

CVHI 2007



EURO ASSIST VHI-5

**Conference and Workshop on Assistive Technologies for People  
with Vision and Hearing Impairments**

*Assistive Technology for All Ages*

**28th – 31th August, 2007**

**Granada, Spain**

**BOOK OF ABSTRACTS AND PROGRAMME**





## Foreword

Welcome to the fifth event in the international conference series on Assistive Technologies and Rehabilitation Engineering. We are thankful for support from the European Commission Sixth Framework IST eInclusion Priority. This year's conference emphasises *Technology for all Ages* and we are fortunate to have secured a full and interesting programme.

There is increasing recognition across the countries of the European Union of the importance of social inclusion for disabled people and the role of assistive technology in overcoming the infrastructural and other barriers still faced by disabled people. This change is due to a number of factors, including campaigning by organisations of disabled people and their increasing assertiveness in demanding their rights. The assistive technology community has also played an important role, despite its relatively small size. However, much still remains to be done. Assistive technology is still a relatively new research area. It is also a very exciting one and involves multi- and interdisciplinary work, the application of new and existing technologies and the solution of important social problems.

A wide range of issues are discussed in the papers of this CVHI event. They include telephony for deaf and hearing impaired people, mobility and orientation technology for blind and visually impaired people, sensory perception, end-user involvement in design, access to education, facilities and services, internet and document accessibility and accessing technical and other information. An innovative feature of this conference is a panel discussion on assistive technology and social inclusion for deaf and hearing impaired people from ethnic and other minority groups. The keynote speech discusses the business case for the use of assistive technology and considers trends in accessibility, regulation, standards and guidelines, as well as their impacts on end users. There is a practical workshop on the Lambda project about multimodal access to mathematics. The Conference is preceded by a day of Tutorial Sessions on the applications of neuro-cognitive processing in assistive technology, the current state of the art, design and end-user issues in assistive technology for deafblind people and fundamentals, technology and algorithms in assistive listening for hearing impaired people. The emphasis in the tutorials is on gaining an overview and understanding of the fundamentals in these three important areas.

I would like to thank all the people who helped in the run-up to the event. Particular and heartfelt thanks are due to Ms Vi Romanes who has run the CVHI 2007 Secretariat and has been responsible for many of the arrangements for the Conference and worked tirelessly in various capacities to ensure its success. Grateful thanks are also due to Prof Mike Johnson for support and advice along the way and to Dr Barbara Leporini who has contributed her expertise to create and design an accessible and beautiful CD of the conference proceedings. We would like to thank all the anonymous referees for participating in the peer review process which helps to ensure the all-important scientific quality of the event. Thanks are also due to the staff at the Hotel

Alixares, Granada. The fact that CVHI is taking place in Granada for the third time shows how much we appreciate them and the venue.

Financial support has been received for a further event to take place as part of the specific support action Conferences, Workshops, Seminars and Tutorials to Support eInclusion (CWST) under the European Commission Sixth Framework IST Programme eInclusion priority. Other events in CWST include the AAATE and ICCHP conferences.

To conclude, we hope you enjoy the conference if you are attending and if not, we hope that you find the papers published here interesting and full of future research potential.

CVHI will be missing out a year and the next event will be taking place in Cracow in Poland. The provisional dates are 16 – 19 March 2009. Further information can be found on the web site [http://www.elec.gla.ac.uk/Events\\_page/CVHI/cvhi/](http://www.elec.gla.ac.uk/Events_page/CVHI/cvhi/) or by contacting the conference secretariat on [v.romanes@elec.gla.ac.uk](mailto:v.romanes@elec.gla.ac.uk).

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## European Commission Support and Bursaries

This CVHI Conference Series is supported by the European Commission. The first three conferences were supported by the Research Directorates Human Potential Programme: High Level Scientific Conference. The support was awarded to Dr. Marion Hersh (University of Glasgow, Scotland) and Professor Michael Johnson (University of Strathclyde, Scotland) who are key organisers of the Conference series. These three conferences have already taken place; the first was in Italy in 2001 having as its theme *Support Technologies for Independent Living and Work*. The second was in 2002 in Granada, Spain with the theme, *Accessibility, Mobility and Societal Integration* and again in Granada, Spain in 2004 the theme was *State-of-the-Art and New Challenges*. The Current financial support from the European Commission is from the Sixth Framework IST Programme eInclusion Priority as part of the CWST Project.

As important part of the European Commission support is the provision of bursaries for young researchers and disabled researchers. In the first three conferences this support only covered European researchers, but it has now been extended, though the focus is still on European researchers. Support for disabled researchers who do not meet the age conditions is also new to the three conferences which form part of the CWST Project.