

Advances in Pervasive Computing 2006

Adjunct Proceedings of the 4th
International Conference on
Pervasive Computing

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Matthew Chalmers, Joe Kiniry (eds.)

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Preface

Pervasive Computing has reached a level of maturity in 2006 where it has spun off specialised disciplines such as pervasive and miniaturised devices, pervasive communications, pervasive management, pervasive interfaces, autonomicity, context and many others, all creating their own communities and conference events.

The PERVASIVE conference series, with its first three events in Zurich, Vienna and Munich, now changes its role from a start-up catalyst, towards a hub functionality, where these diversifying communities from all over the world come together and calibrate their requirements.

The *4th International Conference on Pervasive Computing*, held in Dublin, Ireland, in May 2006, brings together research and industry, in a booming environment of the host country.

The Republic of Ireland, nicknamed “The Celtic Tiger” for its period of rapid economic growth between the 1990s and 2002, transformed from one of the least developed countries in Western Europe to one of the wealthiest. For sustainable development, the country has promoted high-skill education and invested in science initiatives to create a “Knowledge Economy”.

As a result, Ireland became very attractive for renowned international scientists to join the Irish research institutions and universities, in particular in the area of information technology and bio-sciences. For the Irish scientists new avenues opened up for collaboration, increasing the visibility and importance of R&D in the country, and leveraging the ambition to succeed on a global level. The number of top-level conferences such as PERVASIVE 2006 now being held in Ireland reflects that development.

The PERVASIVE 2006 conference constitutes of a full paper track (proceedings published by Springer in the LNCS series), a track on late breaking results with poster presentations, practical research demonstrations, a track on video papers and a doctoral colloquium. The latter four types of papers are collected in this volume, which is jointly edited by the area chairs. We sincerely appreciate the efforts of all the volunteers from many places in the world in promoting the conference, reviewing and selecting the papers compiled in this volume.

The first part of this volume presents the Late Breaking Results and Posters. Within this category, PERVASIVE 2006 aims at presenting shorter papers, contributing original and recent research findings, fundamental results, basic research contribution, and novel ideas in the area of pervasive computing technologies, systems and applications. From 41 submissions in this category, 18 have been selected for publication, based on the results of the peer-reviewing process.

In the second part of this volume, the Demonstrations for PERVASIVE 2006 are presented. The goal of this category is to provide practical demonstrations of selected research at the conference and to generate discussion amongst the delegates on progressing practical systems and platforms to realise genuine pervasive systems. Nine demonstrations have been selected for publication based on the results of the peer-review process.

The third part comprises the selection of five papers accompanying the selected video submissions, visualising future visions, project descriptions, and concepts of pervasive computing technologies, systems and applications.

The contributions of all these adjunct sessions were presented orally in the “1-Minute Madness” session towards the full auditory, before being shown and demonstrated in the Poster, Demo and Video Reception.

In the fourth part of this book you will find the student papers presented at the PERVASIVE 2006 doctoral colloquium, held just after the main conference on Wednesday, May 10th at the School of Computer Science and Informatics, University College Dublin. Ten PhD students were invited to present their research and defend their preliminary results to an international panel of researchers and developers from the field of pervasive computing. We would like to thank the students for their forward-thinking presentations and contributions and the dedication to pervasive computing they exhibit by working the day after conference participants visited the Guinness Storehouse for the final gala dinner.

We would like to thank all the people that made PERVASIVE 2006 possible, expressing our sincere thanks to all that contributed their work and expertise to the conference. We are grateful to the sponsors that helped to finance the event, as listed on the following page. Finally we appreciate the group of Irish organisers, led by University College Dublin.

We express our thanks to the Austrian Computer Society, OCG, for again agreeing to publish this volume in their book series. In particular, we would like to thank Gabriele Kotsis, president of the OCG, Gerhard Chroust chairing the editorial board, and Elisabeth Maier-Gabriel on the organisational side. We hope that this series of Adjunct Proceedings, now published for the third time with OCG, can be successfully continued with upcoming conferences.

Dublin, May 2006

Tom Pfeifer (Waterford Institute of Technology, Ireland)
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Woontack Woo (Gwangju IST, S. Korea)
(Late Breaking Results Co-Chairs)

Gavin Doherty (Trinity College Dublin, Ireland)
Frederic Vernier (l'Université Paris-Sud, France)
(Video Co-Chairs)

Kieran Delaney (Cork Institute of Technology, Ireland)
Bill Yerazunis (MERL, USA)
(Demonstrations Co-Chairs)

Matthew Chalmers (University of Glasgow, UK)
Joe Kiniry (University College Dublin, Ireland)
(Doctoral Colloquium Co-Chairs)

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Video Co-Chairs

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Frederic Vernier	l'Université Paris-Sud, France

Demonstrations Co-Chairs

Kieran Delaney	Cork Institute of Technology, Ireland
Bill Yerazunis	MERL, USA

Doctoral Colloquium Co-Chairs

Matthew Chalmers	University of Glasgow, UK
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