

Overview Program

Wednesday, 3 May	Thursday, 4 May	Friday, 5 May
<p>Keynote 1 (Room: Panorama) Mohamed-Slim Alouini - Paving the way towards 5G Wireless Communication Networks</p>	<p>Keynote 3 (Room: Panorama) Neophytos Papadopoulos - A single digital market for Europe: The vision and the case for the electronic communications market in Cyprus</p>	Sessions
<p>Keynote 2 (Room: Panorama) Latif Ladid - Future Internet (IPv6-based IoT, CC, SDN-NFV and 5G)</p>	Sessions	Workshop
Sessions	Tutorials	Tutorials
Welcome Reception	Tour & Conference Dinner	

Registration/ Support Desk hours (08:00 - 12:30 & 13:30 - 17:00)	
08:25-08:30	Conference General Chairs Welcome
08:30-09:30	Keynote 1 (Room: Panorama) Mohamed-Slim Alouini - Paving the way towards 5G Wireless Communication Networks
09:30-10:30	Keynote 2 (Room: Panorama) Latif Ladid - Future Internet (IPv6-based IoT, CC, SDN-NFV and 5G)
10:30-11:00	Coffee Break
11:00-12:30	Panorama
	Megaron B
	Machine-to-Machine Communications
	Coding and Signal Processing
	Caching in Large-Scale Cellular Networks with D2D Assistance <i>Eleni Demarchou, Constantinos Psomas and Ioannis Krikidis (University of Cyprus, Cyprus)</i>
	BER Comparison Between Convolutional, Turbo, LDPC, and Polar Codes <i>Bashar Tahir, Stefan Schwarz and Markus Rupp (TU Wien, Austria)</i>
	D2D Cooperative Communications for Disaster Management <i>Zheng Chu (Middlesex University, London, United Kingdom); Huan X Nguyen, Tuan Anh Le and Mehmet Karamanoglu (Middlesex University, United Kingdom); Duc To (Cobham Wireless, United Kingdom); Enver Ever (Middle East Technical University, Turkey); Fadi M. Al-Turjman (Middle East Technical University, Turkey); Adnan Yazici (Middle East Technical University, Turkey)</i>
	New Construction and Performance Analysis of Polar Codes over AWGN Channels <i>Bashar Tahir and Markus Rupp (TU Wien, Austria)</i>
	Full-Duplex Device-to-Device Collaboration for Low-Latency Wireless Video Distribution <i>Mansour Naslcheraghi and Seyed Ali Ghorashi (Shahid Beheshti University, Iran); Mohammad Shikh-Bahaei (Kings college London, United Kingdom)</i>
	Signal Coding and Interference Cancellation of Spectrally Efficient FDM Systems for 5G Cellular Networks <i>Hedaia Ghannam and Izzat Darwazeh (University College London, United Kingdom)</i>
	Fair Decentralized Data-Rate Congestion Control for V2V Communications <i>Chetan Belagal Math (Technische Universiteit Eindhoven, The Netherlands); Hong Li (NXP Semiconductors, The Netherlands); Sonia De Groot (Eindhoven University of Technology, The Netherlands); Ignas Niemegeers (Eindhoven University of Technology, The Netherlands)</i>
	Sequential Decoding for Simultaneous Wireless Information and Power Transfer <i>Eleni Goudeli, Constantinos Psomas and Ioannis Krikidis (University of Cyprus, Cyprus)</i>
12:30-14:00	Lunch Break
14:00-15:30	Panorama
	Megaron B
	MIMO Communications
	Quality of Experience and Multimedia Applications
	Uplink Massive MIMO Systems Under Statistical-Queueing Constraints <i>Ismail Hburi (Brunel University, West London, European Union); Hamed Saffa Al-Raweshidy (University of Brunel, United Kingdom)</i>
	SmartFace: Efficient Face Detection on Smartphones for Wireless On-demand Emergency Networks <i>Patrick Lampe and Lars Baumgärtner (University of Marburg, Germany); Ralf Steinmetz (Technische Universität Darmstadt, Germany); Bernd Freisleben (Philipps-Universität Marburg, Germany)</i>
	Pseudo Downlink Channel Scheme for Eavesdroppers to Work Against Two-way Training DCE in Non-reciprocal MIMO Channel <i>Keke Hu, Ying Wang, Wang Zhongfang, Shunliang Zhang and Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China)</i>
	WiFiMon App Measuring Wi-Fi Performance as Experienced by End-Users <i>Kurt Baumann (SWITCH, Switzerland); Christos J Bouras (University of Patras CTI&P-Diophantus & University of Patras, Greece); Vasileios Kokkinos (University of Patras & Greek Research and Technology Network S.A., Greece); Nikolaos Papachristos (University of Patras, Greece); Kostas Stamos, Mr (University of Patras and CTI & Technological Educational Institute of Patras, Greece)</i>

