

# **2014 IEEE International Conference on Pervasive Computing and Communication Workshops**

**(PERCOM WORKSHOPS 2014)**

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# ACOMORE'14: The First Symposium on Activity and Context Modeling and Recognition, 2014 - Program

## Session 1: Introduction and Opening Session

### ***Do You Hear What I Hear? Using Acoustic Probing to Detect Smartphone Locations***

Irina Diaconita (Multimedia Communications Lab, Technical University of Darmstadt, Germany); Andreas Reinhardt (The University of New South Wales, Australia); Frank Englert (TU Darmstadt, Germany); Delphine Christin (University of Bonn & Fraunhofer FKIE, Germany); Ralf Steinmetz (Technische Universität Darmstadt, Germany)

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## Session 2: Smart Phone Based Sensing

### ***Self-Calibration of Walking Speed Estimations Using Smartphone Sensors***

Marco Altini (Holst Centre/imec-nl, The Netherlands); Marijn van Dort (Technical University Eindhoven, The Netherlands); Ruud Vullers (imec-Netherlands, The Netherlands); Chris Van Hoof (IMEC, Belgium); Oliver Amft (University of Passau, Germany)

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### ***Personalised phone placement recognition in daily life using RFID tagging***

Florian Wahl (University of Passau, Germany); Oliver Amft (University of Passau, Germany)

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### ***RingLearn: Long-term Mitigation of Disruptive Smartphone Interruptions***

Jeremiah Smith (Imperial College, United Kingdom); Naranker Dulay (Imperial College London, United Kingdom)

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## Session 3: Gesture and Activity Recognition

### ***Dealing with human variability in motion based, wearable activity recognition***

Matthias Kreil (DFKI Kaiserslautern, Germany); Bernhard Sick (University of Kassel, Germany); Paul Lukowicz (DFKI and University of Kaiserslautern, Germany)

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## Session 4: Sensors and Smart Environments

### ***Itemset-based Mining of Constraints for Enacting Smart Environments***

Viktoriya Degeler (University of Groningen, The Netherlands); Alexander Lazovik (University of Groningen, The Netherlands); Francesco Leotta (Sapienza University of Rome, Italy); Massimo Mecella (SAPIENZA -- Universita' di Roma, Italy)

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### ***Motion-adaptive duty-cycling to estimate orientation using inertial sensors***

Adrian Derungs (Universität Passau, Germany); Han Lin (TU/e, The Netherlands); Holger Harms (Thales, Defence and Homeland Security, Switzerland); Oliver Amft (University of Passau, Germany)

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### ***Novel Stochastic Model For Presence Detection Using Ultrasound Ranging Sensors***

Luis I Lopera Gonzalez (University of Passau, Germany); Ulf Grossekatheofer (TU/e, The Netherlands); Oliver Amft (University of Passau, Germany)

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## **Session 5: Discussion and Closing Session**

In this session the presented papers in the ACOMORE symposium are discussed and the symposium is summed up and closed.

# CROWDSENSING'14: The First International Workshop on Crowdsensing Methods, Techniques, and Applications, 2014 - Program

## Session 1: Keynote

### ***Participatory Urban Sensing: Challenges and Opportunities***

Sajal K. Das (Missouri University of Science and Technology, USA)

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## Session 2: Collecting and Analyzing Crowdsensed Data

### ***On Efficient Meta-Data Collection for Crowdsensing***

Luke Dickens (Imperial College London, United Kingdom); Emil Lupu (Imperial College, United Kingdom)

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### ***The Effectiveness of Centralised Management for Reducing Wasted Effort in Participatory Sensing***

Mattias Linnap (University of Cambridge, United Kingdom); Andrew Rice (University of Cambridge, United Kingdom)

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### ***Multitiered Inference Management Architecture for Participatory Sensing***

Stephen Pipes (IBM UK Ltd, United Kingdom); Supriyo Chakraborty (University of California at Los Angeles, USA)

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## Session 3: Supporting Creation of and Contributions to Crowdsensing Applications

### ***EasyHarvest: Supporting the Deployment and Management of Sensing Applications on Smartphones***

Manos Katsomallos (University of Thessaly, Greece); Spyros Lalis (University of Thessaly, Greece)

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### ***CrowdOut: a Mobile Crowdsourcing Service for Road Safety in Digital Cities***

Elian Aubry (Université de Lorraine, France); Thomas Silverston (Université de Lorraine & LORIA, France); Abdelkader Lahmadi (LORIA, France); Olivier Festor (INRIA Nancy - Grand Est, France)

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### ***SPREAD, a Crowd Sensing Incentive Mechanism to Acquire Better Representative Samples***

Luis G Jaimes (University of South Florida, USA); Idalides Vergara-Laurens (University of South Florida, USA); Alireza Chakeri (University of South Florida, USA)

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### ***Gamification-Based Incentive Mechanism for Participatory Sensing***

Yoshitaka Ueyama (Nara Institute of Science and Technology, Japan); Morihiko Tamai (Nara Institute of Science and Technology, Japan); Yutaka Arakawa (Nara Institute of Science and Technology & NAIST, Japan); Keiichi Yasumoto (Nara Institute of Science and Technology, Japan)

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## Session 4: Panel: Crowdsensing: A Silver Bullet or a Naked Gun?

