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INTERACTIVE
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The (IM)2 Newsletter

Every month the (IM)2 Newsletter brings you the latest and hottest
scientific and administrative news about the (IM)2 NCCR and related topics

Bi-directional exchanges

In addition to the visitor exchange program with ICSI which allowed four young (IM)2 students and researchers to spend 6 to 12 months in Berkeley, (IM)2 is also attracting foreign students and researchers in Switzerland.

IDIAP recently hosted Marios Athineos, a PhD student at Columbia University (Prof. Dan Ellis), for a 3 month exchange under the supervision of Prof. Hynek Hermansky. Marios is now at IBM Research.

Fabio Valente, currently a PhD student at Eurecom, France, will come to IDIAP to accomplish the last two years of his PhD in the framework of (IM)2.

In addition to these individual initiatives, the student exchange program of the AMI project is offering further opportunities for European students to visit IDIAP, see www.amiproject.org/edu.php for more details.

(IM)2 alumni

After an initial time which saw many many new positions funded by (IM)2, the NCCR is now in a relatively stable phase. However, this does not mean there are no new people, since several students or postdocs have now reached the end of their "(IM)2 time" and have gone on to new challenges. (IM)2 partners are encouraged to keep contact with their alumni. To facilitate this initiative, a special section on the (IM)2 web site will be opened soon.

So far, and considering only former IDIAP members, we already have Dr Datong Chen and Dr Todd Stephenson, both postdoc at CMU, Dr Conrad Sanderson, Research Fellow at University of Adelaide to name but a few.

A new webmaster

After five years of activity at IDIAP, Thierry Collado has left the Institute to tackle new professional challenges. Our new webmaster, Vincent Spano, has taken over the supervision of the (IM)2 public and private web sites. Vincent has over five years of experience in software and web development. He can be reached at webmaster@im2.ch.

A new (IM)2.SA sub-project

Prof. Roland Siegwart, EFPL, will lead a new sub-project within (IM)2.SA on "Geometric - Topological Environment Mapping" aiming at investigating new means of representing and understanding environments and situations by means of a mobile robot platform and of multi-modal sensory inputs. In the first year, the focus will be on the autonomous generation of a geometric 3D map and the extraction of key elements available at meeting places, e.g. tables, doors or backboards. In this phase, a laser range finder and probably a depth camera will be the main sensors. In the second year, the representation and tracking of dynamic objects (e.g. people, moving furniture) and additional information coming for other modalities (camera, sound) will be integrated to a topological representation of the meeting room.

A new CTI project

IDIAP was granted a new CTI project in collaboration with Infonoia, a Geneva-based company active in the Information Management domain (www.infonoia.com). Infonoia provides systems allowing big organizations to access and use effectively the huge amount of documents they both produce internally and obtain from outside. The project has essentially two goals: the first is the improvement of the technologies currently at the disposition of Infonoia. The second is the transfer of knowledge and know-how related to the latest developments in this domain.

The activities will concentrate on texts and images with the aim of integrating both kinds of information in a single framework. This will be useful in application contexts involving documents containing not only text, but also pictures. The CTI project will benefit from the competences developed at IDIAP in the IM2.IIR and IM2.SA framework.

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On June 21–23, 2004, the Centre du Parc in Martigny will host the first joint AMI PASCAL (IM)2 M4 Workshop on Multimodal Interaction and Related Machine Learning Algorithms, MLMI'04. This issue's back-page features an overview of the workshop program.

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Joint AMI / PASCAL / (IM)2 / M4 Workshop on

Multimodal Interaction and Related Machine Learning Algorithms

Centre du Parc (www.hotelduparc.ch), Martigny, Switzerland, 21–23 June 2004

PASCAL

INTERACTIVE MULTIMODAL INFORMATION MANAGEMENT

m4 MULTIMODAL MEETING MANAGER

AMI (Augmented Multiparty Interaction, www.amiproject.org) is a newly launched (January 2004) European Integrated Project (IP) funded under Framework FP6 as part of its IST program. AMI targets computer enhanced multi-modal interaction in the context of meetings. The project aims at substantially advancing the state-of-the-art, within important underpinning technologies (such as human-human communication modeling, speech recognition, computer vision, multimedia indexing and retrieval). It will also produce tools for off-line and on-line browsing of multi-modal meeting data, including meeting structure analysis and summarizing functions. The project also makes recorded and annotated multimodal meeting data widely available for the European research community, thereby contributing to the research infrastructure in the field.

