

# **2013 IEEE Symposium on Computers and Communications (ISCC 2013)**

**Split, Croatia  
7-10 July 2013**



**IEEE Catalog Number: CFP13SCC-POD  
ISBN: 978-1-4799-3756-1**

# Workshops

## Third IEEE International Workshop on Management of Cloud Systems (MoCS 2013)

### Session 1

- 3 Smart Data Centers for Green Clouds, Dario Bruneo (University of Messina, Italy); Maria Fazio (University of Messina, Italy); Francesco Longo (Universita di Messina, Italy); Antonio Puliafito (University of Messina, Italy)
- 9 Empirical Evaluation of Vector Bin Packing Algorithms for Energy Efficient Data Centers, Lei Shi (Waterford Institute of Technology, Ireland); John Furlong, Runxin Wang (Waterford Institute of Technology, Ireland)

### Session 2

- 16 A Practical Approach to Easily Monitor and Manage IaaS Environments, Paolo Bellavista (University of Bologna, Italy); Carlo Giannelli (University of Bologna, Italy); Massimiliano Mattetti (University of Bologna, Italy)
- 22 QoS-Oriented Service Management in Large Scale Federated Clouds, Dimosthenis Kyriazis (National Technical University of Athens, Greece); Andrew Kapsalis (National Technical University of Athens, Greece); Konstantinos Kostantos (National Technical University of Athens, Greece); Spyridon V Gogouvitis (National Technical University of Athens, Greece); Theodora Varvarigou (National Technical University of Athens, Greece)
- 28 Dynamic Cloud Management for Efficient Stream Processing, Luca Foschini (University of Bologna, Italy); Burak Kantarci (University of Ottawa, Canada); Antonio Corradi (University of Bologna, Italy); Hussein T Mouftah (University of Ottawa, Canada)

### Session 3

- 35 SE CLEVER: A Secure Message Oriented Middleware for Cloud Federation, Antonio Celesti (University of Messina, Italy); Maria Fazio (University of Messina, Italy); Massimo Villari (University of Messina, Italy)

## Fifth IEEE International Workshop on Performance Evaluation of Communications in Distributed Systems and Web based Service Architectures (PEDISWESA'13)

### SESSION 1

- 43 Vehicular Communication Projects Classification And Evaluation, Bandar Alghamdi (Université de Reims Champagne-Ardenne, France); Hacene Fouchal (Université de Reims Champagne-Ardenne, France)
- 49 Dynamic Query Path Selection from Lattice of Cuboids Using memory Hierarchy, Santanu Roy (Future Institute of Engineering & Management, India); Soumya Sen (University of Calcutta, India); Anirban Sarkar (National Institute of Technology-Durgapur, India); Nabendu Chaki (University of Calcutta, India); Narayan C. Debnath (Winona State University, USA)
- 55 *Data collection for counting individuals and habitat characterization*, Nathalie Dessart (University of Antilles Guyane, France); Philippe Hunel (University of Antilles Guyane, France); Jean-Raphel Gros-Desormeaux (University des Antilles et de la Guyane, France)
- 61 *Role-Based Access Control Modeling and Validation*, Ramzi A. Haraty, Mirna Naous (Lebanese American University, Lebanon)

### SESSION 2

- 67 Data protection in Multipaths WSNs, Quentin Monnet (University of Paris-Est, France); Lynda Mokdad (Université de Paris 12, France); Jalel Ben-Othman (University of Paris 13, France)
- 73 *Energy, QoS and Bursts Profile Management in Uplink IEEE 802.16e Mobile WiMAX Networks*, Khalil Ibrahim (University of Ibn Tofail, Morocco); Fatima Zahra Ennouary (LARIT-Kenitra, Morocco); Houssine Bouyakhf (Université Mohammed V Agdal, Morocco)
- 79 *Design Graph Multi-Dimensional Data Model of a Data Warehouse and conversion of its equivalent Object - Oriented Schema*, Sk. Abdul Rahim (Bengal College of Engineering & Technology, India); Baisakhi Chakraborty (National Institute of Technology-Durgapur, India); Joyati Debnath (Winona State University, USA); Narayan Debnath (Winona State University, USA)

### SESSION 3

- 85 *Performance and Reliability Analysis of Small Cell Networks with Retrials and Different Breakdowns Disciplines: A Computational Approach*, Nawel Gharbi (University of Sciences and Technology USTHB, Algeria); Lynda Mokdad (Université de Paris 12, France); Jalel Ben-Othman (University of Paris 13, France)
- 91 *An Improved Authentication Scheme for Applying RFID in VANETs*, Qingwei Zhang (University of Ottawa, Canada); Mohammed Almulla (Kuwait University, Kuwait); Azzedine Boukerche (University of Ottawa, Canada)
- 96 *Hierarchical Pruning to Improve Bandwidth Utilization of RPF-based Broadcasting*, Sindooru Koneru (Southern Illinois University, USA); Bidyut Gupta (Southern Illinois University, USA); Shahram Rahimi (Southern Illinois University, USA); Ziping Liu (Southeast Missouri State University, USA); Narayan Debnath (Winona State University, USA)

### Session 1: Network Reliability, QoS and QoE

- 120 *Performance analysis of Crosspoint Queued Crossbar Switch with Weighted Round Robin scheduling algorithm under Unbalanced Bursty Traffic*, Soko Divanovic (Telecommunications and Computer Engineering, Montenegro); Milutin Radonjic (University of Montenegro, Montenegro); Gordana Gardasevic (University of Banja Luka, Bosnia and Herzegovina); Igor Radusinovic (University of Montenegro, Montenegro)
- 125 *A Collision Prevention Mechanism for the Multicast Transport in IEEE 802.11 Networks*, Yousri Daldoul (LaBRI - University of Bordeaux 1, France); Djamel-Eddine Meddour (Orange Labs, France); Toufik Ahmed (University of Bordeaux-1 / CNRS-LaBRI, France)
- 131 *An Analytical Comparison of the Block NAK Protocol and the IEEE 802.11aa Feedback Policy for a Reliable Multicast Transport in the WLAN*, Yousri Daldoul (LaBRI - University of Bordeaux 1, France); Toufik Ahmed (University of Bordeaux-1 / CNRS-LaBRI, France); Djamel-Eddine Meddour (Orange Labs, France)
- 137 *An Objective Multi-factor QoE Evaluation Based on Content Classification for H.264/AVC Encoded Video*, Jichun Liu (Beijing University of Posts and Telecommunications, P.R. China); Yang Geng (Beijing University of Posts and Telecommunications, P.R. China); Deyuan Wang (Beijing University of Posts and Telecom., P.R. China); Li Wenjing (Beijing University of Posts and Telecom., P.R. China); Qiu Xue-song (Beijing University of Posts and Telecom., P.R. China)
- 143 *T-ABAC: An Attribute-Based Access Control Model for Real-Time Availability in Highly Dynamic Systems*, Mike Burmester (Florida State University, USA); Emmanouil Magkos, Vassilis Chrissikopoulos (Ionian University, Greece)

