# MELECON 2016

# 18<sup>TH</sup> MEDITERRANEAN ELECTROTECHNICAL CONFERENCE

Intelligent & Efficient Technologies & Services for the Citizen

18-20 April 2016 Limassol, Cyprus

## **Conference Programme**

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## Opening Ceremony

Monday, 18 <sup>th</sup> of April					
19:00 – 20:15 Panorama	OPENING CEREMONY				
19:00 – 20:15	<ul> <li>Conference General Chairs Welcome</li> <li>Constantinos S. Pattichis, University of Cyprus, Cyprus</li> <li>Elias Kyriakides, University of Cyprus, Cyprus</li> <li>Georgios Ellinas, University of Cyprus, Cyprus</li> <li>Efthyvoulos Kyriacou, Frederick University, Cyprus</li> </ul> Welcome by the IEEE Cyprus Section				
	Nicos Michaelides, <i>Chair</i> Welcome by the IEEE Region 8           Costas Stasopoulos, <i>Director</i>				
	Signing of Memorandum of Understandingbetween IEEE/IEEE Cyprus Section and Cyprus Computer Society (CCS) Nicos Michaelides, IEEE Cyprus Section Chair Costas Agrotis, CCS Chair				
	<b>Cyprus and the Middle East</b> Hon. Nicos A. Rolandis Former Minister of Foreign Affairs (1978-1983) & Former Minister of Energy, Commerce, Industry and Tourism (1998-2003)				

20:15 - 21:15

WELCOME RECEPTION

#### **PLENARY SESSION 1**

Topic: Engineering Leadership & Cognitive Computing

#### **Engineering Leadership for Success**

## Nicos M. Timotheou

Director & Managing Consultant, NAN Strategic Change Consultants Ltd, Cyprus

#### Abstract

Business success equals creation and DELIVERY of value to all stakeholders. Engineers and especially Engineering Leaders ask themselves:

- Who are my stakeholders and what value do they expect from me?
- How will I lead and manage so as to create and deliver the maximum value to my stakeholders in an optimum, sustainable way?
- To what should I primarily devote my energy: Formulating and executing my unit's / my own value proposition and delivery, in the context of my unit's / own Mission or formulating and executing my unit's / my own strategy, in the context of my unit's / my own Vision?
- Which are my main duties and in what mix and balance?

#### **Biographical Sketch**



The IEEE Life Senior Member, Nicos M. Timotheou, offers consulting services in the areas of ICT, BoD and Executive Management Performance, Business Intelligence and Performance Management, Strategy, Business Process Management and Corporate Governance. He serves as Non-executive Director and as consultant to the CEO/MD in a number of companies. He served for nine years as CEO of the Cyprus Telecommunications (CYTA), from where he retired in 2007 after a 34-year successful career. He has served as a NED of BoD/University of Cyprus, CPEA, BoC/IMSC/USC/LA/USA and as Chairman, IEEE Cyprus Section and of EBENCY. He has been a CEng, FIEE and is a Member/ETEK (S&TCC) and MCPEA.

He is a Dipl Eng (E&M), NTUA, Athens, Greece and holds a Diploma in Management. He followed postgraduate professional studies in Advanced Telecommunications in Germany. He has participated and talked at numerous conferences, symposia, seminars and workshops in Europe, USA, Africa and the Far East.

#### Big data and cognitive computing in healthcare: weathering the perfect storm

## Matthias Reumann

Sustainable Resilient Health Systems Research, IBM Research – Zurich, Switzerland Global Leadership Team of IBM Research for Healthcare and Member of the Leadership Team IBM DACH Healthcare and Lifescience

#### Abstract

Big data in healthcare is experiencing the perfect storm: The volume is increasing exponentially with accelerating speed, the variety of data ranges from multi-omics information to lifestyle measures with the help of mobile devices backed by cloud infrastructures. State of the art analytical methods are generally limited by computational approaches. Furthermore, the convergence of data analytics, sophisticated modelling approaches and cognitive computing gives promise to solve the big data challenges in healthcare and lifescience. Data analytics especially in today's omics era yield results of large volumes given computational challenges are overcomed. Sieving through the results requires expert and translational knowledge. Cognitive computing can play a significant role in making transparent results. Cognitive computing tools can be used to create hypotheses to guide experimental studies but also as prior knowledge that drives data analytics. The increasing amount of data requires a larger amount of computation that can at some point only be tackled using supercomputers. In biophysical modelling we have already shown how the computational challenge can be overcome using high performance computing systems. The sophistication of computer modelling of biophysical processes has made the transition from basic research to translational science and medicine. It is feasible today that data in healthcare will be augmented by simulation of biophysical models tailored to each patient. Cognitive computing is a promising path to make the analytical results transparent. The IBM WatsonTM technology allows analysis results to be represented within a global context of accumulated knowledge of published literature. To view data and analysis in that global context will not only enable verification of results, but also helps accelerate discovery and identification of, for example, new targets in drug discovery. The combination of data-driven and knowledge-based analytics in a cognitive computing environment becomes a powerful way to create hypothesis and to limit the search space so that it can efficiently be tested using traditional laboratory methods. The IBM WatsonTM technology allows one to find "the needle in the haystack" of today's big data challenge. Hence, the power of big data can only be unleashed by embracing new approaches in data-driven analysis within a cognitive computing environment. This creates a holistic view that places big data analytics into the context of the accumulated knowledge of the scientific community.

#### **Biographical Sketch**



Matthias Reumann (1978) received the Masters of Engineering in Electronics with the Tripartite Diploma from the University of Southampton, UK, in 2003 and continued his PhD studies at the Karlsruhe Institute of Technology with Prof. Olaf Doessel at the Institute for Biomedical Engineering, Universitaet Karlsruhe (TH). Reumann focused on translational research in cardiac models and his PhD with summa cum laude in 2007. The research was awarded with two prestigious research awards by both clinical and biomedical professional societies. Reumann continued research in multi-scale systems biology at the IBM T. J. Watson Research Center, Yorktown Heights, NY. His work focused on creating high resolution heart models that scale on supercomputers that

yielded several high profile publications in Science Translational Medicine, the Journal of the American College of Cardiology and Supercomputing. He expanded his research interest to Genomics in 2010 at the IBM Research Collaboartory for Lifesciences – Melbourne, investigating higher order interaction of single nucleotide polymorphisms in breast and prostate cancer in collaboration with Prof. John Hopper. In 2011, Reumann build up and the healthcare research team at the IBM Research – Australia laboratory with focus areas in healthcare analytics, medical image processing and genomics. The goal in genomics was to bring next generation sequencing into a production environment in a public health microbiology diagnostic unit. Reumann moved back to Europe in December 2013 and joined the IBM Research – Zurich laboratory where his research focusses on sustainable, resilient health systems research to bridge the divide from bench to bedside to society. Reumann is associate editor of the IEEE Journal on Translational Engineering in Health and Medicine, Senior Member of the IEEE and has served on the Administrative Committee of the IEEE Engineering in Medicine and Biology Society from 2009 – 2013 as well as on the IEEE Technical Advisory Board form 2011 – 2012. His research is mentioned in editorials and reviews.

#### **PLENARY SESSION 2**

**Topic: Energy and Power Systems** 

#### Modelling and control challenges of sustainable power systems

## Jovica V Milanovic

Professor of Electrical Power Engineering, Deputy Head of School and Director of External Affairs in the School of Electrical and Electronic Engineering at the University of Manchester, UK

#### Abstract

The future power systems will be characterised by blurred boundaries between transmission and distribution system, by mix of wide range of electricity generating technologies (conventional hydro, thermal, nuclear and power electronic interfaced stochastic and intermittent renewable generation), responsive and highly flexible, typically power electronics interfaced, demand and storage with significant temporal and spatial uncertainty, proliferation of power electronics (HVDC, FACTS devices and new types of load devices) and significantly higher reliance on the use of measurement data including global (Wide Area Monitoring) signals for system identification, characterization and control and Information and Communication Technology embedded within the power system network and its components.

In order to successfully control such complex system its parts and components and to ensure its stability and security at acceptable cost, the system modelling and analysis need to cater for significantly increased uncertainties, both in terms of model uncertainties and operational uncertainties, and for efficient knowledge extraction from large amount of data coming from different types of local and wide area distributed data acquisition devices and monitors.

This presentation identifies some of the challenges associated with the modelling and analysis of such complex systems suggests possible approaches to deal with them and gives examples of methodologies that can be used to successfully model, analyse and control them.

#### **Biographical Sketch**



Jovica V Milanovic received Dipl.Ing. and M.Sc. degrees from the University of Belgrade, Yugoslavia, Ph.D. degree from the University of Newcastle, Australia, and D.Sc. degree from The University of Manchester, UK. Prior to joining The University of Manchester, UK, in 1998, he worked with "Energoproject", Engineering and Consulting Co. and the University of Belgrade in Yugoslavia, and the Universities of Newcastle and Tasmania in Australia. Currently, he is a Professor of Electrical Power Engineering, Deputy Head of School and Director of External Affairs in the School of Electrical and Electronic Engineering at The University of Manchester, UK, Visiting Professor at the University of Novi Sad and the University of Belgrade, Serbia and Conjoint Professor at the University of

Newcastle, Australia. He was chairman of 3 international conferences, editor or member of editorial/technical boards of 50+ international journals and conferences, research project assessor for 12

international government research funding councils, member of 7 (convenor of 2) past or current IEEE/CIGRE/CIRED WG and consultant or member of advisory boards for several international companies.

Professor Milanovic published over 400 research papers and reports, gave many key note speeches at international conferences and presented over 120 courses/tutorials and lectures to industry and academia around the world. Professor Milanovic is a Chartered Engineer in the UK, Foreign member of the Serbian Academy of Engineering Sciences, FIET, FIEEE, Distinguished IEEE PES Lecturer and currently serves on IEEE PES Governing Board as Regional Representative for Europe, Middle east and Africa.

