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RAWMAC: A Routing Aware Wave-based MAC Protocol for WSNs

Pietro Gonizzi (University of Parma, Italy); Paolo Medagliani (Thales Communications and Security, France); Gianluigi Ferrari (University of Parma, Italy); Jeremie Leguay (Thales Communications & Security, France)
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Keynote1: Keynote Talk 1: Three Decades of Ubiquitous Computing Development: Opportunities and New Challenges

Mark Weiser predicted a connected and ubiquitous world in his visionary paper in the late 1980s. It has taken that vision over 30 years to be truly put in practice. Much of this deployment is due to the advance in wireless technology. This talk will review some

of the opportunities of today's ubiquity and the unexpected challenges that it has thrown out. In particular, the talk will relate these issues to the examples of important developments such as of digital life memories or life logging and their applications, mobile cloud technology, and the effect of smart services such as smart cities on privacy and security.

ST1: Sixth International Workshop on Selected Topics in Mobile and Wireless Computing

Physical PH1

Analysis evaluation of collision detection scheme utilizing MIMO transmission

Yoshiaki Morino, Takefumi Hiraguri, Toshiyuki Ogawa and Hideaki Yoshino (Nippon Institute of Technology, Japan); Kentaro Nishimori (Niigata University, Japan)
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Lennart Schulte, Gautam Raj Moktan, Mikko Särelä and Jukka M J Manner (Aalto University, Finland)
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Elias Yaacoub (Qatar Mobility Innovations Center (QMIC), Qatar); Zaher Dawy (American University of Beirut, Lebanon)
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Mulugeta K Fikadu (Tampere University of Technology, Finland); Paschalis C. Sofotasios (Tampere University of Technology & Aristotle University of Thessaloniki, Finland); Mikko Valkama (Tampere University of Technology, Finland); Qimei Cui (Beijing University of Posts and Telecommunications, P.R. China)
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UB1: Ubiquitous Computing, Services and Applications

A Novel Application Model and an Offloading Mechanism for Efficient Mobile Computing

Jose Andres Gonzalez Barrameda and Nancy Samaan (University of Ottawa, Canada)
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Context-Aware Adaptive Recommendation of Resources for Mobile Users in a University Campus

Guilherme Medeiros Machado and José Palazzo (Federal University of Rio Grande do Sul, Brazil)
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K-Means Based Clustering Approach for Data Aggregation in Periodic Sensor Networks

Hassan Harb (Lebanese University, Lebanon); Abdallah Makhoul (University of Franche-Comté, France); David Laiymani (LIFC, France); Ali Jaber (Lebanese University, Lebanon); Rami Tawil (LIU University, Lebanon)
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Activity Recognition from Sensors using Dyadic Wavelets and Hidden Markov Model

Roland Assam (RWTH Aachen University, Germany); Thomas Seidl (RWTH Aachen University, Germany)
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WI1: Wireless Communications

Investigation of Capacity Loss and Mean Effective Gain in Multiple Antenna Systems

Belgacem Aouadi (SUP'COM, Tunisia); Jamel Belhadj Tahar (Sup'Com, Tunisia)
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Adaptive Bit and Power Allocation Algorithm for SVD-MIMO System with Fixed Transmission Rate

Kazuhiko Mitsuyama (Japan Broadcasting Corporation, Japan); Naohiko Iai (Japan Broadcasting Corporation (NHK), Japan)
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Physical Layer Secrecy for MISO Channel with Quantized Feedback

Ioannis Krikidis and Constantinos Psomas (University of Cyprus, Cyprus)
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Performance Analysis of Full-duplex MIMO-SVD-SIC based Relay in the Presence of Channel Estimation Errors

Mohamad A. Ahmed (Newcastle University /UK & University of Mosul / IRAQ, United Kingdom); Charalampos C. Tsimenidis and Stephane Le Goff (Newcastle University, United Kingdom)
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WM1: Wireless Networking, Mobility and Nomadicity