### Session 2: Green Networking and Smart Grid

- 149 *Energy Routing in the Smart Grid for Delay-Tolerant Loads and Mobile Energy Buffers*, Melike Erol-Kantarci (University of Ottawa, Canada); Jahangir H. Sarker (University of Ottawa, Canada); Hussein T Mouftah (University of Ottawa, Canada)
- 155 *Reliable Data Transfer Mechanisms for Smart Grid Wide Area Monitoring Networks*, M Karthick (Indian Institute of Technology Madras, India); Muthukumar Radhakrishnan (Indian Institute of Technology Madras, India); Krishna M. Sivalingam (Indian Institute of Technology Madras, India)
- 161 *Residential Energy Simulation and Scheduling: A Case Study Approach*, Jagannathan Venkatesh (UCSD, USA); Baris Aksanli (UCSD, USA); Tajana Simunic Rosing (UCSD, USA)
- 167 *From Adaptive to Sufficient Modulation and Coding: Demand Oriented Mobile Power Optimization*, Tugra Sahiner (Istanbul Technical University, Turkey); Gunes Karabulut Kurt (Istanbul Technical University, Turkey); Aysegul Ozbakir (Yildiz Technical University, Turkey)
- 173 *O-Genie: towards an open green network control plane*, Pasquale Donadio (Alcatel-Lucent Italia, Italy); Silvia Russo (University of Napoli Federico II, Italy); Roberto Canonico (University of Napoli Federico II, Italy); Giorgio Ventre (University of Napoli Federico II, Italy)

### Session 3: Security, Cryptography and Privacy I

- 179 *Efficient Fingerprint Extraction for High Performance Intrusion Detection System*, Haiyang Jiang (Institute of Computing Technology, CAS, P.R. China); Gaogang Xie (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Kavé Salamatian (LISTIC PolyTech, Université de Savoie Chambéry Annecy, France)
- 185 *Assessing Trust in the Long-Term Protection of Documents*, Martin Vigil (Technische Universität Darmstadt, USA); Daniel Cabarcas (Technische Universität Darmstadt, Germany); Jingwei Huang (University of Illinois at Urbana-Champaign, USA); Johannes Buchmann (Technische Universität Darmstadt, Germany)
- 192 *SAnoVS: Secure Anonymous Voting Scheme for Clustered Ad Hoc Networks*, Nikos Komninos (University of Cyprus, Cyprus); Christos Tselikis (University of Piraeus, Greece); Christos Douligeris (University of Piraeus, Greece)
- 197 *Improving the efficiency of the LDPC code-based McEliece cryptosystem through irregular codes*, Marco Baldi (Università Politecnica delle Marche, Italy); Marco Bianchi (Università Politecnica delle Marche, Italy); Nicola Maturo (Università Politecnica delle Marche, Italy); Franco Chiaraluce (Università Politecnica delle Marche, Italy)
- 203 *Evaluation of IPv6 with IPSec in 802.11n WLAN Using Fedora 15 Operating System*, Samad Salehi Kolahi (Unitec Institute of Technology, New Zealand); Yuqing Cao (Unitec, New Zealand); Hong Chen (Unitec, New Zealand)

### Session 4: Internet of the Future

- 207 *A Truly Scalable IP Lookup Algorithm for Next Generation Internet*, Yi Dai, Li-quan Xiao, Ke-fei Wang, He-ying Zhang, Bao-kang Zhao, Shao-gang Wang, (National University of Defense Technology, P.R. China)
- 213 *Over-provisioning Centric Network Resource Control in Future Internet Systems*, Sandino Jardim (Federal University of Goias, Brazil); Augusto Jose Venancio Neto, Ph. D. (Universidade Federal do Rio Grande do Norte, Brazil); José Castillo Lema (Universidade da Coruña, Spain); Eduardo Cerqueira (Federal University of Para & UFPA, Brazil); Felipe Sampaio Dantas da Silva (Federal University of Rio Grande do Norte, Brazil)
- 219 *Characterizing and Analysis of the Flattening Internet Topology*, Zhengwei Zhao (Chinese Academy of Sciences, P.R. China); Jingping Bi (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China)

- 226 *Composition of Services in Pervasive Environments: A Divide and Conquer Approach*, Gilbert Cassar (University of Surrey, United Kingdom); Payam Barnaghi (University of Surrey, United Kingdom); Wei Wang (University of Surrey, United Kingdom); Suparna De (University of Surrey, United Kingdom); Klaus Moessner (University of Surrey, United Kingdom)
- 233 *Trustworthy Incident Information Sharing in Social Cyber Defense Alliances*, Florian Skopik (Austrian Institute of Technology, Austria); Qin Li (Nanyang Technological University, Singapore)

#### Session 5: Wireless and Mobile Communication I

- 240 *Iterative Contending-user Estimation Method for OFDMA Wireless Networks with Bursty Arrivals*, Ray-Guang Cheng (National Taiwan University of Science and Technology, Taiwan); Chia-Hung Wei (National Taiwan University of Science and Technology, Taiwan); Shiao-Li Tsao (National Chiao Tung University, Taiwan)
- 246 *Comparison of Methods for Accelerating the Response Time of TCP Sessions over Long Delay Paths*, Ahmed Tambuwal (University of Aberdeen, United Kingdom); Gorry Fairhurst (University of Aberdeen, United Kingdom); Raffaello Secchi (University of Aberdeen, United Kingdom)
- 252 *Real-life Multipath TCP based Make-Before-Break Vertical Handover*, Jari Kellokoski (University of Jyväskylä, Finland)
- 257 *On Delay-Aware Joint Uplink/Downlink Resource Allocation in OFDMA Networks*, Ahmad El-Hajj (American University of Beirut, Lebanon); Zaher Dawy (American University of Beirut, Lebanon)
- 263 *An Improved Method for Reconstruction of Channel Taps in OFDM Systems*, Yanhong Ju (Beijing University of Posts and Telecom., P.R. China); Sun Songlin (Beijing University of Posts and Telecom., P.R. China); Fei Qi (Beijing University of Posts and Telecom., P.R. China); Xiao jun Jing (Collaborative, P.R. China); Yueming Lu (Beijing University of Posts and Telecom., P.R. China); Na Chen (Beijing University of Posts and Telecom., P.R. China)

