Special Session on
Advancements and Emerging Trends in Cyber Security

Name and affiliation of organizers:

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Dr Niddal H. Imam received the Ph.D. in Computer Science (Cybersecurity) from the University of York. He is an assistant professor of Computer Science at SEU. His research area of interest is focusing on the intersection between cybersecurity and Machine Learning in social media platforms and Digital twins.

Dr Vassilios Vassilakis
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Dr Vassilios Vassilakis is an Associate Professor in Cyber Security at the University of York. He's been involved in EU, UK, and industry funded R&D projects related to the design and analysis of next generation networks and technologies. He's served as an Associate Editor in IEICE Transactions on Communications, IET Networks, and Optical Switching & Networking.

Scope of the session

With the advancement of new technologies, modern society is surrounded by various types of devices, networks, and services that offer Internet connectivity. These advancements provide a better lifestyle and the convenience of improved services and communications. However, this ubiquitous connectivity also introduces new security threats and exposes vulnerabilities in systems and networks, creating new avenues for attacks. The objective of this Special Session is to share recent advancements and emerging trends in cybersecurity, with a focus on a wide range of solutions, technologies, as well as novel attack vectors and methodologies for threat analysis.

Prospective authors are invited to submit original and unpublished work on the following research topics related to this Special Session:

- *Mobile networks and technologies*
- *Software-defined networks*
- *Digital twins*
- *Adaptive and autonomous systems*
- *Unmanned aerial vehicles*
- *Secure execution environments*
- *Online social networks*

- *Blockchain and distributed ledger systems*
- *Malware analysis and detection*
- *Industrial control systems*
- *Cyber-physical systems*
- *Generative artificial intelligence*
- *Smart devices and Internet of things*
- *Intelligent networking*