OSLO

2008

UIC ATC

The 5th International Conference on Ubiquitous Intelligence and Computing

The 5th International Conference on Autonomic and Trusted Computing

Technical Program

University of Stavanger

SINTEF

simula research laboratory

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Keynotes

Jadwiga Indulska *is a Professor in the School of Information Technology and Electrical Engineering at The University of Queensland, Brisbane, Australia. She received a Masters degree in Mathematics from Jagiellonian University and her PhD degree in Computer Science from AGH University of Science and Technology, both in Krakow, Poland. Her research interests are in the areas of computer networks, distributed computing and pervasive computing. Over the last 10 years, her research has addressed many problems in pervasive and autonomic computing including context information models for context-aware applications; autonomic management of context information; privacy of context information; software engineering of context-aware applications; balancing user control and software autonomy; and autonomic, rapidly deployable mesh networks. She has led research projects on interoperability of distributed applications, mobile computing, and pervasive computing at the DSTC, an Australian Government funded Collaborative Research Centre on Distributed Systems Technology, (1992- 2005). She is currently leading a research project on autonomic networks and systems at NICTA (National Centre of Excellence in Information and Communication Technology).*

Prof. Petter Øyan *has degrees from The Oslo National Academy of the Arts, Norway, Fachhochschule für Gestaltung Pforzheim, Germany and Fachhochschule für Gestaltung Schwäbisch Gmünd, Germany. Prof. Øyan has more than 20 years of experience as an industrial designer both in Norway and Germany with works that have landed him numerous awards for outstanding design. Since 2003 Øyan has been a full professor in industrial design and interaction design at Østfold University College* and he is currently the dean of product design at Akershus University College. Prof. Øyan is the chairman of The Professional Board for Design Education in Norway.

Erdal Cayirci *received his MS degree from Middle East Technical University, and the PhD degree from Bogazici University in computer engineering. He has been an associated professor in Istanbul Technical University, Yeditepe University and Naval Sciences and Engineering Institute and a visiting researcher with Broadband and Wireless Networking Laboratory and a visiting lecturer at Georgia Institute of Technology. He is currently Chief, CAX Support Branch in NATO Joint Warfare Center in Stavanger, Norway, and also a faculty at the University of Stavanger. His research interests include sensor networks, mobile communications, tactical communications, and military constructive simulation. He was an editor for IEEE Transactions on Mobile Computing, AdHoc Networks and ACM/Kluwer Wireless Networks journals, and guest editor for several special issues. He has received several awards.*

Challenges in the design and development of context-aware applications

Context-awareness plays an important role in pervasive computing as adaptations of applications to context changes (changes in computing environment and in user activities/tasks) help to achieve the goal of computing services available everywhere and at any time. There is a growing body of research on context-aware applications that are adaptable and capable of acting autonomously on behalf of users. However, there are still many open research issues that challenge the pervasive computing community. In this talk I will discuss several of these research challenges. First, I will outline the state of the art in context information modelling, management and reasoning as well as possible future research directions in this area. This will be followed by a discussion of context information management that allows development of fault-tolerant and autonomic context-aware applications. As one of the challenges inhibiting the development of context-aware applications is their complexity, I will discuss software engineering approaches that ease the task of developing such applications. Context-aware applications adapt to context changes using context information. However this context information may be imprecise or erroneous and therefore can lead to incorrect adaptation decisions creating usability problems and affecting acceptance of context-aware applications. This creates a need for some balance between autonomy of context-aware applications and the user control of the applications. I will describe some early approaches my team is working on to tackle this problem. Finally, I will discuss research issues related to privacy of context information and how context can be used to enhance security mechanisms within pervasive computing environments.

The importance of including the haptics factor in interaction design

One aspect of interaction design is communication of information through the use of a screen. Another aspect, the physical or haptic interaction with the device itself, is another important issue, especially to reduce errors when the device is used in critical situations. A project involving Ostfold university college, the Institute for Energy Technology in Halden and the Norwegian Defence Research Establishment in Kjeller has focused on importance of minimizing operating errors to ensure safe operation in critical situations, where the ability to give correct feedback through haptic interaction is as important as the correct understanding of visual communication. The cases are demonstrating the user centered approach to problem solving used by industrial designers and the analogy between the design- and the research process, especially focusing on the use of physical designs to test and review and thereby exploring form as an interaction parameter.