PASCAL (Pattern Analysis, Statistical Modelling and Computational Learning, www.pascal-network.org) is a newly lauched (December 2003) European Network of Excellence (NoE) funded under Framework FP6 as part of its IST program. The NoE brings together experts from basic research areas such as Statistics, Optimisation and Computational Learning and from a number of application areas, with the objective of integrating research agendas and improving the state of the art in all concerned fields.

(IM)2 (Interactive Multimodal Information Management, www.im2.ch) is a Swiss National Center of Competence in Research (NCCR) aiming at the advancement of research, and the development of prototypes, in the field of man-machine interaction. (IM)2 is particularly concerned with technologies coordinating natural input modes (such as speech, image, pen, touch, hand gestures, head and/or body movements, and even physiological sensors) with multimedia system outputs, such as speech, sounds, images, 3D graphics and animation. Among other application, (IM)2 is also targeting research and development in the context of smart meeting rooms.

M4 (Multi-Modal Meeting Manager, www.m4project.org) is an EU IST project launched in March 2002 concerned with the construction of a demonstration system to enable structuring, browsing and querying of an archive of automatically analysed meetings. The archived meetings will have taken place in a room equipped with multimodal sensors.

Workshop Program

Monday, June 21

07h30   Registration
08h30   *TBA*, by Bill Buxton, Buxton Design
09h15   **Oral session: HCI & applications**
10h15   Coffee Break
11h00   **A Programming Model for Next Generation Multimodal Applications**, by Rafah Hosn, IBM Research
11h45   **Oral session: Structuring & interaction**
12h45   Lunch Break
14h00   **Confidence Measures in Speech Recognition**, by Stephen Cox, University of East Anglia
14h45   **Oral session: Speech processing**
15h45   Coffee Break
16h30   **Poster sessions 1 and 2**
18h00   End of the day

Tuesday, June 22

08h30   **Immersive Conferencing Directions at FX Palo Alto Laboratory**, by Jonathan Foote, FX Palo Alto Laboratory
09h15   **Mats Ljungqvist, EC**
09h35   **Oral session: Interaction & teleconferencing**
10h15   Coffee Break
11h00   **S-SEER: A Multimodal Office Activity Recognition System with Selective Perception**, by Nuria Olivier, Microsoft Research
11h45   **Oral session: Multimodal processing**
12h45   Lunch Break

Tuesday, June 22 *(cont)*

14h00   **Experiences with mobile device Multimodal applications**, by Jordan Cohen, VoiceSignal
14h45   **Oral session: Dialogue management**
15h45   Coffee Break
16h30   **Poster sessions 3 and 4**
18h00   End of the day
18h30   **Dinner**

Wednesday, June 23

08h30   **Piecing together the emotion jigsaw**, by Roddy Cowie, Queen's University, Belfast
09h15   **Oral session: Emotion & tracking**
10h15   Coffee Break
11h00   **Artificial Companions**, by Yorick Wilks, Sheffield University
11h45   **Oral session: Speech processing**
12h45   End of the Workshop

Check the web page for updates!

Worskshop Sponsors

The MLMI'04 workshop is organised in the framework of the AMI, PASCAL, (IM)2 and M4 projects to foster collaboration and exchanges among participants. Significant financial support from AMI, PASCAL, (IM)2 allowed the workshop registration to remain free, thus facilitating access to the event for all members and in particular PhD students. The Workshop Committee would like to thank the AMI, PASCAL, (IM)2 and M4 projects, as well as their respective funding agencies (The European Comission, the Swiss National Science Foundation and the Swiss Federal Office for Science and Education) for their support.

www.idiap.ch/events/workshop-mlmi04