	<p>Two-Stage Opportunistic Interference Alignment for Downlink MU-MIMO Cellular Systems <i>Ahmed Benaya (Egypt-Japan University of Science and Technology, Egypt); Maha Elsabrouty (Egypt Japan University for Science and Technology, Egypt)</i></p>	<p>Adaptive 3D-HEVC Video Streaming over Congested Networks Through Layer Prioritization <i>Basak Oztas (The University of British Columbia, Canada); Mahsa T Pourazad (TELUS Communications Company, Canada); Panos Nasiopoulos and Victor C.M. Leung (University of British Columbia, Canada)</i></p>
	<p>Channel Prediction for Millimeter Wave MIMO Systems in 3D Propagation Environments <i>Ramoni O. Adeogun (University of Cape Town, South Africa & National Space Research and Development Agency, Nigeria); Paul D Teal and Pawel A. Dmochowski (Victoria University of Wellington, New Zealand)</i></p>	<p>Mobility Context Awareness to Improve Quality of Experience in Traffic Dense Cellular Networks <i>Nandish Kuruvatti, Julian Saavedra Molano and Hans D. Schotten (University of Kaiserslautern, Germany)</i></p>
	-	<p>On the Detection of Images Containing Child-Pornographic Material <i>Emilios Yiallourou, Rafaella Demetriou and Andreas Lanitis (Cyprus University of Technology, Cyprus)</i></p>
15:30-16:00	Coffee Break	
16:00-17:30	Panorama	Megaron B
	Cognitive Networks	Molecular and Future Communications
	<p>New Binary Single Side Band CPM <i>Haifa Farès (Centrale Supélec, France); Christian Glattli (CEA Saclay, SPEC, Gif-Sur-Yvette, France); Yves Louët (SUPELEC-Rennes Campus, France); Christophe Moy (Centrale Supélec, France); Jacques Palicot (CentraleSupélec/IETR, France); Preden Roulleau (CEA Saclay, SPEC, Gif-Sur-Yvette, France)</i></p>	<p>Message Dissemination Dynamics in Biological Communication Systems: A Reaction-Diffusion Approach <i>Konstantinos Kantelis (Aristotle University of Thessaloniki, Greece); Georgios Papadimitriou and Petros Nicopolitidis (Aristotle University, Greece); Ioannis Vlahavas, Olga Tsave and Athanasios Salifoglou (Aristotle University of Thessaloniki, Greece)</i></p>
	<p>Maximizing Achievable Rate of Cognitive Radio Networks Through Efficient Spectrum Sensing and Multi-level Power Allocation <i>Shabnam Khomejani (Kings College London, United Kingdom); Huan X Nguyen (Middlesex University, United Kingdom); Arumugam Nallanathan and Hamid Aghvami (King's College London, United Kingdom)</i></p>	<p>On the Optimal Timing of Detection in Molecular Communication Systems <i>Georgia D. Ntouni, Vasileios M. Kapinas and George K. Karagiannidis (Aristotle University of Thessaloniki, Greece)</i></p>
	<p>A Cost Efficient and Flexible Cyclostationary Feature Detector Based on Sliding Discrete Fourier Transform for Cognitive Spectrum Sensing <i>Bin Han and Hans D. Schotten (University of Kaiserslautern, Germany)</i></p>	<p>Practical Random Linear Coding for MultiPath TCP: MPC-TCP <i>Paul-Louis Agneau and Nadia Boukhatem (Telecom ParisTech, France); Mario Gerla (University of California at Los Angeles, USA)</i></p>
	<p>Performance Analysis of FeICIC and Adaptive Spectrum Allocation in Heterogeneous Networks <i>Xuefang Nie and Yang Wang (Harbin Institute of Technology, P.R. China); Jiliang Zhang (Lanzhou University, P.R. China); Liqin Ding (Harbin Institute of Technology, P.R. China)</i></p>	<p>Load Balancing by Dynamic BBU-RRH Mapping in a Self-Optimised Cloud Radio Access Network <i>Muhammad Khan (Brunel University, United Kingdom); Firas Sabir (Brunel University London, United Kingdom); Hamed Saffa Al-Raweshidy (University of Brunel, United Kingdom)</i></p>
19:00-20:00	Welcome Reception	

Registration/ Support Desk hours (08:30 - 12:30 & 13:30 - 17:00)	
