# IEEE Conference on Industrial Cyber-Physical Systems (ICPS)

**Perth, Australia, 11-14 May 2026**

**https://icps2026.ieee-ies.org/**

## Proposal for an ICPS 2026 Special Session

- **Title of the proposed Special Session:**

  **Distributed Control, Learning and Optimization of Cyber-Physical Systems**

- **Names, photos, very short bios, and emails of the organizers:**


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- **Technical outline and topics of the special session:**

Cyber-physical systems (CPS) range from networked multi-agent systems and connected vehicle systems to power grids and large-scale industrial systems, and they form a cornerstone of future industrial infrastructure. However, methodologies for distributed control, learning, and optimization in CPS are still far from mature and deserve significant attention. In this special session, we encourage researchers and industrial practitioners to contribute new theories and design methods for control, learning, and optimization in CPS.

Topics:

- *Optimal control of cyber-physical systems*
- *Distributed control of cyber-physical systems*
- *Online learning method of cyber-physcial systems*
- *Distributed optimization and planning of cyber-physical systems*

- *Cyber-physical systems application, including networked vehicles systems, swarm systems, smart grid, building energy-supply systems*
- *Estimation and optimization of cyber-physcial systems*
- *Security of cyber-physical systems*

- **Technical track(s) with similar topics (clearly point out difference to the Track scope)**
  *T06 - ICPS Advanced Modeling, Control, and Optimization (In comparison with T06, the current special session is more focused on the distributed control, learning and optimization of CPSs. In addition, the special session includes the applications and security of the CPSs)*

- **IES Technical Committees supporting the special session (if any)**
  **IEEE IES ICPS**

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- The proposers have read and adhere to the overall IEEE IES Special session conditions as shown on the website https://icps2026.ieee-ies.org/for_authors/index.html#call-for-special-sessions: YES