Security Challenges for Wireless Sensor Network Applications

Wireless sensor networks (WSN) have many security and safety applications. BODAS, TADAS and TEDAS are three examples for WSN security applications implemented and deployed recently. BODAS detects threats against the security and safety of pipelines. TADAS is a tactical sensing system to detect and classify the intruders. It is developed for surveillance along borders, through approach routes and around critical facilities. Finally TEDAS detects the intruders passing over, through or under a perimeter fence. All three applications are based on the deployment of a large number of unattended nodes for extended time periods. Therefore, scalability and power awareness are critical design parameters for them. They are also susceptible to security threats different from typical military and commercial systems. We first introduce briefly these applications, and then elaborate the security threats and required security mechanisms for them. We also give our practical solutions for some of these security challenges and experimental results for them obtained through the implementation and deployment of BODAS, TADAS and TEDAS.

UIC Panels

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University of Queensland, Australia

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Institute TELECOM & Management, France

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Arizona State University, USA

Riekki Jukka
University of Oulu, Finland

Theo Ungerer
University of Augsburg, Germany

Ohbyung Kwon
Kyunghee University, Korea

Jhing-Fa Wang
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Air Force Research Laboratory, Information Grid Division, Cyber Defense Branch, USA

Panelists

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Leibniz Universität Hannover, Germany

Hai Jin
Huazhong University of Science and Technology, China

Erdal Cayirci
University of Stavanger, Norway

Mike Hinchey
University of Limerick, Ireland

Chris Gill
Washington University in St. Louis, USA

UIC-panel: What do we expect from pervasive/intelligent computing and how far are we from achieving it?

After almost a decade of research, pervasive computing is gradually coming of age. The research community has addressed a large scope of the scientific problems related to context-awareness, adaptability, communication paradigms, sensor/device management, human-computer interactions, software engineering and security/privacy of pervasive systems and has also created models and prototypes. Does this mean that the vision of pervasive computing is about to be realised and that we will shortly see implementations/deployments of pervasive computing systems in various aspects of our life and work?

The panelists will outline a vision for pervasive/intelligent computing and discuss whether the research progress to date in pervasive computing will allow us to achieve this vision. The questions the panelists will try to answer include: What do we expect from pervasive/intelligent computing? in general in various domains (work, home, health, education, telecommunication, etc) Have we achieved this vision and, if not, what is required to achieve it?

ATC-panel: Can we sell Autonomic/Organic and Trusted Computing Systems?

The ubiquitous nature of computers has made them a victim of their own success. They are everywhere, but their creators demand that they be simple and low cost. Let me clarify the latter phrase as it too has a contradictory nature. "Simple" is not what necessarily sells. For example, a cell-phone manufacturer conducted a study of their two phone designs, one with N features and another with N + M features were prototyped. The more complex one (the one with M more features) was vastly preferred, in spite of its greater cost, by buyers over the simpler one. Ironically, the purchasers of the more complex, more costly phone did not even use the additional M features; instead they seemed to pay for the additional features because they initially thought that they might use them or did not want to be without them in case they ever needed them (which never arose). In light that the market demands designs that are not necessarily simple, we should re-cast "simple" to mean understandable to a user and well-understood by the designer. The greater a designer's understanding, however, the greater the likelihood that the product will be of reasonable cost (so production can meet what the market will support) and whose subsequent performance is safe. Simplicity, however, will be only in appearance: through information hiding and machine abstractions complexity is seemingly conquered. This is to be a daunting task particularly because complexity is the breeding-ground for faults and vulnerabilities that can penetrate the surrounding aura of simplicity to reveal that the underlying complexity was indeed untamed. Our job then becomes one of furnishing system designers with the tools and insights to make their designs for ubiquitous computing safe.

For instance, a group within the Air Force Research Laboratory (AFRL), has been working on voting protocols to support fault tolerance - including faults that may be induced by attackers. The intention is to treat voting as a black box that, with the proper interfaces, can be plugged everywhere into a system. Designed for energy-efficiency, customization, ubiquity of voting can be realized by insulating the information receivers from the semantic knowledge of the information being voted upon. This makes the voting protocols pluggable and therefore amenable for middleware realizations.

