



**IEEE SMC'19**  
**October 6-9, 2019 – Bari, Italy**

**SPECIAL SESSION ON**  
**“Shared Control under the Human Factors Loop”**

**SPECIAL SESSION CODE**  
**vj8gp**

**Session Organizers:**

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**Session area: Human-Machine Systems**

**Session description**

The principle of shared control has established itself as a design approach for human-machine cooperation. Contrary to the idea of replacing humans by technology, the central concept of shared control consists in joining the reliability, repeatable precision, speed and availability of a technical system with the ability of humans to adapt and to perform unstructured and/or unfamiliar tasks. Hence, the vision of shared control is to optimally combine the strengths of both humans and the technological world. Research in a wide field of application domains (driving, flying, wheelchair control, tele-operation, etc.) has confirmed the benefits shared control can entail. Now that our community has shared insights into when and where and how shared control offers benefits over alternative approaches, it is time to ask ourselves some of the hard questions that Human Factors practitioners have for us. In this special session, we want to therefore draw attention to three key questions in particular: i) Does shared control establish better calibrated trust in the system’s situated capabilities than alternative approaches?, ii) How do we construct fair and honest comparison between systems with different levels of human involvement?, and iii) Is there a role for shared control when full automation is possible? Authors submitting to the special session are asked to address one or more of these questions in their papers. Consistent with the focus of the successful sessions of the last years, we particularly encourage papers that focus on the design and/or evaluation of shared control systems both on an experimental and theoretical basis.

**Keywords**

- Shared Control
- Human-Machine Cooperation
- Human Machine Systems
- Human Factors

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## **SUBMISSION**

Papers must be submitted electronically for peer review through PaperCept by **March 31, 2019**: <http://controls.papercept.net/conferences/scripts/start.pl>. In PaperCept, click on the **SMC 2019 link** **“Submit a Contribution to SMC'19” and follow the steps.**

All papers must be written in English and should describe original work. For guidelines, please follow the the SMC website link [http://smc2019.org/information\\_for\\_authors.html](http://smc2019.org/information_for_authors.html)

## **DEADLINES**

March 31, 2019: deadline for paper submission

June 7, 2019: notification of paper acceptance/rejection

July 7, 2019: deadline for final camera-ready papers.