#### Eastern Mediterranean Natural Gas: Resources for Today and the Future

## L. Gene Kornegay

Country Manager, Republic of Cyprus, Noble Energy

#### Abstract

The Eastern Mediterranean is in the early stages of becoming a center of energy resources for the region and potentially other parts of the world. This presentation will address the current status and what are the possibilities for the future.

#### **Biographical Sketch**



L. Gene Kornegay is the Republic of Cyprus Country Manager for Noble Energy, based in Nicosia, Cyprus. He previously served for Noble Energy as Country Manager of the Republic of Equatorial Guinea, one of the company's core producing areas, and Country Manager of the Republic of Cameroon. Prior to joining Noble Energy, Mr. Kornegay served as President, Chief Operating Officer and member of the Board of Directors of GLOBEX Energy Inc., until it was sold to Marathon Oil Corporation. GLOBEX was a privately held international upstream oil and natural gas company based in Houston, Texas.

Mr. Kornegay began his career in the private practice of law, representing major companies in a variety of complex litigation and arbitration cases, when his client

Conoco invited him to join the company. While holding a variety of negotiation and management positions of increasing responsibility, he completed business transactions between Conoco and Phillips before they merged and with governments in Europe, Africa, South America and Asia.

In the mid-1990s, as President of Conoco Middle East Ltd., he initiated and led a team of multidisciplinary professionals in an effort that became the first upstream petroleum agreement with the Islamic Republic of Iran following the revolution in 1979. This achievement required the development of an innovative, multifaceted contractual model. Other unique transactions he led include an agreement with the Government of Cambodia in an international boundary dispute area and marginal field agreements in Indonesia.

Mr. Kornegay serves on Noble Energy's Corporate Compliance and Ethics Committee and has served on the board of Bryan Texas Utilities, where he has served as Secretary and Vice Chairman. He served on the Board of Directors of BTU QSE Services from 2005-2010 and Texas Municipal Power Agency from 2006-2010. He is also a member of the International Advisory Board of Texas A&M University.

Mr. Kornegay's career path led him and his family to live in Africa, Europe and the Middle East. He and his wife Donna currently reside in Nicosia, Cyprus.

He has a Bachelor of Arts degree in Political Science, with honors, from Texas A&M University and a Juris Doctor from Baylor University School of Law.

#### **PLENARY SESSION 3**

Topic: European Cooperation in Science and Technology (COST)

#### Introduction to the COST Framework

## Ralph Stübner

Science Officer, COST Association, EU

#### Abstract

COST is the longest-running European framework supporting trans-national cooperation among researchers, engineers and scholars across Europe. As a pan-European intergovernmental framework, COST (European Cooperation in Science and Technology) mission is to enable breakthrough scientific and technological developments leading to new concepts and products, thereby to contribute strengthening Europe's research and innovation capacities. Through its networks, the COST Actions, it allows for researchers, engineers and scholars to jointly develop their own ideas and new initiatives across all scientific disciplines through trans-European coordination of nationally funded research activities. A short introduction to COST Actions, their activities and how to join or create them will be given.

#### **Biographical Sketch**



Dr Ralph Stübner has been a Science Officer at the COST Association since 2011, responsible for COST Actions addressing information and communication technologies, materials and/or physics. Prior to joining COST, he had worked for three years as Project Officer at the European Commission, in the area of Future and Emerging Technologies, Directorate General Information Society and Media, nowadays DG Connect. Before joining the European Commission, he worked for ten years for Infineon Technologies in the development of smart power technologies for automotive applications. He studied physics at the Technical University of Berlin and made his PhD at Siemens AG investigating the electrochemical properties of solid oxide fuel cells.

## CRYPTACUS, promising development in IoT security (COST Action IC1403)

## Julio Hernandez-Castro

School of Computing, University of Kent (UK) and INSA Rennes (France)

#### Abstract

Recent technological advances in hardware and software have irrevocably affected the classical picture of computing systems. Today, these no longer consist only of connected servers, but involve a wide range of pervasive and embedded devices, leading to the concept of "ubiquitous computing systems". But there is an important gap in the need to improve and adapt the existent cryptanalysis methodologies and tools to the ubiquitous computing framework. Efforts should target four axes: cryptographic models, cryptanalysis of building blocks, hardware and software security engineering, and security assessment of real-world systems. Researchers have only recently started to devote serious and prolonged efforts to the study of the security of ubiquitous computing systems. Despite the critical flaws found, the required highly-specialized skills and the isolation of the involved disciplines are a true barrier for identifying additional issues. It is therefore necessary to establish a network of complementary skills, so that expertise in cryptography, information security, privacy, and embedded systems can be put to work together. The outcome of these networking efforts will directly help industry stakeholders and regulatory bodies to increase security and privacy in ubiquitous computing systems, in order to eventually make citizens better protected in their everyday life.

#### **Biographical Sketch**



Julio Hernandez-Castro is a Senior Lecturer in Computer Security at the University of Kent's School of Computing. His research interests are wide, covering from RFID Security to Lightweight Cryptography, and including Steganography and Steganalysis and the design and analysis of CAPTCHAs, to name only a few. He worked before for the University of Portsmouth and Carlos III University in Madrid, Spain. He has been a pre-doctoral Marie Curie fellow and a postdoctoral INRIA fellow. He is also affiliated with the Cybersecurity

Center of Kent's University. He is currently the vice-chair of the EU COST project CRYPTACUS. He receives research funding from InnovateUK project aS, EPSRC Project 13375 and EU H2020 project RAMSES.

## Evolution from 3D video to light field coding and transmission over future media networks (COST Action IC1105)

## Pedro A. Amado Assunção

Professor of Electrical and Computer Engineering, Electronics and Multimedia Communication Systems at the Polytechnic Institute of Leiria, Portugal

#### Abstract

Three-dimensional (3D) images and video have been around for decades in a variety of formats and supported by different technologies. In the recent past, these technologies have been given increasing attention from both academia and industry mainly due to advances in capture, coding, transmission and display technologies. 3D video has evolved from stereoscopic towards multi-view video plus depth, enabling immersive and interactive experiences. One of the last important advances in 3D content acquisition is the Plenoptic or Light-Field technology, which has the capability of capturing a dense set of light rays coming from the 3D scene. This is foreseen as a promising technology for 3D multimedia applications and services, which is driving research and technological developments not only due to the huge amount of data required for Light Field representation, but also due to the limited performance of current technology. In this technological context, COST Action IC1105, 3D-Content Creation, Coding and Transmission over Future Media Networks (3D-ConTourNet), is intended to bring together researchers from all the spectrum of the 3D multimedia technology chain to research problems of common interest. In its activities, 3D-ConTourNet has dealt with 3D video, from stereoscopic to Light Field, from content representation and coding to transmission, display and quality measurement involving human factors. This article describes the research context of 3D-ConTourNet, mostly covering recent advances in 3D video communications.

#### **Biographical Sketch**



Pedro A. Amado Assunção received the Licenciado and M.Sc. degrees in Electrical Engineering from the University of Coimbra, Portugal, in 1988 and 1993, respectively, and the Ph.D. in Electronic Systems Engineering from the University of Essex, UK, in 1998. He is currently Professor of Electrical and Computer Engineering, Electronics and Multimedia Communication Systems at the Polytechnic Institute of Leiria and senior researcher at Instituto de Telecomunicacoes, Portugal. He has been involved in several projects in the field of multimedia communications and he served as a reviewer and/or technical

programme committee of many international conferences and journals. He is author/co-author of more than one hundred papers published in international scientific conferences and journals, one book, eight book chapters and four US patents. His current research interests include UHD, multiview and light-field video coding, communications and processing, video codec complexity control and networking adaptation based on user-driven approaches, error concealment and quality assessment. He is the Chair of the EU COST Action IC1105, 3D Content Creation, Coding and Transmission over Future Media Networks (3D-ConTourNet) and Senior Member of the IEEE.

## Pushing the Frontiers of Memristive Devices to Systems (COST Action IC1401)

## Julius Georgiou

Associate Professor, University of Cyprus, Cyprus

#### Abstract

European Union COST Actions provide the opportunity for researchers who are geographically dispersed to work together towards an ambitious, multidisciplinary goal, whilst learning from each other and avoiding effort duplication. This paper gives a brief overview of work done by, but not limited to, members of EU COST Action IC1401. The presented work summary is organized around the four workgroups that tackle devices, circuit theory, circuit implementations, bioinspired and sensory systems.

#### **Biographical Sketch**



Julius Georgiou (IEEE M'98-SM'08) is an Associate Professor at the University of Cyprus. He received his M.Eng degree in Electrical and Electronic Engineering and Ph.D. degree from Imperial College London in 1998 and 2003 respectively. For two years he worked as Head of Micropower Design in a technology start-up company, Toumaz Technology. In 2004 he joined the Johns Hopkins University as a Postdoctoral Fellow, before becoming a faculty member at the University of Cyprus from 2005 to date. Prof. J. Georgiou is a member of the IEEE Circuits and Systems Society, is the Vice-Chair of the BioCAS Technical Committee, as well as a member of the IEEE Circuits and Systems Society Analog Signal Processing Technical

Committee. He served as the General Chair of the 2010 IEEE Biomedical Circuits and Systems Conference and is the Action Chair of the EU COST Action ICT-1401 on "Memristors-Devices, Models, Circuits, Systems and Applications - MemoCIS". Prof. Georgiou has been selected as an IEEE Circuits and Systems Society Distinguished Lecturer for 2016-2017. He is also is an Associate Editor of the IEEE Transactions on Biomedical Circuits and Systems and Associate Editor of the Frontiers in Neuromorphic Engineering Journal. He is a recipient of a best paper award at the IEEE ISCAS 2011 international symposium and at IEEE BioDevices 2008 Conference.