# PerCity'14: The First International Workshop on Pervasive Systems for Smart Cities, 2014 - Program

## Session 1: Keynote

### ***Energy, Technologies and Cities***

Manuel Serrano (ETRA I+D, Spain)

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## Session 2: Smart City Applications

### ***Smart Building Management through Augmented Reality***

Larissa Suzuki (Department of Computer Science, University College London & Digital City Exchange, Imperial College Business School, United Kingdom); Kevin Brown (IBM UK Ltd, United Kingdom); Stephen Pipes (IBM UK Ltd, United Kingdom); John B Ibbotson (IBM United Kingdom Ltd, United Kingdom)

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### ***Enabling Reliable and Secure IoT-based Smart City Applications***

Elias Z. Tragos (Institute of Computer Science, FORTH, Greece); Vangelis Angelakis (Linköping University, Sweden); Alexandros Fragkiadakis (Institute of Computer Science, FORTH, Greece); David Gundlegård (Linköping University, Sweden); Septimiu Nechifor (Siemens SRL, Romania); George Oikonomou (University of Bristol, United Kingdom); Henrich Pöhls (University of Passau, Germany); Anastasius Gavras (Eurescom GmbH, Germany)

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## Session 3: Smart City Systems

### ***The GAMBAS Middleware and SDK***

Wolfgang Apolinarski (University of Duisburg-Essen, Germany); Umer Iqbal (Universität Duisburg-Essen Germany, Germany); Josiane Parreira (DERI, Ireland)

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### ***A lightweight Linked Data implementation for modeling the Web of Things***

Stefano Turchi (CNIT & University of Florence, Italy); Federica Paganelli (National Inter-University Consortium for Telecommunications & Research Unit of Firenze, c/o Dept. of Electronics and Telecommunications, Italy); Lorenzo Bianchi (University of Florence, Italy); Dino Giuli (CNIT - University of Firenze, Italy)

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### ***Towards WSN-aided Navigation for Vehicles in Smart Cities: An Application Case Study***

Roudy Dagher (Inria Lille - Nord Europe & Etineo Company, France); Nathalie Mitton (Inria Lille - Nord Europe, France); Ibrahim Amadou (INRIA Lille - Nord Europe, France)

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## Session 4: General Discussion Round

Pervasive Computing for Smart Cities - Past, Present and Future

# PerCom Demos'14: 2014 IEEE International Conference on Pervasive Computing and Communications Demonstrations - Program

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## Demos

### ***GaitAssist: A Wearable Assistant for Gait Training and Rehabilitation in Parkinson's Disease***

Sinziana Mazilu (Swiss Federal Institute of Technology, Switzerland); Michael Hardegger (ETH Zurich, Switzerland); Ulf Blanke (ETH Zürich, Switzerland); Gerhard Tröster (Wearable Computing Lab ETH Zürich, Switzerland); Eran Gazit (Tel Aviv University & Tel Aviv Sourasky Medical Center, Israel); Moran Dorfman (Tel Aviv Sourasky Medical Center, Israel); Jeffrey Hausdorff (Harvard Medical School, USA)

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### ***The Mobile Manufacturing Dashboard***

Christoph Gröger (University of Stuttgart, Germany); Christoph Stach (University of Stuttgart, Germany)

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### ***Participatory Sensing Based Real-time Public Transport Information Service***

Karoly Farkas (Budapest University of Technology and Economics, Hungary); Adam Nagy (Budapest University of Technology and Economics, Hungary); Timon Tomás (Budapest University of Technology and Economics, Hungary); Robert Szabo (Budapest University of Technology and Economics, Hungary)

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### ***RAReFall - Real-time Activity Recognition and Fall Detection System***

Hristijan Gjoreski (Jozef Stefan Institute, Slovenia); Simon Kozina (Jozef Stefan Institute, Slovenia); Matjaž Gams (Jozef Stefan Institute, Slovenia); Mitja Lustrek (Jozef Stefan Institute, Slovenia)

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### ***Code Offloading on Opportunistic Computing***

Alan Ferrari (SUPSI, Switzerland); Daniele Puccinelli (University of Applied Sciences of Southern Switzerland, Switzerland); Silvia Giordano (University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland)

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### ***Proximity-based reminders using Bluetooth***

Håkan Jonsson (University of Lund & Sony Mobile Communications AB, Sweden); Pierre Nugues (Lund University, Sweden); Alex Tavella (Venturus, Brazil); Izabela Amaral (Venturus, Brazil); Marina Tachibana (Venturus, Sweden); Vinicius Santos (Venturus, Brazil)

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### ***Demo Abstract: A Testbed Infrastructure to Study the Impact of Temperature on WSN***

Carlo Alberto Boano (Graz University of Technology, Austria); Kay Römer (Graz University of Technology, Austria); James Brown (Lancaster University, United Kingdom); Utz Roedig (Lancaster University, United Kingdom); Marco Zuniga (Delft University of Technology, The Netherlands)

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### ***Demo: MadApp: Dynamic Content Support for Delay-Tolerant Web Applications***

Venkat Srinivasan (The University of Texas at Austin, USA); Christine Julien (The University of Texas at Austin, USA)