Monday, June 23

8:30 Plenary session

Opening ceremony

Room: PH170

Session chair: Frode Eika Sandnes, General chair

Opening ceremony
Sissel Østberg (rector Oslo University College), Per Ø. Staff (dean, faculty of Engineering, Oslo University College), Karl Georg Høyer (research director TDE, Oslo University College), Chunming Rong (General chair), Jianhua Ma (steering committee chair), Laurence T. Yang (steering committee chair), Yan Zhang (program chair UIC'08), Martin Gilje Jaatun (program chair ATC'08)

9:00 Plenary session

Keynote 1

Room: PH170

Session chair: Stephen S. Yau

Challenges in the Design and Development of Context-Aware Applications
Prof. Jadwiga Indulska, The University of Queensland / NICTA, Australia

10:00 Coffee break

10:30 Parallel session

Session 1A: Ubiquitous Computing	Session 1B: Smart Spaces, Environments, Services	Session 1C: Intrusion Detection	Session 1D: Trust
Room: PH170	**Room: PH131**	**Room: PH330**	**Room: PH322**
Session chair: Laurence Tianruo Yang	**Session chair: Venu Govindaraju**	**Session chair: Martin Gilje Jaatun**	**Session chair: Hai Jin**
Security Policy Integration and Conflict Reconciliation for Collaborations among Organizations in Ubiquitous Computing Environment *Stephen S. Yau and Zhaoji Chen*	Robots in Smart Spaces - A Case Study of a u-Object Finder Prototype *Tomomi Kawashima, Jianhua Ma, Bernady O. Apduhan, Runhe Huang and Qun Jin*	Detecting Stepping-Stone Intrusion and Resisting Evasion through TCP/IP Packets Cross-Matching *Jianhua Yang and Byong Lee*	A Semantic-Aware Ontology-Based Trust Model for Pervasive Computing Environments *Mohsen Taherian, Rasool Jalili and Morteza Amini*
Improved Weighted Centroid Localization in Smart Ubiquitous Environments *Stephan Schuhmann, Klaus Herrmann, Kurt Rothermel, Jan Blumenthal and Dirk Timmermann*	Biometrics Driven Smart Environments: Abstract Framework and Evaluation *Vivek Menon, Bharat Jayaraman and Venu Govindaraju*	Preventing DDoS Attacks Based on Credit Model for P2P Streaming System *Jun Yang, Ying Li, Furong Wang and Jiuqiang Ming*	Using Automated Planning for Trusted Self-Organising Organic Computing Systems *Benjamin Satzger, Andreas Pietzowski, Wolfgang Trumler, and Theo Ungerer*
A Formal Framework for Expressing Trust Negotiation in the Ubiquitous Computing Environment *Deqing Zou, Jong Hyuk Park, Laurence Tianruo Yang, Zhensong Liao and Tai-hoon Kim*	A Structured Methodology of Scenario Generation and System Analysis for Ubiquitous Smart Space Development *Ohbyung Kwon and Yonnim Lee*	Design, Prototype and Evaluation of a Network Monitoring Library *Karl-André Skevik, Vera Goebel and Thomas Plagemann*	A Trusted Group Signature Architecture in Virtual Computing Environment *Deqing Zou, Yunfa Li, Song Wu and Weizhong Qiang*
Pervasive Services on the Move: Smart Service Diffusion on the OSGi Framework *Davy Preuveneers and Yolande Berbers*	Capturing Semantics for Information Security and Privacy Assurance *Mohammad M. R. Chowdhury, Javier Chamizo, Josef Noll and Juan Miguel Gomez*	Real-time IP Checking and Packet Marking for Preventing ND-DoS Attack Employing Fake Source IP in IPv6 LAN *Gaeil An and Kiyoung Kim*	Penetration Testing of OPC as Part of Process Control Systems *Maria B. Line, Martin Gilje Jaatun, Zi Bin Cheah, A. B. M. Omar Faruk, Håvard Husevåg Garnes and Petter Wedum*