# Unravelling the Degradation Mechanisms of emerging Solar Cell Technologies (COST Action MP1307)

## Moritz Riede

University of Oxford, Oxford, UK

#### Abstract

Organic and hybrid perovskite based solar cells have a huge potential to significantly contribute to a clean electricity supply of the future. However, so far they exhibit complex and hierarchical degradation paths and their understanding can only be acquired through the application of complementary chemical and physical characterization techniques. This limited device stability is the main hurdle for a successful and large scale market introduction of these emerging solar cell technologies. Our StableNextSol Action has created a highly interdisciplinary network of laboratories, as well as corresponding industry, overall more than 120 partners, with complementary analytical techniques for the study and understanding of the degradation mechanisms occurring in state-of-the-art devices. Our Action integrates and generates fundamental knowledge and expertise to foster disruptive innovations targeted to mitigate device failure and to propose and develop new concepts for more stable solar cells. Value is added to the entire value chain of photovoltaic research at European and international level, as well as variety decision makers in the public sector by supporting specialisation policy and standards still lacking in this research field. The outcome of the Action will contribute to resolve the global challenges facing the industry and this COST Action initiative has brought together all these expertises and resources to promote the cooperation between different sectors, academia, public authorities and industry.

#### **Biographical Sketch**



Moritz Riede is currently Associate Professor for Soft Functional Nanomaterials in the Department of Physics at the University of Oxford, UK. Before moving to Oxford in 2013, he worked in Germany at the Fraunhofer Institute for Solar Energy Systems ISE and the University of Freiburg as a PhD student (2002-2006), as well as at the Technische Universität Dresden as PostDoc and head of a junior research group (2007-2013). His academic research is focused on emerging solar cell technologies that have potential to transform the way we use solar energy, in particular organic solar cells.

## IEEE REGION 8 Students Paper Competition 2016

Monday 18/4, Room: Megaron C, Time 17:00 – 18:30

- <u>Serban Mihalache, Florin-Silviu Dumitru</u> **Current-Mode Capacitance Multiplier with Reduced Parasitic Elements**  *Faculty of Electronics, Telecommunications and Information Technology, Politehnica University of Bucharest, Romania*
- <u>Marko Bizjak</u> **The segmentation of a point cloud using locally fitted surfaces** *University of Maribor, Maribor, Slovenia*
- Laszlo Pinter

**Statistical Analysis of the Electric Vehicle Chargers' Impacts on the Low-voltage Distribution System** *Budapest University of Technology and Economics, Budapest, Hungary* 

- <u>A.J. van den Biggelaar</u> **A Fast, Flexible and Accurate Algorithm for Shaping the 3D Radiation Pattern of an AAS** *Eindhoven University of Technology, The Netherlands*
- Stefan Wunsch

**Reducing the Processing Loss of Windowed Transforms Using Linear Discriminant Analysis** *Karlsruhe Institute of Technology, Karlsruhe, Germany* 

## MELECON 2016: PhD Students Paper Competition – List of Finalists (Top 10)

Students were encouraged to submit their papers for the Melecon 2016 PhD Students Paper Competition (PhD SPC). The finalists papers are given below, with the name of students presenting underlined. Submissions were evaluated based on their originality, scientific merits, structure, and clarity of composition. First, Second, and Third place winners will be selected based on the technical merits of the work, professionalism of the presentation, and verbal communication skills. The three overall winners of the PhD SPC will receive an engraved plaque and an honorarium of 300 Euro for the first placed winner, 200 Euro for the second placed winner, and 100 Euro for the third placed winner. All Finalists will receive Certificates of Merit. The results will be announced in the Closing Ceremony on Wednesday afternoon.

- Lenos Hadjidemetriou, Anastasis Charalambous, Panayiotis Demetriou, Elias Kyriakides
   Dynamic Modeling of IEEE Test Systems Including Renewable Energy Sources
   Affiliation: University of Cyprus KIOS Research Center, Electrical and Computer Engineering, Nicosia, Cyprus
   Monday 18/4, Room: Panorama, Time 12:00, T1.1 Renewable Energy Sources
- <u>Alexis Kyriacou</u>, Michalis Michaelides, Christos Panayiotou
   <u>Automatic Building Partitioning for Effective Contaminant Detection and Isolation</u>
   Affiliation: University of Cyprus, Electrical and Computer Engineering, Nicosia, Cyprus
   Monday 18/4, Room: Megaron C, Time 15:00, T8.2 Environmental Modelling and Optimization of Decision Making in Environmental Management
- <u>Grigoris Dourbois</u>, Pandelis Biskas, Dimitris Chatzigiannis, Andreas Vlachos, Anastasios Bakirtzis
   A nodal-based day-ahead market clearing with multi-period products and transmission security constraints
   Affiliation: Aristotle University of Thessaloniki, Electrical and Computer Engineering, Thessaloniki, Greece
   Monday 18/4, Room: Panorama, Time 18:00, T1.3 Microgrids and Electric Markets
- Qin Yan, Tatjana Dokic, Mladen Kezunovic
   GIS-Based Risk Assessment for Electric Power Consumers Under Severe Weather Conditions
   Affiliation: Texas A&M University, Department of Electrical Engineering, College Station, United States
   Tuesday 19/4, Room: Megaron C, Time 11:00, T8.3 Remote Sensing and Geo-Spatial Environmental
   Systems
- <u>Nand Kishor</u>, Avinash Kumar, Sanjay Singh Negi, Kjetil Uhlen
   Signal Processing and Classification of Synchro-phasor data
   Affiliation: MNNIT Allahabad, Electrical Engineering, Allahabad, India
   *Tuesday 19/4, Room: Panorama, Time 11:15, Track: T1.4 Topic: Synchrophasors/wide area monitoring*
- <u>Catalin Gosman</u>, Tudor Cornea, Ciprian Dobre, Constandinos Mavromoustakis, George Mastorakis Security policies in Intelligent Transportation Systems
   Affiliation: University Politehnica of Bucharest, Computer Science, Bucharest, Romania Tuesday 19/4, Room: Phoenix, Time 14:30, T5.1 Network Security & IoT

- <u>Rodrigo Trentini</u>, Rudiger Kutzner, Lutz Hofmann
   State-Space Generalized Minimum Variance Controller based PSS for damping of interarea modes
   Affiliation: Hochschule Hannover, Faculty I, Hannover, Germany
   Wednesday 20/4, Room: Panorama, Time 11:00, T1.6 Power System Control
- <u>Omar Gatera</u>, Haci Ilhan, Ahmet H. Kayran
   <u>LMS-BLM Receiver in AF Based Cooperative Relay Networks</u>
   Affiliation: Istanbul Technical University, Telecommunication Engineering, Istanbul, Turkey
   *Wednesday 20/4, Room: Phoenix, Time 11:15, T5.2 Networking*
- <u>Haibo Zhang</u>, Francois Gruson, Diana Florez, Christophe Saudemont Improved Overvoltage Limitation Control Approach of a DC Series Offshore Wind Farm Based on MMC Affiliation: Ecole des Hautes Etudes d'Ingenieur (HEI), Laboratory of Electrical Engineering and Power Electronics of Lille (L2EP), Lille, France Wednesday 20/4, Room: Panorama, Time 13:30, T1.7 HVDC and Power Electronics
- Elena Polykarpou, Elias Kyriakides

Parameter Estimation for Measurement-based Load Modeling Using the Levenberg-Marquardt Algorithm

Affiliation: KIOS Research Center / University of Cyprus, Electrical and Computer Engineering, Nicosia, Cyprus

Wednesday 20/4, Room: Panorama, Time 15:45, T1.8 Power System Modelling and Planning

#### Information for Oral Presentations

- All lecture rooms will be equipped with a computer running Microsoft Windows 7/8, Microsoft PowerPoint and Adobe Acrobat Reader. Please save your presentation in either Office 2003 / 2007 / 2010 format or pdf with the following filename: PRESENTER\_DATE\_TIME\_first four words of TITLE. Use the date and time format as in this example: Smith\_Sept2\_0900\_title first four words.ppt (or pptx, or pdf). No computer running Mac OS will be available.
- Please transfer your file to the computer in the room where your presentation is scheduled, as early as possible and at least 1 hour before the start of your session. Place the file (and all accompanied media) in the appropriate folder on the desktop and check that is running well. If you experience any problems, please come up to the Easy Conferences desk.
- Introduce yourself to the session chair upon arrival at the presentation room.
- Please take any presentation materials away with you; anything left at the end of the conference will be discarded.

#### Information for Short Paper Presentations

<u>Please note that all short paper presentations will also be accompanied with poster presentations.</u> <u>Short presentations will be carried out for 2 minutes with 2 slides per presentation.</u>

#### Poster presentations will be considered for the Poster Paper Competition.

Papers will be evaluated based on the following criteria:

- Q1. Is the scientific contribution of the work to the field real and identifiable? (35%)
- Q2. What is the technical quality of the paper? (35%)
- Q3. Is the paper formatted and put together well? (30%)

First, Second, and Third place winners will be selected based on the technical merits of the work and professionalism of the presentation.

The three overall winners will receive an engraved plaque and an honorarium of 300 Euro for the first place winner, 200 Euro for the second place winner, and 100 Euro for the third place winner.

#### Information for Poster Preparation

- The poster format is portrait with dimensions of max. 90 cm wide and 120 cm high. We recommend a size of 85 cm wide and 120 cm high (DIN A0 size)
- All posters must be brought in printed form, please note that printing facilities will not be available at the conference site.
- Poster boards will showcase on them the poster number that is noted in the conference programme. You do not need to print your poster number on the poster.
- Make sure your title, authors and affiliated institution/s are clearly visible at the top of your presentation; it is common to include your institution logo on the poster.
- The key to a good poster is not to include too much text. Short sentences and paragraphs, or even bullets, along with visual aids to present the findings (such as graphs), make the poster more attractive and easier to follow.
- We recommend that you have copies of a handout with your details and, if possible, an A4/Legal version of your presentation to give to interested delegates.

- The posters should be mounted in Megaron A&B room on the morning of Monday the 18<sup>th</sup> of April and should be dismounted by the end of the day on Tuesday the 19<sup>th</sup> of April. Posters remaining after the end of the day on Tuesday the 19<sup>th</sup> of April will be removed and recycled.
- Please be present near your poster during the coffee and lunch breaks on Monday the 18<sup>th</sup> of April and Tuesday the 19<sup>th</sup> of April.
- A 2 minute poster presentation (2 slides) is scheduled on Monday the 18<sup>th</sup> of April at 13.30-15:00hrs, at SP1, SP2 and SP3. Please bring this presentation with you and make sure it is uploaded on the conference system at least one hour before the session.

