

# IEEE ISCC 2010 Final Program

## Program at a Glance

**Tuesday, June 22, 2010**

For the detailed program of each workshop, please refer to the associated website.

	Room Costanza A: MediaWiN	Room Violante A: SISS	Room Costanza B: PEDISWESA
8:30 - 9:00	Registration		
	Welcome and Opening Remarks		
	Session 1: <b>A/V Streaming over Wireless</b>	<b>Keynote Speech and Open discussion</b> Session chair: <b>Paolo Bellavista</b> Keynote Speaker: <b>Payam Barnaghi</b>	Session 1
10:30 - 11:00	Coffee Break		
	Session 2: <b>Wireless Technology Enhancements for Multimedia Applications</b>	Session 1: <b>Smart Environments and Semantic Technologies</b>	Session 2
		<b>Demo Presentations (Room Violante B)</b>	
12:40 - 14:15	Lunch Break		
	Session 3: <b>Multimedia Applications over Wireless</b>	Session 2: <b>Smart Environments and Supporting Platforms</b>	Session 3
15:30 - 16:00	Coffee Break		
	<b>Panel The Impact of Multimedia in the Future of Wireless Internet</b>	Session 3: <b>Smart Environment Applications and Use Cases</b>	
		<b>SISS + SOFIA-related Demo Presentations and Open Discusson (Room Violante B)</b>	
	Closing Remarks		
19:00 - 21:00	ISCC Welcome cocktail Riccione City Eye – Palariccione (5th floor)		

**Wednesday, June 23, 2010**

8:00 - 8:45	Registration
8:45 - 9:00	(Room Polissena B) Opening Session: <b>Antonio Corradi, Mahmoud Daneshmand</b>
9:00 - 10:30	(Room Polissena B) PLENARY SESSION

	Moderator: <b>Mahmoud Daneshmand</b> Keynote Speaker: <b>Keith Cambron, Carlo Alberto Licciardi</b>			
10:30 - 11:00	Coffee Break			
	Room Polissena B	Room Violante A	Room Costanza A	Room Costanza B
11:00 - 12:45	Session 1: <b>Wireless and Mobile Communications #1</b>	Session 2: <b>Reliability and QoS #1</b>	Session 3: <b>Security #1</b>	Session 4: <b>Mobile Ad-hoc and Sensor Networks #1</b>
12:45 - 14:15	Lunch			
14:15 - 16:00	Session 5: <b>Wireless and Mobile Communications #2</b>	Session 6: <b>Reliability and QoS #2</b>	Session 7: <b>Security #2</b>	Session 8: <b>Mobile Ad-hoc and Sensor Networks #2</b>
16:00 - 16:30	Coffee Break			
16:30 - 18:00	Session 9: <b>Wireless and Mobile Communications #3</b>	Session 10: <b>Reliability and QoS #3</b>	Session 11: <b>Security #3</b>	Session 12: <b>Mobile Ad-hoc and Sensor Networks #3</b>

**Thursday, June 24, 2010**

8:30 - 9:00	Registration			
9:00 - 10:30	(Room Polissena B) <b>PLENARY SESSION</b> Moderator: <b>Antonio Corradi</b> Keynote Speaker: <b>Narasimha Reddy, Siamak Khorram</b>			
10:30 - 11:00	Coffee Break			
	Room Polissena B	Room Violante A	Room Costanza A	Room Costanza B
11:00 - 12:45	Session 13: <b>Wireless and Mobile Communications #4</b>	Session 14: <b>Reliability and QoS #4</b>	Session 15: <b>Security #4</b>	Session 16: <b>Mobile Ad-hoc and Sensor Networks #4</b>
12:45 - 14:15	Lunch			
14:15 - 16:00	Session 17: <b>Distributed and Mobile Middleware #1</b>	Session 18: <b>Routing and Multicast #1</b>	Session 19: <b>Multimedia and Image Processing</b>	Session 20: <b>Mobile Ad-hoc and Sensor Networks #5</b>
16:00 - 16:30	Coffee Break			
16:30 - 18:00	Session 21: <b>Distributed and Mobile Middleware #2</b>	Session 22: <b>Routing and Multicast #2</b>	Session 23: <b>NGN Infrastructure and Management</b>	Session 24: <b>Handoff and Mobile Communications</b>
18:00 - 19:30				

19:30 - 23:30	<p style="text-align: center;"><b>Conference Banquet</b>  Ristorante il Mastin Vecchio, via Alighieri 5, Gradara (PU)  Buses for the conference banquet will leave at 19:30 from Viale Catullo, in the back of Palariccione</p>
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**Friday, June 25, 2010**

8:30 - 9:00	Registration			
9:00 - 10:30	<p style="text-align: center;">(Room Polissena B) <b>PLENARY SESSION</b>  Moderator: <b>Jesús Carretero</b>  Keynote Speakers: <b>Franco Prampolini, Jose Duato</b></p>			
10:30 - 11:00	Coffee Break			
	Room Polissena B	Room Violante A	Room Costanza A	Room Costanza B
11:00 - 12:45	Session 25: <b>Management of Distributed Systems and SOA #1</b>	Session 26: <b>Peer-to-Peer Computing #1</b>	Session 27: <b>Internet Services and Applications #1</b>	Session 28: <b>Mobile and Wireless Applications</b>
12:45 - 14:15	Lunch			
14:15 - 16:00	Session 29: <b>Management of Distributed Systems and SOA #2</b>	Session 30: <b>Peer-to-Peer Computing #2</b>	Session 31: <b>Internet Services and Applications #2</b>	Session 32: <b>Access Networks</b>
16:00 - 16:30	Coffee Break			
16:30 - 18:00	Session 33: <b>Network Design, Optimization, and Management</b>	Session 34: <b>Database and Data Mining Applications</b>	Session 35: <b>Modeling and Simulation</b>	
18:00 - 18:30	<p style="text-align: center;">(Room Polissena B)  Closing plenary and awards (Moderator: <b>Antonio Corradi</b>)</p>			

\*Note that the papers with their title preceded by (S) are accepted as short papers; they will have reduced time for presentation if compared with full papers (e.g., 20 minutes for full papers presentations, 12 minutes for short papers ones).

