CALL FOR PAPERS - SPECIAL SESSION
"Enhanced Control Strategies for Teleoperation Systems"
for CODIT 2025
July 15-18, 2025 ▪ Split, Croatia

Session Co-Chairs:

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Session description:

This special session addresses the challenges involved in the design, analysis, and implementation of control systems for teleoperation applications. Over the past decades, various teleoperation systems have been developed to enable human operators to perform tasks in remote or hazardous environments. This session aims to explore advanced control strategies that ensure the stability, transparency, and reliability of teleoperation systems, with a particular focus on the latest developments in control techniques and machine learning-based approaches. Unlike previous literature, recent proposed control methods effectively address the discrete nature of communication channels in teleoperation systems.

The goal is to present innovative solutions and discuss future trends that contribute to the advancement of teleoperation systems across a wide range of applications, such as space exploration, medical robotics, and disaster response. Additionally, the session aims to provide guidelines for designing stable and more transparent teleoperation systems while highlighting recent contributions in this area. The topics of interest include, but are not limited to:

- Teleoperation Systems
- Telemedicine and Telesurgery
- Tele-Robotics
- Haptic and Force Feedback
- AI and Machine Learning Based Control Strategies for Teleoperation
- Fault Tolerance in Teleoperation
- Virtual Reality in Teleoperation
- Networked Control Systems
- Distributed Control and Multi-Sgent Systems in Teleoperation

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 07, 2025:** http://controls.papercept.net/conferences/scripts/start.pl. In PaperCept, click on the **CoDIT 2025 link "Submit a Contribution to CoDIT 2025" and follow the steps.**

IMPORTANT: All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

DEADLINES

February 07, 2025: deadline for paper submission

April 27, 2025: notification of acceptance/reject

May 17, 2025: deadline for final paper and registration