12:30 Lunch

13:30 Parallel session

Session 2A: Context-Aware Services and Applications I	Session 2B: Intelligent Computing: Middleware, Models and Services I	Session 2C: Trusted Systems and Crypto	Session 2D: Autonomic Computing
Room: PH170	**Room: PH131**	**Room: PH330**	**Room: PH322**
Session chair: Jadwiga Indulska	**Session chair: Yo-Ping Huang**	**Session chair: Zheng Yan**	**Session chair: Hein Meling**
A Framework for Context-Aware Home-Health Monitoring *Alessandra Esposito, Luciano Tarricone, Marco Zappatore, Luca Catarinucci, Riccardo Colella and Angelo DiBari*	Wireless Sensor Network assisted Dynamic Path Planning for Transportation Systems *Yue-Shan Chang, Tong-Ying Juang and Chen-Yi Su*	Off-line Keyword Guessing Attacks on Recent Public Key Encryption with Keyword Search Schemes *Wei-Chuen Yau, Swee-Huay Heng and Bok-Min Goi*	Scheduling for Reliable Execution in Autonomic Systems *Terry Tidwell, Robert Glaubius, Christopher Gill and William D. Smart*
Semantic Learning Space: An Infrastructure for Context-Aware Ubiquitous Learning *Zhiwen Yu, Xingshe Zhou and Yuichi Nakamura*	A Recoverable Semi-fragile Watermarking Scheme using Cosine Transform and Adaptive Median Filter *Shang-Lin Hsieh, Pei-Da Wu, I-Ju Tsai and Bin-Yuan Huang*	An Integrated Solution for Policy Filtering and Traffic Anomaly Detection *Zhijun Wang, Hao Che and Jiannong Cao*	Measuring and Analyzing Emerging Properties for Autonomic Collaboration Service Adaptation *Christoph Dorn, Hong-Linh Truong and Schahram Dustdar*
A Comprehensive Approach for Situation-Awareness based on Sensing and Reasoning about Context *Thomas Springer, Patrick Wustmann, Iris Braun, Waltenegus Dargie and Michael Berger*	Intelligent VoIP System in Ad-hoc Network with Embedded Pseudo SIP Server *Lin-huang Chang, Chun-hui Sung, Shih-yi Chiu and Jiun-jian Liaw*	Secure Safety: Secure Remote Access to Critical Safety Systems in Offshore Installations *Martin Gilje Jaatun, Tor Olav Grøtan and Maria B. Line*	Artificial Immune System Based Robot Anomaly Detection Engine for Fault Tolerant Robots *Bojan Jakimovski and Erik Maehle*
Context-Adaptive User Interface in Ubiquitous Home Generated by Bayesian and Action Selection Networks *Han-Saem Park, In-Jee Song and Sung-Bae Cho*	A Weighted Routing Protocol using Grey Relational Analysis for Wireless Ad Hoc Networks *Hung-Chi Chu, Yi-Ting Hsu and Yong-Hsun Lai*	SEMAP: Improving Multipath Security based on Attacking Point in Ad Hoc Networks *Zhengxin Lu, Chen Huang, Furong Wang and Chunming Rong*	Maximising Personal Utility Using Intelligent Strategy in Minority Game *Yingni She and Ho-fung Leung*

15:30 Coffee break

16:00 Parallel session

Session 3A: Smart Objects and Embedded Computing	Session 3B: Object Identification: Techniques and Applications	Session 3C: Organic Computing	Session 3D: Trust
Room: PH170	**Room: PH131**	**Room: PH330**	**Room: PH322**
Session chair: Qun Jin	**Session chair: Yo-Ping Huang**	**Session chair: Tadashi Dohi**	**Session chair: Zhijun Wang**
Spin-off: Autonomous Smart Camera Systems *Martin Hoffmann, Michael Wittke, Jörg Hähner, Christian Müller-Schloer*	RFID-based Interactive Learning in Science Museums *Yo-Ping Huang, Yueh-Tsun Chang and Frode Eika Sandnes*	Distributed Performance Control in Organic Embedded Systems *Steffen Stein and Rolf Ernst*	Trusting Groups in Coalition Formation Using Social Distance *Peter Shaw, Paul Sage and Peter Milligan*
Rule Selection for Collaborative Ubiquitous Smart Device Development: Rough Set Based Approach *Kyoung-Yun Kim, Keunho Choi and Ohbyung Kwon*	Real-time Detection of Passing Objects Using Virtual Gate and Motion Vector Analysis *Daw-Tung Lin and Li-Wei Liu*	An Operating System Architecture for Organic Computing in Embedded Real-Time Systems *Florian Kluge, Jörg Mische, Sascha Uhrig and Theo Ungerer*	Adjustable Trust Model for Access Control *Maryna Komarova and Michel Riguidel*
			Towards Trustworthiness Establishment: A D-S Evidence Theory based Scorer Reliability tuned Method for Dishonest Feedback Filtering *Chunmei Gui, Quanyuan Wu, Huaimin Wang and Jian Qiang*

