

Special Issue

AI-Driven Threat Detection and Resilience in Cyber-Physical Systems

Message from the Guest Editors

Cyber-Physical Systems (CPSs) are becoming increasingly intelligent and complex due to the integration of artificial intelligence (AI), Internet of Things (IoT), and distributed computing architectures. On the one hand, this increases their efficiency and functionality, but on the other hand, it exposes them to new, sophisticated, and difficult-to-detect security threats.

We invite the submission of original and review papers focused on the following areas:

- Intelligent threat detection mechanisms in CPSs and IoT;

- Using AI/ML/DL to protect industrial infrastructure and SCADA;

- Cyber resilience and autonomous responses to threats;

- CPS security in the automotive, energy, medicine, and robotics domains;

- Edge AI and security in distributed architectures;

- Formal methods and hybrid models for secure CPS design;

- Explainable AI in the context of critical systems security;

- Integration of cybersecurity and functional security (cyber-physical safety-security co-design).

Guest Editors

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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