

# Workshop on Co-Design of Communication, Computing, and Control in Cyber-Physical Systems (CoC3CPS)

SafeComp 2025, Stockholm, Sweden, September 9<sup>th</sup>, 2025

We are pleased to announce a call for papers for the Co-Design of Communication, Computing, and Control in Cyber-Physical Systems (CoC3CPS) workshop, to be held in conjunction with SafeComp 2025. This full-day workshop aims to bring together researchers, experts, and practitioners from diverse communities such as communication, networking, computing, control, robotics, safety engineering, and more, to discuss and find synergies in the topics related to co-design.

The complexity and sophistication of modern systems necessitate a holistic and integrated approach to system design and development. The CoC3CPS workshop focuses on the co-design methodology, exploring the integration of communication, computing, and control to achieve optimal performance, efficiency, and functionality. Topics of interest include, but are not limited to:

- Algorithms for communication, computing, and control co-design in next-generation industrial systems
- Co-design methodologies for safe and dependable system architectures
- Dependable communication design for 5G and 6G cellular networks
- Methodologies for efficient resource orchestration, sharing, provisioning, and management in Cloud Fog Automation
- Safety, security, resilience, and privacy aspects of solutions across domains
- Data-driven methods for modelling and decision making in Cyber-Physical systems
- Privacy-preserving machine learning methods, such as federated learning

The workshop will consist of a keynote speech, presentations by experts in the field, a panel discussion, and paper presentations. We invite leading researchers and practitioners from academia and industry to submit original research contributions, work-in-progress reports, and case studies related to the topics of interest.

Reports on European or national research projects (as part of the required dissemination) as well as industrial experience reports from work in progress are most welcome.

**All papers will be reviewed by at least three reviewers. Workshop proceedings** will be provided as complementary book to the SAFECOMP Proceedings in **Springer LNCS. Papers (6 - 12 pages)**. Please keep your paper format according to SPRINGER LNCS style guidelines (<http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0>).

Submission will be via EasyChair: <https://easychair.org/conferences/?conf=coc3cps2025>

## Deadlines:

- **Full paper submission:** 5 May 2025
- **Notification of acceptance:** 19 May 2025
- **Camera-ready submission:** **10 June 2025**
- **Workshop:** **9 September 2025**

## **Organizing Committee:**

- Fernando dos Santos Barbosa, Ericsson Research, Sweden
- David Umsonst, Ericsson Research, Sweden
- Maryam Sharifi, ABB, Sweden
- Mohammad H. Mamduhi, University of Birmingham, UK
- Nikolaj Marchenko, Bosch, Germany
- Truls Nyberg, Scania, Sweden

All questions about submissions should be emailed to “coc3cps (at) easychair (dot) org”