

MICROSOFT LANGUAGE DEVELOPMENT CENTER (MLDC), R&D OF MICROSOFT PORTUGAL

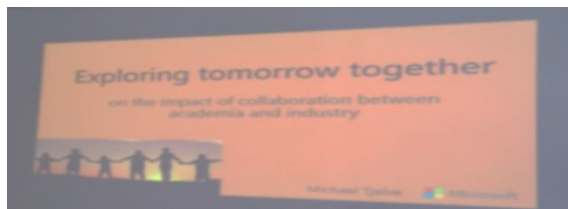
## RESEARCHERS AND VISITING PROFESSORS @MLDC

In recent months, the MLDC welcomed Prof Eduardo Lleida (from the University of Zaragoza, Spain), Profs Banu Gunel, Cengiz Acarturk and Alptekin Temizel (from the Middle East Technical University, Turkey) and Prof António Teixeira (from the University of Aveiro, Portugal) to work on the IRIS project. Several days were devoted to (partly) unravel the mysteries of using speech and emotion recognition, eye tracking and audio analysis. Various hands-on sessions covered a range of HCI concepts and experiments that are important for creating real synergies and enhancing applied and multidisciplinary research proposals.

## SNAPSHOT at SUWMIAC 2014 SUMMER WORKSHOP MICROSOFT

In the beginning of August, more than 40 national and international specialists

**IN SUWMIAC'14, THE CENTRAL THEME WAS "DIGITAL LIVING SPACES" AND WE HAD SIX RELATED TOPICS: "NEW TRENDS IN SPACE DESIGN", "ACADEMIA - INDUSTRY COLLABORATION", "AGING", "RECONSTRUCTING AND UNDERSTANDING OUR 3D WORLD", "SPEECH TECHNOLOGIES" AND THE "THE FUTURE OF SOFTWARE ENGINEERING".**



research in a wide range of topics in the 2nd edition of SUWMIAC, the flagship summer work-shop of the Microsoft Language Development Center.

in the field of Applied Computing gathered in the pleasant space of the Windows B Auditorium at MSFT in Lisbon, and for one full day discussed and presented leading-edge

# IRIS

## TOWARDS NATURAL INTERACTION AND COMMUNICATION

IRIS is a four year (2014-2018) project under the scope of the Marie Curie Industry-Academia Partnerships and Pathways program, FP7-PEOPLE-2013-IAPP, funded by the European Union's Seventh Framework Programme under the grant agreement nº 610986.

It involves research groups from Portugal (Microsoft, University of Aveiro, Face in Motion Lda), Spain (University of Zaragoza) and Turkey (Middle East Technical University) and is coordinated in Microsoft Portugal by Miguel Sales Dias.

The head researcher in charge is Prof. Miguel Sales Dias ([miguel.dias@microsoft.com](mailto:miguel.dias@microsoft.com)).

For further information visit the webpage:

<http://www.microsoft.com/pt-pt/mldc/iris/default.aspx>

## AGENDA

### PROPOR 2014

<http://nilc.icmc.usp.br/propor2014/>

The 11<sup>th</sup> International Conference on Computational Processing of Portuguese will be held on October 6-8, 2014 in São Carlos, São Paulo region, Brazil.

The papers "Automatically Recognising European Portuguese Children's Speech: Pronunciation Patterns Revealed by an Analysis of ASR Errors" and "Improving Speech Recognition through Automatic Selection of Age Group Specific Acoustic Models" by A.Hamalainen, H.Cho, S.Candeias, T.Pellegrini, A.Abad, M.Tjalve, I.Trancoso, M.S.Dias and A.Hamalainen, H.Meinedo, M.Tjalve, T.Pellegrini, I.Trancoso, M.S. Dias respectively will be presented there, co-sponsored by IRIS and Brazilian Agencies for Research and Development. Find those papers in <http://www.springer.com/computer/ai/book/978-3-319-09760-2>

### INTERSPEECH 2014

<http://interspeech2014.org>

The paper "Enhancing Multimodal Silent Speech Interfaces with Feature Selection" ([http://www.interspeech2014.org/public.php?page=program\\_details.html](http://www.interspeech2014.org/public.php?page=program_details.html)) by J.Freitas, A.Ferreira, M.Figueiredo, A.Teixeira and M.S.Dias is one of the studies from researchers of the IRIS project that is presented at the 15th Annual Conf. of the International Speech Communication Association, held on September (14-18) in Singapore.