#### Session 6: Grid, Cluster and Cloud Computing

- 995 *A Model for Estimating Energy Consumption based on Resources Utilization*, Lucas Venezian (UFSCAR, Brazil); Pedro Bignatto Junior (UFSCAR, Brazil); Carlos Monteiro (UFSCAR, Brazil); Daniel Mueller (UFSCAR, Brazil); Cesar A Marcondes (UCLA, USA); Hermes Senger (Federal University of Sao Carlos, Brazil)
- 269 *Fast GPU Algorithms for Implementing the Red-Black Gauss-Seidel Method for Solving Partial Differential Equations*, Mahmoud ElMaghraby (University of Connecticut, USA); Reda Ammar (University of Connecticut, USA); Sanguthevar Rajasekaran (University of Connecticut, USA)
- 275 *A Comprehensive Approach to Reduce the Energy Cost of Network of Datacenters*, Baris Aksanli (UCSD, USA); Jagannathan Venkatesh (UCSD, USA); Tajana Simunic Rosing (UCSD, USA); Inder Monga (Energy Sciences Network, USA)
- 281 *SRIDesk: A Streaming based Remote Interactivity Architecture for Desktop Virtualization System*, Jiwei Wu (Shanghai Jiao Tong University, P.R. China); Jiajun Wang (Shanghai Jiao Tong University, P.R. China); Zhengwei Qi, Haibing Guan, (Shanghai Jiao Tong University, P.R. China)\*

#### Session 7: Security, Cryptography and Privacy II

- 287 *A Practical Viewpoint on the Performance of LDPC Codes over the Fast Rayleigh Fading Wire-Tap Channel*, Marco Baldi (Università Politecnica delle Marche, Italy); Marco Bianchi (Università Politecnica delle Marche, Italy); Nicola Maturo (Università Politecnica delle Marche, Italy); Franco Chiaraluce (Università Politecnica delle Marche, Italy)
- 293 *Secure and Revocable Node Authentication in Vehicular Ad-Hoc Networks*, Jenny Torres (Université Pierre et Marie Curie, France); Michele Nogueira (Federal University of Parana, Brazil); Guy Pujolle (Université Pierre et Marie Curie - Paris 6, France)
- 299 *End-to-End Authentication in Under-Water Sensor Networks*, Evaldo Souza (Universidade Federal de Minas Gerais, Brazil); Hao Wong (Intel Corporation, USA); Italo Cunha (Universidade Federal de Minas Gerais, Brazil); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil); Luiz F. M. Vieira (Universidade Federal de Minas Gerais, Brazil); Leonardo Oliveira (Federal University of Minas Gerais, Brazil)
- 305 *A Method for Improving Mobile Authentication Using Human Spatio-Temporal Behavior*, Yusuf Albayram (University of Connecticut, USA); Sotirios Kentros (University of Connecticut, USA); Ruhua Jiang (University of Connecticut, USA); Athanasios Bamis (University of Connecticut, USA)
- 312 *Sensor Swarm Query Filtering: Heightened Attack Resilience for Broadcast on-Demand Services*, Christos Liaskos (Aristotle University, Greece); Georgios Papadimitriou (Aristotle University, Greece); Christos Douligeris (University of Piraeus, Greece)

#### Session 8: Routing and Multicast I

- 318 *On Using Cooperative Game Theory to Solve the Wireless Scalable Video Multicasting Problem*, Su Luo (Beijing University of Posts and Telecommunications, P.R. China); Sun Songlin (Beijing University of Posts and Telecommunications, P.R. China); Xiao jun Jing (Collaborative, P.R. China); Yueming Lu (Beijing University of Posts and Telecommunications, P.R. China); Na Chen (Beijing University of Posts and Telecommunications, P.R. China)

- 324 *BAMcast - Byzantine Fault-Tolerant Consensus Service for Atomic Multicast in Large-scale Networks*, Marcelo Silva (UFSC, Brazil); Lau Cheuk Lung (UFSC, Brazil); Leandro Magnabosco (Federal University of Santa Catarina, Brazil); Luciana Rech (Universidade Federal de Santa Catarina, Brazil)
- 330 *MLSA: A Link-State Multipath Routing Algorithm*, Haijun Geng (Tsinghua University, P.R. China); Xia Yin (Tsinghua University, P.R. China); Xingang Shi (Tsinghua University, P.R. China); Zhiliang Wang (Tsinghua University, P.R. China)
- 336 *A weighted QoS aware multipath routing process in Mobile Ad hoc Networks*, Mariem Thaalbi (SUP'COM, Tunisia); Nabil Tabbane (SUP'COM, Tunisia); Tarek Bejaoui (University of Paris-Sud 11, France); Ahmed Meddahi (Institut Mines Telecom/Telecom Lille 1, France)
- 342 *Greedy Routing and Data Aggregation in Wireless Sensor Networks*, Moyses M. Lima (Federal University of Amazonas, Brazil); Horacio Oliveira (Universidade Federal do Amazonas, Brazil); Eduardo Freire Nakamura (FUCAPI - Research and Technological Innovation Center, Brazil); Leandro N. Balico (Federal University of Amazonas - UFAM, Brazil); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil)

### Session 9: Wireless and Mobile Communication II

- 348 *Abrupt Ending of 802.11 AP Connections*, Dossa Massa (University of Porto & INESC Porto, Portugal); Ricardo Morla (INESC Porto and Faculty of Engineering, University of Porto, Portugal)
- 354 *A Cooperative Approach to Fully Utilizing the Aggregate Bandwidth of All Service Channels in IEEE 802.11p/1609 Networks*, Shie-Yuan Wang (National Chiao Tung University, Taiwan); Hung-Wei Chiu (National Chiao Tung University, Taiwan); Jie Zheng (Xi'an Jiaotong University, P.R. China); Xiao Chen (Dalian University of Technology, P.R. China)
- 360 *Lifetime-optimal Transmission Scheduling for Cluster-based Routing in Cooperative Networks*, Yujian Wang (Alcatel-Lucent Shanghai Bell Co., P.R. China); Bin Zhao (Alcatel-Lucent Shanghai Bell Co., P.R. China); Weihua Huang (Alcatel-Lucent Shanghai Bell Co., P.R. China); Wenjun Sun (University of Science & Technology of China, P.R. China)
- 366 *A DNS Protocol - Based Service Discovery Architecture for Disaster Response Systems*, Mohammadmajid Hormati (Concordia University, Canada); Fatna Belqasmi (Concordia University, Canada); Roch Glitho (Concordia University, Canada); Ferhat Khendek (Concordia University, Canada)
- 372 *Adaptive Contact Volume Prediction in Delay Tolerant Networks*, João Batista Pinto, Nt. (Ministerio Publico do Estado de Rondonia, Brazil); Moyses M. Lima (Federal University of Amazonas, Brazil); Edjair S. Mota (Federal University of Amazonas, Brazil); Eduardo Cerqueira (Federal University of Para & UFPA, Brazil); Leandro N. Balico (Federal University of Amazonas - UFAM, Brazil)

