Special Issue

Next-Generation Cybersecurity Solutions for Cyber-Physical Systems

Message from the Guest Editors

In an era where technology intersects with every aspect of daily life, the security of cyber-physical systems has become paramount. These systems, which integrate computing, networking, and physical processes, are the backbone of critical infrastructure, manufacturing, healthcare, and more. The Special Issue, entitled 'Next-Generation Cybersecurity Solutions for Cyber-Physical Systems', seeks to explore innovative security strategies that leverage the latest advancements in technology to protect these essential systems from evolving threats. Below are examples of suggested topics that would fit well with the theme of the Special Issue:

- AI-enhanced security protocols in CPS;
- Blockchain for secure CPS communications;
- Blockchain-enabled identity & access management in Cyber-Physical Systems;
- Quantum-resistant cryptography in CPS;
- Quantum machine learning for enhanced threat prediction in CPS;
- Federated learning for distributed security in CPS;
- Privacy preservation through federated learning in CPS;
- Machine learning-based anomaly detection in CPS;
- Secure IoT integration in CPS;
- Automated defense mechanisms in CPS;
- Automated and AI-driven security solutions in CPS.

Guest Editors

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Message from the Editor-in-Chief

Automation (ISSN 2673-4052) is a international peer-reviewed open access journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of automation and control system. Both experimental and theoretical papers are published, including all aspects of manufacturing systems, energy management systems, aerospace control systems, micro- and nano-systems, learning systems, intelligent control systems and so on. Automation organizes Special Issues devoted to specific automation and controlling areas and applications each year.

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