

Call for Papers

Special Issue on

Pattern Recognition in Human-Computer-Interaction

to be published in the *Pattern Recognition Letters Journal*

***** New Submission deadline: February 20, 2014 *****

~~*** Submission deadline: December 1, 2013 ***~~

Building intelligent artificial companions capable to interact with humans in the same way humans interact with each other is a major challenge in affective computing. Such a type of interactive companion must be able to perceive and interpret multimodal information about the user in order to be able to produce an appropriate response. The proposed special issue mainly focuses on pattern recognition and machine learning methods for the perception of the user's affective states, activities and intentions.

Topics of interest include (yet, they are not limited to) the following issues.

A. Algorithms to recognize emotions, behaviors, activities and intentions

- Facial expression recognition
- Recognition of gestures, head/body poses
- Audiovisual emotion recognition
- Analysis of bio-physiological data for emotion recognition
- Multimodal information fusion architectures
- Multi Classifier Systems and Multi View Classifiers
- Temporal fusion

B. Learning algorithms for social signal processing

- Learning from unlabeled and partially labeled data
- Learning with noisy/uncertain labels
- Deep learning architectures
- Learning of time series

C. Applications

- Companion Technologies
- Robotics
- Assistive systems

D. Benchmark data bases

This special issue invites paper submissions on the most recent developments in human computer interaction research rooted in pattern recognition. The special issue will comprise (1) papers submitted in response to this call, and (2) extended versions of selected papers from the recent, successful MPRSS 2012 and MPRSS 2013 workshops sponsored by the International Association for Pattern Recognition.

MPRSS 2012: November 11, 2012 Tsukuba, Japan <http://neuro.informatik.uni-ulm.de/MPRSS2012/>

MPRSS 2013: June 15, 2013, Lausanne, Switzerland, <http://neuro.informatik.uni-ulm.de/MPRSS2013/>

Paper submission

The papers must be submitted online via the Pattern Recognition Letters Journal website (<http://ees.elsevier.com/patrec/>), selecting the choice that indicates this special issue (identifier: PR-HCI). Please, prepare your paper following the Journal guidelines for Authors (http://www.elsevier.com/wps/find/journaldescription.cws_home/505619/authorinstructions), which include specifications for submissions aimed at Special Issues. Priority will be given to the papers with high novelty and originality.

Submission templates (for both LaTeX and MW Word users) are available and it is mandatory that submissions are prepared by using these templates. Potential contributors will find the templates in the guidelines for Authors in the PRLetters webpage.

Submissions to the SI can be **at most 10 pages long** (in the PRLetters layout). This is different from what has been done until a few weeks ago, where Word/Figure-/Table counting was done at EES to check whether a paper had been prepared according to the rules or had to be sent back to Authors for editing. Now only page counting is done at the EES ASA department and papers longer than 10 pages will be sent back to Authors to shorten them.

If you are not sure on whether your manuscripts matches the aims and scope of this special issue or not, do not hesitate to get in touch with the guest editors at any time.

Guest editors

Friedhelm Schwenker (Managing Editor)
Institute of Neural Information Processing
Ulm University, Germany
friedhelm.schwenker@uni-ulm.de

Stefan Scherer
Multimodal Communication and Computation Laboratory
Institute for Creative Technologies
University of Southern California
scherer@ict.usc.edu

Louis-Philippe Morency
Multimodal Communication and Computation Laboratory
Institute for Creative Technologies
University of Southern California
morency@ict.usc.edu