

Workshop proposal:

Affect-aware Human-Computer and Human-Robot Interaction

1. WORKSHOP DESCRIPTION

Recent research results in the area of multimodal interfaces have been focusing on the development of natural, adaptive and intelligent interfaces enabling machines and robots to communicate with humans in ways close to human-to-human interaction. Natural interfaces, catering for visual, speech, and gestural input and human-like interface agents and robots are the two main characteristics of the dominant approaches; in terms of theoretical definition, such interfaces are beginning to take into account emotion representation theories and definitions of virtual personalities. As a result, systems are developed which take into account user expressivity and have robust natural multimodal interaction capabilities.

In addition to computer systems, affect-aware robotic platforms are currently emerging even into the consumer market. Not long ago, the social impact of these products in everyday life was largely unknown. However, with the advent of low-cost robots, able to receive, transmit and process visual, motion and sound information, interface agents and assistants have taken an embodied form as well.

This workshop is based on themes from successfully completed and current European projects in the fields of interfaces and robotics, such as NoE Humaine, IP Callas, and STREP Feelix-Growing.

2. WORKSHOP TOPICS

Topics include, but are not limited to:

- Affect-aware interfaces
- Ambient/natural interfaces
- Adaptive/cooperative interfaces
- Interfaces for attentive and intelligent environments
- Signal acquisition and processing for handicapped people
- Information/Sensor Fusion techniques and Architectures
- Machine Learning for human-computer and human-robot interaction
- Multimodal recognition of affect
- Affect recognition 'in the wild'
- Theory of Emotion and Emotion Representation
- Cognitive modeling of users
- Virtual/augmented environments for handicapped people
- Affect-aware e-learning applications
- Applications of Affective Robots
- Emerging affect-aware Standards

3. WORKSHOP CHAIRS

Elisabeth Andre, Institute of Computer Science, University of Augsburg, Germany

Kostas Karpouzis, Inst. of Communication and Computer Systems, Greece

Maja Pantic, Imperial College, UK

Catherine Pelachaud, Université de Paris 8, France

4. PROPOSED COMMITTEE MEMBERS

Ilias Maglogiannis, Univ. of Aegean, Greece

Stefanos Kollias, National Technical Univ. of Athens, Greece

Lola Cañamero, University of Hertfordshire, UK

Philippe Gaussier, Cergy-Pontoise University/ENSEA, France

John Soldatos, Athens Information Technology, Greece

Roddy Cowie, Queen's University Belfast, UK

Paolo Petta, OFAI, Austria

Full committee to be named in due course

5. SUBMISSIONS – IMPORTANT DATES

Paper submission: March 30, 2008

Notification of acceptance: April 30, 2008

Camera ready papers due: May 20, 2008

Interested authors should submit their contribution through e-mail to hci-petra@image.ntua.gr, under the instructions described in <http://www.petrae.org/proceedings.htm>.

At least one author of each accepted paper is required to register with the workshop and present the paper. Authors should use the ACM Word or LaTeX style templates to prepare their articles (<http://www.acm.org/sigs/pubs/proceed/template.html>)

Submitted papers should be up to **8 pages**. Papers may be accepted either as full papers (8 pages) or short papers (4 pages).

Accepted papers will be presented at the conference and published in the Proceedings of the Conference. ACM will be the publisher of the proceedings of the PETRA conference and the conference proceedings will be a volume in the ACM International Conference Proceedings Series in the ACM Digital Library.