



Call for Participation

The eINTERFACE summer workshops, organized by the SIMILAR European Network of Excellence (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. Each week ends by a presentation session, starting by a tutorial state-of-the art survey of aspects of multimodal interfaces design, given by an invited senior researcher, and followed by a presentation of the results achieved by each project group.

The eINTERFACE'05 committee now invites candidate participants to apply for a summer workshop on multimodal interfaces, to be held in Mons, Belgium, from July 18th to August 12th, 2005.

eINTERFACE'05 will welcome 40 students, researchers, and seniors, working in teams on the following projects (selected from the proposals we have received in a previous Call for Projects):

1. **Combined Gesture-Speech Analysis and Synthesis** (Coordinators: Profs. Murat Tekalp, Engin Erzin, Yucel Yemez, Mehmet Emre Sargin, Koc University Multimedia, Vision and Graphics Lab, Istanbul).
This project will include the preparation of a database, the study of correlations between speech features and gesture units, the modeling of gesture units, and the adaptation of units for specific speakers.
2. **Multimodal Caricatural Mirror** (Coordinator: Prof. B. Macq, UCL Louvain La Neuve).
This project aims at creating a caricatural mirror where people could see their own emotions amplified (image+speech) by an avatar, on a wide screen facing them. It includes multimodal face tracking, multimodal emotion recognition, and multimodal emotion synthesis.
3. **Biologically-driven musical instrument** (Coordinator: Prof. Benoît Macq, UCL Louvain La Neuve).
The goal is to build a virtual musical instrument driven by EMGs, EEGs, Heart beats, video, etc.
4. **Multimodal Focus Attention Detection in an Augmented Driver Simulator** (Coordinators: Profs. Laurent Bonnaud & Alice Caplier, INPG_LIS, Grenoble; Prof. B. Macq, TELE Lab, UCL Louvain La Neuve).
This project proposes to use physiological signals, the analysis of facial expression as well as tracking of the user's focus (eye tracking) in an augmented reality driver simulator able to appropriately react to hypovigilance.
5. **Multilingual Multimodal Biometric Identification/Verification** (Coordinator: Prof. Yannis Stylianou, University of Crete)
This project will involve the recording of a multilingual multimodal (face, lips, speech, writing, body movement) database for biometric identification/verification. It will then perform on site tests of the various scenarios of fusion between various modalities and under various noise conditions. The project will be concluded by suggestions on the next steps in fusion R&D.
6. **Speech Conductor** (Coordinator: Prof. C. D'Alessandro, LIMSI-CNRS, Paris)
The Speech Conductor project aims at developing a gesture interface for driving ("conducting") a text to speech synthesis system. Then, automatic speech synthesis will be modified in real time according to the gestures of a "Speech Conductor". The Speech Conductor will add expression and emotion to the speech flow using speech signal modification algorithms and gesture interpretation algorithms.

7. A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application (Coordinator: Prof. Dimitrios Tzovaras ITI-CERTH, Thessaloniki).

The goal of the project is the development of a multimodal interface for content-based search of 3D objects based on sketches. This user interface will integrate gesture and speech modalities to aid the user in sketching the outline of the 3D object he/she wants to search from a large database.

People (seniors, PhD students, undergraduate students) interested in participating to the workshop should send us an application email, *before April 1st*, with the following information:

- A short CV (1 page max.)
- A list of 3 preferred projects to be work on
- A list of skills to offer for these projects
- Possibility to bring a laptop? With wireless connection? (computers will be available otherwise)

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. Catering and lodging will be available at the University, at minimal rates (360 EU for lodging and breakfast; 15 EU per day for lunch+dinner). See our website for more information.

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

Important dates :

- April 1st, 2005: End of the Call for Participation
- April 15th: Notification of Acceptance and Team Building
- July 18th-August 12th: eINTERFACE Workshop

<http://www.enterface.net>

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The eINTERFACE'05 Scientific Committee

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