The Fourth International Conference on Intelligent Environments (IE 08): A Report

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■ *The Fourth IET International Conference on Intelligent Environments was held July 21–22 at the University of Washington campus in Seattle, Washington. The general chairs were Diane Cook of Washington State University and Sumi Helal of the University of Florida. Hani Hagras and Vic Callaghan of the University of Essex served as program chairs. This article presents a report of the conference.*

The International Conference on Intelligent Environments focuses on the theme of intelligent environments, in which smart homes, smart workplaces, and other spaces with which humans interact take on the role of intelligent agents. The conference aims at contributing to the realization of the ambient intelligence vision, where physical space becomes augmented with computation, communication, and digital content, thus transcending the limits of direct human perception.

The International Environments conference has been held four times now. The first meeting was held in 2005 at the University of Essex, the second in 2006 at the National Technical University of Athens, and the third in 2007 at the University of Ulm. The conference is unique in its field, providing a leading edge forum for the international community to present the latest academic research and commercial developments. The realization of intelligent environments requires the convergence of different prominent disciplines. As a result, the conference has relevance to individuals working in the fields of information and computer science, material engineering, artificial intelligence, architecture, health care, sociology, design, networking, and intelligent agents. The conference is sponsored by the Institution of Engineering and Technology (IET) and the Institute of Electrical and Electronics Engineers (IEEE) and is now held in cooperation with the Association for the Advancement of Artificial Intelligence (AAAI).

This year, a total of 123 papers were submitted to the conference. Of these, 86 were selected for oral presentation and 11 were selected for the poster session. A diverse group attended the meeting: the 125

delegates included representatives from academe, industry, and government labs, and their specialties included artificial intelligence, wireless networks, software engineering, health care, architecture, pervasive computing, and human factors. The attendees formed a truly international crowd—authors came from the United States, the United Kingdom, Germany, Spain, Taiwan, Canada, Greece, Korea, Japan, Egypt, Singapore, France, Finland, Norway, New Zealand, Italy, Portugal, India, Brazil, Malaysia, Belgium, Ireland, The Netherlands, Switzerland, and China.

Both days of the conference included oral paper presentations and a poster session. In addition, two keynote speakers presented unique perspectives on the field. Frederica Darema from the National Science Foundation discussed a dynamic data driven concept for intelligent environments, and Farzin Guilak spoke about the application of intelligent environments research to aging in place as conducted in the Digital Health Group at Intel.

While the technical presentations spanned a number of diverse research areas, two workshops were held within the conference that focused on a narrower theme. One of the workshops centered on smart sensing and situation awareness in sensor networks, and the second workshop centered on the theme of smart homes and ambient assisted living. A panel session was also held to address the technological challenges and barriers facing emerging personal health technologies enabled by recent advances in ambient intelligence and pervasive computing. The panelists consisted of Cecelia Horwitz from the University of Rochester Medical Center, George Demiris from the University of Washington School of Medicine, Pramod Gaur, president of Healthanywhere, Hani Hagras from the University of Essex, Sumi Helal from the University of Florida, and Gordana Velikic from the Center for Future Health at the University of Rochester.

The conference venue included tours of the Microsoft Home and a conference banquet. At the banquet, a best paper award was presented to Michael Schneider and Alexander Kröner from the German Research Center for Artificial Intelligence in Germany for their paper "The Smart Pizza Packing: An Application of Object Memories."

The Fifth International Conference on Intelligent Environments will be held in 2009 in Barcelona. We look forward to another successful IE conference in 2009.

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