



COLLEGE OF COMPUTING AND MATHEMATICS

Computer Engineering Department

PRESENTS A SEMINAR

“Cybersecurity in the Age of Emerging Technologies: Threats, Opportunities, and Research Directions”

Date: Wednesday, September 17, 2025

Time: 02:00 PM – 04:00 PM

Venue: Building 24 Room 121

Presenter:

Prof. Muhammad Khurram Khan

Professor of Cybersecurity

Center of Excellence in Information Assurance

King Saud University, Saudi Arabia



Abstract:

The cybersecurity landscape is rapidly evolving with AI-driven, adaptive, and polymorphic threats fundamentally challenging traditional defense paradigms. The growing interconnectivity of emerging technologies, coupled with the widespread deployment of insecure systems and networks, amplifies vulnerabilities and introduces complex, cascading risks for businesses, governments, and critical infrastructure. Adversaries are increasingly exploiting AI technologies, including large language models (LLMs), generative AI (GenAI), and agentic AI, to launch sophisticated and deceptive attacks, intensifying the need for next-generation cyber defense strategies. This keynote will examine the evolving threat landscape in the context of emerging technologies and present indigenous, research-driven innovations designed to secure future smart systems and services. Attendees will gain valuable insights into novel methodologies, cutting-edge solutions, and strategic research directions shaping the future of resilient cybersecurity in an increasingly interconnected digital world.

Biography:

Prof. Muhammad Khurram Khan is a global thought leader and influencer in cybersecurity. He is a Professor of Cybersecurity at the Center of Excellence in Information Assurance, King Saud University, Saudi Arabia. He

is one of the founding members of CoEIA and has served as Manager R&D from March 2009 until March 2012. He, along with his team, developed and successfully managed the cybersecurity research program at CoEIA, which turned it into one of the best centers of excellence in the region.

He is the founder and CEO of the "[Global Foundation for Cyber Studies and Research](#)", an independent and non-partisan cybersecurity think-tank in Washington, D.C., USA. He has contributed to cyber policy work for the G20 (Saudi and Italian Presidencies) in shaping a safer cyberspace for children, protecting the masses and vulnerable populations in cyberspace, and empowering and enabling women in the cybersecurity profession. In 2019, he played an instrumental role as a cybersecurity subject expert for a USD 6 million series B investment in a South Korean startup, "SecuLetter," which has received a corporate valuation of over USD 40 million (2020) with an IPO valuation of USD 100 million (2023). He works with startups and early-stage companies in their strategic missions of R&D, business, and market growth.

He is the Editor-in-Chief of a well-reputed international journal, '[Telecommunication Systems](#)', published by Springer-Nature for over 28 years, with a recent impact factor of 2.3 (JCR 2025). Furthermore, he is the area editor (Cybersecurity) of IEEE Communications Surveys & Tutorials, which has a 46.7 impact factor in JCR 2025. Moreover, he has been on the editorial board of several journals, including IEEE Transactions on Information Forensics and Security, IEEE Transactions on Network Science and Engineering, IEEE Transactions on Mobile Computing, IEEE Communications Magazine, IEEE Transactions on Intelligent Vehicles, IEEE Internet of Things Journal, IEEE Transactions on Consumer Electronics, IEEE Communications Letters, Journal of Network & Computer Applications (Elsevier), IEEE Access, IEEE Consumer Electronics Magazine, Electronic Commerce Research, etc. He has also played the role of guest editor for several international journals published by IEEE, Springer, Wiley, and Elsevier. Besides, he is one of the organizing chairs of more than 5 dozen international conferences and a member of the technical committees of more than 10 dozen international conferences. In addition, he is an active reviewer of several international journals as well as research foundations in USA, Switzerland, Italy, Saudi Arabia, and the Czech Republic.

Prof. Khurram is an honorary professor at the IIIRC, Shenzhen Graduate School, China. He is also an adjunct professor at Taylor's University, Malaysia, and Fujian University of Technology, China. He secured an outstanding leadership award at the 2009 IEEE International Conference on Networks and Systems Security in Australia. In addition, at the AIT international Conference in Japan in June 2010, he received a certificate of appreciation for outstanding contributions in "Biometrics and Information Security Research". He has been awarded a Gold Medal for the 'Best Invention and Innovation Award' at the 10th Malaysian Technology Expo 2011, Malaysia. Moreover, in April 2013, his invention won a Bronze Medal at the "41st International Exhibition of Inventions" in Geneva, Switzerland. In addition, he was awarded the best paper awards from the Journal of Network and Computer Applications (Elsevier), Vehicular Communications (Elsevier). and the IEEE Systems Journal. He was the recipient of the King Saud University Award for Scientific Excellence (Research Productivity) in May 2015. He was also a recipient of the King Saud University Award for Scientific Excellence (Inventions, Innovations, and Technology Licensing) in May 2016.

He has published over 500 research papers and is the inventor of 12 US patents. He has edited ten books/proceedings published by Springer-Verlag, Taylor & Francis, and IEEE. He has secured several national and international competitive research grants totaling over USD 5 million in the domain of

cybersecurity. He has played a leading role in developing the "BS Cybersecurity Degree Program" and the "Higher Diploma in Cybersecurity" at King Saud University.

His research spans a broad spectrum of cybersecurity, including IoT security, vehicular cybersecurity, AI security, digital authentication, multimedia security, cyber policy, and technological innovation management. He is a Fellow of the Institution of Engineering & Technology (IET, UK), the British Computer Society (BCS, UK), and the FTRA (Korea), as well as a Senior Member of IEEE and IACSIT (Singapore). He has held leadership roles such as Vice Chair of the IEEE Communications Society (ComSoC) Saudi Chapter and has served as a Distinguished Lecturer for the IEEE CTSOC Society from 2019 to 2021. Currently, he chairs the International Telecommunication Union (ITU) Task Group on Child Online Protection in the Metaverse, contributing to global initiatives on digital safety of children. In 2025, he was awarded the '[Lifetime Achievement Award in Cybersecurity](#)' for his extraordinary contributions and their impact on society.

His detailed profile is available at <http://www.professorkhurram.com/>

Google Scholar: <https://scholar.google.com/citations?hl=en&user=99LlvYUAAAAI>

All Faculty, Researchers, and Students are invited to attend.



Computer Engineering Department, College of Computing and Mathematics

Telephone: +966 (13) 860 2110, Email: coe_dept@kfupm.edu.sa, Website: www.kfupm.edu.sa/departments/coe/

Copyright © 2014 King Fahd University of Petroleum & Minerals