Service and Quality of Experience." *Int. J. Comput. Netw. Appl.(IJCNA)* 9 (2022): 476-496.

- Alzahrani, Mohammed Y., **Nayeem Ahmad Khan**, Lilia Georgieva, Alawi M. Bamahdi, Omar Ahmed Abdulkader, and Ahmed H. Alahmadi. "Protecting Attacks on Unmanned Aerial Vehicles using Homomorphic Encryption." *Indonesian Journal of Electrical Engineering and Informatics* 11, no. 1 (2023): 88-96.

- Khan, Adnan Shahid, Mohd Izzat Bin Yahya, Kartinah Bt Zen, Johari Bin Abdullah, Rozeha Binti A. Rashid, Yasir Javed, **Nayeem Ahmad Khan**, and Ahmed M. Mostafa. "Blockchain-Based Lightweight Multifactor Authentication for Cell-Free in Ultra-Dense 6G-Based (6-CMAS) Cellular Network." *IEEE Access* 11 (2023): 20524-20541.

- Alshehri, Abdullah, **Nayeem Khan**, Ali Alowayr, and Mohammed Yahya Alghamdi. "Cyberattack Detection Framework Using Machine Learning and User Behavior Analytics." *Computer Systems Science & Engineering* 44, no. 2 (2023).

- **Khan, Nayeem Ahmad,** Adnan Shahid Khan, Hushmat Amin Kar, Zeeshan Ahmad, Seleviawati Tarmizi, and Azlina Ahmadi Julaihi. "Employing public key infrastructure to encapsulate messages

during transport layer security handshake procedure." In *2022 Applied Informatics International Conference (AiIC)*, pp. 126-130. IEEE, 2022.

- Khan, Adnan Shahid, Yasir Javed, Rashad Mahmood Saqib, Zeeshan Ahmad, Johari Abdullah, Kartinah Zen, Irshad Ahmed Abbasi, and **Nayeem Ahmad Khan**. "Lightweight multifactor authentication scheme for nextgen cellular networks." *IEEE Access* 10 (2022): 31273-31288.

- Alqarni, Ahmed Abdullah, Nizar Alsharif, **Nayeem Ahmad Khan**, Lilia Georgieva, Eric Pardade, and Mohammed Y. Alzahrani. "MNN-XSS: Modular Neural Network Based Approach for XSS Attack Detection." *Computers, Materials & Continua* 70, no. 2 (2022).

- **Khan, Nayeem Ahmad**. "PKI-Based security enhancement for IoT in 5G networks." In *Inventive Computation and Information Technologies: Proceedings of ICICIT 2021*, pp. 217-225. Singapore: Springer Nature Singapore, 2022.

- **Khan, Nayeem A**., Mohammad Y. Alzaharani, and Hushmat A. Kar. "Hybrid feature classification approach for malicious javaScript attack detection using deep learning." *International Journal of Computer Science and Information Security* 18, no. 5 (2020).

- **Khan, Nayeem,** and Mohammad Y. Alzaharani. "Establishing EndVisor and quarantine approach in solving security issues of virtualization." *Indian Journal of Science and Technology* 11 (2018): 47.

- **Khan, Nayeem,** and Tariq Ahmad War. "A Deep Study on security vulnerabilities in virtualization at cloud computing." *International Journal of Computer Applications* 975 (2018): 8887.

- **Khan, Nayeem**., Alqahtani, A.S. (2018). A Framework for XSS Attack Prevention in Web Browser using Interceptor Approach, Indian Journal of Science & Technology 11(16), 1-12

- **Khan, Nayeem**, Johari Abdullah, and Adnan Shahid Khan. "A dynamic method of detecting malicious scripts using classifiers." *Advanced Science Letters* 23, no. 6 (2017): 5352-5355.

- Khan, S., J. Abdullah, **Nayeem. Khan**, A. A. Julahi, and S. Tarmizi. "Quantum-elliptic curve cryptography for multihop communication in 5G networks." *International Journal of Computer Science and Network Security (IJCSNS)* 17, no. 5 (2017): 357-365.