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### ***Resilient Tree-based Live Streaming for Mobile Scenarios***

Giang Nguyen (TU Darmstadt, Germany); Benjamin Schiller (TU Darmstadt, Germany); Thorsten Strufe (TU Dresden, Germany)

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### ***User-friendly Configuration of Smart Environments***

Simon Mayer (ETH Zürich, Switzerland); Nadine Inhelder (ETH Zurich, Switzerland); Ruben Verborgh (Ghent University – iMinds, Belgium); Rik Van de Walle (Ghent University - IBBT, Belgium)



# PerCom PhD Forum'14: Seventh Annual PhD Forum on Pervasive Computing and Communications, 2014 - Program

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## PhDposter: Poster presentation of PhD forum

***A Lightweight and Low-Power Activity Recognition System for Mini-Wearable Devices***

Lisha Hu (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)  
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***Bayesian Nonparametric Extraction of Hidden Contexts from Pervasive Honest Signals***

Thuong C. Nguyen (Deakin University, Australia)  
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***Fast-Converging Indoor Mapping for Wireless Indoor Localization***

Zulfazli Hussin (University of Hyogo, Japan)  
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***Participatory Sensing Based Optimization of Environmental Parameters Using the Example of Energy Saving in Residential Environments***

Frank Englert (TU Darmstadt, Germany)  
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***Design Method for Developing a Mobile Engineering-Application Middleware (MEAM)***

Eva Hoos (University of Stuttgart, Germany)  
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***Social Pervasive Systems: The Harmonization Between Social Networking and Pervasive Systems***

Soumaia A. Al Ayyat (The American University in Cairo, Egypt)  
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***Physically Informed Assertions for Cyber Physical Systems Development and Debugging***

Xi Zheng (University of Texas at Austin & Cockrell, USA)  
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***Mobile Collaborative Cloudless Computing***

Nuno Cruz (Instituto Politecnico de Lisboa & Universidade de Lisboa, Portugal)  
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# PerCom WiP'14: 2014 IEEE International Conference on Pervasive Computing and Communications Work in Progress - Program

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## Work in Progress

### ***Sensor Network System to Promote Energy Conservation***

Koichi Kuzume (Yuge National College of Maritime Technology, Japan); Masakazu Okada (Yuge National College of Technology, Japan)  
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### ***New Approach to Emotional Information Exchange: Experience Metaphor Based on Life Logs***

Masanobu Abe (Okayama University, Japan); Daisuke Fujioka (University of Okayama, Japan); Kazuto Hamano (University of Okayama, Japan); Sunao Hara (Okayama University, Japan); Rika Mochizuki (NTT Service Evolution Laboratories, Japan); Tomoki Watanabe (NTT Corporation, Japan)  
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### ***MemorySense: Reconstructing and Ranking User Memories on Mobile Devices***

Karl Aberer (EPFL, Switzerland); Michele Catasta (EPFL, Switzerland); Horia Radu (EPFL, Switzerland); Jean-Eudes Ranvier (EPFL, Switzerland); Matteo Vasirani (EPFL, Switzerland); Zhixian Yan (Samsung Research America - Silicon Valley, USA)  
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### ***Deal or No Deal: Catering to User Preferences***

Kartik Muralidharan (Singapore Management University, Singapore); Swapna Gottipati (Singapore Management University, Singapore); Rajesh K Balan (Singapore Management University, Singapore)  
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### ***Context-aware energy-efficient wireless sensor architecture for body activity recognition***

Tifenn Rault (University of Technology of Compiègne, France); Abdelmadjid Bouabdallah (Université de Technologie - Compiègne, France); Yacine Challal (University of Technology of Compiègne & Heudiasyc lab. UMR CNRS, France); Frederic Marin (University of Technology of Compiègne (UTC), France)  
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### ***A Cost-Effective Approach to Software-in-the-Loop Simulation of Pervasive Systems and Applications***

Giacomo Brambilla (University of Parma, Italy); Alessandro Grazioli (University of Parma, Italy); Marco Picone (University of Parma, Italy); Francesco Zanichelli (University of Parma, Italy); Michele Amoretti (University of Parma, Italy)  
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### ***Architecting Information Centric ETSI-M2M systems***

Luigi Alfredo Grieco (Politecnico di Bari, Italy); Mahdi Ben Alaya (LAAS-CNRS, France); Thierry Monteil (LAAS-CNRS and Univ\ de Toulouse, France); Khalil Drira (LAAS-CNRS, France)  
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### ***Auth-Lite: Lightweight M2M Authentication Reinforcing DTLS for CoAP***

Arijit Ukil (Tata Consultancy Services, India); Soma Bandyopadhyay (TATA Consultancy Services, India); Abhijan Bhattacharyya (Tata Consultancy Services Ltd., India); Arpan Pal (Tata Consultancy Services, India); Tulika Bose (TCS, India)  
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### ***A Distributed Execution Environment Enabling Resilient Processes for Ubiquitous Systems***

Ronny Seiger (Technische Universitaet Dresden, Germany); Florian Niebling (Technische Universitaet Dresden, Germany); Thomas Schlegel (Technische Universitaet Dresden, Germany)  
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### ***Machine Learning in District Heating System Energy Optimization***

