

**2006 3rd Annual International Conference on  
Mobile and Ubiquitous Systems - Workshops**

**17 - 21 July 2006**

**San Jose, CA**

## **TABLE OF CONTENTS**

Generalized “Yoking-Proofs” for a Group of RFID Tags . . . . .	1
<i>Leonid Bolotnyy, Gabriel Robins</i>	
An Empirical Evaluation of the Student-Net Delay Tolerant Network . . . . .	5
<i>Jing Su, Ashvin Goel, Eyal de Lara</i>	
TypeCast: Type-Based Routing in Wireless Ad-hoc Networks . . . . .	15
<i>Jinsong Lin, Thomas Phan, Rajive Bagrodia</i>	
A Framework for Opportunistic Forwarding in Disconnected Networks . . . . .	25
<i>Iacopo Carreras, Daniele Miorandi, Imrich Chlamtac</i>	
Identifying meaningful locations . . . . .	33
<i>Petteri Nurmi, Johan Koolwaaij</i>	
Application-Centric Networking Framework for Wireless Sensor Nodes. . . . .	41
<i>Sukwon Choi, Hojung Cha</i>	
A Multi-Protocol Approach to Service Discovery and Access in Pervasive Environments . . . . .	49
<i>Pierre-Guillaume Raverdy, Valérie Issarny, Rafik Chibout, Agnès de La Chapelle</i>	
Randomized 3D Position-based Routing Algorithms for Ad-hoc Networks . . . . .	58
<i>A.E. Abdallah, T. Fevens, J. Opatrny</i>	
Location Privacy of Users in Location-based Services . . . . .	66
<i>Yutaka Yanagisawa, Hidetoshi Kido, Tetsuji Satoh</i>	
The Impact of the Context Interpretation Error on the Context Prediction Accuracy. . . . .	70
<i>Stephan Sigg, Sandra Haseloff, Klaus David</i>	
Pervaho: A Development & Test Platform for Mobile Ad hoc Applications. . . . .	74
<i>Patrick Eugster, Benoît Garbinato, Adrian Holzer</i>	
POISE: An Inexpensive, Low-Power Location Sensor Based on Electrostatics. . . . .	79
<i>Mbou Eyole-Monono, Robert Harle, Andy Hopper</i>	
A Generic Large Scale Simulator for Ubiquitous Computing . . . . .	82
<i>Miquel Martin, Petteri Nurmi</i>	
Context-Based Adaptation of Mobile Phones Using Near-Field Communication . . . . .	85
<i>Sudha Krishnamurthy, Dipanjan Chakraborty, Sandeep Jindal, Sumit Mittal</i>	
A Framework to Provide Anonymity in Reputation Systems . . . . .	95
<i>Hugo Miranda, Luís Rodrigues</i>	
SIPCache: A Distributed SIP Location Service for Mobile Ad-Hoc Networks. . . . .	99
<i>Simone Leggio, Hugo Miranda, Kimmo Raatikainen, Luís Rodrigues</i>	
Sleeper: A Power-Conserving Service Discovery Protocol . . . . .	103
<i>J. Buford, B. Burg, E. Celebi, P. Frankl</i>	
Adaptive Data Collection Scheme for Tracking Mobile Target in Wireless Sensor Networks . . . . .	112
<i>Ling Zhou, Arunabha Sen</i>	
Decomposing Data-Centric Storage Query Hot-Spots in Sensor Networks . . . . .	122
<i>Mohamed Aly, Panos K. Chrysanthis, Kirk Pruhs</i>	
Using Location Dependence to Manage Mobile Data. . . . .	131
<i>Daniel Crawl, Joseph Dunn, John Bennett, Avneesh Bhatnagar, Evan Speight</i>	
Interference based Call Admission Control for Wireless Ad Hoc Networks . . . . .	138
<i>Sridhar K. N., Mun Choon Chan</i>	
Overload-Driven Mobility-Aware Cache Management in Wireless Environments. . . . .	148
<i>Humeyra Topcu-Altintas, Yun Huang, Nalini Venkatasubramanian</i>	
A Cross-layer Decentralized BitTorrent for Mobile Ad hoc Networks . . . . .	151
<i>Sundaram Rajagopalan, Chien-Chung Shen</i>	
APHD: End-to-End Delay Assurance in 802.11e Based MANETs. . . . .	161
<i>Jian Li, Zhi Li, Prasant Mohapatra</i>	
A Comparative Study of Data Dissemination Models for VANETs . . . . .	169
<i>Tamer Nadeem, Pravin Shankar, Liviu Iftode</i>	
Controlled Epidemic-style Dissemination Middleware for Mobile Ad Hoc Networks. . . . .	179
<i>Mirco Musolesi, Cecilia Mascolo</i>	
Sleeper: A Power-Conserving Service Discovery Protocol . . . . .	188
<i>J. Buford, B. Burg, E. Celebi, P. Frankl</i>	
MURU: A Multi-Hop Routing Protocol for Urban Vehicular Ad Hoc Networks . . . . .	198
<i>Zhaomin Mo, Hao Zhu, Kia Makki, Niki Pissinou</i>	