## Wednesday, June 23, 2010

### Session 1: Wireless and Mobile Communications #1

Session Chair: Marco Prandini, University of Bologna

- Physical Rate and Contention Window Based Admission Control (PRCW) for 802.11 WLANs  
Fedoua DIDI (University of Tlemcen, DZ), Houda Labiod (Enst of Paris, FR), Guy Pujolle (University of Paris 6, FR), Mohamed Feham (University of Tlemcen, DZ)
- Cross Layer Optimization Architecture for Video Streaming in WIMAX Networks  
Alaeddine Abdallah, Djamel-Eddine Meddour (Orange Labs, FR), Toufik Ahmed (University of Bordeaux-1, FR), Raouf Boutaba (University of Waterloo, CA)
- A Cooperative Collision Early-Warning System for Vehicles in the Curve Environment  
Chung-Ming Huang, Shih-Yang Lin (National Cheng Kung University, TW)
- Resource Allocation with Fairness in Cognitive Multi-hop Cellular Networks  
Hongcheng Zhuang, Jietao Zhang (Huawei Technologies, CN), Ali Daneshmand (AT&T, USA)
- An Adaptive Cooperative MAC Mechanism in Multi-hop Wireless Networks  
Hongzhi Jiao, Frank Li (University of Agder, NO)

### Session 2: Reliability and Quality of Service #1

Session Chair: Abdelhamid Eshoul, University of Ottawa

- Policy-Aware Virtual Relay Placement for Inter-Domain Path Diversity  
Tao Guo, Ning Wang, Rahim Tafazolli, Klaus Moessner (University of Surrey, UK)
- Recursive Loop-Free Alternates for Full Protection Against Transient Link Failures  
Suksant Sae Lor, Redouane Ali, Raul Landa, Miguel Rio (University College London, UK)
- Simulation Study of New TCP Variants  
Denis Collange, Jacopo Chicco, Alberto Blanc (Orange Labs, FR)
- Dynamical Management of Dejitter Buffers Based on Speech Quality  
Raquel do Valle, Leandro Carvalho, Regeane Aguiar, Edjair Mota, Diogenes Freitas (Federal University of Amazonas, BR)
- Hybrid Sampling for Estimating Flow Size Distribution and Its Implementation  
Takayuki Goto, Chikara Sasaki, Teruyuki Hasegawa, Shigehiro Ano (KDDI R&D Laboratories Inc., JP)

### Session 3: Security #1

Session Chair: Petros Nicopolitidis, Aristotle University

- Roles and Security in a Publish/Subscribe Network Architecture  
Dmitrij Lagutin, Kari Visala, András Zahemszky (Helsinki Institute for Information Technology, FI), Trevor Burbridge (BT Research, UK), Giannis Marias (Athens University of Economics and Business, GR)
- A Secure and Mutual-Profitable DRM Interoperability Scheme  
Sangho Lee (Pohang University of Science and Technology (POSTECH), KR), Heejin Park (LG Electronics Inc., KR), Jong Kim (POSTECH, KR)

- Enhanced Attack Collection Scheme on High-Interaction Web Honeybots  
Takeshi Yagi, Naoto Tanimoto, Takeo Hariu, Mitsutaka Itoh (NTT, JP)
- Cryptographic Signatures on the Network Layer - an Alternative to the ISP Data Retention  
Dmitrij Lagutin (Helsinki Institute for Information Technology, FI), Sasu Tarkoma (University of Helsinki, FI)

## Session 4: Mobile Ad-hoc and Sensor Networks #1

**Session Chair:** [Hacène Fouchal, Université de Reims Champagne-Ardenne](#)

- Exploiting a Meeting Channel to Interconnect 802.15.4-compliant Mobile Entities: Discovery and Association Phases  
Nassima Hadid, Alexandre Guitton, Michel Misson (Clermont Université / LIMOS CNRS, FR)
- LEHP: Localized Energy Hole Profiling in Wireless Sensor Networks  
Piotr Szczytowski, Abdelmajid Khelil, Neeraj Suri (Technical University of Darmstadt, DE)
- Fusing Light and Temperature Data for Fire Detection  
Osman Penha Jr. (Federal University of Amazonas, BR), Eduardo Nakamura (FUCAPI, BR)
- A Novel Approach for Monitoring Wireless Sensor Network Performance by Tracking Node Operational Deviation  
Yaqoob J. Y. Al-raisi, Nazar E. Mohamed (Fahad Bin Sultan University, SA)
- (S) Optimal Infostation Deployment for Spatio-temporal Information Dissemination  
Yongping Xiong, Rui Tian (Chinese Academy of Sciences, CN), Jian Ma (Nokia Research Center, CN), Yan Liu (Peking University, CN), Limin Sun (Chinese Academy of Sciences, CN)
- (S) Joint Power Allocation and Relay Assignment for Max-Min Fairness in Cooperative Networks  
Hongli Xu, Liusheng Huang, Gang Wang, Wang Liu (University of Science and Technology of China, CN)

## Session 5: Wireless and Mobile Communications #2

**Session Chair:** [Claudia Canali, University of Modena and Reggio Emilia](#)

- Performance Analysis of Cooperative Relaying Scheme Applying TAS/SC  
Levent Karaevli, Ibrahim Altunbas (Istanbul Technical University, TR), Gunes Karabulut (Turkcell, TR)
- Performance Evaluation of an Underwater Acoustic Data Broadcasting System  
Petros Nicopolitidis, Georgios Papadimitriou, Andreas Pomportsis (Aristotle University, GR)
- RG-SCTP: Using the Relay Gateway Approach for Applying SCTP in Vehicular Networks  
Chung-Ming Huang, Ming-Sian Lin (National Cheng Kung University, TW)
- An Optimal 1D Vehicular Accident Warning Algorithm for Realistic Scenarios  
Marco Rocchetti, Gustavo Marfia, Alessandro Amoroso (University of Bologna, IT)
- (S) Adaptive MIMO LS Estimation Technique via MSE Criterion over a Markov Channel Model  
Sayed Hossein Dokhanchi, Abolfazl Falahati (Iran University of Science and Technology, IR)

