

Special Issue

Safe Autonomy and Secure Operation in Cyber–Physical and Unmanned Systems: Attack-Resilient Perception, Planning and Control

Message from the Guest Editor

Cyber–physical systems (CPSs) are sophisticated networks that integrate computational and physical elements, enabling seamless interaction between digital and real-world environments. Due to their growing role in vital infrastructures, from healthcare to transportation, researchers in various sectors have become increasingly interested in them. Attack detection is crucial, as it enables the early identification of any cyber threats or malicious activities aimed at disrupting the normal operation of CPSs. Additionally, secure state estimation is equally essential in CPSs. 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 (CPSs).

Cyber–physical and unmanned systems (UAS/UGV/USVs) are rapidly transitioning from controlled pilots to safety-critical deployments in logistics, inspection, mobility, and public infrastructure. We invite work that bridges system security and safe autonomy, targeting end-to-end resilience across sensing, estimation, perception, decision-making, control, and verification.

Guest Editor

Prof. Dr. Anyang Lu

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

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

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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

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

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