



British Embassy  
Kuwait



المركز الوطني للأمن السيبراني  
National Cyber Security Center

# cerc 2024

THE 6TH CYBERSECURITY EDUCATION & RESEARCH CONFERENCE

## Embedding Cybersecurity in Educational Curriculums and Professional Skill Enhancement



KUWAIT COLLEGE OF SCIENCE & TECHNOLOGY  
كلية الكويت للعلوم والتكنولوجيا



جامعة الكويت  
KUWAIT UNIVERSITY



UK Science  
& Innovation  
Network



125 عاماً من الشراكة الكويتية البريطانية  
125 YEARS OF KUWAITI-BRITISH PARTNERSHIP



**Dr. Shaheela Abdul Majeed**  
**Cybersecurity Specialist & Mentor**

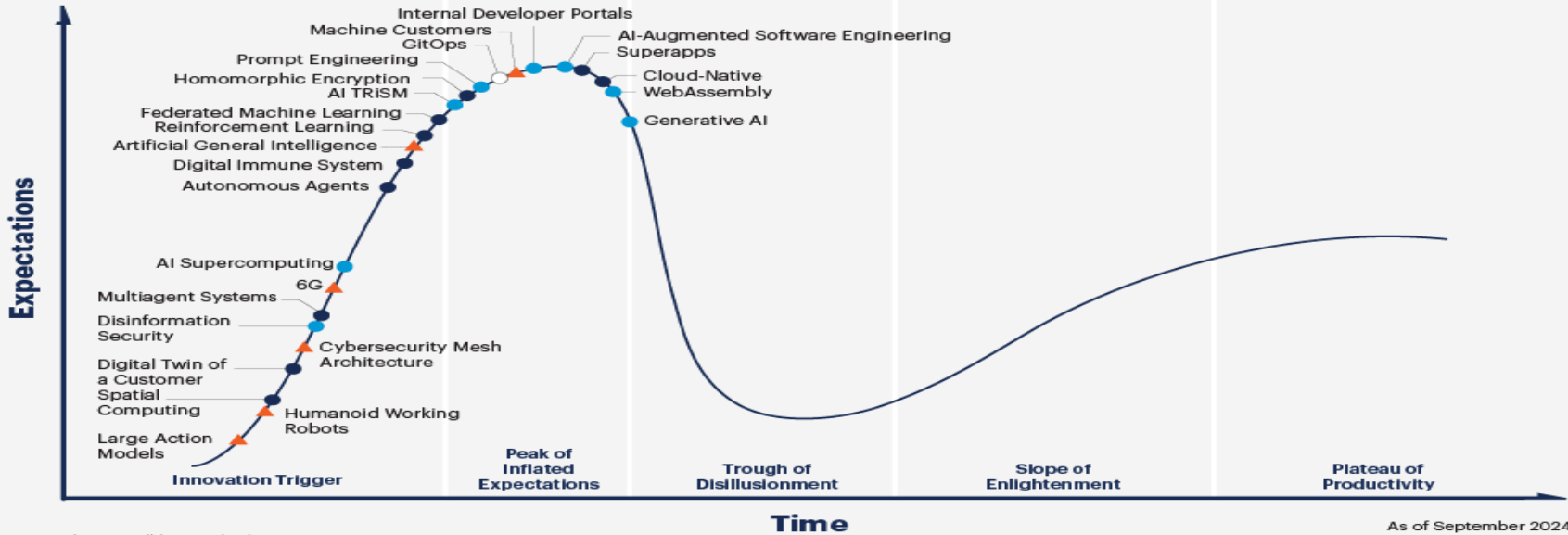
- Honored with the title of Cyber Woman of the Year 2024 in Kuwait
- 15 + years of experience in Vulnerability & Patch Management and Forensic Malware Analysis.
- Cyber Security Mentor in Cyberheals Ibbby Master Program



*"In an increasingly digital world, integrating cybersecurity into education isn't just an option—it's a necessity. Preparing students and professionals with cybersecurity knowledge equips them to protect not only their personal data but also the digital infrastructure that drives modern society."*

# Spotlight on 2024 Gartner Hype Cycle™ for Emerging Technologies

## Hype Cycle for Emerging Technologies, 2024



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# Why Cybersecurity Education is Crucial Today?

Rise in Cyber Attacks

Data Privacy & Protection

Digital Transformation

National and Global Security

Skills Gap

Growing Cybercrime Economy

User Awareness

Cybersecurity as a Foundation for Innovation

# Why ? Cybersecurity in Gen Z & Gen Alpha education

- Early education can build strong online safety habits
- Building Cybersecurity Awareness
- Critical Thinking and Problem-Solving / Teaches logical decision making in digital environment
- Responsible Digital Citizenship
- Understanding ethical use of technology
- Diverse Career Paths / Future-Ready Skills
- Growing Demand for Cybersecurity Professionals



# Professional Skill Enhancement



# Essential Cybersecurity Skills

## Core Skills

- **Network Security:** Safeguarding network infrastructure from unauthorized access.
- **Incident Response:** Identifying, managing, and recovering from cyber incidents.
- **Risk Assessment:** Evaluating vulnerabilities and implementing measures to mitigate risks.
- **Encryption & Cryptography:** Protecting sensitive data through advanced encryption techniques.

## Soft Skills

- **Communication:** Explaining complex security issues to non-technical stakeholders.
- **Problem-Solving:** Quickly addressing and resolving security incidents.
- **Collaboration:** Working with cross-functional teams to ensure comprehensive security measures.
- **Adaptability:** Staying flexible and prepared for rapidly changing attack strategies.

# Essential Cybersecurity Skills

## Advanced Cybersecurity Techniques

- ❑ **Ethical Hacking & Penetration Testing:** Identifying and exploiting vulnerabilities to strengthen defenses.
- ❑ **Forensics & Incident Analysis:** Understanding the root causes of breaches through digital forensics.
- ❑ **Automation in Cybersecurity:** Utilizing AI and machine learning to automate threat detection and response.
- ❑ **Cloud Security:** Securing cloud-based environments, an essential skill as businesses migrate to the cloud.

## Professional Certifications

- ❖ **Certified Information Systems Security Professional (CISSP):** Broad knowledge of cybersecurity practices.
- ❖ **Certified Ethical Hacker (CEH):** Expertise in penetration testing and vulnerability assessment.
- ❖ **Certified Information Security Manager (CISM):** Focus on managing and governing enterprise IT security.
- ❖ **CompTIA Security+:** Fundamental skills for beginning a career in cybersecurity.
- ❖ **Certified Cloud Security Professional (CCSP):** Specialization in cloud security practices.

# Cyber Security Career Options





Dr. Shaheela Abdul Majeed



**“As the world is increasingly interconnected, everyone shares the responsibility of securing cyberspace.” — Newton Lee**