



## Call for Participation

The eINTERFACE summer workshops, organized by the SIMILAR European FP6 Network of Excellence ([www.similar.cc](http://www.similar.cc)), aim at establishing a tradition of collaborative, localized research and development work by gathering, in a single place, a team of senior project leaders in multimodal interfaces, researchers, and (undergraduate) students, to work on a pre-specified list of challenges, for 4 weeks. Participants are organized in teams, attached to specific projects, working on free software. Tutorial state-of-the art surveys of aspects of multimodal interfaces design will be given every week by invited senior researchers. Plenary sessions with progress presentations by all teams shall be organized to stimulate exchange of ideas.

The eINTERFACE'06 committee now invites candidate participants to apply for a summer workshop on multimodal interfaces, to be held in Dubrovnik, Croatia, from July 17th to August 11th, 2006. eINTERFACE'06 will welcome approx. 50 students, researchers, and seniors, working in teams on the following projects (selected from the proposals received in the Call for Projects):

1. **An Agent Based Multicultural User Interface in a Customer Service Application** (Coordinator: Hung-Hsuan Huang, Kyoto University, Japan; Advisors: Prof. Toyooki Nishida, Kyoto University, Japan, Prof. Yukiko Nakano, Tokyo University of Agriculture and Technology, Japan, Prof. Igor Pandzic, University of Zagreb, Croatia).  
To improve communication of embodied conversational agent (ECA) systems with their human users, the importance of their capability to cover the cultural differences emerged. This project aims to explore the possibility of rapidly building multicultural ECA interfaces for customer service applications with a common framework connecting their functional blocks.
2. **Multimodal tools and interfaces for the intercommunication between visually impaired and "deaf and mute" people** (Coordinator: Prof. Dimitrios Tzovaras, Informatics and Telematics Institute (ITI-CERTH), Greece).  
The main objective of the project is to build a multimodal interface that combines visual, aural and haptic interaction with gesture-speech recognition, speech synthesis and sign language recognition and synthesis, in order to enable the communication of people exhibiting different kinds of disabilities.
3. **Sign Language Tutoring Tool** (Coordinators: Prof. Alice Caplier, l'Institut National Polytechnique de Grenoble, France, Prof. Lale Akarun, Boğaziçi University of Istanbul, Turkey).  
The goal of this project is the development of a real time sign language tutoring tool related to a limited number of well defined gestures which associate hand gestures and head motion and facial expressions. This will exhibit the feasibility of such a system which requires the fusion of three sources of information.
4. **Multimodal Character Morphing** (Coordinators: Prof. Thierry Dutoit, Faculté Polytechnique de Mons, Belgium, Prof. Ioannis Stylianou, University of Crete, Greece, Prof. Antonio Bonafonte, Universitat Politècnica de Catalunya, Spain).  
This project aims at performing high quality transformation on the multimodal recordings (audiovisual files) of a source speaker A. Using both voice conversion and video morphing, the result will be a set of audiovisual files with a target speaker B speaking with his/her own voice and acting like A does.
5. **Introducing Network-Awareness for Networked Multimedia and Multi-modal Applications** (Coordinator: Miran Mosmondor, Ericsson Nikola Tesla R&D, Croatia; Advisors: Prof. Maja Matijasevic, University of Zagreb, Croatia, Dr. Sasa Desic, Ericsson Nikola Tesla R&D, Croatia)  
The project objective is to create an application programming interface (API) which will enable multimodal application developers to create networked services for heterogeneous end-user devices, capable of requesting and adapting to network quality of service (QoS), but without the need to know the signalling protocol specifics.
6. **An instrument of sound and visual creation driven by biological signals** (Coordinator: Prof. Benoit Macq, UCL Louvain La Neuve, Belgium)

Pursuing this first eINTERFACE workshop, this project aims to use biophysical signals (EEG, EMG, ECG, EOG, etc...) analysis to drive digital musical instruments, enhanced with a rich visual feedback, and playable in real-time. This year, we will try to improve the interaction musician-instrument by expanding the mapping between biological signals and synthesis parameters.

7. Emotion Detection in the Loop from Brain Signals and Facial Images (Coordinators: Bulent Sankur, Boğaziçi University, Turkey, Prof. Magnus Borga, Linköping University, Sweden (TO BE CONFIRMED), Prof. Alice Caplier, Université de Grenoble, France (TO BE CONFIRMED)). In this project, we intend to develop techniques for multimodal emotion detection, one modality being brain signals via fNIRS, the other modality being face video and the third modality being the scalp EEG signals.
8. Realtime and Accurate Control of Expression in Singing Synthesis (Coordinators: Prof. Christophe d'Alessandro, LIMSI-CNRS, Orsay, France, Nicolas d'Alessandro, Faculté Polytechnique de Mons, Belgium)  
The main purpose of this project is to develop a full computer-based system musical instrument allowing real-time synthesis of expressive singing voice. The expression will result from the continuous action of an interpreter through a gesture controlled interface. Those gesture parameters will influence the voice characteristics thanks to a particular mapping strategy.
9. Multimodal Driving Simulator (Coordinators: Dr. Laurent Bonnaud and Dr. Alice Caplier, Institut National Polytechnique de Grenoble, France, Prof. Laurence Nigay, Université Joseph Fourier, Grenoble, France, Dr. Dimitrios Tzovaras, Informatics and Telematics Institute, Greece)  
Facing the sophisticated sensing and interaction technology available in modern cars, this project aims at designing and developing a multimodal driving simulator that is based on both multimodal driver's focus of attention detection and driver's state detection (i.e., stress and fatigue) as well as multimodal interaction for enhancing a driving task.

People (seniors, PhD students, undergraduate students) interested in participating to the workshop should send us an application by email, *before February 15<sup>th</sup> 2006*, in form of a document containing the following information:

- A short CV (1 page max.)
- A list of 3 preferred projects to work on
- A list of skills to offer for these projects
- Possibility to bring a laptop? <sup>1</sup>

No funding will be provided for researchers, but no registration fees will be asked for. Researchers will therefore have to pay for their travel, lodging, and catering expenses. Lodging will be available at or near the workshop venue, at minimal rates (between €25 and €45 per person, per night, depending on type of accommodation). See eINTERFACE06 website for more information.

Seven undergraduate students will be selected, whose travel and lodging expenses will be paid by the workshop organizers.

Important dates:	<ul style="list-style-type: none"> <li>• February 15<sup>th</sup>, 2006:</li> <li>• February 20<sup>th</sup>, 2006:</li> <li>• July 17<sup>th</sup>-August 11<sup>th</sup>:</li> </ul>	<p>Call for Participation closes</p> <p>Notification of Acceptance; Team Building begins</p> <p>eINTERFACE Workshop</p>
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<http://www.interface.net/interface06>

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**The eINTERFACE'06 Scientific Committee**

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 Thierry Dutoit, *Faculté Polytechnique de Mons, Belgium*  
 Christine Guillemot, *IRISA, Rennes, France*  
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 Jean-Philippe Thiran, *Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland*  
 Jean Vanderdonck, *Université Catholique de Louvain, Louvain-la-Neuve, Belgium*

<sup>1</sup> Workshop organizers can not provide computers. Some project coordinators may be able to provide them, but this is not guaranteed. Therefore the impossibility to bring your own computer may limit the choice of possible projects.