- Khan, A. S., Yasir Javed, J. Abdullah, J. M. Nazim, and **Nayeem. Khan**. "Security issues in 5G device to device communication." *IJCSNS* 17, no. 5 (2017): 366.

- **Khan, Nayeem, A.** Johari, and S. Adnan. "A Taxonomy Study of XSS Vulnerabilities." Asian J. Inf. Technol 16 (2017): 169-177.

- Dildar, Muhammad Shahid, **Nayeem Khan**, Johari Bin Abdullah, and Adnan Shahid Khan. "Effective way to defend the hypervisor attacks in cloud computing." In *2017 2nd International Conference on Anti-Cyber Crimes (ICACC)*, pp. 154-159. IEEE, 2017.

- **Khan, Nayeem**, Johari Abdullah, and Adnan Shahid Khan. "Defending malicious script attacks using machine learning classifiers." *Wireless Communications and Mobile Computing* 2017 (2017).

- **Khan, Nayeem**, Johari Abdullah, and Adnan Shahid Khan. "Towards vulnerability prevention model for web browser using interceptor approach." In *2015 9th International Conference on IT in Asia (CITA)*, pp. 1-5. IEEE, 2015.

List of Patents:

- Artificial Intelligence and Cloud Based Conversational Robot For Blind People Assistance
  Inventors: Dr. Yusuf Perwej, **Dr. Nayeem Ahmad Khan**, et. al., publication date (U/S 11A), 03/12/2021, No: 202111054238, Status: Published, Agency: Intellectual Property India, Office of the Controller General of Patents, Designs & Trade Marks, Ministry of Commerce & Industry, Government of India

- IOT And Cloud Based Voice Based Smart Automation System Using Google-Assistant
  Inventors: Dr. Gautam Surendra Bapat, **Dr. Nayeem Ahmad Khan**, et. al., publication date (U/S 11A) 21/11/2021 No: 202121053475, Status: Published, Agency: Intellectual Property India, Office of the Controller General of Patents, Designs & Trade Marks, Ministry of Commerce & Industry, Government of India

Book Published:

- Nayeem Khan, Malicious JavaScript Attack Detection using Machine Learning, Research India Publications, 2020, ISBN: 978-93-89116-29-8

Master Thesis Supervision:

- Essa Hussain: Thesis Title:" Detecting Man in the Middle Attack in Cloud Using Deep Belief Networks" Year 2022 (Awarded)
- Abdul Aziz Gashash: Thesis Title: "Protecting Attacks on Cloud using Homographic Encryption" Year 2023 (Awarded)

External Thesis Examiner:

- Chiadighikaobi Ikenna Rene: Malicious code intrusion detection using machine learning and indicators of compromise, 2019, University Malaysia Sarawak, Malaysia
- Kelvin S.C.Yong: A Graph-Theoretic Approach for the Detection of Phishing Webpages, 2019, University Malaysia Sarawak, Malaysia
- Nguyen Canh Thang: Detecting Malicious Middleboxes in Service Function Chaining 2020, Soongsil University, South Korea
- Salwa Hamdan Saeed Alghamdi: Protecting Cloud Infrastructure from DDoS Attacks using Blockchain to Achieve Cloud Security, 2023, AlBaha University, Saudi Arabia

Conferences/Workshops/Seminar Attended

- Applied Informatics International Conference (Aiic2022) University Putra Malaysia, Serdang, Malaysia, May 18-19, 2022
- 4th International Conference on Inventive Computation and Information Technologies, 25-26 Aug 2022, Coimbatore, India
- 3rd International Conference on Inventive Computation and Information Technologies, 25-26 Aug 2021, Coimbatore, India
- One Week Faculty Development Program on "Emerging Technological Information in Computer Science & Engineering (ETICS-2022)", 21-26 Feb, 2022, Ambalika Institute of Management and Technology, Lucknow, India
- 9th International Conference on Information Technology in Asia, Kuching Sarawak, Malaysia on 04-06 Aug 2015
- 3rd International Conference on Computer, Communication and Control Technology (I4CT) April 19 - 21, 2016, Kota Kinabalu, Sabah, Malaysia 6
- Transforming Sarawak Through Digital Economy "IDECS 2017", International ICT Infrastructure & Digital Economic Conference Sarawak 2017, 3rd – 4th April 2017, Borneo Convention Centre Kuching, Sarawak, Malaysia 7
- Workshop on "Big Data with ADAMS", 27-28 Nov 2015, Faculty of Computer Science & IT, University Malaysia Sarawak, Malaysia
- 2-Day hands-on Journal Writing Workshop, 10-11 Jan 2017, Faculty of Computer Science & IT, University Malaysia Sarawak, Malaysia
- National Seminar on Open-Source Software Systems Challenges & Opportunities, 20-22 June 2011, University of Kashmir, India

