

# Final Program



## **ANT 2012**

The 3<sup>rd</sup> International Conference on Ambient Systems, Networks and Technologies



## **MobiWIS 2012**

The 9<sup>th</sup> International Conference on Mobile Web Information Systems

August 27-29, 2012  
Niagara Falls, Ontario, Canada

With Support of  
Acadia University, Canada  
Oxford Brookes University, UK



## Symposia and Workshops

- ABMTRANS:** The 1<sup>st</sup> International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications
- ATP:** The 1<sup>st</sup> International Symposium on Advances in Transaction Processing
- AWS:** The International Workshop on the Adaptation of Web Services
- EmSeNs:** The 2<sup>nd</sup> International Workshop on Emerging Technologies in Sensor Networks
- FAMS:** The 2<sup>nd</sup> International Symposium on Frontiers in Ambient and Mobile Systems
- GCRE:** The 2<sup>nd</sup> International Workshop on Green Computing and Renewable Energy
- IST-AWSN:** The 7<sup>th</sup> International Symposium on Intelligent Systems Techniques for Ad hoc and Wireless Sensor Networks
- IUPT:** The 2<sup>nd</sup> International Workshop on Internet of Ubiquitous and Pervasive Things
- PASTH:** The 2<sup>nd</sup> International Workshop on Pervasive and Ambient Applications, Systems and Technologies for Healthcare
- RoboSense:** The International Workshop on Cooperative Robots and Sensor Networks
- SNIGM:** The 2<sup>nd</sup> International Workshop on Sensor Networks for Intelligence Gathering and Monitoring
- SUPE:** The 3<sup>rd</sup> International Workshop on Service Discovery and Composition in Ubiquitous and Pervasive Environments
- GradSym:** Graduate Symposium

## Monday, August 27, 2012

### Registration and Tea/Coffee 09:30-10:30

Room: Brock Room

### Opening 10:30 - 11:00

Opening Ceremony

Room: Niagara

### Keynote I 11:00 - 12:15

*Mobile Cloud and Green Computing*

Ivan Stojmenovic, University of Ottawa, Canada

Session Chair: Muhammad Younas, Oxford Brookes University, UK

Room: Niagara

### Lunch (Brock Room) 12:30 - 13:30

Room: Brock Room

### Technical Sessions 13:30 - 15:00

#### **ANT Session 1: Agent Systems, Intelligent Computing and Applications**

**Session Chair: Ramiro Liscano, University of Ontario, Canada**

**Room: Canadian A Room**

Mobility and Information Flow: Percolation in a Multi-Agent Model

Martine Collard, Philippe Collard and Erick Stattner

S-CLAIM: An Agent-based Programming Language for Aml, A Smart-Room Case Study

Valantina Baljak, Marius Tudor Benea, Amal El Fallah Seghrouchni, Cédric Herpson,

Shinichi Honiden, Thi Thuy Nga Nguyen, Andrei Olaru, Ryo Shimizu, Kenji Tei and Susumu Toriumi.

Preference Order of Categorized Group Opinions Considering Grade of Decision Makers

Yui Miyagi, Hayao Miyagi and Ichiko Kinjo

Resource Allocation for Multi-user Cognitive Radio Systems using Multi-agent Q-Learning

Ahmed AZZOUNA, Amel GUEZMIL, Anis SAKLY, Abdellatif MTIBAA

On Inheritance in Conceptual Modeling for XML

Jakub Klímeš, Martin Necaský

#### **ANT Session 2: Autonomic Networks and Communications**

**Session Chair: Karim Djouani, French South African Inst. of Technology, South Africa**

**Room: Canadian B Room**

Performance of IEEE 802.11 MAC in Underwater Wireless Channels

Alan Farrell and Jun Peng

GFDA: Route Discovery Algorithms for On-demand Mobile Ad Hoc Routing Protocols

Amal Alhosban, Ismail Ababneh, and Zaki Malik

Adaptive TDMA Slot Assignment Using Request Aggregation

Abdulaziz Barnawi

An evaluation of MAC protocols running on a MANET network

Luis Fernando Pedraza, Ingrid Patricia Paez, and Felipe Forero

## **MobiWIS Session 1: Mobile Cloud Services**

**Session Chair: Carsten Kleiner, University of Applied Sciences & Arts, Germany**

**Room: Victoria Room**

Implementing Mobile Mashware Architecture: Downloadable Components as On-Demand Services

