Call for paper
Special Session on Intelligent Human-Centred Computing

Special Session Organizer

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Introduction

In recent years, scientific research with special focus on human functioning such as cognitive science, bio-psychology, neuroscience, and biomedical sciences have made substantial progress in providing an increased insight in the various physical and mental aspects of human functioning through the development of a number of models. Within these approaches, it opens new opportunities towards the development of personalized and human-centred computing. For example, an intelligent companion agent or robot in our reading room may monitor us and warn us when we are falling into cognitive stress or need some rest. As another example, an elderly person may wear a device with intelligent software that monitors his or her wellbeing and generates a warning or support when a dangerous situation is noticed. The special session can play an important role, for example, to get software developers, researchers, and designers in the bio-psychological, computer science, electronic engineering disciplines interested in human-centric application as a high-potential application area for further developments in their disciplines. As part of the interaction, specifications may be generated for experiments to be addressed by the human-oriented with heavy implementation in computer science.

Objectives and Topics

The proposed special session will address multidisciplinary aspects of data enabled technology and smart applications with human-directed disciplines such as psychology, social science, neuroscience and biomedical sciences. Furthermore, this special session offers an opportunity for researchers and practitioners to identify new promising research directions as well as to publish recent advances in this area. The scope of IHCC includes, but is not limited to the following topics:

- Smart environments (e.g; room, building)
- Human-Computer/ Robot Interaction
- Human/ Social-aware computing
- Cognitive agent models and systems
- Wearable computing / devices for health and wellness monitoring
- Brain-computer interfacing
- Usability engineering
- Analysis and design of applications to care for humans in need of support for physical and mental health

- Virtual communities
- Computer simulation in human-oriented applications
- Smart car / devices for daily usage
- Analysis of human-related sensor information (bio-signals)
- Evaluation studies
- Handling aspects of privacy, security and ethics.
- Technology for special needs
- Social networks analysis
- Digital therapy

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