ECCWS 2024

23rd European Conference on Cyber Warfare and Security
27-28 June 2024, University of Jyväskylä, Finland

Mini Track on Cybersecurity and the role of AI
Mini Track Chair: Christoph Lipps and Matthias Rüb, German Research Center for Artificial Intelligence – Intelligent Networks Research Department

Trust, integrity and reliability have always been the principles on which cooperation, the exchange of (trustworthy) information and the building of societies and systems are based. These were and are -to a big part- established, sustained and strengthened through personal bonds and experiences. Yet, in a globally connected world with Cyber-Physical Production Systems (CPPS), Industrial Internet of Things (IIoT) and Digital Twins (DTs), these personal relationships do not longer exist. (Remote) access to systems is possible from anywhere on the globe. Moreover, recent innovations in the availability of Artificial Intelligence (AI) methods and communications technology are accelerating this trend. In particular, since the availability of (cheap) computing power, Artificial Intelligence methods are becoming increasingly popular in the scientific community. Thereby, approaches such as Edge and Fog computation, Decentralized-, Machine-, Deep-, and Federated Learning, but also the acquisition, processing, and transmission of (sensitive) data are pushing the aspect of the security of the transmission, specifically the trustworthiness of the data and the AI models into the spotlight: Security becomes tremendously important.
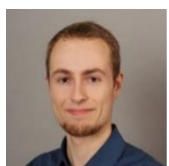
Therefore, this track focuses not only on AI-methods, security in (wireless) systems and mobile communications, as well as Trusted and Trustworthy AI, but encompasses all aspects of system security, including a holistic perspective, cyber resilience and the whole security lifecycle.

Topics of interest to this mini-track include but are not limited to:

- Artificial Intelligence - Security applications and threats
- AI-enabled Security
- Secure and Trusted AI & Trustworthy AI
- IoT and Sensor Networks
- Physical Layer Security
- AI in/for Beyond 5G & 6G Security

Christoph Lipps, graduated in Electrical and Computer Engineering at the University of Kaiserslautern, where he meanwhile lectures as well. He is a Senior Researcher and Ph.D. candidate at the German Research Center for Artificial Intelligence (DFKI) in Kaiserslautern, Germany, heading the *Cyber Resilience & Security* Team of the Intelligent Networks Research Department. His research focuses on Physical Layer Security (PhySec), Physically Unclonable Functions (PUFs), Artificial Intelligence (AI), Biometrics and Security in the Sixth Generation (6G) Wireless Systems.

Matthias Rüb graduated in physics at the University of Kaiserslautern. His fields of work included laser physics, molecular magnets, photoemission spectroscopy and ultrafast electron dynamics in 2D-materials. He works as a Researcher and Ph.D candidate at the German Research Center for Artificial Intelligence (DFKI) in Kaiserslautern. His topics of interest include Body-Area-Networks, Artificial Intelligence and security applications.

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: Christoph.Lipps@dfki.de; Matthias.Rueb@dfki.de

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