## Session 6: Reliability and Quality of Service #2

Session Chair: Rivalino Matias, Federal University of Uberlândia

- Cause and Countermeasure of Overtermination for PCN-Based Flow Termination  
Daisuke Satoh, Harutaka Ueno (NTT Advanced Technology, JP)
- Quick End-to-End Available Bandwidth Estimation for QoS of Real-Time Multimedia Communication  
Takashi Oshiba, Kazuaki Nakajima (NEC Corporation, JP)
- Context-Based Connectivity over Multi-Virtual Wireless Mesh Networks: Analytical Study  
Ricardo Matos, Susana Sargento (University of Aveiro, PT)
- UANM: a Platform for Experimenting with Available Bandwidth Estimation Tools  
Alessio Botta, Antonio Pescapé, Giuseppe Aceto (University of Napoli Federico II, IT), Maurizio D'Arienzo (Second University of Naples, IT)
- (S) A Framework for Distributed Provisioning Availability-Guaranteed Least-Cost Lightpaths in WDM Mesh Networks  
Emad Al-Sukhni, Hussein Mouftah (University of Ottawa, CA)

## Session 7: Security #2

Session Chair: Vassilis Pouloupoulos, University of Patras

- Relation of PPAAtMP and Scalar Product Protocol and Their Applications  
Youwen Zhu, Liusheng Huang, Wei Yang (University of Science and Technology of China, CN)
- QTL: An Efficient Scheduling Policy for 10Gbps Network Intrusion Detection System  
Bo Song, Weibing Yang, Mingyu Chen (Chinese Academy of Sciences, CN), Xiaofang Zhao, Jianping Fan (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- Mitigating Collision and Preimage Attacks against the Generalized MDC-2 Mode of Operation  
Michael Kounavis (Intel Corporation, US), Shay Gueron (University of Haifa, IL)
- AspFuzz: A State-aware Protocol Fuzzer based on Application-layer Protocols  
Takahisa Kitagawa, Miyuki Hanaoka, Kenji Kono (Keio University, JP)
- (S) Segment Level Authentication: Combating Internet Source Spoofing  
Ming Li, Matti Siekkinen, Sasu Tarkoma, Antti Ylä-Jääski (Helsinki University of Technology, FI), Yong Cui (Tsinghua University, China, CN)
- (S) Incremental Hash Tree for Disk Authentication  
Fangyong Hou, Hongjun He, Xiao Nong, Fang Liu, Guangjun Zhong (National University of Defense Technology, CN)

## Session 8: Mobile Ad-hoc and Sensor Networks #2

Session Chair: Paulo Carvalho, University of Minho

- QoS-based MAC Protocol for Medical Wireless Sensor Body Area Networks  
Khaled Ali, Jahangir Sarker, Hussein Mouftah (University of Ottawa, CA)
- Modeling Emergency Events to Evaluate the Performance of Time-critical WSNs  
Carlos Calafate, Carlos Lino, Juan-Carlos Cano, Pietro Manzoni (Universidad Politécnica de Valencia, ES)
- A Small World Model to Improve Synchronization Algorithms for Wireless Sensor Networks  
Daniel Guidoni, Azzedine Boukerche (Univ. of Ottawa, CA), Horacio Oliveira (Federal University of Amazonas, BR), Raquel Mini (PUC Minas, BR), Antonio A.F. Loureiro (Federal University of Minas Gerais, BR)

- A Framework for Optimization of Operational Latency in Wireless Networks  
Eun-Sook Sung (Samsung Electronics, KR), Miodrag Potkonjak (University of California at Los Angeles, US)
- (S) Diagnosability Evaluation for a System-Level Diagnosis Algorithm for Wireless Sensor Networks  
Andrea Weber, Alexander Robert Kutzke (Federal University of Parana, BR), Stefano Chessa (University of Pisa, IT)
- (S) Throughput Analysis of IEEE 802.11 Multihop Ad Hoc Wireless Networks under Saturation Condition  
Xijie Liu, Tarek Saadawi (City University of New York, US)

### Session 9: Wireless and Mobile Communications #3

Session Chair: [Damianos Gavalas, University of the Aegean](#)

- An Effective Rate Adaptation Scheme for Multihop Wireless Networks  
Basel Alawieh (Alcatel-Lucent, CA), Chadi Assi (Concordia University, CA), Hussein Mouftah (University of Ottawa, CA), Hamed M. K. Alazemi (Kuwait University, KW)
- MaxOPP: A Novel Opportunistic Routing for Wireless Mesh Networks  
Raffaele Bruno, Marco Conti (IIT-CNR, IT), Maddalena Nurchis (IMT, IT)
- A Modified Beacon-Enabled IEEE 802.15.4 MAC Emergency Response Applications  
Anil Mehta (Southern Illinois University Carbondale, US), Ghulam Bhatti, Zafer Sahinoglu (Mitsubishi Electric Research Laboratories, US), Ramanarayanan Viswanathan (Southern Illinois University Carbondale, US), Jinyun Zhang (MERL, US)
- (S) Cooperative Diversity of Distributed Network Beamforming Under Long-Term Power Constraints  
Ebrahim Safavi, Babak Hossein Khalaj (Sharif University of Technology, IR)

### Session 10: Reliability and Quality of Service #3

Session Chair: [Alessandro Amoroso, University di Bologna](#)

