

## Special Issue

# IoT Security and Emerging Technologies

### Message from the Guest Editors

IoT security research often treats vulnerabilities in isolation, yet real attacks exploit cross-layer gaps, from weak firmware updates to compromised edge nodes. As deployments grow, failures can cascade. Key challenges include AI-driven security, post-quantum protection, zero-trust design and resource limits. This Special Issue seeks contributions that advance system-level resilience and practical strategies for next-generation IoT security. Topics include, but are not limited to:

- Energy-efficient and secure IoT systems using AI-driven optimization
- Agentic AI for autonomous IoT security management
- Security challenges in large-scale IoT deployments
- Data privacy in IoT ecosystems
- IoT network attacks and defenses
- Automated compliance for IoT/OT devices
- Automated recovery orchestration using IoT
- Secure boot and firmware update mechanisms in IoT
- Post-quantum cryptography and IoT
- Regulatory and compliance challenges in IoT security
- Federated and machine learning for privacy-preserving IoT security
- Zero-trust architecture for IoT environments
- Edge computing security for IoT systems
- Healthcare IoT (IoMT) security and data protection
- Digital forensics in IoT ecosystems

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### Guest Editors

Dr. Nabeel Khan

School of Computer Science, University of Birmingham, Dubai International Academic City, Dubai P.O. Box 341799, United Arab Emirates

Dr. Mastaneh Davis

School of Computing, Engineering and the Build Environment, University of Roehampton, London SW15 5PH, UK

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### Deadline for manuscript submissions

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## Electronics

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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