

# http://www.smc2012.org/ Special Session Call for Papers SMC 2012 Special Session on Shared Control

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### **Introduction/Call for Papers**

Automation is intuitively likened to the substitution of task execution by humans with task execution by a machine. This has, for a large period of time, indeed been the reality of automation engineering. However, the advances in automating complex systems (aircraft, power plants, traffic management systems, etc.) have shown that the human operator remains an invaluable part in the control of these systems.

Over the past decades the principles of shared control have been gaining interest in the research and engineering community as a design approach that integrates the best of both worlds: the fast, reliable, precise and inexhaustible task execution capabilities of automation and the complementary inventive, adaptive and interactive task execution skills of humans. Although recent research has shown that shared control can enhance the capabilities of both human and automation in a wide variety of applications (driving, flying, wheelchair control, tele-operation of robots, etc.), there is not much consensus on how to design or particularly how to evaluate such systems.

Prospective authors are invited to submit original papers to the Special Session. We particularly encourage papers that focus on the design and/or evaluation of shared control systems.

We would also like to encourage prospective authors to actively participate in an accompanying workshop, which we are organising to be co-located at SMC 2012. The workshop will focus on defining community principles for the design and evaluation of Shared Control systems. Please contact the organizers if you're interested.

### **Indicative Topics/Areas**

Haptics and Teleoperation; Adjustable Autonomy; Assistive Technology; Brain-Machine Interface Systems; Human Centered Design; Human-Machine System Design; Intelligent Vehicle Technology; Cyber Technology; Prosthetics; Human Factors

### **Important Dates**

April 15, 2012: Deadline for submission of full-length papers to special sessions. June 15, 2012: Acceptance/Rejection Notification. July 31, 2012: Final camera-ready papers due in electronic form.

### Submission

Please contact the Special Session organizer for arrangement of submission in the first instance. Manuscripts for a Special Session should NOT be submitted in duplication to any other regular or special sessions and should be submitted to SMC 2012 main conference online submission system on SMC 2012 conference website.

All submitted papers of Special Sessions have to undergo the same review process (three completed reviews per paper). The technical reviewers for each Special Session paper will be members of the SMC 2012 Program Committee and qualified peer-reviewers to be nominated by the Special Session organizers.