- Dynamic Load Balancing of SSH Sessions Using User-Specific Selection Policies  
Paul Kolano (NASA, US)
- Class of Service with Partial Protection in Multilayered Networks with SRLG Constraints  
Joylyn Mendonça, Hassan Naser (Lakehead University, CA)
- Dynamic Routing Optimization based on Real Time Adaptive Delay Estimation  
Saïda Ziane, Abdelhamid Mellouk (University Paris-Est Creteil Val de Marne, FR)
- (S) Improving Traffic Classification and Policing at Application Layer  
Helder Pereira, Andre Ribeiro, Paulo Carvalho (University of Minho, PT)
- (S) QoS Broker Based Management for Heterogeneous Smart Electricity Networks  
Agustin Zaballos, Alex Vallejo, Joan Jimenez, Josep Selga (University Ramon Llull, ES)
- (S) COR: an Efficient Class-based Resource Over-provisioning Mechanism for Future Networks  
Evariste Logota (University of Aveiro, PT), Augusto Neto (Federal University of Goiás, BR), Susana Sargento (University of Aveiro, PT)

## Session 11: Security #3

Session Chair: [Lynda Mokdad, University of Paris 12](#)

- Privacy-Aware Policy Matching  
Slim Trabelsi, Eric Weil, Alessandro Sorniotti, Stuart Short, Michele Bezzi (SAP Labs France, FR)
- APPMA - An Anti-Phishing Protocol with Mutual Authentication  
Maryam Saeed, Hadi Shahriar Shahhoseini (Iran University of Science and Technology, IR)
- A Novel Approach for Online Signature Verification Using Fisher Based Probabilistic Neural Network  
Batouche Mohamed, Souham Meshoul (King Saud University, SA)
- Towards a Practical and Effective Security Testing Methodology  
Marco Prandini, Marco Ramilli (University of Bologna, IT)
- (S) System-Wide Anatomy and Tuning of a SPECweb SSL Server  
Xiaozhu Kang, Michael Kounavis, David Durham (Intel Corporation, US)
- (S) A New Relative Entropy Based App-DDoS Detection Method  
Jin Wang, X. Yang, Keping Long (University of Electronic Science and Technology of China, CN)

## Session 12: Mobile Ad-hoc and Sensor Networks #3

Session Chair: [Orazio Mirabella, University of Catania](#)

- Data Centric Storage in ZigBee Wireless Sensor Networks  
Michele Albano, Stefano Chessa (University of Pisa, IT)
- Reliability and Energy Efficiency in Multi-hop IEEE 802.15.4/ZigBee Wireless Sensor Networks  
Giuseppe Anastasi (University of Pisa, IT), Marco Conti (IIT-CNR, IT), Mario Di Francesco (University of Texas at Arlington, US), Vincenzo Neri (University of Pisa, IT)
- Surface Gateway Placement Strategy for Maximizing Underwater Sensor Network Lifetime  
Saleh Ibrahim, Reda Ammar, Jun-Hong Cui (University of Connecticut, US)
- (S) An Energy Efficient Wireless Sensor Network for Precision Agriculture  
Herman Sahota, Jing Huang, Ratnesh Kumar, Ahmed Kamal (Iowa State University, US)



**Thursday, June 24, 2010**

Session 13: Wireless and Mobile Communications #4

Session Chair: Maurizio Casoni, University of Modena and Reggio Emilia

- TCP, XCP and RCP in Wireless Mesh Networks: An Evaluation Study  
Luis Barreto (Inst. Politécnico de Viana do Castelo, PT), Susana Sargento (Universidade de Aveiro, PT)
- Simulation and Measurements Integration for the Evaluation of Wireless Communication Networks  
Orazio Mirabella, Michele Brischetto (University of Catania, IT)
- Fairness based Dynamic Multi-user Resource Allocation in Cooperative OFDMA Systems  
Hamed Banizaman (Yazd University, IR)
- (S) Robust Admission Control for Streaming and Elastic Traffic Services in Cellular Networks  
Elena Bernal-Mor, Vicent Pla, Jorge Martinez-Bauset (Universidad Politecnica de Valencia, ES)

Session 14: Reliability and Quality of Service #4

Session Chair: Stefano Chessa, University of Pisa

- Class Based Availability Considerations in GMPLS Networks  
Adnan Sancak (Istanbul Technical University, TR), Burak Kantarci (University of Ottawa, CA), Sema Oktug (Istanbul Technical University, TR)
- Application-layer Bandwidth Allocation Algorithm for Service Differentiation in Hybrid Content Distribution Network  
Hai Jiang, Haibin Zhai (Chinese Academy of Sciences, CN), Albert K. Wong (Hong Kong University of Science and Technology, HK), Jun Li, Yi Sun, Zhongcheng Li (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- Quality Monitoring of Network Traffic Forecasts using Statistical Process Control  
Rivalino Matias, Jr., Lucio Araujo, Mirian Araujo (Federal University of Uberlandia, BR)
- Delays in a Series of Queues: Independent versus Identical Service Times  
Werner Sandmann (Clausthal University of Technology, DE)
- Multiple Decision Feedback Equalizer for Satellite AIS Coherent Detection  
Marian Jurado Gallardo, Ulrich Sorger (University of Luxemburg, LU)

Session 15: Security #4

Session Chair: Igor Radusinovic, University of Montenegro

- Octopus-IIDS: An Anomaly Based Intelligent Intrusion Detection System  
Paulo Mafra, Vinicius Moll, Joni Da Silva Fraga (Federal University of Santa Catarina, BR), Altair Santin (Pontifical Catholic University of Paraná, BR)
- A Key-Agreement Protocol Based on the Stack-Overflow Software Vulnerability  
Tamer Fatayer, Sherif Khattab, Fatma Omara (Cairo University, EG)
- Thwarting Back-off Rules Violation in Tactical Wireless Ad hoc Networks  
Soufiene Djahel, Farid Nait-Abdesselam (University of Lille, FR)
- Scalable Rekeying in Dynamic Multi-Groups  
Gianluca Dini, Francesco Giurlanda (University of Pisa, IT)
- (S) A Secure Group Management Scheme for Mobile Ad hoc Networks  
Azzedine Boukerche, Yonglin Ren (University of Ottawa, CA)

- (S) Playing Defense by Offense: Equilibrium in the DoS-Attack Problem  
Andrey Lukyanenko (University of Kuopio, FI), Vladimir Mazalov (Russian Academy of Science, RU), Andrei Gurtov (Helsinki Institute for Information Technology, FI), Igor Falko (Russian Academy of Science, RU)