Samuel O. Idowu (Luleå University of Technology, Sweden); Christer Åhlund (Lulea University of Technology, Sweden); Olov Schelén (Luleå University of Technology & Xarepo, Sweden)  
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***Using Human Brain Signals to Navigate Rat Robots***

Yipeng Yu (Zhejiang University, P.R. China); Cunle Qian (Zhejiang University, P.R. China); Gang Pan (Zhejiang University, P.R. China); Zhaohui Wu (Zhejiang University, P.R. China)  
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***Citizen-Friendly Participatory Campaign Support***

Jesse Zaman (Vrije Universiteit Brussel, Belgium); Ellie D'Hondt (Vrije Universiteit Brussel, Belgium); Elisa Gonzalez Boix (Vrije Universiteit Brussel, Belgium); Eline Philips (Vrije Universiteit Brussel, Belgium); Kennedy Kambona (Vrije Universiteit Brussel, Belgium); Wolfgang De Meuter (Vrije Universiteit Brussel, Belgium)  
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# PerMoby'14: The Third IEEE International Workshop on the Impact of Human Mobility in Pervasive Systems and Applications, 2014 - Program

## Session 1: Keynote

### ***Long-Term Monitoring of Human Mobility on Smartphones***

Petteri Nurmi (Helsinki Institute for Information Technology HIIT, Finland)  
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## Session 2: Usage patterns and social networking

### ***Re-identification of Anonymized CDR datasets Using Social Network Data***

Alket Cecaj (Università di Modena e Reggio Emilia, Italy); Marco Mamei (Università di Modena e Reggio Emilia, Italy); Nicola Biccocchi (University of Modena and Reggio Emilia, Italy)  
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### ***Community Detection in Opportunistic Networks using Memory-based Cognitive Heuristics***

Matteo Mordacchini (IIT, CNR, Pisa, Italy); Andrea Passarella (IIT-CNR, Italy); Marco Conti (IIT-CNR, Italy)  
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### ***The evolution of user mobility on the eduroam network***

Nuno Cruz (Instituto Politecnico de Lisboa & Universidade de Lisboa, Portugal); Hugo Miranda (Universidade de Lisboa, Portugal); Pedro Ribeiro (ISEL-IPL, Portugal)  
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## Session 3: Understanding Human Mobility

### ***Impact of Location History Collection Schemes on Observed Human Mobility Features***

Alicia Rodriguez-Carrion (University Carlos III of Madrid & Missouri University of Science & Technology, USA); Sajal K. Das (Missouri University of Science and Technology, USA); Celeste Campo (University Carlos III of Madrid, Spain); Carlos Garcia-Rubio (University Carlos III of Madrid, Spain)  
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### ***On the key features in human mobility: relevance, time and distance***

Matteo Zignani (University of Milano, Italy); Michela Papandrea (University of Applied Sciences of Southern Switzerland Switzerland (SUPSI), Switzerland); Sabrina Gaito (Università degli Studi di Milano, Italy); Silvia Giordano (University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland); Gian Paolo Rossi (University of Milan, Italy)  
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### ***Navigating MazeMap: indoor human mobility, spatio-logical ties and future potential***

Gergely Biczók (Norwegian University of Science and Technology, Norway); Santiago Diez Martinez (NTNU, Norway); Thomas Jelle (Norwegian University of Science and Technology, Norway); John Krogstie (Norwegian University of Science and Technology, Norway)  
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## Session 4: Data in Pervasive Mobility

### ***Analyzing the quality of crowd sensed WiFi data***

Carlos M Pérez-Penichet (University of Minho, Portugal); Adriano Moreira (University of Minho & Centro Algoritmi, Portugal)  
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***Mobile P2P Queries over Temporal Data***

Steven Mudda (University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland); Silvia Giordano (University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland)  
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# PerNEM'14: The Fourth International Workshop on Pervasive Networks for Emergency Management, 2014 - Program

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### ***ChaosFIRE: An experiment with Chaoster, the context-aware collaboration platform for crisis/chaos management***

Laszlo Kovacs (MTA SZTAKI, Institute for Computer Science and Control of the Hungarian Academy of Sciences, Hungary); Balazs Pataki (MTA SZTAKI, Institute for Computer Science and Control of the Hungarian Academy of Sciences, Hungary)  
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## Session 2: Emergency Communication Systems

### ***Publish-Subscribe Smartphone Sensing Platform for the Acute Phase of a Disaster: A Framework for Emergency Management Support***

Jaziar Radianti (Center for Integrated Emergency Management (CIEM) University of Agder, Norway); Jose J Gonzalez (Center for Integrated Emergency Management (CIEM) University of Agder, Norway); Ole-Christoffer Granmo (University of Agder, Norway)  
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### ***Routing Diverse Evacuees with Cognitive Packets***

Huibo Bi (Imperial College London, United Kingdom); Erol Gelenbe (Imperial College London, United Kingdom)  
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### ***Quake Detection System Using Smartphone-Based Wireless Sensor Network For Early Warning***

Ana Zambrano (Universitat Politècnica de València, Spain); Israel Pérez (Universidad Politécnica de Valencia, Spain); Carlos E Palau (Universidad Politécnica Valencia, Spain); Manuel Esteve (Universidad Politécnica Valencia, Spain)  
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## Session 3: Algorithms and Models for Emergency Networks

