Special Issue

Emerging Issues in Hardware and IC System Security

Message from the Guest Editor

Recently, there has been a significant increase in attacks targeting hardware and its supply chains. These threats have revealed shortcomings in our current solutions. Despite decades of threat analysis, modeling, and prevention efforts, we continue to face challenges in defending against innovative adversaries. This Special Issue aims to solicit novel contributions from the fields of hardware and systems security that expose emerging threats, investigate practical threat models, explore novel hardware defenses, or automate the analysis of solutions. We welcome papers addressing (but not limited to) the following topics of interest:

- Side-channel and fault injection attacks, as well as their countermeasures;
- Cryptographic hardware and reconfigurable-based obfuscation;
- Hardware security primitives;
- Security of heterogeneous chiplets;
- Secure CAD tools and zero root-of-trust;
- Hardware fuzzing;
- Security-oriented hardware design;
- Security for CPS (Cyber-Physical Systems) and IoT (Internet of Things) devices;
- AI/ML (Artificial Intelligence/Machine Learning) hardware security.

Guest Editor

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

Chips is a new journal with the aim to become a leading reference on all aspects of the IC domain. The journal is devoted to publishing rigorously peer-reviewed articles (such as original research, reviews, and communications) with the specific target to disseminate novelties in terms of research and knowledge as well as the most advanced state of the art on IC technologies, design, testing, and production. The journal offers the opportunity to actively spread new concepts and advancements in the IC domain and its increasing interrelated and multidisciplinary areas in a timely manner. More specifically, the journal will cover chip design, including CAD tools, chip production, and their wide spectrum of applications.

Editor-in-Chief

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