

## Call for Papers

Technology has made strides investigating how computational models of emotions can be built. In recent years, Computer Science researchers have realized that emotion models cannot be effectively used in real-world applications by themselves. They need to be analyzed in light of human interactions, and treated with other non-verbal cues as social signals to extract meaning from the data.

Right now, there is a need for human-centered systems, i.e. systems that are seamlessly integrated into everyday life, easy to use, multimodal, and anticipatory. These systems widen the breadth of users of computing systems, from the very young to the elderly, as well as to the physically challenged. Empathic systems are human-centered systems.

Empathic computing systems are software or physical context-aware computing systems capable of building user models and provide richer, naturalistic, system-initiated empathic responses with the objective of providing intelligent assistance and support. We view empathy as a cognitive act that involves the perception of the user's thought, affect (i.e., emotional feeling or mood), intention or goal, activity, and/or situation and a response due to this perception that is supportive of the user. An empathic computing system is ambient intelligent, i.e., it consists of seamlessly integrated ubiquitous networked sensors, microprocessors and software for it to perceive the various user behavioral patterns from multimodal inputs.

Empathic computing systems may be applied to various areas such as e-health, geriatric domestic support, empathic home/space, productivity systems, entertainment and e-learning. Lastly, this approach shall draw upon the expertise in, and theories of, ubiquitous sensor-rich computing, embedded systems, affective computing, user adaptive interfaces, image processing, digital signal processing and machine learning in artificial intelligence.

On its fourth year, IWEC-13 focuses on the ambient intelligent, socio-affective context of empathic computing and how machine learning approaches can be used to effectively build robust, reliable and scalable empathic systems. While primarily data-driven, the workshop this year will investigate how domain knowledge and contextual information can be used to reduce the complexity of emotion analysis and synthesis, as well as empathic response modeling.

We are inviting original and unpublished papers on, but not limited to, the following topics:

- Emotion and mood recognition
- Intention Recognition
- Behavior/Activity Recognition
- Motion/Gesture Detection
- Multimodal Communication
- Sensor Networks for Human Tracking
- Social Signal Processing
- Wearable or Implantable Sensor Integration
- Sensor Networks for Intelligent Interfaces
- Data fusion in Intelligent Ambient Spaces
- Multimodal Approaches for Improved Decision-making
- Motivational Aids in Intelligent Education Systems
- Advanced Home Automation Systems
- e-Health and Geriatrics Care

- Social Agents
- Machine Learning and Data mining for Empathy

The workshop will be of interest to researchers working on affective computing, ambient intelligent systems, psychologists, internet of things/wireless sensor networks, and digital signal processing. IWEC-13 aims to serve as venue for these researchers to discuss and share ideas, raise concerns and technical issues, and form research relationships for future collaboration.

### *Organizing Committee*

Merlin Teodosia Suarez  
Center for Empathic Human-Computer Interactions  
De La Salle University (Philippines)

Masayuki Numao  
Department of Architecture for Intelligence  
Osaka University (Japan)

The Duy Bui  
Human Machine Interaction Laboratory  
Vietnam National University - Hanoi (Vietnam)

Ma. Mercedes Rodrigo  
Ateneo Laboratory for the Learning Sciences  
Ateneo de Manila University (Philippines)

### *Advisory Board*

Dirk Heylen  
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Computer Science, University of Twente, Amsterdam

Toyoaki Nishida  
Department of Intelligence Science and Technology  
Graduate School of Informatics  
Kyoto University, Japan

Catherine Pelachaud  
Centre National de la Recherche Scientifique  
CNRS - Telecom Paris Tech, France

### *Program Committee Members*

*\* To be re-invited (as they served as former Program Committee Members of IWEC)*

Eriko Aiba, Japan Advanced Industrial Science and Technology (Japan)

Elisabetta Bevacqua, Lab-STICC, CERV - ENIB (France)

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Masashi Inoue, Yamagata University (Japan)

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Magalie Ochs, Telecom Paris Tech (France)

Noriko Otani, Tokyo City University (Japan)

Dennis Reidsma, University of Twente (Netherlands)  
Isao Ono, Tokyo Institute of Technology (Japan)  
Joseph Beck, Worcester Polytechnic Institute (USA)  
Sidney D'Mello, University of Notre Dame (USA)  
Ryan Baker, Columbia University (USA)

\* *Accepted*

Nick Campbell, Trinity College (Ireland)  
Khiet Truong, University of Twente (Amsterdam)  
Radoslaw Niewiadomski, Telecom Paris Tech (France)  
Jerome Urbain, University of Mons (Belgium)  
Arnulfo Azcarraga, De La Salle University (Philippines)  
Raymund Sison, De La Salle University (Philippines)  
Nelson Marcos, De La Salle University (Philippines)  
Judith Azcarraga, De La Salle University (Philippines)  
Jocelynn Cu, De La Salle University (Philippines)  
Koichi Moriyama, Osaka University (Japan)  
Kenichi Fukui, Osaka University (Japan)  
Rafael Cabredo, Osaka University (Japan)  
Paul Salvador Inventado, Osaka University (Japan)  
Satoshi Kurihara, Osaka University (Japan)

#### *Important Dates:*

April 15, 2013 - Submission of Abstracts  
April 20, 2013 - Submission of Full Papers  
May 20, 2013 - Workshop paper acceptance notification  
May 30, 2013 - Deadline for final camera ready copy to workshop organizer

#### *Paper Submission and Proceedings*

Submitted papers must be formatted according to IJCAI guidelines and submitted electronically through [www.easychair.org](http://www.easychair.org). Full instructions including formatting guidelines and electronic templates are available on the IJCAI 2013 website: <http://ijcai13.org/files/ijcai13.zip>.

At least one author of each accepted paper is required to attend the conference to present the work. Authors will be required to agree to this requirement at the time of submission.