### Session 10: Distributed Systems Architecture and Management

- 377 *Data Distribution Service (DDS): A Performance Comparison of OpenSplice and RTI Implementations*, Luca Foschini (University of Bologna, Italy); Paolo Bellavista (University of Bologna, Italy); Antonio Corradi (University of Bologna, Italy); Alessandro Pernaflini (University of Bologna, Italy)
- 384 *Leveraging Memory Mirroring for Transparent Memory Scale-Out with Zero-Downtime Failover for Remote Hosts*, Roei Tell (SAP Research, Israel); Peter Izsak (SAP Research, Israel); Aidan Shribman (SAP Research & SAP, Israel); Steve Walsh (SAP Research, United Kingdom); Benoit Hudzia (SAP Research & SAP AG, United Kingdom)
- 391 *Tie-set Based Fault Tolerance for Autonomous Recovery of Double-Link Failures*, Kiyoshi Nakayama (University of California, Irvine & Donald Bren School of Information and Computer Sciences, USA); Kyle E Benson (University of California, Irvine, USA); Vahe Avagyan (University of California, Irvine, USA); Michael B Dillencourt (University of California, Irvine, USA); Lubomir Bic (University of California, Irvine, USA); Nalini Venkatasubramanian (University of California, Irvine, USA)
- 398 *Byzantine Fault-Tolerant State Machine Replication with Twin Virtual Machines*, Fernando Dettoni (Federal University of Santa Catarina, Brazil); Lau Cheuk Lung (UFSC, Brazil); Miguel Correia (IST/INESC-ID, Portugal); Aldelir Fernando Luiz (Federal University of Santa Catarina, Brazil)

### Session 11: Security, Cryptography and Privacy III

- 404 *An Accountable Security Mechanism based on Security Service Level Agreement*, Takeshi Takahashi (National Institute of Information and Communications Technology, Japan); Joonas Kannisto (Tampere University of Technology, Finland); Seppo Heikkinen (Tampere University of Technology, Finland); Bilhanan Silverajan (Tampere University of Technology, Finland); Marko Helenius (Tampere University of Technology, Finland); Shin'ichiro Matsuo (National Institute of Information and Communications Technology, Japan); Jarmo Harju (Tampere University of Technology, Finland)
- 411 *Combining Conjunctive Rule Extraction with Diffusion Maps for Network Intrusion Detection*, Antti Juvonen (University of Jyväskylä, Finland); Tuomo Sipola (University of Jyväskylä, Finland)
- 417 *A Policy-Based Architecture for Web Services Authentication*, Hao Zeng (Beihang University, P.R. China); Dianfu Ma (State Key Laboratory of Software Development Environment of Beihang University, P.R. China); Yongwang Zhao (Beihang university, P.R. China); Zhuqing Li (Beihang University, P.R. China)

- 423 *Enhancement security level and hardware implementation of ECDSA*, Nabil Ghanmy (LETI Laboratory University of Sfax Tunisia, Tunisia); Lamia Chaari Fourati (Institut supérieur d'informatique et multimédia de sfax, Tunisia); Lotfi Kamoun (LETI Laboratory University of Sfax Tunisia, Tunisia)
- 430 *A Similarity Based Approach for Application Dos Attacks Detection*, Maurizio Aiello (National Research Council, Italy); Enrico Cambiaso (IEIIT, Italy); Silvia Scaglione (National Research Council, Italy); Gianluca Papaleo (IEIIT, Italy)
- 436 *Cryptanalysis of the Toorani-Falahati Hill Ciphers*, Liam Kelihier (Mount Allison University, Canada), Anthony Z. Delaney (Mount Allison University, Canada)

#### Session 12: Routing and Multicast II

- 441 *An Optimization-Based Robust Routing Algorithm for IP Energy-Efficient Networks*, Dingde Jiang (Northeastern University, P.R. China); Wenhui Zhao (Northeastern University, P.R. China); Zhengzheng Xu; Jindi Liu (Northeastern University, P.R. China)
- 447 *Infrastructure-Dependent Wireless Multicast - Improving the Code Rate*, Jean Marie Vella (University of Malta, Malta); Saviour Zammit (University of Malta, Malta)
- 453 *DCR: Depth-Controlled Routing Protocol for Underwater Sensor Networks*, Rodolfo W. L. Coutinho (Federal University of Minas Gerais, Brazil); Luiz F. M. Vieira (Universidade Federal de Minas Gerais, Brazil); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil)
- 459 *Data Dissemination in Urban Vehicular Ad hoc Networks with Diverse Traffic Conditions*, Guilherme Maia (Federal University of Minas Gerais, Brazil); Leandro Aparecido Villas (UFMG, Brazil); Azzedine Boukerche (University of Ottawa, Canada); Aline Carneiro Viana (INRIA, France); Andre Aquino (Universidade Federal de Alagoas, Brazil); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil)

#### Session 13: Cognitive Radio Networking

- 465 *Energy-efficient Cooperative Spectrum Sensing for Cognitive Radio Sensor Networks*; Ozgur Ergul (Koc University, Turkey); Ozgur B. Akan (Koc University, Turkey)
- 470 *Adaptive Sensing Policies for Cognitive Wireless Networks using Learning Automata*, Panagiotis Sarigiannidis (University of Western Macedonia, Greece); Malamati Louta (University of Western Macedonia, Greece); Thomas Lagkas (The University of Sheffield International Faculty, CITY College & University of Western Macedonia, Greece); Eleni Balasa (University of Western Macedonia, Greece)
- 476 *Improved Spectrum Mobility using Virtual Reservation in Collaborative Cognitive Radio Networks*, Ayman T. Abdel-Hamid (Nile University, Egypt); Ahmed Zahrán (Nile University, Egypt); Tamer ElBatt (Faculty of Engineering, Cairo University & WINC, Nile University, Egypt)
- 483 *Multi-Stage Energy Detection Spectrum Sensing using Group Intelligence*, Muhammed Fahim (Cairo University, Faculty of Engineering, Electronics and Comm dept & Nokia Siemens Networks, Egypt); Mahmoud H. Ismail (Cairo University, Egypt); Hazim Tawfik (Cairo University, Egypt)

