

Special Session

Code: 2394j

Title

Interactive and Wearable Computing and Devices

Proposer / Main Organizer

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IEEE Member or SMC Society Member

Main Organizer is IEEE SMCS Member

Category

Please select one of the following categories:

- Human-Machine Systems*

Number of Expected Paper Submissions:

6

Keywords

- Wearable Computing*
- Interactive Design Science and Engineering*

- *Human-Machine Cooperation and Systems*
- *Human Performance Modeling*

Brief Description and Justification (200-250 words):

Add a short description (200 to 250 words).

Interactive devices refer to any physical and tangible entity with which both human users and other devices or machines can interact. Special focus is on those devices that human users can wear, such as smart watches, health monitoring electronics, smart glasses, head mounted stereo display, exoskeletons, body worn sensors, etc. An interactive and wearable device usually provides multimodal interfacing, sensory, and/or even actuating/motoring capabilities in addition to wearability, smartness, data input, communication and data recording and analysis. There are many potential applications, particularly in healthcare, wellness, consumer electronics, entertainment, Smart-* (home, buildings, factory, port, city) and military. With the recent availability of products on the market, such as Google Glasses, Apple iWatch, Shimmer wearable sensors, and many other more, interactive and wearable devices continue to attract the interest of both research communities and industry sectors and are expected to grow rapidly on the horizon. Interactive and wearable devices coupled with computing and systems is very multi-disciplinary and the research frontiers. This Special Session aims at advancing the state-of-the-art and prompting the research, development, and innovative applications of interactive and wearable computing and devices. Prospective authors are invited to submit original papers to the Special Session in the areas described below.

- Intelligent user interfaces
- Multimodal interaction
- Emotion recognition and prediction
- Smart sensors and actuators
- Body area networks
- Mobile and wearable computing
- Affective computing
- Human-machine systems
- Communications
- User safety
- Security and privacy

This special session is organized by the IEEE SMCS TC on Interactive and Wearable Computing and Devices. This special session was launched in IEEE SMC 2016.