

Preface

Intelligent Environments are everyday settings such as homes, offices, hotels, restaurants, shops, hospitals, teaching-rooms, stage/studios, manufacturing environments, cars, trains, aircraft, boats, cities, public spaces and even electronic clothing/fashion that are equipped with advanced networking infrastructure and embedded computer systems, which enable better or new lifestyles for people. For example, such technology can lead to design of living environments that are more comfortable, usable, productive, secure, caring, social, entertaining or energy efficient. The Intelligent Environments conferences provide a leading-edge forum for researchers and engineers from around the world to present their latest research and to discuss future directions in of this area.

The previous five editions of the IE conference have been held at the University of Essex, UK (2005), the National Technical University of Athens, Greece (2006), the University of Ulm, Germany (2007), the University of Washington in the USA (2008) and last year at the Technical University of Catalonia in Barcelona, Spain (2009). Intelligent environments can be physical or virtual, centralized or distributed, public or private. Research into intelligent environments is an essential first step towards the realization of technology-augmented spaces, which host countless ubiquitous computing applications that support human activity in a natural intuitive way. Consequently, the realization of intelligent environments involves multi-disciplinary research and Intelligent Environments conferences are unique, in the sense that they bring together researchers from a wide mix of disciplines, to foster cross-disciplinary discussions, debate, and collaborations. Many novel ideas and visionary proposals have been born from researchers meeting and talking at this conference.

This year Intelligent Environments 2010 takes place in Kuala Lumpur (Malaysia) hosted by Monash University. Malaysia and, in particular Kuala Lumpur is a beautiful setting for IE'10 with its high-tech profile, inspiring architecture and unique blend of culture. Kuala Lumpur, affectionately known as KL, is a lively city with a fascinating lifestyle, which blends contemporary and traditional styles from the Malay, Chinese and Indian cultural backgrounds to create one of the most vibrant and multinational environments in the world. As such, Malaysia is the country of choice for many high-tech companies operating in the Far-East, many choosing to set up in the renowned Malaysian Multi-Media Corridor on the outskirts of Kuala Lumpur. In that spirit, one of our invited talks is by Dato' Dr. Kamal Jit Singh who is the founder of the Global Innovation Research Centre (GIRC), a strategic Multimedia Super Corridor (MSC) status think-tank. The Far-East is, of course, celebrated for its enthusiastic and early adoption of new technology; our second invited talk by Prof. Ken Sakamura on real-life experiences with the Japanese TRON Intelligent House projects (work that can be traced back to the early 80's!) most vividly illustrates that point. Thus, the Far-East and Kuala Lumpur in particular, promises to be a very fitting setting for our IE'10 conference.

The sixth edition of Intelligent Environments includes the main conference with over 60 presentations, several workshops, 2 invited lectures and a PhD Colloquium. The papers for the main conference are spread over major research topics including Ambient Intelligence, Intelligent Agents, Context Awareness, Ubiquitous/Pervasive Computing, Human-Computer Interaction, Middleware, Networking, Communications, Virtual & Mixed-Reality and Social Science. As in earlier conferences, Ambient Intelligence & Agents have proven the most popular topic. A diverse set of workshops are being offered covering topics ranging from ambient intelligent through to virtual environments, proceedings of which are published in a separate volume by IOS Press. This year's conference features, for the first time, a unique bridging activity (Creative Science 2010) that aims to connect the workshops to the main conference. This bridging event is sponsored by Intel and will use science fiction to explore science fact (and vice versa). The intention is to allow Intelligent Environment researchers to present visions for how their research might find its way into future products (and for Sci-Fi writers and members of the public to

influence the research of conference and workshop attendees). This indeed is an experimental event, but we are confident it will prove to be fun! This year we are for the first time allowing a small numbers of papers (and attendees) to participate via an online immersive reality system (a fitting approach for a conference looking at futuristic environments).

We are especially grateful to our organizing and programme committees, whose voluntary and unpaid work makes this annual conference possible. We are also grateful to the many unnamed local organizers who behind the scenes have tirelessly worked to make this conference a success. In addition, we are especially grateful to our sponsors Monash University, Hewlett-Packard, Intel Corp and Technology Park Malaysia. Their sponsorship is both an indication of the importance of this area and a practical contribution to make this annual event possible. This year the conference is Co-sponsored by the IEEE Systems, Man & Cybernetics Society Technical Committee on Computational Intelligence and the Association for the Advancement of AI, a further endorsement of the quality of this, by now, well established conference.

Finally, we wish to thank all of you: the researchers, who do the work, achieve the advances, set the research agenda and then come to Intelligent Environments conferences to report on this. Your presence is greatly valued and is the principal reason this conference, now in its sixth year, is such success.

We welcome you all to IE'10 and hope you enjoy the conference and venue.

Best wishes,

Victor Callaghan, *Essex University, United Kingdom*
Achilles Kameas, *Hellenic Open University, Greece*
IE 2010 Programme Chairs

Simon Egerton, *Monash University, Malaysia*
Ichiro Satoh, *National Institute of Informatics, Tokyo*
IE 2010 General Chairs

Michael Weber, *University of Ulm, Germany*
Publication Chair