## Programme at a Glance

Time	<b>17</b> Sunday April 2016	18 Monda April 20	y )16		19 Tuesda April 20	iy 016		20 Wedne April 20	esday 016		Time
	Registration/ Support Desk Hours										
	17:00 - 19:00	08:00 - 12:30 & 13:30 - 17:30		08:00 - 12:30 & 13:30 - 15:00		08:00 - 13:00					
08:30 09:00 09:30 10:00		PLENARY SESSION 1 (Panorama)		PLENARY SESSION 2 (Panorama)		PLENARY SESSION 3 (COST) (Panorama)		08:30 09:00 09:30 10:00			
10:30		Coffee	Break/Poster S	Session	Coffee	Break/Poster S	Session		Coffee Break		10:30
11:00 11:30 12:00		T1.1 (6) (Panorama)	T2.1 (6) (Phoenix)	T8.1 (5) (Megaron C)	T1.4 (6) (Panorama)	T2.3 (6) (Phoenix)	T8.3 (5) (Megaron C)	T1.6 (5) (Panorama)	T5.2 (6) (Phoenix)	SS2 (4) (Megaron C)	11:00 11:30 12:00
12:30 13:00		Lunch Break/Poster Session		Lunch	Break/Poster S	Session		Lunch Break		12:30 13:00	
13:30 14:00 14:30		SP1 (18) (Panorama)	SP2 (21) (Phoenix)	SP3 (17) (Megaron C)	T1.5 (6) (Panorama)	T5.1 (3) T3.1 (2) (Phoenix)		T1.7 (5) (Panorama)	T4.1 (6) (Phoenix)	T6.1 (4) (Megaron C)	13:30 14:00 14:30
15:00 15:30 16:00		T1.2 (5) (Panorama)	T2.2 (6) (Phoenix)	T8.2 (4) (Megaron C)				T1.8 (6) (Panorama)	T7.1 (7) (Phoenix)		15:00 15:30 16:00
16:30		Coffee	Break/Poster S	Session							16:30
17:00	Conference Desirbution	T1.3 (7)	SS1 (5)	R8 SPC (5)	EXCURSIO	N & CONFEREN	CE DINNER	CLOSIN	G CEREMONY & (Panorama)	COFFEE	17:00
17:30 18:00 18:30	(Hotel Lobby)	(Panorama)	(Phoenix)	(Wegaron C)	Dep	parture Time: 1	5:15				17:30 18:00 18:30
19:00 19:30		OPENING CEREMONY		(meet at the lobby of St. Raphael Resort – Venue)		(meet at the lobby of St. Raphae			19:00 19:30		
20:00		WE	LCOME RECEPT	ION				20:00			
20:30 21:00											20:30
21:30 22:00											21:30 22:00

#### **Explanation Notes**

The header of each page indicates the date. The top row of each session indicates the total duration of the session and the room to be held (each colour indicates the room) together with the type, name and chairs of the session. This is followed by the title and author names of the individual oral presentations. Author affiliations are not listed to save space. In order to trace their papers, authors have to search for their paper titles through the programme, or for their names in the index chapter at the end of this handbook.

Colour	Room
	Panorama
	Phoenix
	Megaron C
	Megaron A&B (combined)

#### Tracks

T.1	Electric Power Systems and Renewable Energy Sources	
Т.2	Information and Communication Technologies	
Т.3	Internet of Things, Cloud-Based Systems and Big Data Analytics	
Т.4	Virtual Environments, 3D Simulations and Serious Games	
T.5	Security and Networking	
Т.6	Micro and Nano Electronic Systems	
T.7	Smart, Green and Integrated Transport	
Т.8	Emerging Environmental Systems and Applications	

#### Special Sessions (number of papers to be presented given in parentheses)

551 (E)	Special Session on Towards Power Systems Relying Primarily on Variable Renewable Energy
331 (5)	Sources
SS2 (4)	Special Session on Memristors

Short Presentations (number of papers to be presented given in parentheses)

*Please note that all short paper presentations will also be accompanied with poster presentations. Short presentations will be carried out for 2 minutes with 2 slides per presentation.* 

SP1	Tracks: T1 (12), T7 (3), T8 (3)
SP2	Tracks: T2 (15), T3 (3), T4 (3)
SP3	Tracks: T5 (6), T6 (11)

Oral Presentations (number of papers to be presented given in parentheses)

T1.1 (6)	Renewable Energy Sources	
T1.2 (5)	Electric Vehicles and Transportation	
T1.3 (7)	Microgrids and Electricity Markets	
T1.4 (6)	Synchrophasors/wide Area Monitoring	
T1.5 (6)	Electric Machines and Cables	
T1.6 (5)	Power System Control	
T1.7 (5)	HVDC and Power Electronics	
T1.8 (6)	Power System Modeling and Planning	
T2.1 (6)	Intelligent Systems, Embedded Systems and Robotics	
T2.2 (6)	Communication Systems	
T2.3 (6)	ICT Systems	
T4.1 (6)	Recent advances in 3D Virtual Environments	
T5.1 (3) & T3.1 (2): IoT	Network Security & IoT	
T5.2 (6)	Networking	
T6.1 (4)	Electronics, Devices and Transducers	
T7.1 (7)	Intelligent Transport Systems	
T8.1 (5)	Environmental Pollution, Climate Change and Environmental Public Health	
T8.2 (4)	Environmental Modelling and Optimization of decision making in Environmental Management	
T8.3 (5)	Remote Sensing and Geo-Spatial Environmental Systems	

Monday, 18<sup>th</sup> of April

08.20 10.20	PLENARY SESSION 1			
08:30 - 10:30	Topic: Engineering Leadership & Cognitive Computing			
Failoraina	Chairs: Georgios Ellinas & Christos N. Schizas			
08:30 - 09:30	Engineering Leadership for Success Nicos M. Timotheou			
09:30 – 10:30	Big Data and Cognitive Computing in Healthcare: Weathering the Perfect Storm     Matthias Reumann			

10:30 - 11:00

**Coffee Break/Poster Session** 

11.00 - 12.20	SCIENTIFIC SESSION: Track: T1.1				
Panorama	Topic: Renewable Energy Sources				
	Chair: Patrice Wira				
11:00 – 11:15	Modelling and torque control for active minimization of drivetrain oscillations in high power wind turbines	Pavlos Tourou, Alexander Broy, Constantinos Sourkounis			
11:15 – 11:30	Algorithm for Steady-State Stability Assessment under High Penetration of Probabilistic Renewable Energy Generation Conditions	Catalin Chimirel, Mircea Eremia, Sebastian Enache			
11:30 – 11:45	A Low-Power MPPT Architecture for Micro- Scale Photovoltaic Transducers	Ahmed Mohieldin, Mahmoud Ibrahim, Mohamed Aboudina			
11:45 – 12:00	Integrated Wind-Solar Power Generation System for National Guard Facility	Ahmad Al Khedair, Salem AlShahrani			
12:00 – 12:15	Dynamic Modeling of IEEE Test Systems Including Renewable Energy Sources Demetriou, Elias Kyria				
12:15 – 12:30	Evaluation of dynamic response in isolated power grids: Terceira island	Agurtzane Etxegarai, Pablo Eguia, Esther Torres, Araitz Iturregi, Garikoitz Buigues			
11.00 12.20	SCIENTIFIC SESSION: Track T2.1				
Phoenix Chair: Georgios Ellinas		ms and Robotics			
11:00 - 11:15	Robot Activity Adaptation for Safe Human- Robot Collaboration based on Probabilistic Risk Modeling	Frank Dittrich, Heinz Woern			
11:15 – 11:30	Optical Sensor in Control of LEGO Robot	Radek Doskocil, Vaclav Krivanek, Alexandr Stefek			
11:30 - 11:45	FPGA Vendor-agnostic IP-XACT- and XSLT- based RTL Design Generator	Rui Machado, Sandro Pinto, Adriano Tavares			
11:45 – 12:00	High Dimensional Local Binary Patterns for Facial Expression Recognition in the Wild	Bogdan Smolka, Krystian Radlak			
12:00 – 12:15	2:15 Landmarks Detection on 3D Face Scans Using Local Histogram Descriptors Marwa Chendeb el Rai, Naoufel Werghi				
A Robust Magnetic Resonance Imaging 12:15 – 12:30 Method Based on Compressive Sampling and Clustering of Sparsifying Coefficients		Henry Kiragu, George Kamucha, Elijah Mwangi			

11:00 – 12:30 Megaron C	SCIENTIFIC SESSION: Track: T8.1 Topic: Environmental Pollution, Climate Change and Environmental Public Health		
11:00 - 11:15	Improved Population Health Surveillance and Chronic Disease Management Using Secure eMail; Application of the DIRECT, IEEE 11073, HITSP, and IHE Standards and Protocols	Elliot Sloane, Vijay Gehlot	
11:15 – 11:30	Health impact assessment for mortality associated with high temperatures in Cyprus	Haritini Tsangari, Clare Heaviside, Sotiris Vardoulakis, Anastasia Paschalidou, Kyriakos E. Georgiou, Pavlos Kassomenos, Edna N. Yamasaki	
11:30 - 11:45	Big data for innovative air-pollution assessments in the era of verifiable regulatory decisions	David Rickerby, Andreas N. Skouloudis	
11:45 – 12:00	Heat related mortality in Cyprus under the A1B emissions scenario: Is additional air- conditioning an appropriate mitigation strategy?	Panayiotis Kouis, Panayiotis Yiallouros, Theodoros Zachariadis, Stefania Papatheodorou	
12:00 - 12:15	Air Pollution Monitoring in Lemesos using a Wireless Sensor Network	Michalis Michaelides, Theofylaktos Pieri	