09:00-10:00	<p align="center">Keynote 3 (Room: Panorama)</p> <p align="center">Neophytos Papadopoulos - A single digital market for Europe: The vision and the case for the electronic communications market in Cyprus</p>
10:00-10:30	Coffee Break
10:30-12:00	Panorama
	Megaron B
	Session Security in Mobile Networks
	Next Gen Mobile Communications and Beamforming
	<p>Security Requirements Modelling for Virtualized 5G Small Cell Networks <i>Vassilios G. Vassilakis (University of York, United Kingdom); Haris Mouratidis and Emmanouil Panaousis (University of Brighton, United Kingdom); Ioannis Moscholios (University of Peloponnese, Greece); Michael D. Logothetis (University of Patras, Greece)</i></p>
	<p>System Level 5G Evaluation of MIMO-GFDM in an LTE-A Platform <i>Ghaith Al-Juboori, Angela Doufexi and Andrew Nix (University of Bristol, United Kingdom)</i></p>
	<p>Security Trust Zone in 5G Networks <i>Bin Han (University of Kaiserslautern, Germany); Stan Wong (King's College London, United Kingdom); Christian Mannweiler (Nokia Bell Labs, Germany); Mischa Dohler (King's College London, United Kingdom); Hans D. Schotten (University of Kaiserslautern, Germany)</i></p>
	<p>Performance Analysis of Two-Tier Multiantenna 5G Heterogeneous Wireless Networks with Dual Band Transmission <i>Ramoni O. Adeogun (University of Cape Town, South Africa & National Space Research and Development Agency, Nigeria); Olabisi Emmanuel Falowo (University of Cape Town, South Africa)</i></p>
	<p>An Intrusion Detection System for Wireless Sensor Networks <i>Christiana Ioannou, Vasos Vassiliou and Charalambos Sergiou (University of Cyprus, Cyprus)</i></p>
	<p>Full-Duplex Spatial Modulation Systems Under Imperfect Channel State Information <i>Asil Koc, Ibrahim Altunbas and Ertugrul Basar (Istanbul Technical University, Turkey)</i></p>
	<p>Intrusion Recovery in NLOS WSNs with a Varying Network Density <i>Eliana Stavrou (University of Central Lancashire, Cyprus); Stavros Stavrou (Open University of Cyprus, Cyprus)</i></p>
	<p>Capacity-Based User Selection Algorithm for Downlink Beamforming Non-Orthogonal Multiple Access System <i>Abdelsalam Sayed ahmed (Ejust, Egypt); Maha Elsabrouty (Egypt Japan University for Science and Technology, Egypt)</i></p>
12:00-13:30	Lunch Break
13:30-15:00	Panorama
	Megaron B
	Pervasive and Cloud Computing
	OFDM Systems
	<p>A Web of Things Based Eco-System for Urban Computing - Towards Smarter Cities <i>Andreas Kamilaris (Institute for Food and Agricultural Research and Technology & Autonomous University of Barcelona, Spain); Andreas Pitsillides (University of Cyprus, Cyprus); Muhammad Intizar Ali (Insight Centre for Data Analytics, Ireland)</i></p>
	<p>Blind Recognition of OFDM Signals Based on Cyclostationary Signal Analysis <i>Kürşat Tekbiyik, Gunes Karabulut Kurt and Halim Bahadir Tugrel (Istanbul Technical University, Turkey); Cem Ayyildiz (Turkcell Technology Research and Development Laboratory, Turkey)</i></p>
	<p>OmniBox: Efficient Cloud Storage by Evaluating Dropbox and Box <i>Huu Dinh, Alexander Dworkin, Christopher O'Neill, Scott Savage, Jimmy Leak, Mohammad Aazam and Marc St-Hilaire (Carleton University, Canada)</i></p>
	<p>Approximate BER for OFDM Systems Impaired by a Gain Mismatch of a TI-ADC Realization <i>Vo-Trung-Dung Huynh, Nele Noels and Heidi Steendam (Ghent University, Belgium)</i></p>
	<p>RACE: Relinquishment-Aware Cloud Economics Model <i>Sarabjeet Singh, Mohammad Aazam and Marc St-Hilaire (Carleton University, Canada)</i></p>
	<p>Power Allocation for Minimizing Energy Consumption of OFDMA Downlink with Cell DTx <i>Rémi Bonnefoi (CentraleSupélec & IETR, France); Christophe Moy (CentraleSupélec/IETR, France); Haifa Farès (Centrale Supélec, France); Jacques Palicot (CentraleSupélec/IETR, France)</i></p>