#### Session 16: Mobile Ad-hoc and Sensor Networks #4

**Session Chair:** [Reza Peyrovian, AT&T Labs](#)

- A Transmit Preprocessing Technique in Fixed Relay Networks for Practical Multiuser Transmission  
Zeinolabedin Samadi, Abolfazl Falahati (Iran University of Science and Technology, IR)
- Predicting Mobility Metrics through Regression Analysis for Random, Group, and Grid-based Mobility Models in MANETs  
Elmano Cavalcanti, Marco Spohn (Federal University of Campina Grande, BR)
- Timely-Efficient and Reliable Topologies for 3-D Sensor Networks  
Tarek El Salti, Nidal Nasser (University of Guelph, CA), Anwar Al-Yatama (Kuwait University, KW)
- A Novel Color Image Fusion QoS Measure for Multi-sensor Night Vision Applications  
Anwaar Haq, Iqbal Gondal, Marzur Murshed (Monash University, AU)
- (S) Using Wireless Sensor Networks for Energy-Aware Homes in Smart Grids  
Melike Erol-Kantarci, Hussein Mouftah (University of Ottawa, CA)

#### Session 17: Distributed and Mobile Middleware #1

**Session Chair:** [Sherif Khattab, Cairo University](#)

- The Real Ad-hoc Multi-hop Peer-to-peer (RAMP) Middleware: an Easy-to-use Support for Spontaneous Networking  
Paolo Bellavista, Antonio Corradi, Carlo Giannelli (University of Bologna, IT)
- Handling Consistent Dynamic Updates on Distributed Systems  
Emiliano Tramontana, Giuseppe Pappalardo (Catania University, IT), Filippo Bannò (Scuola Superiore di Catania, IT)
- CLEVER: A CCloud-Enabled Virtual EnviRonment  
Francesco Tusa, Maurizio Paone, Massimo Villari, Antonio Puliafito (University of Messina, IT)
- Service Group Management facilitated by DSL driven Policies in embedded Middleware  
Christopher Foley, Gemma Power, Chen Chen, Niall Donnelly, Leigh Griffin, Eamonn de Leastar (Waterford Institute of Technology, IE)
- (S) A Service Oriented System for Fleet Management and Traffic Monitoring  
Maurizio Giacobbe, Antonio Puliafito, Massimo Villari (University of Messina, IT)

#### Session 18: Routing and Multicast #1

**Session Chair:** [Lynda Mokdad, University of Paris 12](#)

- Highly Dynamic Routing Protocol for Data Aggregation in Sensor Networks  
Leandro Villas (Federal University of Minas Gerais, BR), Azzedine Boukerche (Univ. of Ottawa, CA), Regina Araujo (Federal University of São Carlos, BR), Antonio A.F. Loureiro (Federal University of Minas Gerais, BR)
- DUOS – Simple Dual TCAM Architecture for Routing Tables with Incremental Update  
Tania Mishra, Sartaj Sahni (University of Florida, US)

- CONSIST - Consistent Internet Route Updates  
Tania Mishra, Sartaj Sahni (University of Florida, US)
- A Study of MANET Routing Protocols: Joint Node Density, Packet Length and Mobility  
Nurul Sarkar, Wilford Lol (Auckland University of Technology, NZ)

## Session 19: Multimedia and Image Processing

**Session Chair:** [Youcef Samir, LAMSADE](#)

- ACTGIS: A Web-based Collaborative Tiled Geospatial Image Map System  
Chunyang Hu, Yongwang Zhao, Xin Wei, Du Bowen, Dianfu Ma (Beihang University, CN), Xuan Li (China Academy of Space Technology (CAST), CN)
- Automated Multi-sensor Color Video Fusion for Nighttime Video Surveillance  
Anwaar Haq, Iqbal Gondal, Marzur Murshed (Monash University, AU)
- Performance Evaluation of MPEG-4 Video Transmission with the Adaptive Smooth Multicast Protocol (ASMP)  
Christos Bouras (University of Patras, GR), Apostolos Gkamas (Research Academic Computer Technology Institute, GR), Georgios Kioumourtzis (University of Patras, GR)
- (S) Modeling Human-like Autonomous Behaviors and Movements of Virtual Humans in Real-time Virtual Environment  
Weibin Liu (Beijing Jiaotong University, CN), Liang Zhou, Weiwei Xing, Baozong Yuan (Institute of Information Science, Beijing Jiaotong University, CN)

## Session 20: Mobile Ad-hoc and Sensor Networks #5

**Session Chair:** [Gianluca Dini, University of Pisa](#)

- Optimized Sink Mobility for Energy and Delay Efficient Data Collection in FWSNs  
Sharhabeel Alnabelsi, Hisham Almasaeid, Ahmed Kamal (Iowa State University, US)
- GLOBAL: a Gradient-based routing protocol for LOad-BALancing in large-scale wireless sensor networks with multiple sinks  
Hongseok Yoo, Moonjoo Shim, Dongkyun Kim (Kyungpook National University, KR), Kyu Hyung Kim (Electronic and Telecommunications Research Institute, KR)
- (S) Towards a Flexible Event-Detection Model for Wireless Sensor Networks  
Eduardo Nakamura (FUCAPI, BR), Efren Souza (Federal University of Amazonas, BR)
- (S) A New Approach for Distributed Image Coding in Wireless Sensor Networks  
Mohamadreza Jamali (K. N. Toosi University of Technology, IR), Saadan Zokaei (University of Technology of Tehran, IR), Hamid Rabiee (Sharif University of Technology, IR)
- (S) An Effective Approach for Injecting Faults in Wireless Sensor Network Operating Systems  
Catello Di Martino, Marcello Cinque, Domenico Cotroneo, Alessandro Testa (University of Naples Federico II, IT)