Arto Salminen and Tommi Mikkonen

Governing Bot-as-a-Service in Sustainability Platforms – Issues and Approaches

Hong-Linh Truong, Phu Phung and Schahram Dustdar

Privacy Preserving Profiling for Mobile Services

Debmalya Biswas and Krishnamurthy Vidyasankar

Energy Efficiency on Location Based Applications in Mobile Cloud Computing: A Survey

Xiao Ma, Yong Cui and Ivan Stojmenovic

Mobile Sensor Data Classification for Human Activity Recognition using MapReduce on Cloud

Carlos David Paniagua Gomez, Huber Flores and Satish Narayana Srirama

## **ABMTRANS Workshop Session 1:**

**Session Chair: Ansar-UI-Haque Yasar, Hasselt University, Belgium**

**Room: Niagara Room**

Adapting and Extended ASPECS Methodology to Support the Goal Concept

Mohamed Garoui and Belhassen Mazigh

A Conceptual Design of an Agent-based Interaction Mode for the Carpooling Application

Sungjin Cho, Ansar-UI-Haque Yasar, Luk Knapen, Tom Bellemans, Davy Janssens, Geert

Wets

Simulation of Urban Trac Control: A Queue Model Approach

D. Grether, A. Neumann, K. Nagel

Large-scale Agent-based Traffic Micro-simulation: Experiences with Model Refinement, Calibration, Validation and Application

Yunjie Zhao and Adel W. Sadek

Analysis of the Co-routing Problem in Agent-based Carpooling Simulation

Luk Knapen, Daniel Keren, Ansar-UI-Haque Yasar, Sungjin Cho, Tom Bellemans, Davy

Janssens, Geert Wets

Sociodynamic Discrete Choice on Networks in Space: Role of Utility Parameters and Connectivity in Emergent Outcomes

Elenna R. Dugundji, László Gulyás

## **ATP Symposium**

**Session Chair: Marta Rukoz, Universite Paris Ouest Nanterre La Defense, France**

**Room: King George Room**

FACETA: Checkpointing for Transactional Composite Web Service Execution based on Petri-Nets

Marta Rukoz, Yudith Cardinale, Rafael Angarit

A Family of Test Criteria for Web Services Transactions

Rubén Casado, Javier Tuya, Muhammad Younas

A Non-Chronological Backtracking Unfolding Algorithm for Transactional Web Service Composition

Eduardo Blanco, Yudith Cardinale, Mar´ia-Esther Vidal

A Performance Evaluation of Preference Evaluation Techniques in Real High Dimensional Database

Ali A. Alwan, Hamidah Ibrahima, Tan C. Yip, Nur Izura Udzir, Fatimah Sidi

**Tea/Coffee 15:00 - 15:30**

Room: Brock Room

**Technical Sessions 15:30 - 17:00**

**ANT Session 3: Data Management and Services**

**Session Chair: Mark Roantree, Dublin City University, Ireland**

**Room: Canadian A Room**

A Data Cube Model for Analysis of High Volumes of Ambient Data

Hao Gui and Mark Roantree

Enhanced New User Recommendations based on Quantitative Association Rule Mining

Shweta Tyagi and Kamal K. Bharadwaj

An OWL 2-Based Knowledge Platform Combining the Social and Semantic Webs for an Ambient Childhood Obesity Prevention System

Jinan El-Hachem, Arash Shaban-Nejad, Volker Haarslev, Laurette Dubé, David Buckeridge

Optimization and Refinement of XML Schema Inference Approaches

Michal Klempa, Jakub Starka and Irena Mlynkova

Managing Complex Business Services in Heterogeneous eBusiness Ecosystems – Aspect-based Research Assessment

O. Urikova, I. Ivanochko, N. Kryvinska, P. Zinterhof, C. Strauss

**ANT Session 4: Emerging Networking, Tracking and Sensing Technologies I**

**Session Chair: Frank Comeau, St. Francis Xavier University, Canada**

**Room: Canadian B Room**

Ultrasonic Non-Destructive Testing (NDT) Using Wireless Sensor Networks

Ahmad El Kouche and Hossam Hassanein

A Novel Multicast Algorithm for Collaborative Multimedia Applications in Heterogeneous Networks