An Object-oriented Framework for Common Abstraction and the Comet-based Interaction of Physical u-Objects and Digital Services
Kei Nakanishi, Jianhua Ma, Bernady O. Apduhan and Runhe Huang

Personalizing Threshold Values on Behavior Detection with Collaborative Filtering
Hiroyuki Yamahara, Fumiko Harada, Hideyuki Takada and Hiromitsu Shimakawa

IP Traceback Using Digital Watermark and Honeypot
Zaiyao Yi, Liuqing Pan, Xinmei Wang, Chen Huang and Benxiong Huang

A Ubiquitous Interactive Museum Guide
Yo-Ping Huang, Tsun-Wei Chang and Frode Eika Sandnes

Dynamic Probabilistic Packet Marking with Partial Non-Preemption
Wei Yen and Jeng-Shian Sung

Fractal Model Based Face Recognition for Ubiquitous Environments
Shuenn-Shyang Wang, Su-Wei Lin and Cheng-Ming Cho

Towards an Autonomic Peer-to-peer Middleware for Wireless Sensor Networks
Reinhard Mörgenthaler, Markus Zeller and Josef Jiru

Embedding Dynamic Behaviour into a Self-configuring Software System
Paul Ward, Mariusz Pelc, James Hawthorne and Richard Anthony

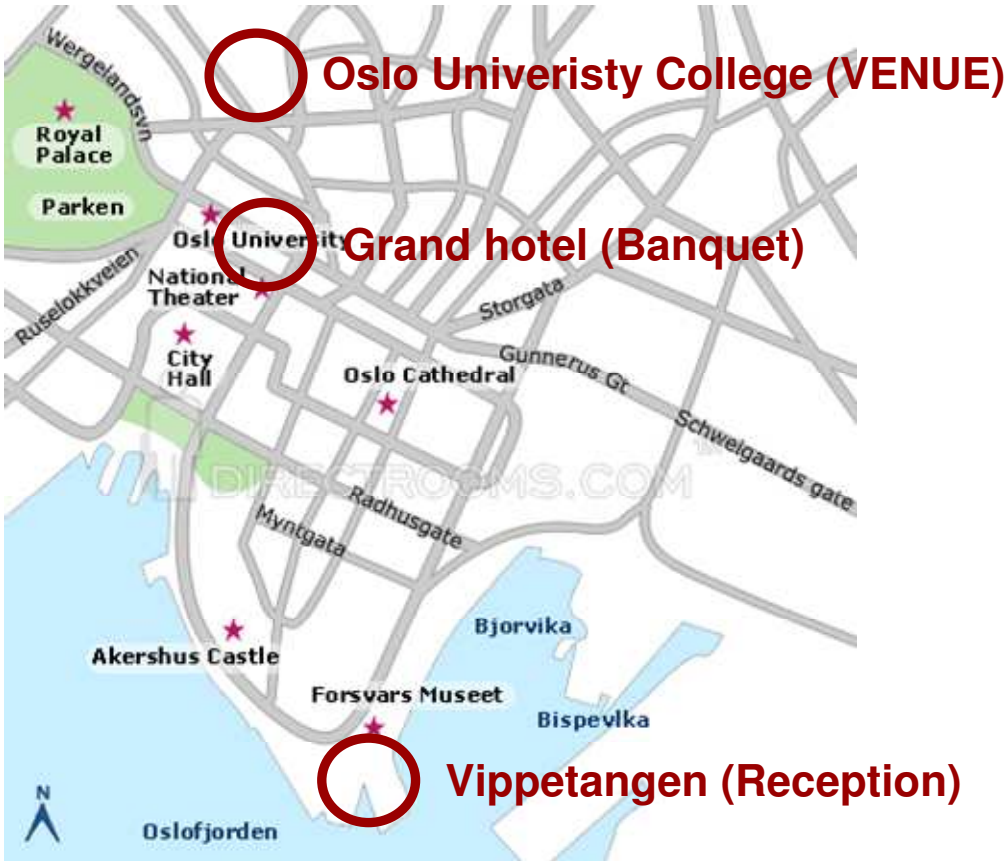
Service Discovery of IP Cameras Using SIP and Zeroconf Protocols
Yi-Chih Tung, Chien-Min Ou, Wen-Jyi Hwang and Wei-De Wu

A User Behavior Based Trust Model for Mobile Applications
Zheng Yan, Valtteri Niemi, Yan Dong and Guoliang Yu

Managing Contracts in Pleiades using Trust Management
Christoffer Norvik, John P. Morrison, Dan C. Marinescu, Chen Yu, Gabriela M. Marinescu and Howard Jay Siegel

18:30 Reception

Vippetangen (in front of the OHVs building). Walk from the conference venue to the boat via the city hall and below the Akershus castle.