### ***Qualifying Explore and Exploit for Efficient Data Dissemination in Emergency Adhoc Networks***

Panayiotis Kolios (University of Cyprus, Cyprus); Andreas Pitsillides (University of Cyprus, Cyprus); Osnat (Ossi) Mokryn (Tel Aviv Yaffo Academic College, Israel); Katerina Papadaki (London School of Economics, United Kingdom)  
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### ***Resource Delivery Path Dependent Deployment Scheduling for Contingency Cellular Network***

Yao-Nan Lien (National Chengchi University, Taiwan); Tsai-I Kao (National Chengchi University, Taiwan); Jyh-Shyan Huang (National Chengchi University, Taiwan)  
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### ***Near-Optimal Emergency Evacuation***

Erol Gelenbe (Imperial College London, United Kingdom); Qing Han (Imperial College, United Kingdom)  
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## Session 4: Emergency Management Systems

### ***On-body multi-input indoor localization for dynamic emergency scenarios: fusion of magnetic tracking and optical character recognition with mixed-reality display***

Jason Orlosky (Osaka University, USA); Takumi Toyama (German Research Center for Artificial Intelligence, Germany); András Sárkány (Eötvös Loránd University, Hungary); Andras Lorincz (Eötvös Loránd University, Hungary); Daniel Sonntag (DFKI Germany, Germany)

***Time of Flight Error Compensation for In-Tunnel Vehicle Localization***

Katarina Balać (University of Lugano, Switzerland); Pablo Andres Di Giulio (University of Lugano, Switzerland); Antonio V. Taddeo (University of Lugano & Faculty of Informatics, Switzerland); Mauro Prevostini (University of Lugano, Switzerland)

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***Capacity Based Evacuation with Dynamic Exit Signs***

Antoine Desmet (Imperial College London, United Kingdom); Erol Gelenbe (Imperial College London, United Kingdom)

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***Physical Indicators of Cyber Attacks Against a Rescue Robot***

Tuan Vuong (University of Greenwich, United Kingdom); Avgoustinos Filippoupolitis (University of Greenwich, United Kingdom); George Loukas (University of Greenwich, United Kingdom); Diane E Gan (University of Greenwich, United Kingdom)

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# SIPC'14: The Third IEEE International Workshop on Social Implications of Pervasive Computing, 2014 - Program

## Workshop Welcome

### Session 1: Keynote

#### ***Pervasive Computing for Sustaining Cultural Heritage***

Zsófia Ruttkay (Creative Technology Lab, Hungary)  
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### Session 2: World Cafe

### Session 3: Healthy Living

#### ***Pervasive Stress Recognition for Sustainable Living***

Andrey Bogomolov (University of Trento & Telecom Italia Semantic and Knowledge Innovation Lab, Italy); Bruno Lepri (FBK-Irst, Italy); Michela Ferron (FBK, Italy); Fabio Pianesi (FBK, Italy); Alex Pentland (MIT, USA)  
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#### ***Ethics of E-Coaching: Implications of Employing Pervasive Computing to Promote Healthy and Sustainable Lifestyles***

Joel Anderson (Utrecht University, The Netherlands); Bart Kamphorst (Utrecht University, The Netherlands)  
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### Session 4: Adaptive Spaces

#### ***Pervasive Connectivity: The Thriving Hotel of the Future***

Howard A Hecht (IndustryLabs, Canada); Mahemuti Mayier (Johnson & Wales University, USA); Christine Perakslis (Johnson & Wales University, USA)  
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#### ***Using Adaptive Architecture to Support Yoga Practices: Social Considerations for Design***

Nils Jäger (University of Nottingham & University Of Nottingham, United Kingdom); Stuart Moran (University of Nottingham, United Kingdom); Holger Martin Schnädelbach (University of Nottingham, United Kingdom)  
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### Session 5: Collecting and Sharing Data

#### ***Social Networks and Ubiquitous Monitoring: An Application of the PSA-BI Model***

Stuart Moran (University of Nottingham, United Kingdom)  
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#### ***Field Testing a Rare Species Bioacoustic Smartphone Application: Challenges and Future Considerations***

Nadia Pantidi (University of Nottingham, United Kingdom); Stuart Moran (University of Nottingham, United Kingdom); Khaled Bachour (University of Nottingham, United Kingdom); Tom Rodden (University of Nottingham, United Kingdom); Davide Zilli (University of Southampton, United Kingdom); Geoff V Merrett (University of Southampton, United Kingdom); Alex Rogers (University of Southampton, United Kingdom)  
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## Session 6: Communities and Choice

### ***Can we reduce waste and waist together through EUPHORIA?***

Veranika Lim (Eindhoven University of Technology, The Netherlands); Fulya Yalvaç (Eindhoven University of Technology, The Netherlands); Mathias Funk (Eindhoven University of Technology, The Netherlands); Jun Hu (Eindhoven University of Technology, The Netherlands); Matthias Rauterberg (Eindhoven University of Technology, The Netherlands)  
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### ***The Value of Consent: discussions with designers of ubiquitous computing systems***

