Workshop on 5G Security: Current Trends, Challenges and New Enablers

10 - 12 September 2020, Bangalore, India

CALL FOR PAPERS

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The 5G long term vision is to turn the network into an energy-efficient distributed computer that enables agile and dynamic creation, move and suppression of processes and services in response to changing customer demands and information flows, and supports interaction with humans through new communication modes, such as gestures, facial expressions, sound, haptics, etc. To make this vision a reality, a shift towards a full automation of network and service management and operation is a necessity.

However, a major challenge facing full automation is the protection of the network and system assets (i.e., services, data and network infrastructure) against potential cybersecurity risks introduced by the unprecedented evolving 5G threat landscape. Recent advances in Blockchain technology and Artificial Intelligence have opened up new opportunities in developing robust and intelligent security solutions. The fusion of 5G, Blockchain, Security and AI is anticipated to be the core technologies to realise digital transformation in the next decade.

Although work on security has been engaged throughout the successive phases of 5G-PPP Programme (e.g., 5G-ENSURE, CHARISMA, NRG-5) and some results were achieved, if not already adopted by Standards Developing Organizations (SDOs) in the field (e.g. 3GPP), addressing 5G security concerns is far from being completely resolved. Existing solutions suffer from a number of limitations.

The workshop is aimed at discussing the emerging 5G security in a holistic manner to understand the challenges, opportunities & standardization imperatives and define the way forward and immediate next steps to ensure ubiquitous adoption of 5G globally.

Within its scope, the workshop solicits research and industry papers identifying research and engineering challenges in 5G security on following topics but not limited to:

- Security, privacy and trust in 5G
- Blockchain technology for 5G networks
- Physical and MAC layer security for 5G networks
- Current and future trends in 5G security
- Testbeds for 5G in security
- AI-driven Software-Defined Security (SD-SEC)
- Architecture and secure protocols for 5G applications
- Standardization efforts and initiatives for 5G Security
- Smart security of future connective systems
- 5G communication security
- Zero-touch management (ZTM)
- AI/ML techniques in security for 5G networks
- Verticals' and standard's security requirements
- Trust and liability in 5G

Important Dates

Paper Submission Due: **June 17, 2020**
Acceptance Notification: **July 15, 2020**
Camera-Ready Submission: **July 31, 2020**

All submitted papers should follow the general paper guidelines of IEEE 5G-WF https://ieee-wf-5g.org.

Submissions accepted through:
https://edas.info/newPaper.php?c=26958&track=101406

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