12:30 - 13:30	Lunch Break/Poster Session
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	SHORT PRESENTATIONS SP1, SP2 & SP3 ARE LINKED WITH THE POSTER SESSION
13:30 – 15:00 Megaron A&B	<ul> <li>The posters should be mounted in Megaron A&amp;B room on the morning of Monday the 18<sup>th</sup> of April and should be dismounted by the end of the day on Tuesday the 19<sup>th</sup> of April. Posters remaining after the end of the day on Tuesday the 19<sup>th</sup> of April will be removed and recycled.</li> <li>Please be present near your poster during the coffee and lunch breaks on Monday the 18<sup>th</sup> of April and Tuesday the 19<sup>th</sup> of April.</li> </ul>

13:30 – 15:00 Panorama	SHORT PRESENTATIONS: SP1 Tracks: T1, T7, T8 Chair: Elias Kyriakides	
	T1.SP1.1 – 12	
2 minutes – 2 slides per presentation	For paper listings see page 3	37
	T7.SP1.1 – 3	
	For paper listings see page 4	41
	T8.SP1.1 – 3	
	For paper listings see page 4	41

13:30 - 15:00	SHORT PRESENTATIONS: SP2	
13.30 - 13.00 Dhooniy	Tracks: T2, T3, T4	
Phoenix	Chair: Constantinos S. Pattichis	
	T2.SP2.1 – 15	
		For paper listings see page 38
2 minutes – 2	T3.SP2.1 – 3	
presentation		For paper listings see page 39
	T4.SP2.1 – 3	
		For paper listings see page 39
12.20 15.00	SHORT PRESENTATIONS: SP3	For paper listings see page 39
13:30 - 15:00	SHORT PRESENTATIONS: SP3 Tracks: T5, T6	For paper listings see page 39
13:30 – 15:00 Megaron C	SHORT PRESENTATIONS: SP3 Tracks: T5, T6 Chair: Georgios Ellinas	For paper listings see page 39
13:30 – 15:00 Megaron C	SHORT PRESENTATIONS: SP3 Tracks: T5, T6 Chair: Georgios Ellinas T5.SP3.1 – 6	For paper listings see page 39
13:30 – 15:00 Megaron C 2 minutes – 2	SHORT PRESENTATIONS: SP3 Tracks: T5, T6 <i>Chair: Georgios Ellinas</i> T5.SP3.1 – 6	For paper listings see page 39 For paper listings see page 40
13:30 – 15:00 Megaron C 2 minutes – 2 slides per presentation	SHORT PRESENTATIONS: SP3Tracks: T5, T6Chair: Georgios EllinasT5.SP3.1 - 6T6.SP3.1 - 11	For paper listings see page 39 For paper listings see page 40

	SCIENTIFIC SESSION: Track: T1.2		
15:00 – 16:30	Topic: Electric Vehicles and Transportation		
Panorama	Chair: Mathaios Panteli		
15:00 – 15:15	Optimal Location for Centralized Charging of Electric Vehicle in Distribution Network	Sulabh Sachan, Nand Kishor	
15:15 – 15:30	Neural Network technique for Hybrid Electric Vehicle Optimization	Sami Karaki, Carla Majed, Rabih Jabr	
15:30 – 15:45	Tuning of a Railway Power Quality Conditioner	Andrea Mariscotti, Adel Tabakhpour Langerudy	
15:45 – 16:00	Energy Consumption and User Behaviour in a Field Test Based Evaluation of Frequent Drivers Utilising Extended Range Electric Vehicles	Philipp Spichartz, Philip Dost, Constantinos Sourkounis, Dirk Balzer	
16:00 – 16:15	Evaluation of Potentials for Peak Load Shifting by Means of Electric Vehicles Based on Field Test Measurements	Philip Dost, Philipp Spichartz, Constantinos Sourkounis	
15.00 - 16.20	SCIENTIFIC SESSION: Track: T2.2		
Phoenix	Topic: Communication Systems		
Chairs: Zacharoula Andreopoulou & Georgios Ellinas		inas	
15:00 – 15:15	Feasibility of a Wearable Textile Antenna Hub Based on Massive MIMO Sytems	Estefanía Crespo Bardera, Matilde Sánchez-Fernández	
15:15 – 15:30	ANDSF-based WLAN Offloading in the Evolved Packet System (EPS)	Neco Ventura, Olabisi Falowo, Joseph Orimolade	
15:30 - 15:45	Innovation in National Forest Park Tourism for Regional Development: Rural Broadband Internet	Christiana Koliouska, Zacharoula Andreopoulou, Basil Manos, Fedra Kiomourtzi, Soulla Louca	

15:45 - 16:00	Performance Analysis of NLOS Small Cell Backhaul using 17GHz Point-to-Point Prototype Radio	Olabis Falowo, Neco Ventura, Bessie Malila
16:00 - 16:15	5G and the Fog - Survey of Related Technologies and Research Directions	Stojan Kitanov, Edmundo Monteiro, Toni Janevski
16:15 – 16:30	DAIMD: Hybrid Delay-Congestion Control for Multipath TCP	Regel Gonzalez, Juan V. Pradilla, Manuel Esteve, Carlos E. Palau
15:00 – 16:30 Megaron C	SCIENTIFIC SESSION: Track: T8.2 Topic: Environmental Modelling and Optimization of Decision Making in Environmental Management	
15:00 - 15:15	Automatic Building Partitioning for Effective Contaminant Detection and Isolation	Alexis Kyriacou, Michalis Michaelides, Christos Panayiotou
15:15 – 15:30	Modeling and Analysis of Urban Water Distribution Networks During Intermittent Water Supply Periods	Agathoklis Agathokleous, Symeon Christodoulou
15:30 – 15:45	Attitudes to systemic risk: the impact of flood risk on the housing market in Dublin	Salem Gharbia, Ronan Lyons, Owen Naughton, Vincent Farrelly, Francesco Pilla
15:45 – 16:00	Hierarchical Multi-objective Games of Transport Demand Reallocation for Minimizing Carbon Footprint in Developing Urban Areas	Loukas Dimitriou, Thomas Kartsonakis

16:30 - 17:00	Coffee Break/Poster Session

17.00 - 19.00	SCIENTIFIC SESSION: Track: T1.3		
Panorama	Topic: Microgrids and Electricity Markets		
ranorama	Chair: Jawad Faiz		
17:00 – 17:15	Case Study of Voltage Control for MVDC Microgrids with Constant Power Loads - Comparison between Centralized and Decentralized Control Strategies	Marco Cupelli, Antonello Monti, Edoardo De Din, Giorgio Sulligoi	
17:15 – 17:30	Coordinated Voltage Control of Solar PV with MPPT and Battery Storage in Grid-Connected and Microgrid Modes	Edward Baleke Ssekulima, Amer Al Hinai	
17:30 – 17:45	Cost Effective Bidirectional Power Transactions for Queueing Energy Requests in Smart Micro- grids	Daud Mustafa Minhas, Muhammad Rashad, Sajjad Hussain, Muhammad Ashraf	
17:45 – 18:00	Low-Cost Real-Time Monitoring of a Laboratory Scale Power System	Lenos Hadjidemetriou, George Nicolaou, Demetris Stavrou, Elias Kyriakides	
18:00 – 18:15	A nodal-based day-ahead market clearing with multi-period products and transmission security constraints	Grigoris Dourbois, Pandelis Biskas, Dimitris Chatzigiannis, Andreas Vlachos, Anastasios Bakirtzis	
18:15 – 18:30	Static accuracy of the automated stand for lithium-ion batteries testing	Aleksandr Fedchenko, Evgeny Kopylov, Dmitry Lobanov, Enis Mizrah	

18:30 – 18:45	A New Approach for Technological Ancillary Services Measurement and Aggregation by Metrological Procedures	Catalin Chimirel, Mircea Eremia, Mihai Sanduleac	
17:00 – 18:30 Phoenix	SPECIAL SESSION: Track: SS1 Topic: Towards Power Systems Relying Primarily on Variable Renewable Energy Sources Chair: Konstantinos Kopsidas & Joseph Mutale		
17:00 - 17:15	Impact of Thermal Uprating and Emergency Loading of OHL Networks on Interconnection Flexibility	Konstantinos Kopsidas	
17:15 – 17:30	Analyzing the Resilience and Flexibility of Power Systems to Future Demand and Supply Scenarios	Mathaios Panteli, Alexandros I. Nikolaidis, Yutian Zhou, Ruth Wood, Steven Glynn, Charalambos A. Charalambous, Pierluigi Mancarella	
17:30 - 17:45	Evaluating the Impact of ICTs on Network Reliability	Carlos Cruzat, Konstantinos Kopsidas, Shuran Liu	
17:45 - 18:00	Comparison of Dynamic models of Battery Energy Storage for Frequency Regulation in Power System	Atia Adrees, Hooman Andami, Jovica Milanovic	
18:00 - 18:15	Incorporating storage in network operation to increase the amount of solar PV that can be connected to electricity networks	eration to can be Joseph Mutale, Isam Saedi	
17:00 – 18:30 Megaron C	IEEE Region 8 Students Paper Competition 2016 Chair: Paul Micallef		
17:00 – 17:15	Current-Mode Capacitance Multiplier with Reduced Parasitic Elements	Serban Mihalache, Florin-Silviu Dumitru Politehnica University of Bucharest, Romania	
17:15 – 17:30	The segmentation of a point cloud using locally fitted surfaces	Marko Bizjak University of Maribor, Maribor, Slovenia	
17:30 – 17:45	Statistical Analysis of the Electric Vehicle Chargers' Impacts on the Low-voltage Distribution System	Laszlo Pinter Budapest University of Technology and Economics, Budapest, Hungary	
17:45 – 18:00	A Fast, Flexible and Accurate Algorithm for Shaping the 3D Radiation Pattern of an AAS		
18:00 - 18:15	Reducing the Processing Loss of Windowed Transforms Using Linear Discriminant Analysis	Stefan Wunsch Karlsruhe Institute of Technology, Karlsruhe, Germany	

19:00 – 20:15 Panorama	OPENING CEREMONY

## 20:15 - 21:15

#### WELCOME RECEPTION

Tuesday, 19<sup>th</sup> of April

08:30 – 10:30 Panorama	PLENARY SESSION 2 Topic: Energy and Power Systems Chair: Elias Kyriakides	
08:30 – 09:30	Modelling and control challenges of sustainable power systems	Jovica V Milanovic
09:30 - 10:30	Eastern Mediterranean Natural Gas: Resources for Today and the Future	L. Gene Kornegay