Abdelfettah Belghith, Mohamed Aissa, and Adel Ben Mnaouer

Real-time Video Segmentation using Student's t Mixture Model

Dibyendu Mukherjee and Q. M. Jonathan Wu

New Strategies and Approaches for Efficient Overlay Multicast Routing

Adel Ben Mnaouer, Abdelfettah Belghith, and Mohamed Aissa

Information Ubiquity in Austere Locations

Joseph Loyall, Matthew Gillen, Jeffrey Cleveland, Kyle Usbeck, Joshua Sterling, Richard Newkirk and Ralph Kohler

**MobiWIS Session 2: Context-awareness and Location-based Services**

**Session Chair: Maxime Wack, Universite de Technologie de Belfort-Montbeliard, France**

**Room: Victoria Room**

A Geo-Location Context-Aware Mobile Learning System with Adaptive Correlation Computing Methods

Nagato Kasaki, Shuichi Kurabayashi and Yasushi Kiyoki

Building Location-Aware Web with SALT and Webnear.me

Fabio Magagna, Basil Hess and Juliana Sutanto

A Multi-Criteria Approach for Web Service Discovery

Raja Ben Lakhel and Walid Chainbi

FallAlarm: Smart Phone Based Fall Detecting and Positioning System

Zhongtang Zhao, Yiqiang Chen, Shuangquan Wang and Zhenyu Chen

Collective Discovery of Geographic Locations of Frequently Photographed Objects Only using the Metadata of Digital Photographs

Masao Kubo, Shinichirou Nakayama and Hiroshi Sato

**ABMTRANS Workshop Session 2:**

**Session Chair: Session Chair: Ansar-UI-Haque Yasar, Hasselt University, Belgium**

**Room: Niagara Room**

Exploiting Graph-theoretic Tools for Matching and Partitioning of Agent Population in an Agent-based Model for Traffic and Transportation Applications

Daniel Kerena, Ansar-UI-Haque Yasar, Luk Knapen, Sungjin Cho, Tom Bellemans, Davy Janssens, Geert Wets, Assaf Schuster, Izchak Sharfman

Seoul activity-based model: An Application of Feathers Solutions to Seoul Metropolitan Area

Won Do Lee, Sungjin Cho, Tom Bellemans, Davy Janssens, Geert Wets, Keechoo Choi, Chang-Hyeon Joh

Costs and Gains of Smart Charging Electric Vehicles to Provide Regulation Services

Daniel Freund, Marco Lutzenberger, Sahin Albayrak

An Agent-Based Model to Evaluate Carpooling at Large Manufacturing Plants

Tom Bellemans, Sebastian Bothe, Sungjin Cho, Fosca Giannotti, Davy Janssens, Luk Knapen, Christine Korner, Michael May, Mirco Nanni, Dino Pedreschi, Hendrik Stange, Roberto Trasarti, Ansar-UI-Haque Yasar, Geert Wets

Agent-based space-time discrete simulation of urban traffic including bicycles

Jelena Vasic, Heather J. Ruskin

Agents Cut Emissions On how a Multi-Agent System Contributes to a more Sustainable Energy Consumption

Jan Keiser, Marco Lutzenberger, Nils Masuch

**SNIGM Workshop:**

**Session Chair: Janet Light, University of New Brunswick, Canada**

**Room: King George Room**

NOA: A Scalable Multi-parent Clustering Hierarchy for WSNs

Johnathan Vee Cree, Jose Delgado-Frias, Mike Hughes, Brion Burghard, Kurt Silvers

Modelling Safe Landing Zone Detection Options to Assist in Safety Critical UAV Decision Making

Timothy Patterson, Sally McClean, Philip Morrow, Gerard Parr

An Incentive-Based Framework for Vehicle-Based Mobile Sensing

Kun-chan Lan, Chien-Ming Chou, Han-Yi Wang

Monitoring winter ice conditions using thermal imaging cameras equipped with infrared microbolometer sensors.