## Session 21: Distributed and Mobile Middleware #2

Session Chair: Luca Foschini, University of Bologna

- MultiCaR: Remote Invocation for Large Scale, Context-aware Applications  
Gianpaolo Cugola (Politecnico di Milano, IT), Matteo Migliavacca (Imperial College London, UK)
- Rapid and Efficient Application Design using a Signal Processing Framework for WSN  
Carlo Caione (University of Bologna, IT), Davide Brunelli (University of Trento, IT), Luca Benini (University of Bologna, IT)
- Improving HTTP-based Video Performance using Network Flow Buffering  
Jesse Steinberg, Joseph Pasquale (University of California, San Diego, US)
- A DDS-Compliant Infrastructure for Fault-Tolerant and Scalable Data Dissemination  
Luca Foschini, Antonio Corradi, Luca Nardelli (University of Bologna, IT)
- Automatic Concurrency Management for Networked Applications  
Huiba Li, Shengyun Liu, Yuxing Peng, Dongsheng Li (National University of Defense Technology, CN)
- (S) Translucent Middleware Approach to Facilitate WSN Access Management  
Luca Foschini, Antonio Corradi, Giuseppe Cardone (University of Bologna, IT)

## Session 22: Routing and Multicast #2

Session Chair: Solange Rito Lima, University of Minho

- Anycast Routing in Mobile Opportunistic Networks  
Yongping Xiong, Limin Sun (Chinese Academy of Sciences, CN), Wenbo He (University of Nebraska-Lincoln, US), Jian Ma (Nokia Research Center, CN)
- On Optimal Multipath Rate-adaptive Routing  
Gábor Rétvári, Gábor Németh (Budapest University of Technology and Economics, HU)
- Light-Hierarchy: the Optimal Structure for Multicast Routing in WDM Mesh Networks  
Fen Zhou, Miklos Molnar (INSA Rennes / IRISA, FR), Bernard Cousin (IRISA, University of Rennes 1, FR)
- Reduced-Complexity Spectrum-Efficient Routing in TDMA Multihop Wireless Networks  
Mohamed Saad (University of Sharjah, AE)
- Delay-based Quality of Service through Intra-Domain Differentiated Routing with Optimised Link Weight Setting  
Ioannis Papanagiotou, Michael Howarth (University of Surrey, UK)

## Session 23: NGN Infrastructure and Management

Session Chair: Susana Sargento, University of Aveiro

- Interworking Components for the End-to-end QoS into IMS-Based Architecture Mono Provider  
Imene Elloumi, Michelle Sibilla, Desprats Thierry (Paul Sabatier University & Sup'Com, FR), Sami Tabbane (Sup Telecom, TN)
- SMS over LTE: Interoperability between Legacy and Next Generation Networks  
Filipe A. Leitão, Sérgio S. Freire (Portugal Telecom Inovação, PT), Solange Lima (University of Minho, PT)
- An IMS Architecture with QoS Parameters for Flexible Convergent Services  
Miguel Navarro, Yezid Donoso, Viviana Rodriguez (Universidad de los Andes, CO)
- Context-aware Selection in Multicast Environments

Nuno Coutinho, Tiago Condeixa, Rui Valbom, Susana Sargento (University of Aveiro, PT),  
Augusto Neto (University of Aveiro, PT & Universidade Federal de Goias, BR)

- Link-based Spectrum Section Sensing for Cognitive Radio Networks  
Yean-Fu Wen (National Chiayi University, TW)

Session 24: Handoff and Mobile Communications
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Session Chair: Eduardo Nakamura, FUCAPI

- Adaptive Seamless Association Handoff for Guaranteeing Real-Time Traffic in WiMAX Mobile Networks  
Ben-Jye Chang (National Yunlin University of Science and Technology, TW), Ren-Hung Hwang,  
Yan-Min Lin (National Chung-Cheng University, TW), Ying-Hsin Liang (Nankai University of  
Technology, TW)
- Adaptive Ranging Algorithm for Fast Seamless Handoff in WiMAX Mobile Networks  
Ben-Jye Chang (National Yunlin University of Science and Technology, TW), Ying-Hsin Liang  
(Nankai University of Technology, TW), Sung-Ju Hsieh (Chaoyang University of Technology, TW)
- (S) Mobile Positioning in a Gaussian Scattering Channel Model  
Mohamed Zhaounia (Ecole Superieure des Communications, TN) Mohamed Adnan Landolsi  
(King Fahd University, SA), Ridha Bouallegue (Ecole Superieure des Communications, TN)
- (S) Joint Throughput and Packet Loss Probability Analysis of IEEE 802.11 Networks  
Stepan Ivanov, Sasitharan Balasubramaniam, Dimitri Botvich (Waterford Institute of Technology,  
IE)
- (S) A New Range Estimation Algorithm with Low Complexity for IEEE 802.15.4a  
JeongHwan Lee, JongWha Chong (University of Hanyang, KR)

**Friday, June 25, 2010**

Session 25: Management of Distributed Systems and Service Oriented Architectures #1

Session Chair: [Gianpaolo Cugola, Politecnico di Milano](#)

- An Infrastructure for Executing WS-BPEL Workflows in a Cluster of Clusters  
Thiago Lechuga, Maria Beatriz Toledo (University of Campinas, BR), Miriam Capretz (University of Western Ontario, CA)
- An Adaptive Heuristic Approach for Distributed QoS-based Service Composition  
Jing Li, Dianfu Ma, Min Liu, Hailong Sun (Beihang University, CN)
- Response Times of BPEL4WS Constructors  
Serge Haddad (ENS de Cachan, FR), Lynda Mokdad (Université Paris 12, FR), Samir Youcef (Université Paris Dauphine, FR)
- (S) Supporting Performance and Adaptivity on BSP Processes Rescheduling  
Rodrigo Righi, Laercio Pilla, Alexandre Carissimi, Philippe O. A. Navaux (Universidade Federal do Rio Grande do Sul, BR), H.-U. Heiss (Technical University Berlin, DE)
- (S) A Link-Layer-Based Self-Replicating Vulnerability Discovery Agent  
Ziyad Al-Salloum (University of London, UK), Stephen Wolthusen (Gjøvik University College, NO)

