# **Special Issue**

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

# 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

### **Guest Editor**

Dr. Anyang Lu

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

# Deadline for manuscript submissions

20 September 2025



# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/176609

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 applsci@mdpi.com

mdpi.com/journal/applsci





# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



# **About the Journal**

# 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 multidimensional network.

# Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

## **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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