The other one is "Correlating ASR Errors with Developmental Changes in Speech Production: A Study of 3–10-Year-Old European Portuguese Children's Speech" (<http://www.wocci.org/2014/files/submissions/Hämäläinen14-CAE.pdf>) by A.Hämäläinen, S.Candeias, H.Cho, A.Abad, T.Pellegrini, H.Meinedo, M.Tjalve, I.Trancoso and M.S. Dias, presented at **WOCCI 2014 - Workshop on Child-Computer Interaction**, a satellite event of InterSpeech, held on September 19 in Singapore.

URL: <http://www.wocci.org/2014/program.html>

Sponsored by IRIS, this one full day technical program encompassed fifteen oral presentations arranged in six thematic sessions, each containing keynote delegates from the USA, Spain and Portugal, affiliated with Microsoft or with one of several academic institutions (University of Washington, University of Aveiro, University of Zaragoza, ISCTE-IUL), or with different research institutions (ISTAR-IUL, IEETA, IT, L2F, Aragon Institute for Engineering Research). All participants exchanged information, experiences and results of their recent research and development activities. Given the high interest raised by these contacts, a basis certainly laid for the production of successful Horizon 2020 R&D project proposals. Great coffee breaks and lunch intercalated technical sessions, providing joyful convivial moments between Microsoft researchers and professors and researchers from academic institutions. Congratulations to Miguel Sales Dias, the driving force behind SUWMIAC, for his enthusiasm and dedication to starting this type of multidisciplinary event, as well as to all participants who helped making this a success. We look forward to SUWMIAC'15! Find more info in <http://istar.iscte-iul.pt/index.php/2ndSUWMIAC>



## WORKSHOP SNAPSHOT

### GPU PROGRAMMING AND AUDIO ANALYSIS

On 15 July, a workshop on the themes of "GPU Programming and Optimization" and "Audio Analysis for Environment Awareness and Assisting Hearing Disabilities" took place at Microsoft in Lisbon, organized by the MLDC in the context of IRIS. Led by Prof Alptekin Temizel and Prof Banu Gunel from the Middle East Technical University, Turkey, this

workshop was targeted at Microsoft researchers and graduate students in the field of GPUs and CUDA, compact microphone array signal processing or applications for hearing disabilities, as well as at other center researchers from ISCTE, IST and UC, desiring an in-depth understanding of these subjects. A key-feature of this workshop was its practical component: professors and participants shared research experiences and new ideas to implement. An example is the combination of multidisciplinary.

## NEWSFLASH

### SPEECH TECHNOLOGIES SEMINAR

This event, organized by the VivoLab Speech Technologies Group from the Instituto Universitario de Investigación en Ingeniería de Aragón, was held at the University of Zaragoza, Spain on the 28<sup>th</sup> of May 2014. The topic of the workshop was "Speech Technologies", which was reflected in talks such as "A Deep Neural Network Approach to Speech Enhancement" by Prof Chin-Hui Lee (Georgia Institute of Technology, USA) and "Applying Physiologically-Motivated Models of Auditory Processing to Automatic Speech Recognition: Promise and Progress" by Prof Richard Stern (Carnegie Mellon University, USA).

URL: <http://www.vivolab.es/seminars/20140528.html>

### COGNITIVE SCIENCE

Within the framework of IRIS, an event about "Cognitive Science" was held in Middle East Technical University, Ankara, Turkey on the past 23 May.

URL: <http://ii.metu.edu.tr/cognitive-science-seminars>

## SEMINAR VISUAL RECOGNITION AND EMOTIONS

This event aimed at presenting the research of post-graduation students in the fields of visual recognition and emotions was held at MSFT in Lisbon, on July 30, 2014. Hélder Abreu and Carlos Sotelo are MSc's degree students in Informatics Engineering at Microsoft and the University of Minho in Portugal. They presented studies on "Multimodal Portuguese Visual Speech Recognition Based on 3D Cameras" and "Automatic Portuguese Sign Language Recognition Based in Depth Sensing" respectively. Joana Cruz, MSc's degree researcher at ADETTI/ISCTE-IUL, Portugal presented her work on "Emotions in Psychology".



This newsletter intends to disseminate all the activities within the framework of the project IRIS: Towards Natural and Interactive Communication, with a 6-month regularity.

Send your contributions for this news to [t-sacand@microsoft.com](mailto:t-sacand@microsoft.com)