#### Session 14: Peer-to-Peer Computing

- 489 *Extensive Analysis of a Kad-based Distributed Storage System for Session Data*, Jan Skodzik (University of Rostock, Germany); Peter Danielis (University of Rostock, Germany); Vlado Altmann (University of Rostock, Germany); Dirk Timmermann (University of Rostock, Germany)
- 495 *A Traffic Localization Strategy for Peer-to-Peer Live Streaming*, Chao Dai (Tsinghua University, P.R. China); Yong Jiang (Graduate School at Shenzhen, Tsinghua University, P.R. China); Shutao Xia (Tsinghua University, P.R. China); Haitao Zheng (Graduate School at Shenzhen, Tsinghua University, P.R. China); Laizhong Cui (Shenzhen University, P.R. China)
- 502 *SocialStreaming: P2P-assisted Streaming in Social Networks*, Laizhong Cui (Shenzhen University, P.R. China); Nan Lu (Shenzhen University, P.R. China)
- 508 *A Method for Designing Proximity-aware Routing Algorithms for Structured Overlays*, Takehiro Miyao (Tokyo Institute of Technology, Japan); Hiroya Nagao (Tokyo Institute of Tech., Japan); Kazuyuki Shudo (Tokyo Institute of Tech., Japan)

#### Session 15: Services and Support for Smart Cities

- 515 *GUGA: a tool for participatory cities*, Luana Schünke (Universidade do Vale do Rio dos Sinos - UNISINOS, Brazil); Marta B Villamil (Universidade do Vale do Rio dos Sinos- Unisinos, Brazil); Luiz Paulo de Oliveira (UNISINOS, Brazil)
- 522 *Is it Possible to Detect Mobile Phone User's Attention Based on Accelerometer Measurement of Gait Pattern?*, Josip Music (University of Split, Croatia); Ivo Stancic (University of Split, Croatia); Vlasta Zanchi (University of Split, Croatia)
- 528 *Challenges and opportunities on the large scale study of city dynamics using participatory sensing*, Thiago H. Silva (Federal University of Minas Gerais (UFMG), Brazil); Pedro O. S. Vaz de Melo (Federal University of Minas Gerais, Brazil); Jussara M. Almeida (Federal University of Minas Gerais, Brazil); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil)

- 535 *DrivingStyles: a smartphone application to assess driver behaviour*, Javier Meseguer (Universitat Politècnica de València, Spain); Carlos T. Calafate (Universidad Politècnica de València, Spain); Juan-Carlos Cano (Universidad Politècnica de València, Spain); Pietro Manzoni (Politècnica de València, Spain)

### Session 16: Next Generation Networks Infrastructures and Management I

- 541 *Performance Evaluation of Software-Defined Networking with Real-life ISP Traffic*, Xiangxin Kong (Tsinghua University, P.R. China); Zhiliang Wang (Tsinghua University, P.R. China); Xingang Shi (Tsinghua University, P.R. China); Yin Xia (Tsinghua University, P.R. China); Dan Li (Tsinghua University, P.R. China)
- 548 *Scaling Bloom filter-based multicast via filter switching*, Christos Tsilopoulos (Athens University of Economics and Business, Greece); George Xylomenos (Athens University of Economics and Business, Greece)
- 554 *IPv6 Network Topology Discovery Method Based on Novel Graph Mapping Algorithms*, Miao Li (Tsinghua University, P.R. China); Jiahai Yang (Tsinghua University, P.R. China); Changqing An (Tsinghua University, P.R. China); Chenxi Li (Tsinghua University, P.R. China); Fuliang Li (Tsinghua University, P.R. China)
- 561 *Modeling and Optimizing the Cache Deployment with Filter Effect in Multi-Cache System*, Yiming Zhou (Tsinghua University, P.R. China); Laizhong Cui (Shenzhen University, P.R. China); Yong Jiang (Graduate School at Shenzhen, Tsinghua University, P.R. China); Mingwei Xu (Tsinghua University, P.R. China)
- 567 *Hephaestus: a cloud-based environment to virtual network automation*, Roberio Patricio (Laboratory of Computer Network and Security - LARCES, Brazil); Joaquim Celestino Júnior (State University of Ceará, Brazil)

### Session 17: Wireless and Mobile Communication III

- 572 *A Sub-Optimal Receiver Performance Study over a Multipath UWB Channel*, Abdellah Chehri (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada); Paul Fortier (Laval University, Canada)
- 576 *MIMO-Diversity Switching Techniques for Digital Transmission in Visible Light Communication*, Lih Chieh Png (Nanyang Technological University, Singapore); Long Xiao (A\*STAR Institute for Infocomm Research, Singapore); Kiat Seng Yeo (Nanyang Technological University, Singapore); Thin Sek Wong (Nanyang Technological University, Singapore); Yong Liang Guan (Nanyang Technological University, Singapore)
- 583 *A Theoretical Characterization and Compensation of Nonlinear Distortion Effects and Performance analysis using Polynomial Model in MIMO OFDM Systems under Rayleigh fading channel*, Maha Cherif (Innov'Com Lab, Tunisia); Rafik Zayani (Innov'COM Lab, Sup'Com, Tunisia); Ridha R. Bouallegue, B. (Ecole Supérieure des Communications de Tunis, Tunisia)
- 588 *On Reliable Information Rate Bounds for Fading Channel With Receiver CSI only*, Kadir Turk (Karadeniz Technical University, Turkey); Pingyi Fan (Tsinghua University, P.R. China)
- 593 *A Statistical-based Algorithm for Event Region Detection in Wireless Sensor Networks*, Anousheh Tavakoli-Dehkordi (University of Greenwich, United Kingdom); Yifan Chen (South University of Science and Technology of China, P.R. China); Predrag Rapajic (University of Greenwich, United Kingdom); Chau Yuen (Singapore University of Technology and Design, Singapore); Yong Huat Chew (Institute for Infocomm Research, Singapore)

### Session 18: Big Data, Data Mining and Database Applications

- 594 *Optimizing the Management of a Database in a Virtual Environment*, Timoteo Lange (PUC, Brazil); Paolo Cemim (Pontificia Universidade Católica do Rio Grande do Sul, Brazil); Miguel Xavier; Cesar De Rose (PUCRS, Brazil)
- 600 *Inferring Presence Status on Smartphones: The Big Data Perspective*, Aleksandar Antonic (University of Zagreb, Croatia); Ivana Podnar Zarko (University of Zagreb, Croatia); Domagoj Jakobovic (University of Zagreb, Croatia)
- 606 *PUBSUB: An Efficient Publish/Subscribe System*, Tania Banerjee-Mishra (University of Florida, USA); Sartaj Sahni (University of Florida, USA)
- 612 *A Two-Pass Exact Algorithm for Selection on Parallel Disk Systems*, Tian Mi (University of Connecticut, USA); Sanguthevar Rajasekaran (University of Connecticut, USA)
- 618 *Improving Load Balancing for MapReduce-based Entity Matching*, Demetrio G Mestre (Federal University of Campina Grande (UFCG), Brazil); Carlos Pires (Federal University of Campina Grande (UFCG), Brazil)