	<p>Choice of Suitable Identity and Access Management Standards for Mobile Computing and Communication</p> <p><i>Nitin Naik and Paul Jenkins (Ministry of Defence, United Kingdom); David Newell (Bournemouth University, United Kingdom)</i></p>	<p>Impact of the Doppler Effect on the Capacity of Massive MIMO Uplink Systems: OFDM Versus FBMC/OQAM</p> <p><i>Alexis Bazin (INSA Rennes & Orange Labs, France); Bruno Jahan (France Telecom, France); Maryline H�elard (INSA Rennes & IETR Institute of Electronics and Telecommunications of Rennes, France)</i></p>
15:00-15:30	Coffee Break	
15:30-17:00	Panorama	Megaron B
	<p>Tutorial</p> <p>Biological Computing: Building Chips with Living Organisms</p>	<p>Tutorial</p> <p>From Wireless Power Transfer to Wireless Powered Communications</p>
	<p>Speaker: Marcello Caleffi</p> <p>Over the last twenty years, a huge number of algorithms trying to mimic biological processes have been proposed for solving hard computational problems. Nevertheless, these bio-inspired algorithms represent only the very first step toward the design of smart adaptive computing devices. In fact, they model only a limited set of the rules underlying the biological processes, thus, omitting fundamental functionalities. Moreover, they are executed on traditional computer architectures, thus, failing to achieve the intrinsic parallelism exhibited by biological processes. To overcome these issues, very recently researchers worldwide started to work on biological computing, a novel paradigm in which the traditional inorganic chips are replaced by living organisms.</p> <p>Participants of this talk can obtain a wide view about biological computation and about the challenges arising in its development.</p>	<p>Speaker: Ioannis Krikidis</p> <p>This tutorial aims to familiarize the attendees with the new communication paradigm of wireless powered communications (WPC). Conventional energy-constrained wireless systems such as sensor networks are powered by batteries and have limited lifetime. Wireless power transfer is a promising technology for energy sustainable networks, where terminals can harvest energy from the ambient electromagnetic radiation through appropriate electronic circuits. Since radio signals carry both information and energy at the same time, a unified study on simultaneous wireless information and power transfer (SWIPT) is an emergent topic.</p>
18:00	<p>Tour & Conference Dinner</p> <p>Departure Time: 18:00 (meet at the Lobby of St Raphael Resort – Venue)</p>	

Registration/ Support Desk hours (08:30 - 12:30 & 13:30 - 17:00)		
09:00-10:30	Panorama	Megaron B
	Positioning and Relaying	Energy-aware Communication Systems
	<p>RSS Based Localization by Using Lognormal Mixture Shadowing Model <i>Saliha Büyükçorak (Istanbul Technical University, Electrical and Electronics Engineering Faculty, Turkey); Gunes Karabulut Kurt (Istanbul Technical University, Turkey); Abbas Yongacoglu (University of Ottawa, Canada)</i></p>	<p>WiFi Throughput and Power Consumption Tradeoffs in Smartphones <i>Petros Spachos and Stefano Gregori (University of Guelph, Canada)</i></p>
	<p>Quality of Fingerprint Radiomaps for Positioning Systems <i>Loizos Kanaris and Akis Kokkinis (Sigint Solutions Ltd, Cyprus); Antonio Liotta (Eindhoven University of Technology, The Netherlands); Stavros Stavrou (Open University of Cyprus, Cyprus)</i></p>	<p>Dynamic User-Centric Clustering Algorithm Based on Energy Efficiency in Cloud-RAN <i>Ruxuan Jiao, Xiangming Wen and Zhaoming Lu (BUPT, P.R. China); Yawen Chen (Beijing University of Posts and Telecommunications, P.R. China); Hua Shao (Beijing University of Posts and Telecommunications, P.R. China); Wenpeng Jing (Beijing University of Posts and Telecommunications, P.R. China)</i></p>
	<p>Multi-hop Relays for High Frequency Next Generation Wireless Systems <i>Alexander Sayenko (Samsung Electronics, Finland); Mikhail Zolotukhin and Timo Hämäläinen (University of Jyväskylä, Finland)</i></p>	<p>Per-packet Based Energy Aware Segment Routing Approach for Data Center Networks with SDN <i>Karanjot Singh Ghuman (University of Ottawa, Canada); Amiya Nayak (SITE, University of Ottawa, Canada)</i></p>