Ewa Luger (University of Nottingham, United Kingdom); Tom Rodden (University of Nottingham, United Kingdom)  
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# IQ2S'14: The Sixth International Workshop on Information Quality and Quality of Service for Pervasive Computing, 2014 - Program

## Session 1: Keynote

### ***Community Sense-and-Response Systems: Your Phone as Seismometer***

Andreas Krause (ETH Zurich, Switzerland)  
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## Session 2: Exploiting and Analyzing Social Networks

### ***ClariSense: Clarifying Sensor Anomalies using Social Network Feeds***

Prasanna Giridhar (UIUC, USA); Md Tanvir A Amin (University of Illinois at Urbana-Champaign, USA); Tarek Abdelzaher (University of Illinois, Urbana Champaign, USA); Lance Kaplan (US Army Research Laboratory, USA); Jemin George (Army Research Laboratory, USA); Raghu Ganti (IBM T J Watson Research Center, USA)  
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### ***Impact of Socially Based Demand on the Efficiency of Caching Strategy***

Buster Holzbauer (Rensselaer Polytechnic Institute, USA); Boleslaw K Szymanski (Rensselaer Polytechnic Institute, USA); Eyuphan Bulut (Cisco Systems, USA)  
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### ***A BSP Approach to Composite Network Analysis***

Mudhakar Srivatsa (IBM T.J. Watson Research Center, USA); Raghu Ganti (IBM T J Watson Research Center, USA); Steven A. Borbash (US Government, USA); Dakshi Agrawal (IBM Research, USA)  
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## Session 3: On QoS and QoE

### ***Developing a QoS-based Tasklet Trading System***

Janick Edinger (University of Mannheim, Germany); Sebastian VanSyckel (University of Mannheim, Germany); Christian Krupitzer (University of Mannheim, Germany); Justin Mazzola Paluska (MIT, USA); Christian Becker (Universität Mannheim, Germany)  
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### ***On the Limited Potential of Buffers to Improve Quality of Experience***

Markus Fiedler (Blekinge Institute of Technology, Sweden)  
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### ***Mobile Quality of Experience: Recent Advances and Challenges***

Vasilios A. Siris (Athens University of Economics and Business / ICS-FORTH, Greece); Konstantinos Balampekos (Nokia Solutions and Networks, Greece); Mahesh K Marina (The University of Edinburgh, United Kingdom)  
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## Session 4: Semantics and Quality

### ***Semantic Index Assignment***

Basak Guler (The Pennsylvania State University, USA); Aylin Yener (Pennsylvania State University, USA)  
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### ***Enriching sensor data processing with quality semantics***

Christian Michael Kuka (Carl von Ossietzky Universitaet Oldenburg, Germany); Daniela Nicklas (University of Bamberg & Faculty Information Systems and Applied Computer Science, Germany)

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***Why is indoor localization still so hard ?***

Brieuc Viel (Linköping University - RTS Lab, France); Mikael Asplund (Trinity College Dublin, Sweden)

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# MUCS'14: The Eleventh EEE International Workshop on Managing Ubiquitous Communications and Services, 2014 - Program

## Session 1: Keynote

Software Defined Systems for Management of Ubiquitous Communications and Services - How and What to Virtualize and Programme

The ossification of Telecom Networks and Computing Clouds is creating several difficulties for Service Providers and Network and/or Cloud Operators to develop and deploy, flexibly, any innovative network, services and management functionalities, which are essential to benefit from the increasing dynamicity of the ICT markets. Operating the networks & clouds and launching new services are still time-consuming and requires expensive efforts: this is preventing any rapid roll-out of new businesses models and opportunities.

Virtualisation and programmability of systems are becoming cost effective and if properly designed, deployed and integrated, could help in fulfilling the above mentioned ossification requirements including the enablement of greater flexibility in services/applications management/provisioning, the realization of a deeper integration of networks and cloud domains, and the agility in related system operations.

This talk will first review the state of the art in virtualisation and programmability including Application Programming Interfaces, Programmable Networks, Software Defined Networks (SDN), Network Functions Virtualization (NFV), Software Defined Data Centres, Mobile Cloud Computing (MCC) environments, Dynamic Service Chaining.

Then a review and a description of a list of the most important technical and architectural challenges for the development and deployment of future networks and services will be given where such system would need to move from being merely defined by software to be programmable by software.

### ***Software Defined Systems for Management of Ubiquitous Communications and Services - How and What to Virtualise and Programme***

Alex Galis (University College London, United Kingdom)

## Session 2: Applications

### ***Semantics-Empowered Middleware Implementation for Home Ecosystem Gateway***

Jasvinder Singh (Nimbus Centre for Embedded System Research & Cork Institute of Technology, Ireland); Navid Hassanzadeh (Cork Institute of Technology, Ireland); Susan Rea (Cork Institute of Technology, Ireland); Dirk Pesch (Cork Institute of Technology, Ireland)  
pp. 449-454

### ***Sensor Knowledge Representation with SpatioTemporal Annotation: An Energy Sensor Ontology Use Case***

Sounak Dey (TCS, India); Ranjan Dasgupta (Tata Consultancy Services Ltd, India)  
pp. 455-459