### Session 19: Communications Services and Management

- 625 *The Effect of the Congestion Control Window Size on the TCP Incast and its Implications*, Guodong Wang (Computer Network Information Center of Chinese Academy of Sciences, P.R. China)
- 629 *Ensemble Classifier for Traffic in Presence of Changing Distributions*, Runxin Wang (Waterford Institute of Technology, Ireland); Lei Shi (Waterford Institute of Technology, Ireland); Brendan Jennings (Waterford Institute of Technology, Ireland)
- 636 *The 2ACT Model-based Evaluation for In-network Caching Mechanism*, Ke Xu (Tsinghua University, P.R. China); Min Zhu (Department of Computer Science, Tsinghua University, P.R. China); Ning Wang (University of Surrey, United Kingdom)



- Kingdom); Song Lin (Tsinghua University, P.R. China); Haiyang Wang (Simon Fraser University, Canada); Tong Li (Tsinghua University, P.R. China)
- 642 *Development and Evaluation of LISP-based Instant VPN Services*, Chikara Sasaki (KDDI R&D Laboratories Inc., Japan); Peng Jiang (KDDI R&D Laboratories Inc., Japan); Atsushi Tagami (KDDI R&D Laboratories, Japan); Teruyuki Hasegawa (KDDI R&D Laboratories Inc., Japan); Shigehiro Ano (KDDI R&D Laboratories, Japan)
- 648 *Locating Disruptions on an Internet Path through End-to-End Measurements*, Atef Abdelkefi (Q2S, Norwegian University of Science and Technology, Norway); Yaser Eftekhari (Carleton University, Canada); Yuming Jiang (Norwegian University of Science and Technology (NTNU), Norway)

#### Session 20: Next Generation Networks Infrastructures and Management II

- 654 *Static Dispatching with Internal Backpressure Scheme for SMM Clos-Network Switches*, Janusz Kleban (Poznan University of Technology, Poland); Urszula Suszyńska (GSK Services, Poland)
- 659 *A Measurement Protocol for Channel Assignment Based Topology Control on Multi-Radio Wireless Mesh Networks*, Ante Prodan (University of Western Sydney, Australia); John Debenham (University of Technology, Sydney, Australia)
- 665 *Exploiting Multiuser Diversity for OFDMA Next Generation Wireless Networks*, Abdellah Chehri (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada)
- 670 *On the Comprehension of DSL Sync Trap Events in IPTV Networks*, Angelos K. Marnerides (Lancaster University, United Kingdom); Simon Malinowski (INESC Porto, France); Ricardo Morla (INESC Porto and Faculty of Engineering, University of Porto, Portugal); Miguel Rodrigues (University College London, United Kingdom); Hyong Kim (Carnegie Mellon University, USA)
- 676 *Self-\* Properties and P2P Technology on Disruption-Tolerant Management*, Jéferson Nobre (Federal University of Rio Grande do Sul, Brazil); Pedro Arthur Duarte (Federal University of Rio Grande do Sul, Brazil); Lisandro Z Granville (Federal University of Rio Grande do Sul, Brazil); Liane Margarida Rockenbach Tarouco (Federal University of Rio Grande do Sul, Brazil)

#### Session 21: Wireless and Mobile Communication IV

- 682 *Probability of Error and Ergodic Capacity of Switch-and-Examine Combining Diversity over the  $\alpha$ - $\mu$  Fading Channel*, Refaat Mohamed (Faculty of Engineering, Cairo University, Egypt); Mahmoud H. Ismail (Cairo University, Egypt); Fatma A. Newagy (Ain-Shams University, Egypt); Hebatallah Mourad (Cairo University, Egypt)
- 688 *Fractionally Spaced Self-Interference Canceler for Full-Duplex Communication Systems*, Semiha Tedik (Istanbul Technical University, Turkey); Gunes Karabulut Kurt (Istanbul Technical University, Turkey)
- 693 *Interference-Aware Radio Resource Management Framework for the 3GPP LTE Uplink with QoS Constraints*, Amira Afifi (Cairo University, Egypt); Khaled Elsayed (Cairo University, Egypt); Ahmed Khattab (Cairo University, Egypt)
- 699 *On the efficacy of WiFi indoor positioning in a practical setting*, Stylianos Papanastasiou (Nottingham Trent University, United Kingdom); Evtim Peytchev (Nottingham Trent University, United Kingdom); Thomas Jaffre (French Naval Academy, France); Pierre Mickael Grigis (French Naval Academy, France)
- 705 *Recovering Erroneous Data Bits Using Error Estimating Code*, Xingshen Wei (Nanjing University, P.R. China); Wenzhong Li (Nanjing University, P.R. China); Xiaoliang Wang (Nanjing University, P.R. China); Sanglu Lu (Nanjing University, P.R. China); Xiaoming Fu (University of Goettingen, Germany)

#### Session 22: Real Time Communication Services

- 711 *Evaluation of Audio/Video Bridging forwarding method in an Avionics Switched Ethernet Context*, Fabien Geyer (EADS Innovation Works, Germany); Emanuel Heindinger (EADS Innovation Works, Germany); Stefan Schneelee (EADS Innovation Works, Germany); Alexander von Bodisco (Hochschule Kempten, Germany)
- 717 *Connections Analysis of Voice Traffic over MANETs and their Impact on Delay Variation*, Sofiene Jelassi (INRIA Rennes - Bretagne Atlantique & Rennes, France); Gerardo Rubino (INRIA, France)
- 724 *Throughput Improvement of Oversampled WiMAX Receiver in Frequency Selective Channel*, Kadir Turk (Karadeniz Technical University, Turkey)

#### Session 23: Modeling and Simulation

- 729 *Mathematical model of simplified Constrained Priority Countdown Freezing protocol*, Ante Kristic (University of Split, Croatia); Julije Ozeovic (University of Split, Croatia); Ivan Kedzo (University of Split, Croatia)
- 735 *Fair Division Methods Approach as the Option of Learning Process Modeling*, Jadranka Marasović (FESB, Split, Croatia); Tea Marasović (FESB, Split, Croatia); Marija Djapic (FESB, Split, Croatia)
- 740 *Power Modeling and Thermal Management Techniques for Manycores*, Rajib Nath (University of California, San Diego, USA); Douglas Carmean (Intel, USA); Tajana Simunic Rosing (University of California, San Diego, USA)