Awards/Recognition

- Best Conference Paper, IEEE, Applied Informatics International Conference (Aiic2022) University Putra Malaysia, Serdang, Malaysia, May 18-19, 2022
- Bronze Medal in recognition of my contribution to the "UNIMAS R&D EXPO 2015" held from 14-15 April 2015, Detar Putra, University Malaysia Sarawak
- Gold Medal for best poster presentation during The 1st CSCT Poster Presentation 2015, S.H.O.P, FCSIT, University Malaysia Sarawak, 13 May 2015
- Best Paper Award at 9th IEEE International Conference on Information Technology in Asia, Kuching Sarawak on 04-06 Aug-2015
- Bronze Medal for best poster presentation during The 2nd CSCT Poster Presentation 2016, S.H.O.P, FCSIT, University Malaysia Sarawak, 30 March 2016

Fellowships Received

- Zamalah Graduate Scholarship, PhD Fellowship from University Malaysia Sarawak & Government of Malaysia
- Sponsored Master of Computer Application Degree from the Government of India

Research Grants & Funding

- Dana Pelajar PhD, Amount RM,200,000 Title "Vulnerability Prevention Model for Web Browser using Interceptor Approach ", Nov 2014 - Nov 2017, Grant Number F08(DPP28)/1217/2015(03), Research and Innovation Management Centre (RIMC), University Malaysia Sarawak, Malaysia
- Cyberattack Detection using User Behavior Analytics, Ministry of Higher Education Saudi Arabia. 2021, Grant Amount SR 70,000

Courses Taught Masters/Bachelors Level

- Machine Learning in Cybersecurity (Master in Cybersecurity)
- Malware Analysis & Engineering (Master in Cybersecurity)
- Network Security
- Computer Forensics
- Information Security & Privacy
- Information Security & Risk Management
- Foundations of Cyber Security
- IT Audit & Control
- Network Design, Implementation, and Management

Courses Designed

- Computer Forensics
- Network Security
- Foundations of Cyber Security
- Innovation, Design & Prototyping

Invited Speaker/Lectures Delivered:

- Delivered Lecture on Drones, Robotics, and Autonomous Vehicles at the Faculty of Computer Science & IT, AlBaha University, 20-03-2022
- Lecture on the Importance of Machine and Deep Learning in Cybersecurity at the Faculty of Computer Science & IT, University Malaysia Sarawak 21-01-2022
- Delivered a Lecture during an Awareness camp on cybersecurity at AlBaha University, 05-01-2022
- Delivered a Lecture at a seminar on how to write a research paper at the Faculty of Computer Science & IT, AlBaha University, 29-08-2021
- Conducted a workshop on how to conduct successful presentations at the Faculty of Computer Science & IT, AlBaha University 02-04-2022
- Delivered a Lecture at a conference on Homomorphic Encryption during 3rd International Conference on Inventive Computation and Information Technologies, Coimbatore, India 25-26 Aug 2021
- Delivered Lecture on Innovation and commercialization of products at the Faculty of Computer Science & IT, AlBaha University, 16-08-2020
- Delivered Lecture on principles of cyber security at the Faculty of Computer Science & IT, AlBaha University, 05-05-2019

Memberships:

- Member, IEEE
- Member, International Association of Engineers Hong Kong ID:145680
- Member, Institute of Engineers (India), Member Number:15312616 3
- Member, Computer Society of India
- Member, Network Security Research Group, University Malaysia Sarawak

References

[Available upon request.]