10.20	_ 11.00	
10.30	- 11.00	

Coffee Break/Poster Session

11.00 12.20	SCIENTIFIC SESSION: Track: T1.4		
11:00 - 12:30	Topic: Synchrophasors/wide area monitoring		
Panorama	Chair: Kamal Al-Haddad		
11:00 – 11:15	The Impact of PMU Measurement Delays and a Heterogenous Communication Network on a Linear State Estimator	Markos Asprou, Ana-Maria Dumitrescu, Elias Kyriakides, Mihaela Albu	
11:15 – 11:30	Signal Processing and Classification of Synchro-phasor data	Nand Kishor, Avinash Kumar, Sanjay Singh Negi, Kjetil Uhlen	
11:30 – 11:45	Frequency Monitoring of Forced Oscillation in PMU's Data from NASPI	Lalit Kumar, Nand Kishor, Shweta Sonam	
11:45 – 12:00	Improving Power System Monitoring and Control in Russian Modern Megalopolises	Nikita Tomin, Nikolai Voropai, Victor Kurbatsky, Daniil Panasetsky	
12:00 – 12:15	Transmission system phase angle footprint based on synchrophasor measurement	Igor Ivankovic, Igor Kuzle	
12:15 – 12:30	A new state-space for unbalanced three-phase systems: Application to fundamental frequency tracking with Kalman filtering	Anh Tuan Phan, Gilles Hermann, Patrice Wira	
11.00 - 12.30	SCIENTIFIC SESSION: Track: T2.3		
Phoenix	Topic: ICT Systems		
	Chair: Abdallah Kassem		
11:00 - 11:15	Measuring Software Energy Efficiency: Presenting a Methodology and Case Study on DNS Resolvers	Albert Hankel, Eric Hoekstra, Robert van den Hoed, Roland van Rijswijk	
11:15 - 11:30	A Green Wireless Powered Sensor Network:Christos Kyprianou, ConstantAn Experimental ApproachPsomas, Ioannis Krikidis		
11:30 - 11:45	GeoAware: A Hybrid Indoor and OutdoorGeorgios Lilis, Adrien Hoffet,Localization Agent for Smart BuildingsMaher Kayal		
11:45 - 12:00	Resilient device-to-device communication in emergency situations	Panayiotis Kolios, Konstantinos Koumidis, Christos Panayiotou, Georgios Ellinas	

Tuesday, 19<sup>th</sup> of April

12:00 - 12:15	Fast High Definition Video Rendering on Mobile Devices	Matthew Borg, Carl James Debono
12:15 – 12:30	Android Voice Recognition Application with Multi Speaker Feature	Abdallah Kassem, George Frewat, Charbel Baroud, Roy Sammour, Mustapha Hamad
11:00 – 12:30 Megaron C	SCIENTIFIC SESSION: Track T8.3 Topic: Remote Sensing and Geo-Spatial Envi Chair: Anastasia Paschalidou & Andreas N. Skould	ironmental Systems oudis
11:00 - 11:15	GIS-Based Risk Assessment for Electric Power Consumers Under Severe Weather Conditions	Qin Yan, Tatjana Dokic, Mladen Kezunovic
11:15 – 11:30	Short-term variability of offshore physical features in the Levantine Basin: the integration of in-situ and remote sensing observations	Rana Abu Alhaija, Carlos Jiménez
11:30 - 11:45	A drone anti-collision system: maintaining a fixed distance from a target during the flight	Andrea Zanobini
11:45 - 12:00	Using GIS Based Algorithms for GCMs' Performance Evaluation	Salem Gharbia, Laurence Gill, Paul Johnston, Francesco Pilla
12:00 - 12:15	Evaluation of a Haptic Interface for UAV Teleoperation in Detection of Radiation Sources	Giorgio Micconi, Jacopo Aleotti, Stefano Caselli

12	:30	) —	13	:3	0

Lunch Break/Poster Session

13:30 – 15:00 Panorama	SCIENTIFIC SESSION: Track: T1.5 Topic: Electric Machines and Cables Chair: Markos Asprou	
13:30 - 13:45	Doubly Fed Induction Machine Pumped Storage System: Laboratory Set-up and Grid Synchronization	Amel Damdoum, Ilhem Slama- Belkhodja, Maria Pietrzak-David
13:45 – 14:00	Simulation of Permanent Magnet Synchronous Motors Under Short Circuit Fault	A. H Exiri, H Nejadi-Koti, Jawad Faiz
14:00 – 14:15	Synchronous Turbo-Generator Model Accounting for Rotor Whirl	Gojko Joksimovic
14:15 – 14:30	Winding fault diagnosis of induction machine connected to a harmonically polluted power system	Tsivalalaina David Razafimahefa, Nicolas Heraud, Eric Jean Roy Sambatra

## Tuesday, 19<sup>th</sup> of April

		-
14:30 – 14:45	Influence of Design Parameters and Defects on Electric Field Distributions inside MV Cable Joints	Ibrahim Metwally, Abdullah AlBadi, Amer Al-Hinai, F. Al Kamali, H. Al- Ghaithi
14:45 – 15:00	Setup and preliminary results of an Online Thermal Condition Monitoring System for MV Cable Joints	Stelios Christou
13:30 - 15:00 Phoenix	SCIENTIFIC SESSION: Track: T5.1 & T3.1 Topic: Network Security & IoT Chair: George Hadjichristofi & Nikolas Flourentzo	u
13:30 - 13:45	A Low Power Reconfigurable LFSR	Lama Shaer, Tarek Sakakini, Rouwaida Kanj, Ali Chehab, Ayman Kayssi
13:45 - 14:00	Detection of Collaborative Cyber-Attacks through Correlation and Time Dependency Analysis	Marios Thoma, Christoforos Hadjicostis
14:00 - 14:15	3-D Trust Modeling in Internet of Things	George Hadjichristofi, Efthyvoulos Kyriacou, George Kappos
14:15 - 14:30	Adaptive Modeling and Sampling Methodologies for Internet of Things Applications	Joachim van der Herten, Ivo Couckuyt, Dirk Deschrijver, Piet Demeester, Tom Dhaene
14:30 – 14:45	Security policies in Intelligent Transportation Systems	Catalin Gosman, Tudor Cornea, Ciprian Dobre, Constandinos Mavromoustakis, George Mastorakis

	EXCURSION & CONFERENCE DINNER
15:15 - 23:30	Departure Time: 15:15
	(meet at the lobby of St. Raphael Resort – Venue)

Wednesday, 20<sup>th</sup> of April

08:30 – 10:30 Panorama	Plenary Session 3         Topic: European Cooperation in Science and Technology (COST)         Chair: Ralph Stübner		
08:30 - 08:50	Introduction to the COST Framework	Ralph Stübner	
08:50 – 09:15	CRYPTACUS, promising development in IoT security (COST Action IC1403)	Julio Hernandez-Castro	
09:15 – 09:40	Evolution from 3D video to light field coding and transmission over future media networks (COST Action IC1105)	Pedro A. Amado Assunção	
09:40 – 10:05	Pushing the frontiers of memristive devices to systems (COST Action IC1401)	Julius Georgiou	
10:05 – 10:30	Unravelling the degradation mechanisms of emerging solar cell technologies (COST Action MP1307)	Moritz Riede	

10:30 - 11:00

**Coffee Break** 

	SCIENTIFIC SESSION: Track T1.6		
11:00 – 12:30	Topic: Power System Control		
Panorama	Chair: Constantings Sourkounis		
11:00 – 11:15	State-Space Generalized Minimum Variance Controller based PSS for damping of interarea modes	Rodrigo Trentini, Rüdiger Kutzner, Lutz Hofmann	
11:15 – 11:30	Comparative Study of Different Predictive Torque Control Strategies for Mono-Inverter Dual-PMSM System	Tianyi Liu, Maurice Fadel	
11:30 - 11:45	Discrete-Time Fractional-Order Power System Stabilizers	Reyad El-Khazali, Nabeel Tawalbeh	
11:45 – 12:00	Power System Stability Assessment Using Sub- Gramian Technique	Gleb Prankevich, Natalya Kiryanova, Andrey Grobovoy, Dmitriy Kataev, Igor Yadykin, Alexey Iskakov	
12:00 - 12:15	Probabilistic Evaluation of Impacts of High– Resistance Faults on Digital Distance Relays	Hamed Abdollahzadeh, Mostafa Jazaeri	
	SCIENTIFIC SESSION: Track T5.2		
11:00 – 12:30 Topic: Networking			
Phoenix	Chair: Vasos Vassiliou		
11:00 - 11:15	Comparison of CSMA/CA Protocols Applied in Wireless Body Area Network Standards	Dimitra Kaitalidou, Alexandros- Apostolos Boulogeorgos, Fotini – Niovi Pavlidou	
11:15 – 11:30	LMS-BLM Receiver in AF Based Cooperative Relay Networks	Omar Gatera, Haci Ilhan, Ahmet H. Kayran	
11:30 - 11:45	Full-Duplex MIMO and PLNC for the Y-Network	Filipe E. Ferreira, Francisco Monteiro, Ivo Sousa	

11:45 - 12:00	SDN Controllers: A Comparative Study	Ola Salman, Imad Elhajj, Ayman Kayssi, Ali Chehab	
12:00 - 12:15	Static Impairement-Aware Multicast Session Provisioning in Metro Optical Networks	Tania Panayiotou, Konstantinos Manousakis, Georgios Ellinas	
12:15 – 12:30	An Optimization Algorithm for Downstream Wavelength Selection and Scheduling in WDM PON-Based Mobile Backhaul Networks	Chrysovalanto Christodoulou, Konstantinos Manousakis, Georgios Ellinas	
11.00 - 12.30	SPECIAL SESSION: Track: SS2		
Megaron C	Topic: Special Session on Memristors		
	Chair: Stavros G. Stavrinides		
11:00 - 11:15	Memristive Nanodevices: CMOS Compatibility and Novel Applications	Qiangfei Xia	
11:15 – 11:30	Volterra model of a class of two-memristor	Alon Ascoli, Ronald Tetzlaff	
11:30 - 11:45	An Analytical Energy Model for the Reset Transition in Unipolar Resistive-Switching RAMs	Mohamad Moner Al Chawa, Rodrigo Picos, Eugeni Garcia- Moreno, Stavros Stavrinides, J.B. Roldan, F. Jimenez-Molinos	
11:45 – 12:00	Memristor-based chaotic circuit for pseudo- random sequence generators	Fernando Corinto, Oleh V. Krulikovskyi, Serhii D. Haliuk	