Non-Inference: An Information Flow Control Model for Location-based Services . . . . .	206
<i>Nishkam Ravi, Marco Gruteser, Liviu Ifjode</i>	
Rapid Dual Channel Frequency and Frame Synchronizer for OFDM Packet Transmission . . . . .	216
<i>Hyun Seo Oh, Jonghoon Ryu, Oscar Y. Takeshita</i>	
Biometric Authentication for a Mobile Personal Device. . . . .	222
<i>Qian Tao, Raymond N. J. Veldhuis</i>	
A Generic Context Management Framework for Personal Networking Environments . . . . .	225
<i>Luis Sanchez, Jorge Lanza, Rasmus Olsen, Martin Bauer, Marc Girod-Genet</i>	
Bridging the Gap between Privacy and Security in Multi-Domain Federations with Identity Tokens. . . . .	233
<i>David J. Lutz, Ruth del Campo</i>	
Strategies for Context-Adaptive Message Dissemination in Vehicular Ad Hoc Networks. . . . .	236
<i>Stephan Eichler, Christoph Schroth, Timo Kosch, Markus Strassberger</i>	
Removing The Barriers to Ubiquitous Services : A User Perspective. . . . .	245
<i>John Bush, James Irvine, John Dunlop</i>	
Towards Useful and Usable Services in Personal Networks . . . . .	250
<i>Kasper Løvborg Jensen, Christian Fischer Pedersen, Lars Bo Larsen</i>	
Architectural and QoS Aspects of Personal Networks. . . . .	258
<i>T.J.M. Coenen, P.T.H. Goering, A. Jehangir, J.L. van den Berg, R.J. Boucherie, S.M. Heemstra de Groot, G.J. Heijenk</i>	
<i>S.S. Dhillon, Weidong Lu, Anthony Lo, P. Van Mieghem, Ignas Niemegeers</i>	
Channel Modeling for V2V Communications . . . . .	261
<i>David W. Matolak, Indranil Sen, Wenhui Xiong</i>	
Service Composition for Mobile Personal Networks. . . . .	268
<i>Stephen Herborn, Aruna Seneviratne</i>	
A Security Architecture for Personal Networks . . . . .	276
<i>Assed Jehangir, Sonia M. Heemstra de Groot</i>	
The Wireless Autonomous Spanning tree Protocol for Multihop Wireless Body Area Networks . . . . .	284
<i>Bart Braem, Benoît Latrè, Ingrid Moerman, Chris Blondia, Piet Demeester</i>	
A Data Intensive Reputation Management Scheme for Vehicular Ad Hoc Networks. . . . .	292
<i>Anand Patwardhan, Anupam Joshi, Tim Finin, Yelena Yesha</i>	
Access Control and Authentication for Converged Wireless Networks . . . . .	300
<i>Zhi (Judy) Fu, John C. Strassner</i>	
Using semantic policies for ad-hoc coalition access control . . . . .	308
<i>Anand Dersingh, Ramiro Liscano, Allan Jost</i>	
LAAC: A Location-Aware Access Control Protocol . . . . .	316
<i>YounSun Cho, Lichun Bao, Michael T. Goodrich</i>	
Byzantine Generals Problem in the Light of P2P Computing. . . . .	323
<i>Natalya Fedotova, Luca Veltri</i>	
On the definition and relevance of context-awareness in Personal Networks. . . . .	328
<i>Rachid Ait Yaiz, Franklin Selgert, Frank den Hartog</i>	
A Method for Sharing Traffic Jam Information using Inter-Vehicle Communication. . . . .	334
<i>Naoki Shibata, Takashi Terauchi, Tomoya Kitani, Keiichi Yasumoto, Minoru Ito, Teruo Higashino</i>	
Optimized inter-vehicle communications using NEMO and MANET . . . . .	341
<i>Jean Lorchat, Keisuke Uehara</i>	
A new paradigm of V2V communication services using Nomadic Agent . . . . .	347
<i>Tomoyuki Yashiro</i>	
Survey of Routing Protocols for Inter-Vehicle Communications . . . . .	353
<i>Jasmine Chennikara-Varghese, Wai Chen, Onur Altintas, Shengwei Cai</i>	
FleaNet: A Virtual Market Place on Vehicular Networks . . . . .	358
<i>Uichin Lee, Joon-Sang Park, Eyal Amir, Mario Gerla</i>	
Introduction and Preliminary Experimental Results of Wireless Access for Vehicular Environments (WAVE) Systems . . . . .	366
<i>Weidong Xiang, Paul Richardson, Jinhua Guo</i>	
Automesh: Flexible Simulation Framework for Vehicular Communication . . . . .	374
<i>Rama Vuyyuru, Kentaro Oguchi, Clay Collier, Ed Koch</i>	
Dynamic Local Peer Group Organizations for Vehicle Communications . . . . .	380
<i>Wai Chen, Jasmine Chennikara-Varghese, John Lee, Shengwei Cai, Toshiro Hikita</i>	
Location-Based Flooding Techniques for Vehicular Emergency Messaging . . . . .	388
<i>Sangho Oh, Jaewon Kang, Marco Gruteser</i>	
Ubiquitous Access Control and Policy Management in Personal Networks. . . . .	397
<i>Dimitris M. Kyriazanos, George I. Stassinopoulos, Neeli R. Prasad</i>	

