



## Advances in Attack Detection and Secure State Estimation for Cyber-Physical Systems (CPS)

Guest Editor:

**Dr. Anyang Lu**

College of Information Science  
and Engineering, Northeastern  
University, Shenyang 110819,  
China

Deadline for manuscript  
submissions:

**31 August 2024**

### Message from the Guest Editor

Cyber-physical systems (CPS) are sophisticated networks that integrate computational and physical elements, enabling a seamless interaction between digital and real-world environments. Attack detection is crucial as it enables the early identification of any cyber threats or malicious activities aimed at disrupting the normal operation of CPS. On the other hand, secure state estimation is the process of accurately assessing the current state of the system while ensuring its confidentiality and integrity. They are both essential in CPS. The aim of this Special Issue is to create a focused platform for discourse and progress surrounding the enhancement of attack detection and secure state estimation in cyber-physical systems (CPS). We seek to propel the development and application of innovative methodologies, ensuring the security and safety of CPS against evolving cyber threats.

### Keywords

cyber-physical systems; attack detection; attack identification; secure state estimation; cyber attacks; data integrity; data security





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)