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Lunch Break

13:30 – 15:00 Panorama	SCIENTIFIC SESSION: Track T1.7 Topic: HVDC and Power Electronics Chair: Nikolas Flourentzou	
13:30 - 13:45	Improved Overvoltage Limitation Control Approach of a DC Series Offshore Wind Farm Based on MMC	Haibo Zhang, François Gruson, Diana Flórez, Christophe Saudemont
13:45 – 14:00	Fault Location in VSC-HVDC section for Grid Integrated Offshore Wind Farm by EMD	Rehana Perveen, Soumya R. Mohanty, Nand Kishor
14:00 – 14:15	Control of a Hybrid HVDC Link to Increase Inter-regional Power Transfer	Omar Kotb, Mehrdad Ghandhari, Robert Eriksson, Vijay Sood
14:15 – 14:30	NTV-SV-PWM Controlled Three-Level Converter for Ocean Wave Energy Conversion	llknur Colak
14:30 – 14:45	Medium Voltage Planning Tool Based on Utilities Best Practices and Multi-objective Optimization	Anderson Hitoshi Uyekita, Dário Takahata, André Meffe, Paulo Henrique Baumann, Alessandro Mendonça Maciel, Carlos César Barioni de Oliveira, Renan Bergonsi Muller, Roberto Sousa Rocco, Ricardo Haus Guembarovski, Neissan de Alencastro, Jorge Pinheiro dos Santos

12,20 15,00	SCIENTIFIC SESSION: Track T4.1	
13:30 - 15:00	Topic: Recent advances in 3D Virtual Enviro	nments
Phoenix	Chair: Despina Michael	
13:30 - 13:45	Navigation in Virtual Reality: Comparison of Gaze-Directed and Pointing Motion Control	Chris Christou, Aimilia Tzanavari, Kyriakos Herakleous, Charalambos Poullis
13:45 – 14:00	SoundPacman: Audio augmented reality in location-based games	Thomas Chatzidimitris, Damianos Gavalas, Despina Michael
14:00 - 14:15	On the Development and Evaluation of a Serious Game for Forensic Examination Training	Maria Drakou, Andreas Lanitis
14:15 – 14:30	Improved Hybrid Algorithm for Real Time Sound Propagation using Intelligent Prioritization	Panagiotis Charalampous, Despina Michael
14:30 - 14:45	A 3D Virtual Environment for Training Teachers to Identify Bullying	Kalliopi Evangelia Stavroulia, Antri Ruiz-Harisiou, Elena Manouchou, Kyriakos Georgiou, Sella Francesca, Andreas Lanitis
14:45 - 15:00	A Feasibility Study on Using Virtual Reality for Understanding Deficiencies of High School Students	Elena Manouchou, Kalliopi Evangelia Stavroulia, Antri Ruiz- Harisiou, Kyriakos Georgiou, Sella Francesca, Andreas Lanitis
40.00 45.00	SCIENTIFIC SESSION: Track: T6.1	
13:30 – 15:00 Megaron C	Topic: Electronics, Devices and Transducers Chair: Julio Georgiou	
13:30 - 13:45	Design Considerations and Optimization for 3- Axis Anisotropic Magneto-Resistive Sensors	Barnaby Portelli, Ivan Grech, Owen Casha, Edward Gatt, Joseph Micallef
13:45 - 14:00	Active Huygens' Metasurfaces for RF Waveform Synthesis in a Cavity	Alex Wong, George Eleftheriades
14:00 - 14:15	Design and Diagnostics of Arc-resistant Electronics for Satellite Telecommunication Systems	Vasily Kozhevnikov, Andrey Kozyrev, Natalia Semeniuk, Alexander Batrakov, Vadim Karaban, Denis Kosov
14:15 – 14:30	Analysis of an Off-Broadside Zero Beam- Squinting Leaky-Wave Antenna Using Metamaterials	Kypros Kossifos, Marco Antoniades

15:00 – 17:00 Panorama	SCIENTIFIC SESSION: Track T1.8 Topic: Power System Modeling and Planning Chair: Gojko Joksimovic	
15:00 – 15:15	Statistical Distributions of Validation Performance Indexes for Experimental Data Uncertainty	Andrea Mariscotti, Jacopo Bongiorno

15:15 – 15:30	The impact of Simulation Studies on the Distribution Grid Operation and Planning in Cyprus	Andreas Armenakis, Costas Stasopoulos, Theodoros Kaskiris, Minas Patsalides, Venizelos Efthymiou, George Georghiou
15:30 - 15:45	Integral assessment of electrical grid equipment state	Alexandra Khaliasmaa, Stepan Dmitriev, Evgenii Kokorin
15:45 – 16:00	Parameter Estimation for Measurement-based Load Modeling Using the Levenberg- Marquardt Algorithm	Elena Polykarpou, Elias Kyriakides
16:00 – 16:15	Development of Sub-Transmission Network Equivalents and After-Diversity-Demand Values: Case Study of the UK Residential Sector	Ignacio Hernando-Gil, Furong Li, Adam Collin, Sasa Djokic
16:15 <mark>–</mark> 16:30	Frequency stability of the future continental Europe power system	Karel Máslo, Silvia Moroni, Rui Pestana
15:00 – 17:00 Phoenix	SCIENTIFIC SESSION: Track T7.1 Topic: Intelligent Transport Systems Chair: Soulla Louca	
15:00 - 15:15	A drone-based image processing system for car detection in a smart transport infrastructure	Gabriele Maria, Enrico Baccaglini, Daniele Brevi, Marco Gavelli, Riccardo Scopigno
15:15 – 15:30	Adaptive Short Term Prediction of Freeways Travel Time Distributions Based on Multivariate Hazard Models	Loukas Dimitriou, Vana Gkania,
15:30 - 15:45	Design of daily energy optimal timetables for metro lines using metaheuristics	Jonathan Lesel
15:45 – 16:00	GoSafe: A Power-Efficient Android Application for Road Events Signaling and Notification	Oussama Tahan, Reina Rima, Samira Bakri, Zaher Merhi, Saleem El Deek
16:00 – 16:15	A congestion-free vehicle route reservation architecture	Charalambos Menelaou, Panayiotis Kolios, Stelios Timotheou, Christos Panayiotou
16:15 - 16:30	Roadway Pavement Anomaly Classification Utilizing Smartphones And Artificial Intelligence	Charalambos Kyriakou, Symeon Christodoulou, Loukas Dimitriou
16:30 - 16:45	Automated Detection of Pavement Patches utilizing Support Vector Machine Classification	Georgios Hadjidemetriou, Symeon Christodoulou, Patricio A. Vela

17:00 – 17:15	
Panorama	

## **Short Paper Presentations**

The short paper presentations are also accompanied by poster presentations. **The posters should be mounted in Megaron A&B room on the morning of Monday the 18<sup>th</sup> of April and should be dismounted by the end of the day on Tuesday the 19<sup>th</sup> of April.** Posters remaining after the end of the day on Tuesday the 19<sup>th</sup> of April will be removed and recycled.

Short Paper Presentations: Track: T 1			
Topic: Electric Power Systems and Renewable Energy Sources			
To be prese	To be presented in SP1, Monday, April 18 <sup>th</sup> , Room Panorama, 13:30 – 15:00hrs		
T1.SP1.1	Voltage Profile Improvement in Radial Distribution Networks with Analytical Method of Simultaneous Optimal DG Sizing	Mohsin Shahzad, Ishtiaq Ahmad, Wolfgang Gawlik, Peter Palensky	
T1.SP1.2	Performance analysis of doubly fed induction generators operating in weak power systems	Pavlos Tourou, Michael Schael, Constantinos Sourkounis	
T1.SP1.3	Modeling the Microgrid Based on the Russky Island Power Network	Olga Gorte, Vyacheslav Zyryanov, Mikhail Khmelik, Andrey Grobovoy, Vladimir Markin, Nikolay Silin	
T1.SP1.4	Localization and Sizing of FACTS Devices for Optimal Power Flow in a System Consisting Wind Power Using HBMO	Mohammad R Aghaebrahimi, Reza Kazemi Golkhandan, Sajad Ahmadnia	
T1.SP1.5	Performance Evaluation of ANPC Topology for Different Cooling Water Temperature and Glycol Content	llknur Colak	
T1.SP1.6	The Effect of Not Reconnecting Distributed Generation on Intentional Islanding and the Cost of Energy Not Supplied in Active Distribution Networks	Alireza Abdolabadi, Hamid Reza Najaf, Mohammad R Aghaebrahimi	
T1.SP1.7	Study of ROCOF Relay Suitability for Micro Grid Protection	Tarek Kandil, Hammad Alnuman	
T1.SP1.8	PFC Topologies for AC to DC Converters in DC Micro Grid	Muhammad Rashad, Daud Mustafa Minhas, Muhammad Ashraf, Sajjad Hussain	
T1.SP1.9	Set-membership methodology for multiple fault detection and isolation in DC-DC Buck Converters	Rihab el Houda, Houcine Chafouk	
T1.SP1.10	MCSR and SCSR Control Algorithms for Providing Power Quality in Electrical Grids	Boris Oleksyuk, Rinat Karymovm, Victor Cioban	