Opportunistic Networks: Minimizing Expected Latency

Shohreh Shaghaghian and Mark Coates (McGill University, Canada)
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Social Networks for Certification in Vehicular Disruption Tolerant Networks

Thiago R. Oliveira (UFES, Brazil); Sergio de Oliveira (Federal University of Sao Joao Del Rey, Brazil); Daniel Fernandes Macedo and José-Marcos Nogueira (Federal University of Minas Gerais, Brazil)
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PADAVAN: Privacy-Aware Data Accumulation for Vehicular Ad-hoc Networks

Andreas Tomandl, Dominik Herrmann and Hannes Federrath (University of Hamburg, Germany)
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Predicting Journeys for DTN Routing in a Public Transportation System

Fabio R Segundo (Universidade Federal de Santa Catarina & Universidade Regional de Blumenau, Brazil); Eraldo Silveira e Silva (UFSC University Fed Santa Catarina, Brazil); Jean-Marie Farines (Universidade Federal de SC, Brazil)
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Sensor Networks

This is How We Roll: Cultural Traits in Check-in Behaviour

Andreas Komninos (University of Stirling, United Kingdom); Jerjes Besharat and John Garofalakis (University of Patras, Greece); Dimitrios Michelakis (University of Edinburgh, United Kingdom)
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Energy Preservation in Large-Scale Wireless Sensor Network Utilizing Distributed Compressive Sensing

Nayera Youness (German University in Cairo, Egypt); Khaled Hassan (German University in Cairo (GUC), Egypt)
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Towards Accurate Mobility and Radio Link Modeling for IEEE 802.15.6 Wearable Body Sensor Networks

Muhammad Mahtab Alam (Qatar Mobility Innovation Center, Qatar); Elyes Ben Hamida (Qatar Mobility Innovations Center (QMIC), Qatar)
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ST3: Sixth International Workshop on Selected Topics in Mobile and Wireless Computing

Social Networks and Mobile Applications

Non-verbal Audio and Tactile Mobile Navigation

Andreas Komninos (University of Starthclyde, United Kingdom); Marianna Astrantzi (University of West Macedonia, Greece); Athanasios Plessas, Vassilios Stefanis and John Garofalakis (University of Patras, Greece)
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Routing in Wireless Sensor Networks: An approach using Stackelberg Games

Eirini Karapistoli and Anastasios A. Economides (University of Macedonia, Greece)
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Smooth Writing Card for a Messaging App

Vivencio Fuentes, Jr. (University of the Philippines Diliman, Philippines); Rowel O Atienza (University of the Philippines, Philippines)
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Investigating the Android Intents and Permissions for Malware Detection

Fauzia Idrees (City University London & NUST, United Kingdom)
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WI2: Wireless Communications

SINR Analysis of Cognitive Underlay Systems with Multiple Primary Transceivers in Nakagami Fading

Petros S. Bithas (Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, Greece); Athanasios A. Rontogiannis (National Observatory of Athens, Greece); Kostas Berberidis (University of Patras, Greece)
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An Adaptive Transmission scheme for multiuser MIMO Broadcast Channel in Cognitive Radio

Chung Le (Wilhelm Leibniz University Hannover, Institute of Communications Technology, Germany); Sanam Moghaddamnia (Leibniz University of Hannover, Germany); Jürgen Peissig (Leibniz Universität Hannover, Germany)
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Software Defined Framework for Multi-Cell Cognitive Radio Networks

Ahmad S Doulat, Ahmad Al Abed Al Aziz, Mahmoud Al-Ayyoub and Yaser Jararweh (Jordan University of Science and Technology, Jordan); Haythem A. Bany Salameh (Yarmouk University, Jordan); Abdallah A Khreishah (New Jersey Institute of Technology, USA)
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WM2: Wireless Networking, Mobility and Nomadicity

Short-Term Link Quality Estimation for Opportunistic and Mobility Aware Routing in Wearable Body Sensors Networks

