

CALL FOR PAPERS - SPECIAL SESSION

“Advanced Control Techniques for Teleoperation Systems”

for CODIT 2023

July 03-06, 2023 ▪ Rome, Italy

Session Co-Chairs:

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Session description :

During the last decades, various teleoperation systems have been developed to allow the human operators to perform tasks in remote or hazardous environments. Teleoperation systems have been used for a number of various tasks, e.g., handling harmful or toxic materials, operating in remote areas such as telesurgery, and space explorations, and performing tasks that require extreme precision. Several continuous-time control schemes have been reported in the literature to provide the asymptotic stability of teleoperators despite the constant or variable time delays. Besides stability, the teleoperation system must be completely “transparent”.

In spite of previous literature, recent proposed control methods can also handle the communication channel discrete nature, and its practical issues (e.g. packet-loss, and data-swap). As the stability of the experimental teleoperation systems needs further arguments, this session is devoted to the recent advancements in designing controllers for teleoperation systems. The main goal is to provide guidelines to design stable and more transparent teleoperation systems and notifying recent contributions in this area. The topics of interest include, but are not limited to:

- Teleoperation Systems
- Tele-medicine And Telesurgery Systems
- Tele-Robotics
- Aerial Exploration
- Multi-agent Systems
- Haptic and Force Feedback
- Application of Virtual Reality
- Interactive Human-Robotic Exploration
- AI and Machine Learning Based Control Strategies for Teleoperation Systems

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **January 27, 2023**:

<http://controls.papercept.net/conferences/scripts/start.pl>. In PaperCept, click on the **CoDIT 2023 link** “Submit a Contribution to CoDIT 2023” 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

January 27, 2023: deadline for paper submission

April 15, 2023: notification of acceptance/reject

May 20, 2023: deadline for final paper and registration