Session 26: Peer-to-Peer Computing #1

Session Chair: [Maria Beatriz Toledo, University of Campinas](#)

- BitIT: Throttling BitTorrent Illegal Traffic  
Sinan Hatahet, Yacine Challal, Abdelmadjid Bouabdallah (Université de Technologie de Compiègne, FR)
- Insights into Peer-to-peer Traffic through Nonlinear Analysis  
Francesco Palmieri, Ugo Fiore (University of Napoli Federico II, IT)
- Improving the Routing Performance of KAD through Social Network Analysis  
Xiangtao Liu, Shuo Bai, You Chen, Xueqi Cheng (Chinese Academy of Sciences, CN)
- A Novel Architecture for a Peer-to-peer Session Initiation Protocol  
Pelagie Hougue (University of Milan, IT), Roch Glitho (Concordia University, CA), Ernesto Damiani (University of Milan, IT)
- (S) Quality of Service for Overlay Multicast in Chord  
Marc Brogle, Andreas Rüttimann, Torsten Braun (University of Bern, CH)

Session 27: Internet Services and Applications #1

Session Chair: [Dimitrios Vergados, University of Piraeus](#)

- Synchronizing Web Browsing Data with Browser  
Leandro Carvalho, Raquel do Valle, Alexandre Passito, Edjard Mota, Raoni Novellino, Adriana Penaranda, Diogenes Freitas (Federal University of Amazonas, BR)
- SEDA4BPEL: a Staged Event-Driven Architecture for High-Concurrency BPEL Engine  
Dou Sun, Dianfu Ma, Yongwang Zhao, Hao Zeng (Beihang University, CN)
- Characteristics and Evolution of Content Popularity and User Relations in Social Networks  
Claudia Canali, Michele Colajanni, Riccardo Lancellotti (University of Modena and Reggio Emilia, IT)

- (S) A Consolidated Power Saving Architecture Accommodating Push-type Applications for Dual-mode Devices  
Naoki Imai, Manabu Isomura, Kiyohito Yoshihara (KDDI R&D Laboratories Inc., JP)
- (S) Design and Implementation of an Advanced Service Architecture for MBS over WiMAX  
Mauro Femminella, Roberto Francescangeli, Gianluca Reali (University of Perugia, IT)

## Session 28: Mobile and Wireless Applications

**Session Chair:** Nurul Sarkar, AUT University

- Low-Complexity Aggregation of Collected Images with Correlated Fields of View in Wireless Video Sensor Networks  
Dongeun Lee, Jonghun Lee, Yonghee Lee, Heejung Lee, Heonshik Shin (Seoul National University, KR)
- A Reputation-based Approach to Tolerate Misbehaving Carriers in Delay Tolerant Networks  
Gianluca Dini, Angelica Lo Duca (University of Pisa, IT)
- Bluepass: an Indoor Bluetooth-based Localization System for Mobile Applications  
Javier Diaz, Rodrigo de A. Maués, Rodrigo Soares, Eduardo Nakamura, Carlos Figueiredo (FUCAPI, BR)
- (S) GOP Size Influence in High Resolution Video Streaming over Wireless Mesh Network  
Rafael Sousa, Edjair Mota, Edson N. Silva Jr. (Federal University of Amazonas, BR), Bruno Faria (Nokia Institute of Technology, BR), João Batista Pinto Neto (Public State Ministry of Law, BR)

## Session 29: Management of Distributed Systems and Service Oriented Architectures #2

**Session Chair:** Carlos Calafate, Technical University of Valencia

- Dependability Enhancement for Coalition Clusters with Autonomic Failure Management  
Song Fu (New Mexico Institute of Mining and Technology, US)
- Efficient Method of Station Selection for Passive Monitoring in Distributed Network Using Information Gain  
Xiang Li, Feng Qi, YiGuo Yuan, Qiu Xue-song (Beijing University of Posts and Telecommunications, CN)
- (S) Prioritizing Power Management and Reducing Downtime for Energy Conservation in Data Centers  
Teng Moh, Barath Kuppuswamy, Melody Moh (San Jose State University, US)
- (S) A Service Oriented Architecture for Basic Autonomic Network Management  
Pedro Martinez-Julia, Antonio Marín Cerezuela, Antonio Fernando Gomez-Skarmeta (University of Murcia, ES)
- (S) QoS-RRC: Integrated QoS Routing and Resource Provisioning Mechanism for Future Internet  
Augusto Neto, Leandro Maçal (Instituto de Informática – UFG, BR), Sérgio Figueiredo (Instituto de Telecomunicações, PT), Rui Aguiar (University of Aveiro, PT)

## Session 30: Peer-to-Peer Computing #2

Session Chair: [Mauro Femminella, University of Perugia](#)

- A K-coordinated Decentralized Replica Placement Algorithm for the Ring-Based CDN-P2P Architecture  
Zhan Wang (Graduate University of Chinese Academy of Sciences, CN), Hai Jiang, Yi Sun, Jun Li, Jing Liu (Institute of Computing Technology, Chinese Academy of Sciences, CN), Eryk Dutkiewicz (Macquarie University, AU)
- HYGRA: A Decentralized Protocol for Resource Discovery and Job Allocation in Large Computational Grids  
Fabrizio Messina, Giuseppe Pappalardo, Corrado Santoro (University of Catania, IT)
- SMBR: A Novel NAT Traversal Mechanism for Structured Peer-to-Peer Communications  
Pinggai Yang (Chinese Academy of Sciences, CN), Jun Li, Jun Zhang, Hai Jiang, Yi Sun (Institute of Computing Technology, Chinese Academy of Sciences, CN), Eryk Dutkiewicz (Macquarie University, AU)
- A Trust Model in P4P-Integrated P2P Networks Based on Domain Management  
Yang Guobiao (Chinese Academy of Sciences, CN), Yi Sun, Haibo Wu, Jun Li, Ning Liu (Institute of Computing Technology, Chinese Academy of Sciences, CN), Eryk Dutkiewicz (Macquarie University, AU)
- (S) Multistage Congestion Games for Live-Streaming  
Gabriele D'Angelo, Stefano Ferretti, Giovanni Rossi (University of Bologna, IT)