T1.SP1.11	Optimised Controllers for Excitation system of Conventional Power System and Wind Turbines to Mitigate small signal and transient stability	Bahman Khaki
T1.SP1.12	An 18 kW Solar Array Research Facility for Fault Detection Experiments	Andreas Spanias, Cihan Tepedelenlioglu, Elias Kyriakides, David Ramirez, Sunil Rao, Henry Braun, Jongmin Lee, Devarajan Srinivasan, Jeffrey Frye, Shinji Koizumi, Yoshitaka Morimoto

Short Paper Presentations: Track: T 2		
Topic: Information and Communication Technologies		
To be prese	ented in SP2, Monday, April 18 <sup>th</sup> , Room Phoeni	x, 13:30 – 15:00hrs
T2.SP2.1	High-Speed FPGA Implementations of Volterra DFEs Based on Iterated Short Convolution	Merkourios Katsimpris, Andreas Emeretlis, George Theodoridis
T2.SP2.2	High-Rate Turbo Code Design for Block- Fading Channels	Ghassan Kraidy
T2.SP2.3	Particle Swarm Optimization of Fuzzy Models for Electromagnetic Actuated Clutch Systems	Claudia-Adina Bojan-Dragos, Radu-Emil Precup, Stefan Preitl, Alexandra-Iulia Szedlak-Stinean, Emil M. Petriu
T2.SP2.4	Processor Performance Modeling using Regression Method	Joseph Issa
T2.SP2.5	Construction of Variable-Length Error- Correcting Codes using MOGA	Victor Buttigieg, Paula Vella
T2.SP2.6	Towards Hardware-accelerated Suffix Array Construction Architecture for the de novo DNA Sequence Assembly	Agathoklis Papadopoulos, Manolis Christodoulakis, Theocharis Theocharides
T2.SP2.7	Design of a packaging machine encompassing modular Hardware-In-the- Loop Simulation	Rita Tessari, Cesare Fantuzzi
T2.SP2.8	Monoscopic Inpainting Approach using Depth Information	Dylan Seychell, Carl James Debono
T2.SP2.9	Dynamic Monitoring of Taxi Demand Profiles Utilizing Location-Specific Information in Large Metropolitan Areas	Loukas Dimitriou, Christina Christodoulou, Elena Kourti, Symeon Christodoulou
T2.SP2.10	Environment-Motivated Real-Time Bandwidth Allocation for Collaborative Robots Teleoperation	Mohamad El Hariri, Imad H. Elhajj, Chadi Mansour, Elie Shammas, Daniel Asmar

T2.SP2.11	Optimization of Losless Image Compression Method for GPGPU	Luka Strižić, Josip Knezović
T2.SP2.12	Energy Minimization in Humanoid Gait	Noel Maalouf, Imad Elhajj, Daniel Asmar, Elie Shammas
T2.SP2.13	Interactions of Zynq-7000 Devices with general-purpose computers through PCI-express: a case study	Artjom Rjabov Rjabov, Alexander Sudnitson, Valery Sklyarov, Iouliia Skliarova
T2.SP2.14	High Precision CMOS Multifunctional Structure Using Computational Circuits	Popa Cosmin
T2.SP2.15	An Overview of Selected EHH Tools	Nikolaos Neokleous, Marios Neofytou, Constantinos Pattichis

Short Pape	Short Paper Presentations: Track: T 3		
Topic: Inte	Topic: Internet of Things, Cloud-Based Systems and Big Data Analytics		
To be prese	ented in SP2, Monday, April 18 <sup>th</sup> , Room Phoeni	ix, 13:30 – 15:00hrs	
T3.SP2.1	External Network Control on Quality of Service of M2M Mission-Critical Applications in 4G	Evelina Pencheva, Ivaylo Atanasov, Rozalina Dimova	
T3.SP2.2	Sensor Observation Service (SOS) / Constrained Application Protocol (CoAP) Proxy Design	Juan Pradilla, Regel González, Manuel Esteve, Carlos Palau	
T3.SP2.3	Monitoring of the Medication Distribution and the Refrigeration Temperature in a Pharmacy based on Internet of Things (IoT) Technology	Elie Ngomseu Mambou, Stephane Martin Nlom, Theo Swart, Khmaies Ouahada, Richard Ndjiounge, Hendrik Ferreira	

Short Paper Presentations: Track: T 4		
Topic: Virtual Environments, 3D Simulations and Serious Games		
To be prese	ented in SP2, Monday, April 18 <sup>th</sup> , Room Phoeni	x, 13:30 – 15:00hrs
T4.SP2.1	Single Image Super Resolution with Guided Back-Projection and LoG Sharpening	Boniface Ngocho, Elijah Mwangi
T4.SP2.2	Think Energy Efficiency-The Energy Book for Building Human Interaction	Nastaran Asadi Zanjani, Johann Bigler, Jean- Charles Fosse, Alexandre Ringwald, Maher Kayal
T4.SP2.3	Playful and Interactive Environment-Based Augmented Reality to Stimulate Learning of Children	Walter Fuertes, Claudia Arcos, César Villacís, Margarita Zambrano, Tatiana Noboa, Ana Tacuri, Hernán Aules, Theofilos Toulkeridis

Short Paper Presentations: Track: T 5

**Topic: Security and Networking** 

To be presented in SP3, Monday, April 18<sup>th</sup>, Room Megaron C, 13:30 – 15:00hrs

T5.SP3.1	A new approach to dynamic routing in SDN networks	Slavica Tomovic, Nedjeljko Lekic, Gordana Gardasevic, Igor Radusinovic
T5.SP3.2	An IMS-Based LTE-WiMAX-WLAN Architecture with Efficient Mobility Management	Hanaa Ali, Reem Hamada, Mahmoud Abdalla
T5.SP3.3	Proposed enhancement of RFID data standards within the UK library sector	lan Pratt
T5.SP3.4	Innovative Mobile Payments in the Cloud for Connected Citizen: the MobiSIM Project	Pascal Urien
T5.SP3.5	Random Delays To Limit On/Off Covert Channel	Anna Epishkina, Anna Belozubova, Konstantin Kogos
T5.SP3.6	Efficient Encryption Protocol for Wireless Sensor Networks Using One-Time Pads	Kwasi Boakye-Boateng, Eric Kuada, Emmanuel Antwi-Boasiako

Short Dana	Short Dance Dresentations: Track: T.C.		
Short Paper Presentations. Mack. 10			
Topic: Mici	ro and Nano Electronic Systems		
To be prese	ented in SP3, Monday, April 18 <sup>th</sup> , Room Megar	on C, 13:30 – 15:00hrs	
T6.SP3.1	A Low-Power Automatic Supply Multiplexer for Reconfigurable Step- up/down Switching DC-DC Converters	Ahmed Mohey, Sameh Ibrahim, Ismail Hafez	
T6.SP3.2	An Efficient Soft Decision Reed-Solomon Decoder for Moderate Throughput	Stefan Scholl, Syed Kamran Haider, Norbert Wehn	
T6.SP3.3	Performance Characterization of Variable Width Square Coils for Inductive Link Wireless Power Transfer	Sondos Mehri, Ahmed Chiheb Ammari, Jaleleddine Ben Hadj Slama, Lotfi Ladhar	
T6.SP3.4	Suppression of spurious products in an electrostatic RF MEMS downconverter having differential drive and sense	Jeremy Scerri, Ivan Grech, Edward Gatt, Owen Casha	
T6.SP3.5	Stretchable ruthenium oxide nanoparticles coated electrodes	Mahmoud Alahmad, Shereen Hassan	
T6.SP3.6	Nanoscale FPGA with Reconfigurability	Devisree S, Anand Kumar, Ruasl Raj	
T6.SP3.7	On/Off Ratio Tuning of Schottky Barrier CNTFETs Based on Quantum Simulation Approach	Amin Ghasemi Nejad Raeini, Zoheir Kordrostami, Hosein Eslami, Hamid Sadeghi	

T6.SP3.8	Analytical Modeling of an Electrostatically Actuated Torsional Micromirror	Jordan Lee Gauci, Ivan Grech, Owen Casha, Russell Farrugia, Edward Gatt, Joseph Micallef
T6.SP3.9	A Compact Triple Band BSF Design Based on Minkowski Fractal Geometry	Hayder Ahmed, Ali Salim, Jawad Ali, Nasr Hussain
T6.SP3.10	DfT Techniques and Architectures for TSV- Based 3D-ICs: A Comparative Study	Khaled Salah
T6.SP3.11	RF MEMS Capacitive Switch Fixed-Fixed Structure Analysis	Roshdy Abdelrassoul, Abdelmenem Abd el Bary, Salah El Din Nashat

#### Short Paper Presentations: Track: T 7

## Topic: Smart, Green and Integrated Transport

To be presented in SP1, Monday, April 18<sup>th</sup>, Room Panorama, 13:30 – 15:00hrs

T7.SP1.1	A Maturity Model for Smart City Mobility Service Solutions	Michael Strasser, Nico Weiner, Sahin Albayrak
T7.SP1.2	Modelling of Lift Control Strategies Using AnyLogic	Kyaw Kyaw Lin, Sergey Lupin, Sithu Thantsin, Yuriy Vagapov, Hein Tun
T7.SP1.3	ERON: A PID Controlled Autonomous Surface Vessel	Giorgos Demetriou, Andreas Hadjipier, Irene Erica Panayidou, Antonis Papasavva, Stelios Ioannou

#### Short Paper Presentations: Track: T 8

## Topic: Emerging Environmental Systems and Applications

To be presented in SP1, Monday, April 18<sup>th</sup>, Room Panorama, 13:30 – 15:00hrs

T8.SP1.1	Fire suppression difficulty estimation and mapping in a Mediterranean landscape using Landsat-8 imagery and spatial fire behavior analysis	Ioannis Mitsopoulos, Giorgos Mallinis, Anastasia Paschalidou, Dimitrios Emmanouloudis
T8.SP1.2	Implementation of an Automated Snow Monitoring System using MODIS Products in Lebanon	Mahdi Saleh, Ghaleb Faour
T8.SP1.3	Optimal Multi-Crop Planning System Implemented Under Deficit Irrigation	Bassam Bou Fakhreddine, Sara Abou Chakra, Imad Mougharbel, Alain Faye, Yann Pollet