Janet Light, Subashini Parthasarathy, William McIver

Estimation of energy consumption for TinyOS 2.x-based applications

Stefano Abbate, Marco Avvenuti, Daniel Cesarini, Alessio Vecchio

**Reception**

**18:00-20:00**

Room: Brock Room

**Tuesday, August 28, 2012**

**Keynote II 09:15 - 10:30**

*Content Delivery Acceleration*

Nirwan Ansari, Newark College of Engineering, University Heights Newark, USA

Session Chair: Ramiro Liscano, University of Ontario, Canada

Room: Niagara room

**Tea/Coffee 10:30 - 11:00**

Room: Brock room

**Technical Sessions 11:00 - 12:30**

**ANT Session 5: Energy-awareness and Management**

**Session Chair: Bertrand David, LIRIS Lab, Ecole Centrale de Lyon, France**

**Room: Canadian A Room**

Energy-Aware Reprogramming Of Sensor Networks Using Incremental Update & Compression

Milosh Stolikj, Pieter J. L. Cuijpers and Johan J. Lukkien

Energy-aware Peering Routing Protocol for indoor hospital Body Area Network Communication

Zahoor Khan, Nauman Aslam, Shyamala Sivakumar and William Phillips

Intelligent Energy Information Service Based On A Multi-Home Environment

Jong-Ho Shin and Jongwoon Hwang

A Review of Smart Environments for Energy Savings

Eric Torunski, Rana Othman and Mauricio Orozco, and Abdulmotaleb El Saddik

Remaining Battery Lifetime Determination in Cyber-Physical Systems

Elisabete Nakoneczny Moraes and Leandro Buss Becker

**ANT Session 6: Wireless Sensor Networks**

**Session Chair: Amjad Rattout, Claude Bernard Lyon1 University, France**

**Room: Canadian B Room**

Identifying the Direction of wind in Wireless Sensor Networks

Mohammed Alasli, Tarek Sheltami, Elhadi Shakshuki

Framework For Distributed Policy-Based Management In Wireless Sensor Networks To Support Autonomic Behavior

Nidal Qwasmi and Ramiro Liscano

Independent Protection Of Different Layers In Spatially Scalable Video Coding

Ala Abu-Zahra, Zafar Shahid, Amjad Rattout, William Puech

Genetic Algorithm Based Energy Efficient Clusters (GABEEC) in Wireless Sensor Networks

Selim Bayrakli and Senol Zafer Erdogan

An Energy Efficient Fuzzy Logic Cluster Formation Protocol in Wireless Sensor Networks

Rogaia Mhemed, Nauman Aslam, William Phillips, and Frank Comeau

**MobiWIS Session 3: Middleware Services and Internet of Things**

**Session Chair: Krishnamurthy Vidyasankar, Memorial University, Canada**

**Room: Victoria Room**

Using a Cloud-Centric Middleware to Enable Mobile Hosting of Web Services

Richard Lomotey and Ralph Deters

Impact of Mobility on Performance of P2P Content Discovery Protocols over MANET

Mahmood Fathy, Kaamran Rahemifar, Hamideh Babaei, Morteza Romoozi, Reza Berangy

Evolving Taxonomy of Business Models for Mobile Service Delivery Platform  
Alexander Becker, Andreas Mladenow, Natalia Kryvinska and Christine Strauss  
Spamming the Internet of Things: A Possibility and its probable Solution  
Faisal Razzak

**FAMS Symposium:**

**Session Chair: Bruda Stefan, Bishop's University, Canada**

**Room: Niagara Room**

Emerging URL Patterns in Mobile Websites: A Preliminary Results  
Atheer S. Al-Khalifa and Hend S. Al-Khalifa  
Distribution Bottlenecks in Classification Algorithms  
Ardjan Zwartjes, Paul Havinga, Gerard Smit and Johann Hurink  
An Efficient Intrusion Detection System for High Speed Networks  
Rouached Mohsen and Hassen Sallay  
A Peer-to-Peer Architecture for Remote Service Discovery  
Stefan Bruda, Farzad Salehi, Yasir Malik and Bessam Abdulrazak  
ERSVC: An Efficient Routing Scheme for Satellite Constellation Adapting Vector Composition  
Jiancheng Li, Yuan An, Baohua Wang and Weiwei Fang  
Efficient Deployment of Relay Station in IEEE802.16m for Cost Effective Performance  
Naveed Ahemd, Munam Shah, Sijing Zhang