## Session 31: Internet Services and Applications #2

Session Chair: [Ali Daneshmand, AT&T](#)

- Enhanced Floor Control Protocol for PoC Application in Data Packet Voice Communication  
Hai Jiang (Chinese Academy of Sciences, CN), Albert K. Wong (Hong Kong University of Science and Technology, HK), Vincent Luk, Xiyu Duan (HKUST, HK), Jun Li (Institute of Computing Technology, Chinese Academy of Sciences, CN), Chenguang Ma (Institute of Computing Technology, Chinese Academy of Sciences, CN)
- A Mobile Tourism Recommender System  
Michael Kenteris (Department of Cultural Technology and Communication, GR), Damianos Gavalas, Aristides Mpitiopoulos (University of the Aegean, GR)
- A Comparison of Internal Timings on Bare Machine and OS-based Email Servers  
George Ford, Ramesh Karne, Alexander Wijesinha, Songjie Liang (Towson University, US)
- Dynamic Assignment of Multicast Groups to Publish-Subscribe Topics  
Visa Holopainen (Helsinki University of Technology, FI)
- (S) A Recommender System based on a Generic Contextual Advertising Approach  
Andrea Addis, Giuliano Armano, Alessandro Giuliani, Eloisa Vargiu (University of Cagliari, IT)
- (S) Near-Optimal Personalized Daily Itineraries for a Mobile Tourist Guide  
Michael Kenteris, Damianos Gavalas (Department of Cultural Technology and Communication, GR), Grammati Pantziou (Technological Educational Institution of Athens, GR), Charalampos Konstantopoulos (University of Piraeus, GR)

## Session 32: Access Networks

Session Chair: [Badii Jouaber, TELECOM SudParis](#)

- Dynamic Media Independent Information Server  
Pedro Neves (Portugal Telecom Inovação, PT), João Soares, Susana Sargento (University of Aveiro, PT)



- Point of Attachment Selection in Heterogeneous Radio Access Technology Environments  
Jongwook Lee, Saewoong Bahk (Seoul National University, KR)
- Periodic GATE Optimization with QoS-Awareness for Long-Reach Passive Optical Networks  
Burak Kantarci, Hussein Mouftah (University of Ottawa, CA)
- Performance Comparison between Dynamic Protection Schemes in Survivable WDM Mesh Networks  
Abdelhamid Eshoul, Hussein Mouftah (University of Ottawa, CA)
- (S) An Access Network Selection Algorithm for Heterogeneous Wireless Environments  
Angeliki Sgora, Dimitrios D. Vergados (University of Piraeus, GR), Periklis Chatzimisios (Alexander TEI of Thessaloniki, GR)

## Session 33: Network Design, Optimization, and Management

**Session Chair:** [Reza Peyrovian, AT&T Labs](#)

- Coupling Wavelength Assignment in Bidirectional Light path Is It Worth the Extra Cost?  
Arularasi Sivasankaran, Miguel Razo, Shreejith Billenahalli, Wanjun Huang, Limin Tang, Marco Tacca, Andrea Fumagalli (University of Texas at Dallas, US)
- Link Weight Optimization for Enhancing IP Resilience using Multi-plane Routing  
Yu Guo, Ning Wang, Michael Howarth (University of Surrey, UK), Kin-Hon Ho (The Hong Kong Polytechnic University, HK)
- Accelerating Network Applications on X86-64 Platforms  
Gao Xia, Bin Liu (Tsinghua University, CN)
- A Scalable Multi-Tier Task Assignment Policy with Minimum Excess Load  
Malith Jayasinghe, Zahir Tari, Panlop Zeepongsekul (Royal Melbourne Institute of Technology, AU)
- (S) Graph-based Automatic Centralized PCI Assignment in LTE  
Yanguang Liu, Wenjing Li, Heng Zhang, Weihao Lu (Beijing University of Posts and Telecommunications, CN)
- (S) TCP Window Estimation for Burst Assembly in OBS Networks  
Maurizio Casoni (University of Modena and Reggio Emilia, IT)

## Session 34: Database and Data Mining Applications

**Session Chair:** [Jesus Carretero, University Carlos III of Madrid](#)

- Dynamic User Context Web Personalization in Meta-Portals  
Christos Bouras (University of Patras, GR), Vassilis Pouloupoulos (Research Academic Computer Technology Institute, GR)
- Obfuscation-based Analysis of SQL Injection Attacks  
Raju Halder, Agostino Cortesi (Ca' Foscari University of Venice, IT)
- Sorting Large Records On A Cell Broadband Engine  
Shibdas Bandyopadhyay, Sartaj Sahni (University of Florida, US)
- (S) A Case for Reducing Link Stress in a Multimedia Streaming Service Backbone  
Aadil Khan, Shahab Baqai (Lahore University of Management Sciences, PK)

## Session 35: Modeling and Simulation

Session Chair: Fabrizio Messina, University of Catania

- A Low Overhead Constant Time LTF Scheduler for Optimistic Simulation Systems  
Francesco Quaglia, Tiziano Santoro (Sapienza Università di Roma, IT)
- Buffer Length Impact to 32x32 Crosspoint Queued Crossbar Switch Performance  
Milutin Radonjic, Igor Radusinovic (University of Montenegro, ME)
- (S) A Hotspot Attraction Driven User Mobility Model and Direction Deciding Algorithm  
Hao Guo, Zhipeng Gao, Heng Zhang, Zhili Guan, Qiu Xue-song (Beijing University of Posts and Telecommunications, CN)
- (S) Integrating Functional Verification and Performance Analysis for Network Protocols using CP-nets  
Jing Liu (Chinese Academy of Sciences, CN), Xinming Ye (Inner Mongolia University, CN), Jun Zhang, Jun Li, Yi Sun (Chinese Academy of Sciences, CN)