### ***A Semantic Workflow Engine Powered by Grid Reasoning***

Sam Coppens (Ghent University - iMinds, Belgium); Ruben Verborgh (Ghent University - iMinds, Belgium); Erik Mannens (Ghent University, Belgium); Rik Van de Walle (Ghent University - IBBT, Belgium)  
pp. 460-465

## Session 3: Context-based Systems

### ***Multi-User Context Inference Based on Neural Networks***

Ioannis Papaioannou (National Technical University of Athens, Greece); Nick Kalatzis (National Technical University of Athens, Greece); Ioanna Roussaki (National Technical University of Athens, Greece); Nicolas Liampotis (National Technical University of Athens, Greece); Pavlos Kosmidis (National Technical University of Athens, Greece)  
pp. 466-471

### ***Context-aware Heterogeneous Network Performance Analysis: Test-bed Development***

Zhenhui Yuan (Dublin City University, Ireland); John Keeney (LM Ericsson, Ireland); Sven van der Meer (Ericsson LM, Ireland); Gabriel Hogan (Dublin City University, Ireland); Gabriel-Miro Muntean (Dublin City University, Ireland)  
pp. 472-477

## Session 4: Social Networks

### ***Trustworthy Service Discovery for Mobile Social Network in Proximity***

Chii Chang (University of Tartu, Estonia); Satish N Srirama (University of Tartu, Estonia); Sea Ling (Monash University, Australia)  
pp. 478-483

### ***Personalizing System Behaviour in a Pervasive Social Networking System***

Elizabeth Papadopoulou (Heriot-Watt University, United Kingdom); Sarah Gallacher (University College London, United Kingdom); Nick K Taylor (Heriot-Watt University, United Kingdom); Howard Williams (Heriot-Watt University, United Kingdom)  
pp. 484-488

## Session 5: Panel

# PD-Apps'14: The First Workshop on Developing Applications for Pervasive Display Networks, 2014 - Program

## Welcome from the organizers

### Session 1: Paper presentations

#### ***Social Object Labels***

Marcus Winter (University of Brighton, United Kingdom)  
pp. 489-494

#### ***Integrating Interactive Applications with Digital Signage: Towards a Scheduling Framework for Pervasive Displays***

Ivan Elhart (University of Lugano (USI), Switzerland); Marc Langheinrich (University of Lugano (USI), Switzerland); Nemanja Memarovic (University of Lugano (USI), Switzerland)  
pp. 495-499

#### ***Understanding the Use of Web Technologies for Applications in Open Display Networks***

Constantin Taivan (University of Minho & Centro Algoritmi, Portugal); Rui Jose (University of Minho, Portugal); Bruno Silva (Universidade do Minho, Portugal)  
pp. 500-505

### Session 2: Paper presentations (continued)

#### ***MoCHA: Augmenting Pervasive Displays through Mobile Devices and Web-based Technologies***

Elena Oat (Aalto University, Finland); Mario Di Francesco (Aalto University & University of Texas at Arlington, Finland); Tuomas Aura (Aalto University, Finland)  
pp. 506-511

#### ***UbiBroker: Event-based Communication Architecture for Pervasive Display Networks***

Tommi Heikkinen (University of Oulu, Finland); Petri Luojus (University of Oulu, Finland); Timo Ojala (University of Oulu, Finland)  
pp. 512-518

#### ***UniDisplay - A Research Prototype to Investigate Expectations Towards Public Display Applications***

Florian Alt (University of Munich, Germany); Nemanja Memarovic (University of Lugano (USI), Switzerland); Miriam Greis (University of Stuttgart, Germany); Niels Henze (University of Stuttgart, Germany)  
pp. 519-524

#### ***Light-Keypad, Interaction through Coated Double Glazing***

Lei Ye (University of Nottingham, United Kingdom); Holger Martin Schnädelbach (University of Nottingham, United Kingdom); Steve North (University of Nottingham, United Kingdom)  
pp. 525-530

### Session 3: Identification of potential applications to be designed/developed

Participants will jointly decide which application(s) will be designed at the workshop.

### Session 4: Application design in group

### Session 5: Application design in group (continued)

### Session 6: Plenary session: Discussion, consolidation, action plan

# PerCol'14: The Fifth IEEE Workshop on Pervasive Collaboration and Social Networking, 2014 - Program

## Session 1: Keynote

### ***Virtual co-location: As if being there?***

Stephan G. Lukosch (Delft University of Technology, The Netherlands)  
pg. 531

## Session 2: Social Networks and Crowdsensing

### ***WiFi Authentication through Social Networks - a Decentralized and Context-aware Approach***

Yunus Durmus (Delft University of Technology, The Netherlands); Koen Langendoen (Delft University of Technology, The Netherlands)  
pp. 532-538

### ***Distributed protocols for Ego Betweenness Centrality computation in DOSNs***

Barbara Guidi (University of Pisa, Italy); Marco Conti (IIT-CNR, Italy); Andrea Passarella (IIT-CNR, Italy); Laura Ricci (University of Pisa, Italy)  
pp. 539-544

### ***FlySensing: A Case for Crowdsensing in the Air***

Osarieme Omokaro (The University of North Carolina at Charlotte, USA); Jamie Payton (University of North Carolina at Charlotte, USA)  
pp. 545-550