**RoboSense Workshop**

**Session Chair: Balajee Kannan, Carnegie Mellon University, USA**

**Room: King George Room**

Generation of trajectories using predictive control for tracking consensus with sensing  
Bernardo Ordonez, Ubirajara F. Morenoa, Jes Cerqueira, Luis Almeida  
An Evolutionary Approach to Improve Connectivity Prediction in Mobile WSN  
Gustavo Medeiros de Araujo, A.R. Pinto, Jorg Kaiser, Leandro Buss Becker  
Simultaneous RSS-based Localization and Model Calibration in Wireless Networks With a Mobile Robot  
J.Vallet, O.Kaltiokallio, M.Myrsky, J.Saarinen, M.Bocca  
Robust Indoor Localization on a Commercial Smart Phone  
Nisarg Kothari, Balajee Kannan, Evan D. Glasgow, M. Bernardine Dias  
Real-time Modelling of Tidal Current for Navigating Underwater Glider Sensing Networks  
Xiaolin Liang, Wencen Wu, Dongsik Chang, Fumin Zhang  
EasyLoc: RSS-based Localization Made Easy  
Maissa Ben Jamaa, Anis Koubaa,c, Yasir Kayani  
Restoring Wireless Sensor Network Connectivity in Damaged Environments  
Thuy T. Truong, Kenneth N. Brown, Cormac J. Sreenan

**Lunch 12:30 - 13:30**

Room: Brock room

**Technical Sessions 13:30 - 15:00**

**ANT Session 7: Multimodal Interfaces and Social Computing**

**Session Chair: Fulvio Corno, Politecnico di Torino, Italy**

**Room: Canadian A Room**

Predicting Trust from User Ratings  
Nikolay Korovaiko and Alex Thomo



Social Network Analysis of Kuwait Publicly-Held Corporations  
Khaled Mahdi, Ahmed Almajid, Maytham Safar, Hernan Riquelme and Sadegh Torabi  
MobilePaperAccess: Ubiquitous Paper-based Interfaces for Mobile Interactions  
Yun Zhou, Bertrand David and Rene Chalon  
Semantic-inspired Contextual Affect Detection from Drama Improvisation  
Li Zhang and Alamgir Hossain  
dWatch: a Personal Wrist Watch for Smart Environments  
Dario Bonino, Fulvio Corno and Luigi De Russis

**ANT Session 8: Service Oriented Computing for Systems & Applications**

**Session Chair: Gerold Hoelzl, Johannes Kepler University Linz, Austria**

**Room: Canadian B Room**

Goal Oriented Opportunistic Recognition of High-Level Composed Activities Using Dynamically Configured Hidden Markov Models  
Gerold Hoelzl, Marc Kurz and Alois Ferscha  
spChains: A Declarative Framework for Data Stream Processing in Pervasive Applications  
Dario Bonino and Fulvio Corno  
Collaborate Social Network Services via Connectors  
Hamid Mcheick and Ahmad Karawash  
Ubiquitous Health Monitoring Using Mobile Web Services  
Khalid Elgazzar, Muhammad Aboelfotoh, Patrick Martin and Hossam Hassanein  
Medical Ontology in the Dynamic Healthcare Environment  
Furkh Zeshan and Radziah Mohamad

**MobiWIS Session 4: Mobile Web for Social and Economic Development**

**Session Chair: Hamidah Ibrahim, Universiti Putra Malaysia, Malaysia**

**Room: Victoria Room**

Enhancing Public-Private Partnerships Through SMS Vouchers  
Kristina Lugo  
Privacy Issues in Mobile Social Network  
Racha Ajami, Nabeel Al-Qirim, and Noha Ramadan  
A User-Centric Communication Model for Mobile Web  
Houssein Wehbe and Ahmed Bouabdallah  
Instance based Matching Using Regular Expression  
Osama A. Mehdi, Hamidah Ibrahim and Lilly Suriani Affendey

