

Table of Contents

Keynote

- Ambient Intelligence 2.0: Towards Synergetic Prosperity 1
Emile Aarts and Frits Grotenhuis

Sensing

- Behavior Analysis Based on Coordinates of Body Tags..... 14
Mitja Luštrek, Boštjan Kaluža, Erik Dovan, Bogdan Pogorelc, and Matjaž Gams
- MobiDiC: Context Adaptive Digital Signage with Coupons 24
Jörg Müller and Antonio Krüger
- Slice&Dice: Recognizing Food Preparation Activities Using Embedded Accelerometers 34
Cuong Pham and Patrick Olivier

Reasoning and Sensing

- The Ambient Tag Cloud: A New Concept for Topic-Driven Mobile Urban Exploration 44
Matthias Baldauf, Peter Fröhlich, and Peter Reichl
- Constructing Topological Maps of Displays with 3-D Positioning Information 49
Donald J. Patterson
- Activity Recognition for Personal Time Management 55
Zoltán Prekopcsák, Sugárka Soha, Tamás Henk, and Csaba Gáspár-Papanek
- Getting Places: Collaborative Predictions from Status 60
Mohamad Monibi and Donald J. Patterson

Ambient Technology

- Place Enrichment by Mining the Web 66
Ana O. Alves, Francisco C. Pereira, Assaf Biderman, and Carlo Ratti
- Sensor-Based Human Activity Recognition in a Multi-user Scenario 78
Liang Wang, Tao Gu, Xianping Tao, and Jian Lu

Amelie: A Recombinant Computing Framework for Ambient Awareness	88
<i>Georgios Metaxas, Panos Markopoulos, and Emile Aarts</i>	
Bug-Free Sensors: The Automatic Verification of Context-Aware TinyOS Applications	101
<i>Doina Bucur and Marta Kwiatkowska</i>	
Semi-automatic Story Creation System in Ubiquitous Sensor Environment	106
<i>Shohei Yoshioka, Yasushi Hirano, Shoji Kajita, Kenji Mase, and Takuya Maekawa</i>	
SAGE: A Logical Agent-Based Environment Monitoring and Control System	112
<i>Krysia Broda, Keith Clark, Rob Miller, and Alessandra Russo</i>	
Using Video with Active Markers	118
<i>Jussi Mikkonen, Jung-Joo Lee, and Ilpo Koskinen</i>	

Ambient Assisted Living

An Event-Driven Approach to Activity Recognition in Ambient Assisted Living	123
<i>Holger Storf, Thomas Kleinberger, Martin Becker, Mario Schmitt, Frank Bomarius, and Stephan Prueckner</i>	
EMon: Embodied Monitorization	133
<i>Davide Carneiro, Paulo Novais, Ricardo Costa, Pedro Gomes, and José Neves</i>	
Interoperation Modeling for Intelligent Domotic Environments	143
<i>Dario Bonino and Fulvio Corno</i>	
Intertwining Implicit and Explicit Awareness of Wellbeing to Support Peace of Mind and Connectedness	153
<i>Pavan Dadlani, Panos Markopoulos, and Emile Aarts</i>	
NICA: Natural Interaction with a Caring Agent	159
<i>Berardina De Carolis, Irene Mazzotta, and Nicole Novielli</i>	

Applications and Studies

Ambient Rabbits Likeability of Embodied Ambient Displays	164
<i>Thomas Mirlacher, Roland Buchner, Florian Förster, Astrid Weiss, and Manfred Tscheligi</i>	
Contextual Interaction Design: The Case of Pause Buddy	174
<i>David V. Keyson and Hannah J. Doff-Ottens</i>	

Creating a Development Support Bubble for Children	186
<i>Janneke Verhaegh, Willem Fontijn, Emile Aarts, Laurens Boer, and Doortje van de Wouw</i>	
I Bet You Look Good on the Wall: Making the Invisible Computer Visible.....	196
<i>Jo Vermeulen, Jonathan Slenders, Kris Luyten, and Karin Coninx</i>	
AmIQuin - An Ambient Mannequin for the Shopping Environment	206
<i>Alexander Meschtscherjakov, Wolfgang Reitberger, Thomas Mirlacher, Hermann Huber, and Manfred Tscheligi</i>	
Designing an Awareness Display for Senior Home Care Professionals....	215
<i>Martijn H. Vastenburg and Robbert J. Vroegindeweij</i>	

Methods and Tools

A Framework to Develop Persuasive Smart Environments	225
<i>Pedro Lobo, Teresa Romão, A. Eduardo Dias, and José Carlos Danado</i>	
Measuring the Response Bias Induced by an Experience and Application Research Center	235
<i>Boris de Ruyter, Rick van Geel, and Panos Markopoulos</i>	
The Assisted User-Centred Generation and Evaluation of Pervasive Interfaces	245
<i>Karin Leichtenstern and Elisabeth André</i>	

Reasoning and Adaptation

Increased Robustness in Context Detection and Reasoning Using Uncertainty Measures: Concept and Application	256
<i>Martin Berchtold and Michael Beigl</i>	
Synthetic Training Data Generation for Activity Monitoring and Behavior Analysis	267
<i>Dorothy Monekosso and Paolo Remagnino</i>	
Adaptive User Profiles in Pervasive Advertising Environments	276
<i>Florian Alt, Moritz Balz, Stefanie Kristes, Alireza Sahami Shirazi, Julian Mennenöh, Albrecht Schmidt, Hendrik Schröder, and Michael Goedicke</i>	

Author Index	287
---------------------------	------------