Preface

We are witnessing an historic technological revolution as computing reaches maturity to become immersed in our daily life to an extent that some decades ago was considered science fiction. Advances in the engineering of sensing and acting capabilities distributed in wide range of specialized devices is providing at last an opportunity for the fundamental advances that computer science achieved in the past few decades to make an impact in our daily lives.

This technical confluence is matched by a unique historical context where users are better informed (and more aware of the benefits that technology can provide) and production of more complex systems is becoming more affordable. Sensors/actuators deployed in an environment (in this context it can be any physical space like a house, an office, a classroom, a car, a street or even a virtual world, etc.) facilitate a link between an automated decision making system connected to that technologically enriched space. This computing empowered environment enables the provision of an intelligent environment, i.e., “a digital environment that proactively, but sensibly, supports people in their daily lives”. This is a very active area of research which is attracting an increasing number of professionals (both in academy and industry) worldwide.

The Seventh International Conference on Intelligent Environments (IE’11) held at Nottingham Trent University, United Kingdom is the seventh edition in a series of highly successful conferences that were organized in Colchester (United Kingdom), Athens (Greece), Ulm (Germany), Seattle (USA), Barcelona (Spain) and Kuala Lumpur (Malaysia) over the past six years. This year we have a program of presentations spanning over two and a half days which includes regular papers as well as a Posters Track, a Doctoral Colloquium and a Demo/Video Session. This is the first year that a Demo/Video session will be implemented and we believe this will be an exciting addition to the program of the conference. Four internationally leading professionals: Sumit Paul-Choudury, Editor of NewScientist.com; Prof. Wolfgang Wahlster director and CEO of the German Research Centre for Artificial Intelligence; Prof. Steve Goodhew, Head of Sustainable Technology Research Group, Nottingham Trent University, United Kingdom and Prof. Vinny Cahill, Head of the Discipline of Computer Systems, Trinity College, Ireland will provide keynotes for this event addressing a variety of topics which will be of interest for the attendees.

The conference attracted paper submissions which underwent a thorough reviewing process; 41 papers accepted as full papers, six as poster papers, 13 for the doctoral colloquium and five papers for the demo and video session.

Co-located with the conference there is a workshops program which this year attracted a record number of proposals. As a result various workshops will be held as part of IE’11 covering a wide range of specific topics and offering the opportunity to discuss with colleagues the challenges ahead and the possible ways to advance the area of Intelligent Environments. All papers accepted in the Workshops program are published in printed form as a volume of the Ambient Intelligence and Smart Environments Series (ISI indexed) of IOS Press and electronically available through ACM Digital Library.

We are very grateful to the organizing committee and the local organizing committee at NTU who supported this event in so many different ways. A special mention for the direct role in the selection of content for the proceedings goes to the program committee and the external reviewers who devoted time from their busy agendas to provide feedback on the submissions through more than 300 revisions.
Our special thanks to our sponsors: British Telecom, Intel, IEEE Systems, Man & Cybernetics Society Technical Committee, the Association for the Advancement of AI, IOS Press and IET, the Institution of Engineering and Technology.

Finally, we want to make explicit our deep gratitude to all the researchers which are the soul of this event and will provide updates on their latest advances and explorations of this fascinating area.

We welcome you all to IE’11 and hope you enjoy the conference and venue.

Best wishes,

Juan Carlos Augusto, University of Ulster, United Kingdom
Achilles Kameas, Hellenic Open University, Greece
IE 2011 Programme Chairs

Vic Callaghan, University of Essex, United Kingdom
IE 2011 Honorary Chair

Ahmad Lotfi, Nottingham Trent University, United Kingdom
Sean Hanna, University College London, United Kingdom
IE 2011 General Chairs

Simon Egerton, Monash University, Malaysia
IE 2011 Publications Chair