	<p>Unified Outage Performance Analysis of Two-Way/One-Way Full-Duplex/Half-Duplex Fixed-Gain AF Relay Systems <i>Asil Koc and İbrahim Altunbaş (Istanbul Technical University, Turkey); Burhaneddin Yaman (University of Minnesota, USA)</i></p>	<p>Load-Aware Power Efficiency Maximization in Heterogeneous Wireless Networks <i>Mohamad Zalghout (INSA de Rennes & Institute of Electronics and Telecommunication of Rennes (IETR), France); JeanFrançois Hélarde (IETR, France); Ayman Khalil (Institute of Electronics and Telecommunications of Rennes IETR & INSA, France); Samih AbdulNabi (Lebanese International University, Lebanon); Matthieu Crussière (IETR Electronics and Telecommunications Research Institute of Rennes (IETR) & INSA National Institute of Applied Sciences, France)</i></p>
10:30-11:00	Coffee Break	
11:00-12:30	Panorama	Megaron B
	Optical Communications	Mobile Communications
	<p>Priority Scheduling Algorithms for QoS Support in WDM PON-Based Mobile Backhaul Networks <i>Chrysovalanto Christodoulou and Georgios Ellinas (University of Cyprus, Cyprus)</i></p>	<p>Downlink Coverage Probability with Spatially Non-uniform User Distribution Around Social Attractors <i>Chao Li, Abbas Yongacoglu and Claude D'Amours (University of Ottawa, Canada)</i></p>
	<p>Extended Receive Antenna Shift Keying <i>Ali Mokh (Institut National des Sciences Appliquées de Rennes, France); Maryline Hélarde (INSA Rennes & IETR Institute of Electronics and Telecommunications of Rennes, France); Matthieu Crussière (IETR Electronics and Telecommunications Research Institute of Rennes (IETR) & INSA National Institute of Applied Sciences, France)</i></p>	<p>Ultra Long Range LTE Ocean Coverage Solution <i>Hyoungwon Seo and Junho Jeong (Korea Telecom, Korea)</i></p>
	<p>Technologies and Architectures for Broadband Digital Divide Elimination <i>Spyros Polykalas (TEI of Ionian Islands, Greece); Kyriakos Vlachos (University of Patras, Greece); Georgios Ellinas (University of Cyprus, Cyprus)</i></p>	<p>Jointly Optimal Downlink/Uplink Design for Wireless Powered Networks <i>Panagiotis D. Diamantoulakis (Aristotle University of Thessaloniki, Greece); Koralia N. Pappi (Aristotle University of Thessaloniki & Intracom S.A. Telecom Solutions, Greece); George K. Karagiannidis (Aristotle University of Thessaloniki, Greece)</i></p>

		A Novel Reliable Routing Scheme for Tactile-oriented Internet Traffic <i>Mohammad Farhoudi (King's College London, United Kingdom); Panagiotis Palantas (King's College London, Greece); Benyamin Abrishamchi, Andrej Mihailovic and Hamid Aghvami (King's College London, United Kingdom)</i>
12:30-14:00	Lunch Break	
14:00-15:30	Panorama	
	Workshop International Workshop on 5G Networks for Public Safety and Disaster Management (IWNPD 2017)	
15:30-16:00	Coffee Break	
16:00-18:00	Panorama	Megaron B
	Tutorial Flexible Radio Access Beyond 5G: A Future Projection	Tutorial Wireless Coded Caching: A Paradigm Shift in Communications
	Speaker: Huseyin Arslan In this tutorial, we will discuss the potential directions to achieve further flexibility in RATs beyond 5G. In this context, a framework for developing flexible waveform, numerology, and frame design strategies will be discussed along with sample methods in this direction. We will also discuss their potential role to handle various issues in the upper system layers.	Speaker: Petros Elia This tutorial is about a new way of seeing caching, and it is about the recently discovered deep connections between memory/caching and the fundamentals of communication theory. The tutorial will about a new technology that – at first indications – has the potential to approach the long-sought holy grail of wireless communications, which is to serve an ever increasing number of users, with a fixed amount of bandwidth resources. The material spans theory and practice, as well as spans the PHY-part of ICT and the networking part of ICT.