## Session 3: Pervasive Social Networks

### ***Towards Efficient Group Management and Communication for Large-Scale Mobile Applications***

Rafael Oliveira Vasconcelos (PUC-Rio, Brazil); Lincoln David (PUC-Rio, Brazil); Markus Endler (PUC-Rio, Brazil)  
pp. 551-556

### ***Direct Migrator: eliminating borders between Personal Mobile Devices and Pervasive Displays***

Huiliang Jin (Ecole Centrale de Lyon, France); Tao Xu (Ecole Centrale de Lyon, France); Bertrand David (Ecole Centrale de Lyon & LIRIS Lab, France); René Chalon (Ecole Centrale de Lyon, France)  
pp. 557-562

# SCI'14: The Second IEEE International Workshop on Social and Community Intelligence, 2014 - Program

## Session 1: Welcome from the organizers

## Session 2: Social and Community Intelligence

### ***Supervised-Learning Link Recommendation in the DBLP co-authoring network***

Jose Rodrigues, Jr (University of Sao Paulo & ICMC-USP, Brazil); Gabriel Gimenes (University of Sao Paulo, Brazil); Hugo Gualdrón (University of Sao Paulo, Brazil); Thiago R Raddo (University of Sao Paulo, Brazil)  
pp. 563-568

### ***The Quest for User Similarity in Mobile Societies***

Mai ElSherief (University of California, Santa Barbara & Faculty of Engineering, Cairo University, USA); Tamer ElBatt (Faculty of Engineering, Cairo University & WINC, Nile University, Egypt); Ahmed H. Zahran (Nile University, Egypt); Ahmed Helmy (University of Florida, USA)  
pp. 569-574

### ***Visualization of Wireless Sensor Networks using Zigbee's Received Signal Strength Indicator (RSSI) for Indoor Localization and Tracking***

Flora D Salim (RMIT University, Australia); Mani Williams (RMIT University, Australia); Nishant Sony (RMIT University, Australia); Mars Pena (RMIT University, Australia); Yury Petrov (RMIT University, Australia); Abdelsalam Saad (RMIT University, Australia); Bo Wu (RMIT University, Australia)  
pp. 575-580

## Session 3: Mobile Crowd Sensing

### ***Expectation-based spatio-temporal clusters formed during opportunistic sensing***

Matthew Orlinski (Fraunhofer IAIS, Germany); Nicholas Paul Filer (University of Manchester, United Kingdom)  
pp. 581-586

### ***Earthquake emergency management by Social Sensing***

Marco Avvenuti (University of Pisa, Italy); Stefano Cresci (CNR, Istituto di Informatica e Telematica, Italy); Mariantonietta Noemi La Polla (IIT-CNR, Italy); Andrea Marchetti (IIT-CNR, Italy); Maurizio Tesconi (IIT - National Research Council, Italy)  
pp. 587-592

### ***From Participatory Sensing to Mobile Crowd Sensing***

Guo Bin (Northwestern Polytechnical University, P.R. China); Zhiwen Yu (Northwestern Polytechnical University, P.R. China); Daqing Zhang (Institut Télécom, Télécom SudParis, France); Xingshe Zhou (Northwestern Polytechnical University, P.R. China)  
pp. 593-598

### ***D2SC: Data-Driven Smarter Cities***

Chao Chen (Institut TELECOM & Management SudParis, France); Daqing Zhang (Institut Télécom, Télécom SudParis, France); Guo Bin (Northwestern Polytechnical University, P.R. China)  
pp. 599-603

# SESOC'14: The Sixth IEEE Workshop on SECurity and SOCial Networking, 2014 - Program

## Opening Remarks

### Session 1: Attacks on Online Social Networks

#### ***Susceptibility to URL-based Internet Attacks: Facebook vs. Email***

Zinaida Benenson (University of Erlangen-Nuremberg, Germany); Anna Girard (University of Erlangen-Nuremberg, Germany); Nadina Hintz (University of Erlangen-Nuremberg, Germany); Andreas Luder (University of Erlangen-Nuremberg, Germany)  
pp. 604-609

#### ***Measuring Importance of Seeding for Structural De-anonymization Attacks in Social Networks***

Gabor Gulyas (Budapest University of Technology and Economics, Hungary); Sándor Imre (Technical University of Budapest, Hungary)  
pp. 610-615

### Session 2: Defensive Solutions for Online Social Networks

#### ***Collaborative Joint Content Sharing for Online Social Networks***

Filipe Beato (KU Leuven, Belgium); Roel Peeters (ESAT/COSIC - KU Leuven, Belgium)  
pp. 616-621

#### ***Access Control in Decentralized Online Social Networks: Applying a Policy-Hiding Cryptographic Scheme and Evaluating Its Performance***

Oleksandr Bodriagov (KTH Royal Institute of Technology, Sweden); Gunnar Kreitz (KTH - Royal Institute of Technology, Sweden); Sonja Buchegger (KTH, Sweden)  
pp. 622-628

#### ***Personal DLP for Facebook***

Martin Stopczynski (Technische Universität Darmstadt & CASED, Germany); Marco Ghiglieri (Technische Universität Darmstadt, Germany); Michael Waidner (TU Darmstadt, Germany)  
pp. 629-634