Tuesday, June 24

9:00 Plenary session

Keynote 2

Room: PH170

Session chair: Simen Hagen

The Importance of Including the Haptics Factor in Interaction Design
Prof. Petter Øyan, Akershus University College

10:00 Coffee break

10:30 Parallel session

Session 4A: Intelligent Computing: Middleware, Models and Services II	Session 4B: Wireless Sensor Networks	Session 4C: Organic Computing	Session 4D: Knowledge and Patterns
Room: PH170	**Room: PH131**	**Room: PH330**	**Room: PH322**
Session chair: Josef Noll	**Session chair: Jun-Zhao Sun**	**Session chair: Peidong Zhu**	**Session chair: Junzhou Luo**
Intersection Location Service for Vehicular Ad Hoc Networks with Cars in Manhattan Style Movement Patterns *Yao-Jen Chang and Shang-Yao Wu*	Data Randomization for Lightweight Secure Data Aggregation in Sensor Network *Abedelaziz Mohaisen, Ik Rae Jeong, Dowon Hong, Nam-Su Jho and DaeHun Nyang*	Simulation-Based Optimization Approach for Software Cost Model with Rejuvenation *Hiroyuki Eto, Tadashi Dohi and Jianhua Ma*	Autonomous Querying for Knowledge Networks *Kieran Greer, Matthias Baumgarten, Chris Nugent, Maurice Mulvenna and Kevin Curran*
Ubiquitous and Robust Text-Independent Speaker Recognition for Home Automation Digital Life *Jhing-Fa Wang, Ta-Wen Kuan, Jia-chang Wang and Gaung-Hui Gu*	Mobile Sink Routing Protocol with Registering in Cluster-based Wireless Sensor Networks *Ying-Hong Wang, Kuo-Feng Huang, Ping-Fang Fu and Jun-Xuan Wang*	Organic Control of Traffic Lights *Holger Prothmann, Fabian Rochner, Sven Tomforde, Jürgen Branke, Christian Müller-Schloer and Hartmut Schmeck*	Discovery of Useful Patterns from Tree-Structured Documents with Label-Projected Database *Juryon Paik, Junghyun Nam, Hee Yong Youn and Ung Mo Kim*
Energy Efficient In-network Phase RFID Data Filtering Scheme *Dong-Sub Kim, Ali Kashif, Xue Ming, Jung-Hwan Kim and Myong-Soon Park*	Towards the Implementation of Reliable Data Transmission for 802.15-based Wireless Sensor Networks *Taeshik Shon and Hyohyun Choi*	Concepts for Autonomous Control Flow Checking for Embedded CPUs *Daniel Ziener and Jürgen Teich*	Web Search Results Clustering Based on a Novel Suffix Tree Structure *Junze Wang, Yijun Mo, Benxiong Huang, Jie Wen and Li He*
Energy-Efficient Tracking of Continuous Objects in Wireless Sensor Networks *Jung-Hwan Kim, Kee-Bum Kim, Chauhdary Sajjad Hussain, Min-Woo Cui and Myong-Soon Park*	An Energy-Efficient Query Processing Algorithm for Wireless Sensor Networks *Jun-Zhao Sun*	Adaptability of the TRSIM Model to Some Changes in Agents Behaviour *Alberto Caballero, Juan A. Botia and Antonio Gómez-Skarmeta*	

12:30 Lunch

13:30 Parallel session

Session 5A: Ubiquitous Computing

Room: PH170

Session chair: Chung-Ming Huang

RFID: An Ideal Technology for Ubiquitous Computing?
Ciaran O'Driscoll, Daniel MacCormac, Mark Deegan, Fred Mtenzi and Brendan O'Shea

An Experimental Analysis of Undo in Ubiquitous Computing Environments
Marco Loregian and Marco P. Locatelli

Towards a Collaborative Reputation Based Service Provider Selection in Ubiquitous Computing Environments
Malamati Louta