Elyes Ben Hamida (Qatar Mobility Innovations Center (QMIC), Qatar); Muhammad Mahtab Alam (Qatar Mobility Innovation Center, Qatar); Mickael Maman (CEA-Leti Minatec Campus, France); Benoit Denis (CEA-Leti Minatec, France)
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Expected Delay for Topology Construction and Reconfiguration in Harvested 802.15.4 Networks

Gabriele Romaniello (University of Grenoble & STMicroelectronics, France); Olivier Alphand and Andrzej Duda (Grenoble Institute of Technology, France); Roberto Guizzetti (STMicroelectronics, France)
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Routing Protocol-Independent Contact Optimization for Opportunistic Social Networks

Chen Yang and Radu Stoleru (Texas A&M University, USA)

ST4: Sixth International Workshop on Selected Topics in Mobile and Wireless Computing

QoS

Predicting mobile video inter-download times with Hidden Markov Models

Frederic Beister and Holger Karl (University of Paderborn, Germany)

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QoS Concept for IEEE 802.16-2012 Based WiMAX Networks

Volker Richter, Rico Radeke and Ralf J. Lehnert (Technische Universität Dresden, Germany)

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Robust Energy Harvesting Aware Clustering with Fuzzy Petri Net Reasoning Algorithm

Aya Mostafa (System Engineer, Egypt); Khaled Hassan (German University in Cairo (GUC), Egypt)

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A Cross-Layer Video Multicasting Routing Protocol for Cognitive Radio Networks

Yaser Mhaidat and Mohammad A. Alsmirat (Jordan University of Science and Technology, Jordan);

Osamah S. Badarneh (University of Tabuk, Saudi Arabia); Yaser Jararweh (Jordan University of

Science and Technology, Jordan); Haythem A. Bany Salameh (Yarmouk University, Jordan)

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ST5: Sixth International Workshop on Selected Topics in Mobile and Wireless Computing

Physical PH1

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Md. Lushanur Rahman, Pedro Figueiredo e Silva and Elena Simona Lohan (Tampere University of Technology, Finland)

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On an efficient equalization structure for aeronautical communications via a satellite link

Bilel Raddadi and Nathalie Thomas (University of Toulouse, France); Charly Poulliat (INP - ENSEEIHT Toulouse, France); Marie-Laure Boucheret (University of Toulouse IRIT Enseeiht, France); Benjamin Gadat (Thales Alenia Space, France)

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Prediction of Spectral Regrowth for FBMC-OQAM system using Cumulants

S S Krishna Chaitanya Bulusu (Conservatoire National des Arts et Metiers, France); Hmaied Shaiek (CNAM, France); Daniel Roviras (Cnam, France)

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WM3: Wireless Networking, Mobility and Nomadicity

Node-Centric Energy Balancing For Wireless Networks

Stojan Denic (Telecommunications Research Lab Toshiba, United Kingdom); Yichao Jin (Toshiba Research Europe Ltd, United Kingdom); Stefanos Vatsikas (Toshiba Research Europe, United Kingdom); Mahesh Sooriyabandara (Toshiba Research Europe Limited, United Kingdom)

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Dynamic and Energy efficient Wireless BAN Platform for Remote Health Monitoring

Karel Heurtefeux and Nasreen Mohsin (Qatar Mobility Innovations Center, Qatar); Elyes Ben Hamida (Qatar Mobility Innovations Center (QMIC), Qatar); Hamid Menouar (Qatar Mobility Innovations Center, Qatar)

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An Energy Balanced Dynamic Topology Control Algorithm for Improved Network Lifetime

Xiaoyu Chu and Harish Sethu (Drexel University, USA)

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Achieving High Throughput and Low Delay by Accurately Regulating Link Queue Length over Mobile Data Network

Ke Liu (Chinese Academy of Sciences & Institute of Computing Technology, P.R. China); Jack Y. B. Lee (The Chinese University of Hong Kong, Hong Kong)
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Keynote2: Keynote Talk 2: 5G Networks in H2020: SDN-based communication and Network Function Virtualization

Softwarization of networks is a target set by Telecom operators and Cloud service providers for the near future. The challenge is to guarantee carrier grade performance to virtualized network elements hosted on top of SDN-based cloud computing infrastructures. Network manufacturers are robustly investing on virtualization and cloud, but it is still necessary to put an effort on cloud interoperability and federation, possibly involving standardization.

