

Special Session: Tools and Methodologies for Real-time CPS Test Bed and Implementation

Real-time and in-situ data acquisition should offer better tools to improve decision making process. There is great potential to revolutionize the management of all applications via CPS with development of powerful tool. Computing technologies offer a wide range of tools and methodologies to understand, address and communicate respective areas on sustainability challenges.

This special session is emphasized to include multidisciplinary nature of emerging topics out of CPS, covering both theoretical, design and implementation, while also providing insights on existing deployments that can serve as design examples for some new applications. The high-quality submissions needs to explore new directions in the design, development of novel theories, methodologies, analysis, experimental evaluations, tools, and case studies demonstrated on CPS test-bed (hardware-in-loop test).

The theme of proposed special session is linked to IEEE IES technical committee on Industrial Cyber-Physical Systems.

Details on the conference website: https://icps2024.ieee-ies.org/index.html

Topics for this special issue include CPS demonstration on test bed (in various applications), but not limited to followings:

- Design for digital representations, future CPS with more sustainability and resiliency
- Multilayer CPS supervision framework
- CPS integration- interoperability among subsystems
- Real-time techniques for data collection, automated impact evaluation and supporting communication network for data share
- Tools development and techniques based on different theories; cognitive, big data, machine learning, collaborative learning, fog computing etc.
- Cyber security in different applications
- Communication network for CPS operation in terms of reliability, security and resiliency.
- Case studies demonstrating the reliability and sustainability of a given application in CPS implementation
- Human-robot interaction for end-users.

Publication opportunity:

Accepted and presented papers will be copyrighted by IEEE and published in conference proceedings, which will be eligible for inclusion in the IEEE Xplore online Digital Library and El Compendex database.

A number of Special Sections in leading IEEE Journals such as TII, TICPS, OJIES and JESTIE, elaborating conference topics will be generated after the event. Authors of accepted papers, with excellent reviews, will be invited to submit an improved version of their papers for further consideration.

Deadline Paper Submission Deadlines: https://icps2024.ieee-ies.org

Please indicate in your submission that you desire your paper to be included in this special session. For any issues, please contact **Nand Kishor** or **Avinash Kumar**.

Special session organisers:

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