Petri Net-based Episode Detection and Story Generation from Ubiquitous Life Log
Young-Seol Lee and Sung-Bae Cho

Session 5B: Smart Spaces, Environments, Services

Room: PH131

Session chair: Jong Hyuk Park

Protection Techniques of Secret Information in Non-Tamper Proof Devices of Smart Home Network
Abedelaziz Mohaisen, YoungJae Maeng, Joenil Kang, DaeHun Nyang, KyungHee Lee, Dowon Hong and JongWook Han

Universal Remote Control for the Smart World
Jukka Riekki, Ivan Sanchez and Mikko Pyykkönen

Mobile Navigation System for the Elderly - Preliminary Experiment and Evaluation
Takahiro Kawamura, Keisuke Umezu and Akihiko Ohsuga

Time Stamp Protocol for Smart Environment Services
Deok-Gyu Lee, Jong-Wook Han, Jong Hyuk Park, Sang Soo Yeo and Young-Sik Jeong

Session 5C: Trust and Dependable Systems

Room: PH330

Session chair: Theo W. Ungerer

A Semantic Foundation for Trust Management Languages with Weights: An Application to the RT Family
Stefano Bistarelli, Fabio Martinelli and Francesco Santini

Annotation Markers for Runtime Replication Protocol Selection
Hein Meling

Enhanced Three-round Smart Card-based Key Exchange Protocol
Eun-Jun Yoon and Kee-Young Yoo

Assertions Signcryption Scheme in Decentralized Autonomous Trust Environments
Mingwu Zhang, Bo Yang and Wenzheng Zhang

A Study of Information Security Practice in a Critical Infrastructure Application
Martin Gilje Jaatun, Eirik Albrechtsen, Maria B. Line, Stig Ole Johnsen, Irene Wærø, Odd Helge Longva and Inger Anne Tøndel

Session 5D: Routing and Reliable Systems

Room: PH322

Session chair: Laurence Tianruo Yang

Di-GAFR: Directed Greedy Adaptive Face-Based Routing
Tao Yang, Ye Huang, Jianxin Chen, Geng Yang and Chunming Rong

Cooperative Management Framework for Inter-Domain Routing System
Ning Hu, Peng Zou, PeiDong Zhu and Xin Liu

Performance Problem Determination Using Combined Dependency Analysis for Reliable System
Shunshan Piao, Jeongmin Park and Eunseok Lee

A Free-Roaming Mobile Agent Security Protocol Based on Anonymous Onion Routing and k Anonymous Hops Backwards
Xiaogang Wang, Darren Xu and Junzhou Luo

Secure Ethernet Point-to-point Links for Autonomous Electronic Ballot Boxes
Armando Astarloa, Unai Bidarte, Jaime Jiménez, Jesús Lázaro and Iñigo Martinez de Alegra

15:30 Coffee break

16:00 Plenary session

Panel discussion 1

Room: PH170

Chairs: Jadwiga Indulska (University of Queensland, Australia), Daqing Zhang (Institute TELECOM & Management, SudParis, France)

What do we expect from pervasive/intelligent computing and how far are we from achieving it?
Panelists: Stephen Yau (Arizona State University, USA), Riekki Jukka (University of Oulu, Finland), Theo Ungerer (University of Augsburg, Germany), Ohbyung Kwon (Kyunghee University, Korea), Jhing-Fa Wang (National Cheng Kung University, Taiwan)

18:30 Banquet

Grand Hotel, Roccoco room, Karl Johans gate 31. Walk from the conference venue (about 5-10 minutes) onto the Karl Johan main street. The Grand Hotel is located diagonally to the Parliament building.

Wednesday, June 25

9:00 Plenary session

Keynote 3

Room: PH170

Session chair: Chunming Rong

Security Challenges for Wireless Sensor Network Applications
Dr. Erdal Cayirci, NATO JWC & University of Stavanger, Norway

