# **Special Issue**

# Challenges and Remedies of IR4 Network Security

### Message from the Guest Editors

Security is never-ending, and the rule regarding its implementation is considered to be "trust no one". The age of artificial intelligence is a pathway paved with the aim of isolating legacy threat detection with the new "prediction" technique. Henceforth, let us ponder the innovation of next-generation strong network systems that can discover threats in advance, with the aim of protecting the world's security. Topics include, but are not limited to, the following:

- Al-powered network spike detection: learning models that can sense network threats in advance;
- Reinforced network security: machine-learned selfconstructing network systems;
- Next-generation sense systems: learn, predict and act out characteristics and behavior of network threats;
- Case studies on network traffic-based threat effectiveness and countermeasures using AI/ML techniques;
- Network tampering and tamper resistance;
- Creating Al-based network systems to pathway the quantum network;
- Reverse engineering and countermeasures for network threats;
- Creating secured network integrations with higher level software, firmware and microarchitectures.

Welcome to contribute!

### **Guest Editors**

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### Deadline for manuscript submissions

closed (30 June 2023)



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### About the Journal

### Message from the Editor-in-Chief

Network provides full coverage of all topics of interest involved in the networking area. The purpose of this journal is to bring together researchers, engineers, and students from academia and industry to present novel ideas and solid research about the theoretical and practical aspects in the application domains of communications and networks. The primary focus of the journal is on the analysis, modeling, design, simulation, and implementation of networks. This journal will also serve to attract research concerning applying networking architectures and scenarios to emerging research topics such as Internet of Things (IoT), edge computing, distributed ledger technology, among others.

### **Editor-in-Chief**

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