- 747 *Modeling of a Dynamic RFID System*, Marek Gotfryd (Rzeszow University of Technology, Poland); Bartosz Pawłowicz (Rzeszow University of Technology, Poland)
- 753 *An Optimal Segment Replication Strategy in P2P-VoD Systems*, Hongke Hu (Graduate School at Shenzhen, Tsinghua University, P.R. China); Yong Jiang (Graduate School at Shenzhen, Tsinghua University, P.R. China); Laizhong Cui (Shenzhen University, P.R. China); Shutao Xia (Tsinghua University, P.R. China); Haitao Zheng (Graduate School at Shenzhen, Tsinghua University, P.R. China)

#### Session 24: Next Generation Networks Infrastructures and Management III

- 759 *LMD: a local minimum driven and self-organized method to obtain locators*, Yonggong Wang (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Gaogang Xie (Institute of Computing Technology, Chinese Academy of Sciences, P.R. China); Mohamed-Ali Kaafar (INRIA France & NICTA Australia, France); Steve Uhlig (Queen Mary, University of London, United Kingdom)
- 765 *Baatdaat: Measurement-Based Flow Scheduling for Cloud Data Centers*, Fung Po Tso (University of Glasgow, United Kingdom); Dimitrios P Pazaros (University of Glasgow, United Kingdom)
- 771 *Queuing analysis of dynamic resource allocation for virtual routers*, Mohamed Said Seddiki (Higher School of Communication of Tunis, Tunisia); Mounir Frikha (High School of Communication in Tunis, Tunisia); Bilel Nefzi (LORIA laboratory - Nancy University - INPL, France); YeQiong Song (LORIA - Nancy University - INPL, France)
- 777 *Scheduling Multicast Traffic in Partially Buffered Crossbar Switches*, Lotfi Mhamdi (University of Leeds, United Kingdom); Di Cao (TU Delft, The Netherlands)
- 783 *Improvement of a Service Level Negotiation Protocol using Formal Verification*, Mohamed Aymen Chalouf (IRISA Lab - University of Rennes 1, France); Francine Krief (University of Bordeaux, France); Nader Mbarek (LE2I, University of Burgundy, France); Tayeb Lemlouma (IRISA Lab and Rennes 1 University, France)

#### Session 25: Sensor Networks and Mobile Sensing I

- 789 *The Impacts of Internal Threats towards Routing Protocol for Low power and lossy Network Performance*, Anhtuan Le (Middlesex University, United Kingdom); Jonathan Loo (Middlesex University, United Kingdom); Yuan Luo (Middlesex University, United Kingdom); Aboubaker Lasebae (Middlesex University, United Kingdom)
- 795 *Localized MAC Duty-Cycling Adaptations for Global Energy-Efficiency in Wireless Sensor Networks*, Julien Beaudaux (University of Strasbourg, France); Antoine Gallais (University of Strasbourg, France); Thomas Noel (University of Strasbourg, France)
- 801 *An Adaptive Surface Sink Redeployment Strategy for Underwater Sensor Networks*, Manal Al-Bzoor (University of Connecticut, USA); Yibo Zhu (Univ. of Connecticut, USA); Jun Liu (University of Connecticut, USA); Reda Ammar (Univ. of Connecticut, USA); Jun-Hong Cui (Univ. of Connecticut, USA); Sanguthevar Rajasekaran (Univ. of Connecticut, USA)
- 807 *Deriving Lower Bounds for Energy Consumption in Wireless Sensor Networks*, Adriana Penaranda (Federal University of Amazonas, Brazil); Andre Araujo (Federal University of Amazonas, Brazil); Fabiola G. Nakamura (Universidade Federal do Amazonas, Brazil); Eduardo Freire Nakamura (Federal University of Amazonas, Brazil)

#### Session 26: Internet Services and Applications

- 814 *An Analysis of Replication and Retrieval of Medical Image Data Using a Database Management System and a Distributed File System*, Douglas D J Macedo (Federal University of Santa Catarina, Brazil); Mario A R Dantas (UFSC, Brazil); Miriam A M Capretz (University of Western Ontario, Canada); Eros Comunello (University of Itajaí Valley & Programm on Applied Computing, Brazil); Thiago Coelho Prado (UFSC, Brazil); Elias Santos (Assembléia Legislativa do Estado de Santa Catarina, Brazil)
- 820 *Assessing Performance of Internet Services on IPv6*, David J. Plonka (University of Wisconsin - Madison, USA); Paul Barford (University of Wisconsin - Madison, USA)
- 827 *IP Traffic Classifiers Applied to DiffServ Networks*, Michael Taynnan Barros (Waterford Institute of Technology & TSSG - Telecommunications Software and Systems Group, Ireland); Reinaldo Gomes (Federal University of Campina Grande, Brazil); Marcelo S. Alencar (Federal University of Campina Grande & Institute for Advanced Studies in Communications, Brazil); Anderson Costa (Federal Institute of Education, Science and Technology of Paraíba - IFPB - Campus Campina Grande, Brazil)
- 833 *Optimization of Ad Hoc Device and Service Discovery in Large Scale Networks*, Vlado Altmann (University of Rostock, Germany); Peter Danielis (University of Rostock, Germany); Jan Skodzik (University of Rostock, Germany); Frank Golasowski (University of Rostock, Germany); Dirk Timmermann (University of Rostock, Germany)

#### Session 27: Image and Video Processing

- 839 *Object classification in water sports*, Vladimir Plestina (University of Split, Croatia); Vladan Papic (University of Split, Croatia)

- 845 *Local colour statistics for edge definition*, Barbara Dzaja (University of Split, Croatia); Niksa Antisic (Siemens, Croatia); Mirjana Bonkovic (University of Split, Croatia)
- 850 *Comparison of stamp classification using SVM and Random ferns*, Pjero Petej (University of Split & Financial Agency (FINA), Croatia); Sven Gotovac (University of Split & FESB, Croatia)
- 855 *Scalable Video Coding Guidelines and Performance Evaluations for Adaptive Media Delivery of High Definition Content*, Michael Grafl (Alpen-Adria- Universität Klagenfurt, Austria); Christian Timmerer (Alpen-Adria- Universität Klagenfurt, Austria); Hermann Hellwagner (Klagenfurt University, Austria); Wael Cherif (University of Rennes 1 & Viotech Communications, France); Daniel Négro (University of Bordeaux, France); Stefano Battista (bSoft Ltd, Italy)