10:00 Coffee break

10:30 Parallel session

Session 6A: Context-Aware Services and Applications II	Session 6B: Intelligent Computing: Middleware, Models and Services	Session 6C: Pervasive Systems	Session 6D: Sensor Networks, VoIP, and Watermarking
Room: PH170	**Room: PH131**	**Room: PH330**	**Room: PH322**
Session chair: Daqing Zhang	**Session chair: Runhe Huang**	**Session chair: Christian Müller-Schloer**	**Session chair: Jianhua Ma**
Use Semantic Decision Tables to Improve Meaning Evolution Support Systems *Yan Tang and Robert Meersman*	An Analysis of the Manufacturing Messaging Specification Protocol *Jan Tore Sørensen and Martin Gilje Jaatun*	Using Multiple Detectors to Detect the Backoff Time of the Selfish Node in Wireless Mesh Network *Furong Wang, Yipeng Qu, Baoming Bai, Fan Zhang and Chen Huang*	A Component-Based Ambient Agent Model for Assessment of Driving Behaviour *Tibor Bosse, Mark Hoogendoorn, Michel C.A. Klein and Jan Treur*
Combining User Profiles and Situation Contexts for Spontaneous Service Provision in Smart Assistive Environments *Weijun Qin, Daqing Zhang, Yuanchun Shi and Kejun Du*	A Long-Distance Time Domain Sound Localization *Jhing-Fa Wang, Jia-chang Wang, Bo-Wei Chen and Zheng-Wei Sun*	Self-Reconfiguration in Highly Available Pervasive Computing System *Hadi Hemmati and Rasool Jalili*	A Cartesian Robot for RFID Signal Distribution Model Verification *Aliasgar Kutiyanawala and Vladimir Kulyukin*
Ubiquitous Phone System *Shan-Yi Tsai, Chiung-Ying Wang and Ren-Hung Hwang*	Towards Dataintegration from WITSML to ISO 15926 *Kari Anne Haaland Thorsen and Chunming Rong*	Modeling Modern Social-Network-based Epidemics: A Case Study of Rose *Sirui Yang, Hai Jin, Xiaofei Liao and Sanmin Liu*	Self-Localization in a Low Cost Bluetooth Environment *Julio Oliveira Filho, Ana Bunoza, Jurgen Sommer and Wolfgang Rosenstiel*
Utilizing RFIDs for Location Aware Computing *Benjamin Becker, Manuel Huber and Gudrun Klinker*	A SIP-based Session Mobility Management Framework for Ubiquitous Multimedia Services *Chung-Ming Huang and Chang-Zhou Tsai*	Energy Constrained Multipath Routing in Wireless Sensor Networks *Antoine B. Bagula and Kuzamunu G. Mazandu*	SepRep: A Novel Reputation Evaluation Model in Peer-to-Peer Networks *Xiaowei Chen, Kaiyong Zhao and Xiaowen Chu*

12:30 Lunch

13:30 Plenary session

Panel discussion 2:

Room: PH170

Chairs: Hein Meling (University of Stavanger) and Kevin Kwiat (AFRL)

Can we sell Autonomic/Organic and Trusted Computing Systems?
Panelists: Christian Müller-Schloer (Leibniz Universität Hannover, Germany), Hai Jin (Huazhong University of Science and Technology, China), Erdal Cayirci (University of Stavanger, Norway), Mike Hinchey (University of Limerick, Ireland) and Chris Gill (Washington University in St. Louis, USA)

15:30 Coffee break  

16:00 Parallel session

Session 7A: Context-Aware Services and Applications	Session 7D: Wireless Networks: Routing, Mobility and Security
Room: PH170	**Room: PH131**
Session chair: Zhiwen Yu	**Session chair: Yan Zhang**
AwarePen - Classfication Probability and Fuzziness in a Context Aware Application *Martin Berchtold, Till Riedel, Michael Beigl and Christian Decker*	Multi-priority Multi-path Selection for Video Streaming in Wireless Multimedia Sensor Networks *Lin Zhang, Manfred Hauswirth, Lei Shu, Zhangbing Zhou, Vinny Reynolds and Guangjie Han*
A Model Driven Development Method for Developing Context-Aware Pervasive Systems *Estefanía Serral, Pedro Valderas and Vicente Pelechano*	An Evaluation Study of the Effectiveness of Modeling NASA Swarm-Based Exploration Missions with ASSL *Mike Hinchey and Emil Vassev*
Intelligent System Architecture for Context-Awareness in Ubiquitous Computing *Jae-Woo Chang and Seung-Tae Hong*	Controlling Uncertainty in Personal Positioning at Minimal Measurement Cost *Hui Fang, Wen-Jing Hsu, and Larry Rudolph*
User-based Constraint Strategy in Ontology Matching *Feiyu Lin and Kurt Sandkuhl*	RFID System Security Using Identity-Based Cryptography *Yan Liang and Chunming Rong*

18:00 End of Conference