

# From Research Lab to Social Impact: An Academic's Journey in Solving National Challenges through AI and Cybersecurity Innovation

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## Abstract

A next-generation academic should not be confined to classrooms or research labs. Today, universities must be at the frontier of solving society's most urgent challenges—whether in national security, critical infrastructure, public health, or ethical AI governance. In this talk, Dr. Rahman will reflect on his journey as an academic, researcher, and national collaborator who has designed and delivered AI and cybersecurity-powered solutions that have transformed real-world systems across multiple countries and sectors. While Dr. Rahman is serving as the current Chairman (He was also the Founding Chairman) of the Cybersecurity and Forensic Computing (CSFC) Department at the University of Prince Mugrin, Madinah, KSA — where he has the privilege to develop an internationally recognized program integrating AI and cybersecurity — his work extends well beyond academia. Dr. Rahman actively translates lab-based research into production-grade systems through academia-industry-government collaboration. Dr. Rahman's work extends far beyond academia into large-scale, production-grade deployments where AI and cybersecurity intersect to serve the public good. These projects—worth over 80 million SAR—demonstrate how academic research can become real-world solutions that enhance national security, public safety, ethical urban AI, and social resilience. They are built with compliance to global standards (ISO 27001, ISO 42001, NIST NICE, PDPL, SDAIA AI Ethics) while remaining deeply rooted in context-sensitive design. This talk offers a behind-the-scenes look at how impactful innovation happens when academia, government, and industry converge.

## Speaker: Dr. Mohammed Abdur Rahman

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Dr. Md. Abdur Rahman is Professor in the Department of Cyber Security and Forensic Computing, College of Computer and Cyber Sciences, University of Prince Muqrin, Madinah, KSA. He is also serving as the Research Executive, Research and Innovation, Saudi Information Technology Company (SITE), KSA. He obtained his Ph.D. and M.A.Sc. in Electrical and Computer Engineering from the University of Ottawa, ON, Canada.

Dr. Rahman has received the Best Researcher Award for the past 4 years. Dr. Rahman has received more than 80M SAR as research grants from funding bodies in Canada, UK, and KSA. Dr. Rahman is among the top 2% scientists in the world. He is the Founder Director of Science and Technology Unit (STU), University of Prince Mugrin. He is a

senior member in IEEE and ACM. His research interests include Self-Explainable and Trustworthy AI, OT/ICS Security, Security at the Cloud, Fog, and Edge, Adversarial Attacks and Defense Mechanisms of AI models, B5G/6G Security, AI-Assisted Smart city Solutions, Security and Privacy of AI Models.

**When:** Saturday, July 26, 2025 (4:00 PM - 5:00 PM)

**Where:** Graduate Seminar Room (ECE 503), Department of CSE, BUET

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