

## ICCWS 2023

**18th International Conference on Cyber Warfare and Security**  
**9 - 10 March 2023, Towson, Baltimore County, Maryland, USA**

### Mini Track on Physical Layer Security in Beyond 5G & 6G Wireless Systems

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Trust and integrity have always been the basis for relationships and interaction within societies. These were and are 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 no longer exist. (Remote) access to systems is possible from anywhere on the globe. Moreover, recent innovations in mobile communications, such as Beyond 5G (B5G) and the Sixth Generation (6G) of wireless systems, are accelerating this trend. However, this entails the need for technical solutions to detect, identify and recognize entities - people and machines - within networks, thus establishing an initial level of trust.

In particular, since the proliferation of appropriate use-cases, Physical Layer Security (PhySec) is becoming increasingly popular in the scientific community. Using systems' intrinsic information for security applications provides a lightweight but secure alternative to traditional computationally intensive and complex cryptography. PhySec is therefore not only suitable for the IIoT and the multitude of resource-limited and reduced capability (RedCap) devices, furthermore it also opens alternatives in terms of scalability and efficiency.

Therefore, this track focuses not only on mobile communications, but encompasses all aspects of system security, including a holistic perspective, cyber resilience and the whole security lifecycle. The topics include, but are not limited to:

- Beyond 5G & 6G Wireless System Security
- Physical Layer Security
- Physically Unclonable Functions
- Biometrics
- Cyber Resilience



**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. He is not only a member of the committee of the ICCWS and ECCWS, but also scientific committee member of various international conferences, and reviewer of several journals. His research focuses on Physical Layer Security (PhySec), Physically Unclonable Functions (PUFs), Artificial Intelligence (AI), entity authentication, Security in the Sixth Generation (6G) Wireless Systems and all aspects of network and cyber security.

#### Submission Details

In the first instance a 300-350 word abstract is required, to be received by the **31<sup>st</sup> August 2022**. Please read the guidelines at <http://www.academic-conferences.org/policies/abstract-guidelines-for-papers/>

Submissions must be made using the online submission form at <http://www.academic-conferences.org/conferences/iccws/iccws-abstract-submission/>

If you have any questions about this track please email: [Christoph.Lipps@dfki.de](mailto:Christoph.Lipps@dfki.de)

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