#### **Session 28: Network Design, Optimization, and Management I**

- 862 *Comparative Study of a Hybrid Model for Network Traffic Identification and its Optimization using Firefly Algorithm*, Zuleika Nascimento (Federal University of Pernambuco - UFPE, Brazil); Djamel Hadj Sadok (Federal University of Pernambuco, Brazil); Stenio Fernandes (Federal University of Pernambuco, Brazil)
- 868 *Detection of Fast-Flux Networks Using Various DNS Feature Sets*, Berkay Celik (Istanbul Technical University, Turkey); Sema Oktug (Istanbul Technical University, Turkey)
- 874 *Model of Influence of MRP on Network Performances*, Filip Belic (TEO-Belišće doo, Croatia); Goran Martinovic (J. J. Strossmayer University of Osijek, Croatia)
- 880 *Basic Classifiers for DNS Tunneling Detection*, Maurizio Aiello (National Research Council, Italy); Maurizio Mongelli (National Research Council of Italy, Italy); Gianluca Papaleo (IEIIT, Italy)
- 886 *BSF-UED: A New Time-Efficient Bluetooth Scatternet Formation Algorithm Based on Unnecessary-Edges Deletion*, Ahmed Jemma (University of Ottawa, Canada); Arnaud Casteigts (University of Bordeaux, France); Guy-Vincent Jourdan (University of Ottawa, Canada); Hussein T Mouftah (University of Ottawa, Canada)

#### **Session 29: Sensor Networks and Mobile Sensing II**

- 892 *A Self-adaptive Recovery Strategy for Service Composition in Ubiquitous Stub Environments*, Lijun Wang (Beijing University of Posts and Telecommunications, P.R. China); Lanlan Rui (Beijing University of Posts and Telecommunications, P.R. China); Kangming Jiang (Guangdong Power Grid Power Dispatching Control Center, P.R. China); Qiu Xue-song (Beijing University of Posts and Telecommunications, P.R. China); Li Wenjing (Beijing University of Posts and Telecommunications, P.R. China)
- 898 *Strategies for Optimal MAC Parameter Setting in IEEE 802.15.4 Wireless Sensor Networks: a Performance Comparison*, Simone Brienza (University of Pisa, Italy); Domenico De Guglielmo (University of Pisa, Italy); Giuseppe Anastasi (University of Pisa, Italy); Marco Conti (IIT-CNR, Italy); Vincenzo Neri (IDS - Ingegneria Dei Sistemi, Italy)
- 904 *RelBAS:Reliable Data Gathering from Border Area Sensors*, Suchetana Chakraborty (Indian Institute of Technology Guwahati, India); Sandip Chakraborty (Indian Institute of Technology Guwahati, India); Sukumar Nandi (Indian Institute of Technology, Guwahati, India); Sushanta Karmakar (Indian Institute of Technology, Guwahati, India)
- 910 *A Traffic Adaptive Inter-Cluster Head Delay Control Scheme in WSNs*, Irfan S. Al-Anbagi (University of Ottawa, Canada); Melike Erol-Kantarci (University of Ottawa, Canada); Hussein T Mouftah (University of Ottawa, Canada)

#### **Session 30: Optical Networking**

- 916 *Optical stateful security filtering approach based on code words*, Maha Sliti (Communication Networks and Security Research Lab., Tunisia); Noureddine A. Boudriga (University of Carthage, Tunisia)
- 922 *A Column Generation-based Heuristic for the GRWA with Protection and QoS in WDM Optical Networks*, Fernanda S H Souza (Federal University of Minas Gerais, Brazil); Daniel L. Guidoni (Federal University of São João Del-Rei, Brazil); Geraldo R Mateus (Universidade Federal de Minas Gerais, Brazil)
- 928 *The Cost of Traffic Protection in Bidirectional Optical Packet Switching Rings*, Bogdan Uscumlic (Telecom Bretagne, France); Lida Sadeghioon (Telecom Bretagne, France); Annie Gravey (Institut Mines Telecom - Telecom Bretagne, France); Philippe Gravey (Télécom Bretagne, France)
- 934 *Optical Infrastructure for Visible Light Communication for Public Housing and Commercial Buildings*, Lih Chieh Png (Nanyang Technological University, Singapore); Kiat Seng Yeo (Nanyang Technological University, Singapore)

#### **Session 31: Artificial Intelligent Systems**

- 940 *Capabilities and Objectives of Distributed Image Processing on Smart Camera Systems*, Rene Golembewski (Ilmenau University of Technology, Germany); Steve Göring (Ilmenau University of Technology, Germany); Guenter Schaefer (Technische Universitaet Ilmenau, Germany)
- 946 *Information Theoretic Approach to Variable Selection in Predictive Models Applied to Paper Machine Data*, Elena Ivannikova (University of Jyväskylä, Finland); Timo Hämäläinen (University of Jyväskylä, Finland); Kari Luostarinen (Metso Paper Inc., Finland)

- 951 *A Novel Feature Descriptor for Gesture Classification Using Smartphone Accelerometers*, Tea Marasović (FESB, Split, Croatia); Vladan Papić (University of Split, Croatia)

### **Session 32: Software Engineering**

- 956 *Method for Elicitation, Documentation and Validation of Software User Requirements (MEDoV)*, Srdjana Dragicevic (Airport Split, Croatia); Stipe Celar (University of Split & FESB, Croatia)
- 962 *An MDE Approach for Domain based Architectural Components Modelling*, Rahma Bouaziz (IRIT, University of Toulouse, France)\*

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

- 969 *A Handoff Algorithm based on Link Quality Prediction for Mass Transit Wireless Mesh Networks*, Carmine Benedetto (University of Pisa, Italy); Enzo Mingozzi (University of Pisa, Italy); Carlo Vallati (University of Pisa, Italy)
- 975 *ID-MAC: An Identity-Based MAC Protocol for Wireless Sensor Networks*, Felipe Cunha (Federal University of Minas Gerais, Brazil); Italo Cunha (Universidade Federal de Minas Gerais, Brazil); Hao Wong (Intel Corporation, USA); Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil); Leonardo Oliveira (Federal University of Minas Gerais, Brazil)
- 982 *Handoff Triggering for Wireless Sensor Networks with Performance Needs*, Zinon Zinonos (University of Cyprus, Cyprus); Vasos Vassiliou (University of Cyprus, Cyprus); Chrysostomos Chrysostomou (Frederick University, Cyprus)
- 989 *A Utility-based Terminal Selection Mechanism for Terminal Cooperation in Heterogeneous Wireless Networks*, Shoushou Ren (Institute of Acoustics Chinese Academy of Sciences, P.R. China); Yinlong Liu (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Xu Zhou (Institute of Acoustics, Chinese Academy of Science, P.R. China); Hui Tang (Chinese Academy of Sciences, P.R. China); Song Ci (University of Nebraska-Lincoln, USA)