**IST-AWSN Symposium**

**Session Chair: Karim Djouani, French South African Inst. of Technology, South Africa**

**Room: Niagara Room**

Hidden Markov Model for shortest paths testing to detect a Wormhole Attack in a localized Wireless Sensor Network  
Victor Obado, Karim Djouani, Yskandary Hamam  
Improving QoS in VANET Using MPLS  
Mahmood Fathy, Saeed GholamalitabarFirouzjaee, Kaamran Raahemifar  
Quantitative verification of WiMAX Trac Shaping solutions  
Paolo Ballarini, Jalel Ben-Othman, Lynda Mokdad  
Doppler Effect Analysis and Modulation Code Derivation  
E.A Feukeu, K Djouani, A Kurien  
An Authentication and Key Establishment Scheme for the IP-Based Wireless Sensor Networks  
Sarmad Ullah Khan, Claudio Pastrone, Luciano Lavagno, Maurizio A. Spirito

## **PASTH Workshop**

**Session Chair: Arash Shaban-Nejad, McGill University, Canada**

**Room: King George Room**

Balancing autonomy and security over geotracking patients with Alzheimer's using a personalized geotracking system with social support network

Yilmaz Kemal Yücea, Kemal Hakan Gülkesen, Ebru Nur Barcin

HAIKU: A Semantic Framework for Surveillance of Healthcare-Associated Infections

Arash Shaban-Nejada, Alexandre Riazanov, Katia M. Charland, Gregory W. Rose, Christopher J.O. Baker, Robyn Tamblyn, Alan J. Forster, David L. Buckeridge

ER-Track: A Wireless Device for Tracking and Monitoring Emergency Responders

Abishek Thekkeyil Kunnath, Preeja Pradeep, Maneesha Vinodini Ramesh

Characterising Context for Mobile User Interfaces in Health Care Applications

R. Alnanih, T. Radhakrishnan, O. Ormandjieva

**Tea/Coffee**

**15:00 - 15:30**

Room: Brock Room

**Technical Sessions**

**15:30 - 17:00**

### **ANT Session 9: Smart Environments and Applications**

**Session Chair: Bharat Jayaraman, University at Buffalo (SUNY), USA**

**Room: Canadian A Room**

ThermoNet: Fine-Grain Assessment of Building Comfort and Efficiency

Jing Li, Jin He and Anish Arora

Fuzzy CARA - A Fuzzy-Based Context Reasoning System For Pervasive Healthcare

Bingchuan Yuan and John Herbert

Spatio-Temporal Querying in Smart Spaces

Vivek Menon, Bharat Jayaraman and Venu Govindaraju

Using Reconfigurable System-On-Chip Technology for the Design of a Point-of-Care HIV Testing

Ali Elkateeb

Publishing LO(D)D: Linked Open (Dynamic) Data for Smart Sensing and Measuring Environments

Fulvio Corno and Faisal Razzak

### **ANT Session 10: Wireless Networks Modelling and Protocols**

**Session Chair: Abdulaziz Barnawi, KFUPM, Saudi Arabia**

**Room: Canadian B Room**

Formulating Human Mobility Model in a Form of Continuous Time Markov Chain

Hyunuk Kim and Ha Yoon Song

Topological Measures For The Analysis Of Wireless Sensor Networks

Vincent Labatut and Atay Ozgovde

Efficient and Accurate Range-based Sensor Network Localization

Md. Tareq Adnan, Suprakash Datta and Stuart Maclean

Leveraging Seminal Protocol Stacks to Support MANETs

Mohamed Amine Abid and Abdelfettah Belghith

A State-Machine Model for Reliability Eliciting over Wireless Sensor and Actuator Networks

José Cecilio and Pedro Furtado

**MobiWIS Session 5: SOA and Mobile Web Security and Trust**  
**Session Chair: Alberto Sillitti, Free University of Bolzano, Italy**  
**Room: Victoria Room**

Secure Web Service Clients on Mobile Devices

Jens Bertram and Carsten Kleiner

The Early (tweet-int) Bird Spreads the Worm: An Assessment of Twitter for Malware Propagation

