

# ECCWS 2023

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## Mini Track on 5G, Smart Grid Cybersecurity and Cyber-Ranges

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Deployments of 5G networks are spreading worldwide at a fast pace, introducing new models for network architectures, and enabling new ecosystems for the deployment of novel services and application. This will enable connection of millions of devices in consumer or industrial IoT applications, among which Smart Grids constitute one of the most important use cases.

Due to the importance of the application domains, as well as the reasonably recent supporting architecture for 5G, this domain will naturally increase the interest of malicious actors, providing fertile ground for many kinds of threats, such as malware, API/service-targeting attacks, data stealing, or ransomware, among many others, which are increasing daily. This situation requires the introduction of suitable intrusion detection, prevention and mitigation mechanisms but also to increase awareness through training and testing. This cannot be undertaken in production environments, calling for the development of realistic cyber-ranges to provide safe grounds for R&D activities.

"This mini-track, realized under the auspices of the P2020 POWER and Smart5Grid Projects intends to address these topics, encompassing all the relevant aspects that are involved in such domains."

Suggested topics include but are not limited to:

- Mechanisms for data collection to leverage edge computing models for the security of 5G/Smart Grid environments;
- Algorithms and techniques for security anomaly detection and protection in 5G/Smart Grid environments;
- Security of Machine-to-Machine (M2M) communications and network infrastructure security in 5G environments;
- Security (auditing, protection, reaction) for 5G/Smart Grid environments;
- Risk and interdependency modelling for 5G/Smart Grids;
- Threat lifecycle and profiling analysis for 5G/Smart Grids;
- Development of cyber-range and testbed environments for 5G/Smart Grid security R&D and training.



**Paulo Simões** received his Ph.D. degree in informatics engineering from the University of Coimbra (Coimbra, Portugal), in 2002. He is an Associate Professor in the Department of Informatics Engineering, University of Coimbra. His research interests include network and infrastructure management, security, critical infrastructure protection.

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### Submission Details

In the first instance, a 300–350-word abstract is required, submissions must be made using the online submission form at <https://www.academic-conferences.org/conferences/eccws/eccws-abstract-submission/>. If you have any questions about this track, please email: [psimoes@dei.uc.pt](mailto:psimoes@dei.uc.pt), [tjacruz@dei.uc.pt](mailto:tjacruz@dei.uc.pt)

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