A Novel Decentralized Hierarchical Access Control Scheme for the Medical Scenario .....	403
<i>Sigurd Eskeland, Neeli R. Prasad</i>	
GrooveNet: A Hybrid Simulator for Vehicle-to-Vehicle Networks .....	409
<i>Rahul Mangharam, Daniel Weller, Raj Rajkumar, Priyantha Mudalige, Fan Bai</i>	
Rate Control to Reduce Bioeffects in Wireless Biomedical Sensor Networks .....	417
<i>Hongliang Ren, Max Q.-H. Meng</i>	
A Cluster-Based Coverage-Preserved Node Scheduling Scheme in Wireless Sensor Networks .....	424
<i>Shiow-Fen Hwang, Yi-Yu Su, Yi-Yo Lin, Chi-Ren Dow</i>	
Architectures for Communication in Personal Networks .....	431
<i>R. V. Prasad, Martin Jacobsson, Sonia Heemstra de Groot, Anthony Lo, Ignas Niemegeers</i>	
Bottleneck around Base Station in Wireless Sensor Network and its Solution.....	440
<i>Kumar Padmanabh, Rajarshi Roy</i>	
Personal Networks: An Overlay Network of Wireless Personal Area Networks and 3G Networks.....	445
<i>Anthony Lo, Weidong Lu, Martin Jacobsson, Venkatesha Prasad, Ignas Niemegeers</i>	
TinySIP: Providing Seamless Access to Sensor-based Services .....	453
<i>Sudha Krishnamurthy</i>	
Distributed Reputation System for Tracking Applications in Sensor Networks .....	462
<i>Tanya Roosta, Marci Meingast, Shankar Sastry</i>	
Context-Aware Access Control: Making Access Control Decisions Based on Context Information .....	470
<i>Sven Lachmund, Thomas Walter, Laurent Gomez, Laurent Bussard, Eddy Olk</i>	
Efficient Scheduling for Sensor Networks.....	478
<i>Andreea Berfield, Daniel Mossé</i>	
Metric-Based Scatternet Formation and Recovery Optimization for Intel Mote .....	486
<i>Xin Zhang, Lama Nachman, George F. Riley, Ralph Kling</i>	
SIP roaming solution amongst different WLAN-based service providers.....	493
<i>Alessandro Ordine, Julián F. Gutiérrez, Luca Veltri</i>	
Towards Balancing Medium Access Energy Trade-offs in Wireless Sensor Networks .....	500
<i>Siddhartha K. Goel, Tamer ElBatt, Main Srivastava</i>	
Dynamic multiband antenna system for high capacity data communications to mobile platforms .....	508
<i>Carsten Metz</i>	
Exploiting Access Control Information in User Profiles to Reconfigure User Equipment.....	513
<i>Giovanni Bartolomeo, Stefano Salsano, Nicola Blefari-Melazzi</i>	