This challenge calls for a redesign of services paradigms and system, and a re-thinking of architectures, interfaces, functions, access and non-access protocols and related procedures, and advanced algorithms, e.g. for identity management, establishment, maintenance and reconfiguration of ICT services and any type resource among SDN-based cloud infrastructures. A large exploitation and adoption of cloud computing, software networks and network functions and services virtualization will make the 5G infrastructure feasible and business viable.

UB2: Ubiquitous Computing, Services and Applications

A Cyber-Physical System for Continuous Monitoring of Water Distribution Systems

Mahima Suresh (Texas A&M University, USA); Usha Manohar and Anjana Gr (Indian Institute of Science, India); Radu Stoleru (Texas A&M University, USA); Mohan Kumar M S (Indian Institute of Science, India)
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Up and Away: A Visually-Controlled Easy-to-Deploy Wireless UAV Cyber-Physical Testbed

Ahmed M Saeed (Georgia Institute of Technology & Carnegie Mellon University Qatar, USA); Azin Neishaboori (Qatar University & Pennsylvania State University, USA); Amr Mohamed (Qatar University & Qatar University Wireless Innovations Center, Qatar); Khaled A. Harras (Carnegie Mellon University, USA)
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Local Emergency Detection Approach for Saving Energy in Wireless Body Sensor Networks

Sabrina ElGhers (Houari Boumediene Sciences University, Algeria); Abdallah Makhoul (University of Franche-Comté, France); David Laiymani (LIFC, France)
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Robust Wi-Fi based Indoor Positioning with Ensemble Learning

Daisuke Taniuchi and Takuya Maekawa (Osaka University, Japan)
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Alper K. Demir (Kocaeli University, Turkey); Okan Turkes (University of Twente, The Netherlands); Sebnem Baydere (Yeditepe University, Turkey)
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WI3: Wireless Communications

Performance comparison of CP-OFDM and OQAM-OFDM systems based on LTE parameters

Martin Fuhrwerk and Jürgen Peissig (Leibniz Universität Hannover, Germany); Malte Schellmann (Huawei Technologies Duesseldorf GmbH, Germany)
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Tara Salman (Qatar University, Qatar); Ahmed Badawy (Politecnico di Torino, Italy); Tarek M. Elfouly and Tamer Khattab (Qatar University, Qatar); Amr Mohamed (Qatar University & Qatar University Wireless Innovations Center, Qatar)

System Analysis of Relaying with Modulation Diversity

Amir Forghani (Ecole de Technologie Superieure, Canada); Georges Kaddoum (ETS Engineering School, University of Québec, Canada); Yogesh Nijsure and Francois Gagnon (Ecole de Technologie Superieure, Canada)

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Fair Resource Allocation in Multiuser OFDMA Downlink with Passive Eavesdropping

Sotiris Karachontzitis (University of Patras, Greece); Stelios Timotheou and Ioannis Krikidis (University of Cyprus, Cyprus); Kostas Berberidis (University of Patras, Greece)

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WM4: Wireless Networking, Mobility and Nomadicity

Multiband CSMA/CA with RTS-CTS Strategy

Baher Mawlawi (CEA - LETI, France); Jean-Baptiste Doré (CEA, France); Nikolai Lebedev (CPE Lyon / CITI Laboratory, University of Lyon, France); Jean-Marie Gorce (INSA-Lyon, France)

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Resource-Constrained Medium Access Control Protocol for Wearable Devices

Lorenzo Bergamini (DIS Sapienza Universita' di Roma, Italy); Giorgio Corbellini (Disney Research Zurich, Switzerland); Stefan Mangold (Disney Research, Switzerland)

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