Ameya Sanzgiri, Shambhu Upadhyaya and Jacob Joyce

Trust-based Throughput in Cognitive Radio Networks

Sazia Parvin, Farookh Khadeer Hussain, Omar Khadeer Hussain, and Abdullah Al Faruque

Service Oriented Architecture to Support Mexican Secondary Education through Mobile Augmented Reality

Pedro C. Santana Mancilla, Miguel A. Garcia-Ruiz, Ricardo Acosta-Diaz, Celso U. Juárez

**EmSeNs Workshop**

**Session Chair: Frank Comeau, St. Francis Xavier University, Canada**

**Room: Niagara Room**

Fault Tolerant Wireless Sensor Networks using Adaptive Partitioning

Shahadat Hossain, Rohan Monteiro, Allaa R. Hilal, and Otman Basir

Multi-hop Interference-Aware Routing Protocol for Wireless Sensor Networks

Shadi V. Vajdi, Allaa R. Hilal, Sabbeer Ahmed Abeer, and Otman A. Basir

The AETOURNOS project: Using a flock of UAVs as a Cyber Physical System and platform for application-driven research

Adrien Guenard; Laurent Ciarletta

Overview of Deployment and Redeployment Algorithms for Mobile Wireless Sensor Networks

Saoucene Mahfoudh, Pascale Minet, Anis Laouiti

**SUPE Workshop**

**Session Chair: Jaafar Gaber, Universite de Technologie de Belfort-Montbéliard, France**

**Room: King George Room**

A Compact Bit String Accessibility Map for Secure XML Query Processing

Meghdad Mirabi, Hamidah Ibrahim, Nur Izura Udzir and Ali Mamat

Context-Aware Mobile Business Models Discovery

Nabeel Al-Qirim

On-the-fly Multimedia Document Adaptation Architecture

Quang Pham Hai, Sébastien Laborie, Philippe Roose

On the Role of Perception and Apperception in Ubiquitous and Pervasive Environments

Vincenzo De Florio

Potential Advantages and Disadvantages of Multiplatform Development Frameworks – A Vision on Mobile Environments

Luis Corral, Andrea Janes and Tadas Remencius

**Banquet and Award Ceremony 19:00-22:00**

Room: Niagara Room

Wednesday, August 29, 2012

Technical Sessions

09:00 - 10:30

**ANT Session 11: Systems Security and Privacy**

**Session Chair: Ridha Khedri, McMaster University, Canada**

**Room: Canadian A Room**

Tackling Application-layer DDoS Attacks

Hakem Beitollahi and Geert Deconinck

A Novel Chaotic Encryption Framework for Securing Palmprint Data

Gaurav Bhatnagar and Q.M. Jonathan Wu

A Quantitative Approach For Intrusions Detection And Prevention Based On Statistical Ngram Models

Ammar Boulaiche, Hatem Bouzayani and Kamel Adi

On the Necessary Conditions for Covert Channel Existence: A State-of-the-Art Survey

Jason Jaskolka, Ridha Khedri and Qinglei Zhang

The Role of DNS TTL Values in Potential DDoS Attacks: What Do the Major Banks Know About It?

Natalija Vlajic, Maria Andrade and U. T. Nguyen

**ANT Session 12: Systems Software and Systems Security**

**Session Chair: Bharat Jayaraman, University at Buffalo (SUNY), USA**

**Room: Canadian B Room**

Using RELAX, SysML and KAOS for Ambient Systems Requirements Modeling

Manzoor Ahmad, Jean-Michel Bruel, Régine Laleau and Christophe Gnaho.

An Aspect-Oriented Language for Product Family Specification

Qinglei Zhang, Ridha Khedri and Jason Jaskolka

Model-driven Engineering of Networked Ambient Systems with SDL-MDD

Tobias Braun, Dennis Christmann, Reinhard Gotzhein and Anuschka Igel

C2L: A Formal Policy Language For Secure Cloud Configurations

Jayaraj Poroor and Bharat Jayaraman

A Four-Step Technique for Tackling DDoS Attacks

Hakem Beitollahi and Geert Deconinck

**MobiWIS Session 6: SOA and Performance of Mobile Services**

**Session Chair: Jesus Tellez, Universidad de Carabobo, Venezuela**

**Room: Victoria Room**

Performance Study of Workflow Patterns-Based Web Service Composition

Wafaa Ait-Cheik-Bihi, Ahmed Nait-Sidi-Moh, Mohamed Bakhouya, Jaafar Gaber and Maxime Wack

