

Special Session

Code: 8i64u

Title

Human Machine Interfaces and Haptics

Proposer / Main Organizer

Main Organizer:

Prof. Saeid Nahavandi
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Bio: Saeid Nahavandi received a Ph.D. from Durham University, U.K. in 1991. He is an Alfred Deakin Professor, Pro Vice-Chancellor (Defence Technologies), Chair of Engineering, and the Founding Director for the Institute for Intelligent Systems Research and Innovation at Deakin University. His research interests include modeling of complex systems, robotics and haptics. He has published over 950 papers in various international journals and conferences. He is a Fellow of the Australian Academy of Technological Sciences and Engineering (FTSE), Fellow of IEEE (FIEEE), Fellow of Engineers Australia (FIEAust), and a Fellow of the Institution of Engineering and Technology (FIET). He is the Co-Editor-in-Chief of the IEEE Systems Journal, Associate Editor of IEEE Transactions on Cybernetics and an IEEE PRESS Board member. Previously he served as Associate Editor of the IEEE/ASME Transactions on Mechatronics, Associate Editor of the IEEE Transactions on Systems, Man and Cybernetics: Systems and Board member for IEEE Access.

Other Proposers:

- Dr. Edward Tunstel, Motiv Space Systems Inc., USA, E-mail: tunstel@ieee.org
- Prof. Rodney Roberts, Florida State University, E-mail: rroberts@fsu.edu
- Prof. Honghai Liu, The University of Portsmouth, E-mail: honghai.liu@port.ac.uk

IEEE Member or SMC Society Member

SMC Society Member, Robotics and Intelligent Sensing Technical Committee

Category

Systems Science and Engineering

Number of Expected Paper Submissions:

6 or more

Keywords

- Robotic Systems
- Human-Machine Interface
- Human-Machine Cooperation and Systems
- Virtual and Augmented Reality Systems
- Haptics
- Tele-robotics
- Tele-presence

Brief Description and Justification (200-250 words):

Research in the areas of haptics, virtual reality and augmented reality has recently seen great progress, and made significant contributions to the related science, technology, and application domains. In parallel, significant progress has been made on research and development yielding a variety of component technologies for tele-robotics, tele-presence and tele-haptics that enable more complex and capable robotic and /or unmanned systems. This special session will report research results in the field of human machine interfaces and haptics systems, including as applied to robotics and intelligent sensing including relevance to the conference theme – “Integrating real world, virtual models, and society.” This special session will provide the opportunity for researchers from academia, industry, and government to present their latest work, share ideas and establish contacts with other researchers in their field.