Mobile multiplatform development: An experiment for performance analysis "

Luis Corral, Alberto Sillitti and Giancarlo Succi

Performance Analysis of Web Services on Mobile Devices

Kamaleldin Mohamed and Duminda Wijesekera

Authoring Relational Queries on the Mobile Devices

Adele Hedrick and Ken Pu

**AWS Workshop**

**Session Chair: Walid Chainbi, University of Sousse, Tunisia**

**Room: Niagara Room**

An Approach to Service Adaptation for Exploratory Application Construction

Wanghu Chena, Jing Li, Ji Zhang  
AWS-Policy: an extension for autonomic web service description  
Haithem Mezni, Walid Chainbi, Khaled Ghedir  
An Agent-Based Approach for Binding Synchronization of Web Services  
Jaber Kouki, Walid Chainbi, Khaled Ghedira

**Tea/Coffee** **10:30 - 11:00**

Room: Brock room

**Technical Sessions** **11:00 - 12:30**

**ANT Session 13: Vehicular Networks and Protocols**  
**Session Chair: Natalija Vlajic, York University, Canada**  
**Room: Canadian A Room**

A Context-Aware Cross-Layer Broadcast Model for Ad Hoc Networks  
Aris Ouksel and Doug Lundquist  
A Novel Cluster-Based Protocol for Topology Discovery in Vehicular Ad Hoc Network  
Liren Zhang and Hesham El-Sayed  
On the Delay of Reactive-Greedy-Reactive Routing in Unmanned Aeronautical Ad-hoc Networks  
Rostam Shirani, Marc St-Hilaire, Thomas Kunz, Yifeng Zhou, Jun Li and Louise Lamont  
A study of Wireless Sensor Network Architectures and Projects for Traffic Light Monitoring  
Mohamed Amine Kafi

**MobiWIS Session 7: Mobile Networks and Context-Awareness**  
**Session Chair: Phu Phung, Chalmers University of Technology, Sweden**  
**Room: Victoria Room**

An Anonymous Secure Payment Protocol in a Payment  
Jesus Tellez and Sherali Zeadally  
A Context-Aware Cross-Layer Broadcast Model for Ad Hoc Networks: Analysis of Multi-Hop Routing  
Doug Lundquist and Aris Ouksel  
Performance Analysis of a Microstrip Printed Antenna Conformed on Cylindrical Body at Resonance Frequency 4.6 GHz for TM01 Mode  
Ali Elrashidi, Khaled Elleithy and Hassan Bajwa  
Context-Aware Driver Assistance System  
Wael Alghamdi, Elhadi Shakshuki and Tarek Sheltami

**IUPT/GCRE Workshops**  
**Session Chair: Walid Chainbi, University of Sousse, Tunisia**  
**Room: Niagara Room**

Connected Coverage for RFID and Wireless Sensor Networks  
Ahmed Jedda, Mazen Khair, Hussein T. Mouftah  
Defense and Monitoring Model for Distributed Denial of Service Attacks  
Usman Tariq, Yasir Malik, Bessam Abdulrazak  
Towards self-optimization of a pervasive computing task  
Manolo Dulva Hina, Amar Ramdane-Cherif, Marietta S. Sicut, Rodolfo S. Vargas  
Energy Aware Resource Allocation Based on Demand Bandwidth and Duration  
Ying Chen, Arunita Jaekel  
Solar energy and free cooling potential in European data centers

Tuomo Malkamaki, Seppo J. Ovaska

**Graduate Symposium**

**Session Chair: Elhadi Shakshuki, Acadia University, Canada**

**Room: Canadian B Room**

Distributed Policy-Based Management for Wireless Sensor Networks

Nidal Qwasmī, Ramiro Liscano

Improving Driver's Behavior Using Context-Aware Systems

Wael Alghamdi

Selecting Negotiation Strategies for Meeting Scheduling Using a Model Based Approach

S. M. Mozammel Hossain

**END**