

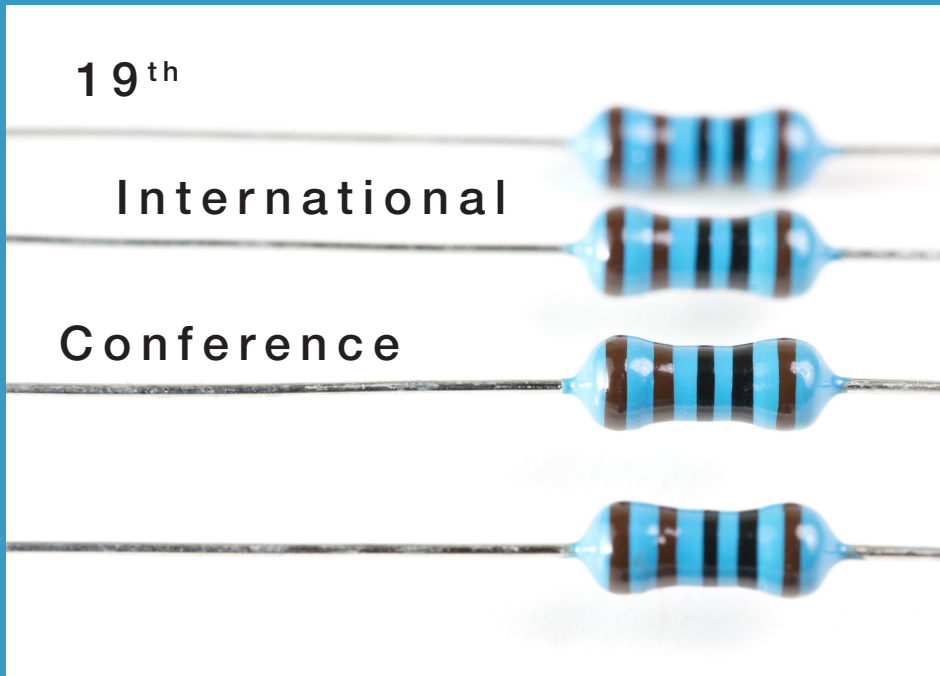
→ **when**
15th-17th June
2015

↓ **where**
Palanga
Lithuania

19th

International

Conference



ELECTRONICS 2015



faculty of electrical
and electronics
engineering



Monday, 15th June, 2015

Day 1

	Room A	Room B		
10 ⁰⁰ -10 ¹⁵	1A	Opening Ceremony and Welcome		
10 ¹⁵ -11 ⁰⁰	2A	Invited Speaker Andrius Semeskevicius		
11 ⁰⁰ -11 ³⁰ COFFEE BREAK				
11 ³⁰ -12 ³⁰	3A	Invited Speaker Vytautas Zinkevicius		
12 ³⁰ -13 ³⁰ CONFERENCE LUNCH				
13 ³⁰ -15 ⁰⁰	4A	Electronics	1B	System Engineering, Computer Technology
15 ⁰⁰ -15 ³⁰ COFFEE BREAK				
15 ³⁰ -17 ⁰⁰	5A	Telecommunications Engineering	2B	Renewable Energy
18 ⁰⁰ -21 ³⁰ WELCOME PARTY				

Tuesday, 16th June, 2015

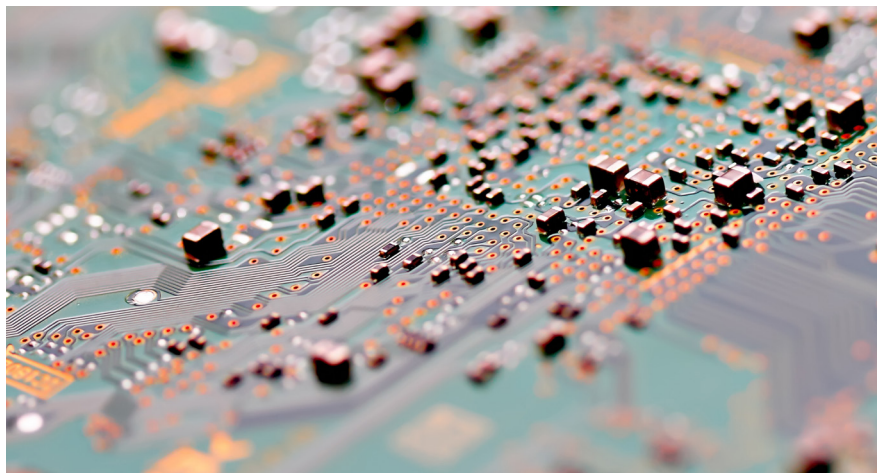
Day 2

	Room A		Room B	
9 ⁰⁰ –10 ³⁰	6A	System Engineering, Computer Technology	3B	Telecommunications Engineering
10³⁰–11⁰⁰ COFFEE BREAK				
11 ⁰⁰ –12 ³⁰	7A	Electrical Engineering	4B	High Frequency Technology, Microwaves
12³⁰–13³⁰ CONFERENCE LUNCH				
13 ³⁰ –15 ⁰⁰	8A	Electronic Measurements	5B	Electronics
15⁰⁰–15³⁰ COFFEE BREAK				
15 ³⁰ –17 ⁰⁰	9A	Signal Technology	6B	Automation, Robotics
18⁰⁰–21³⁰ BUS TRIP AND CONFERENCE DINNER				

Wednesday, 17th June, 2015

Day 3

Room A		Room B		
9 ³⁰ -11 ⁰⁰	10A	Electrical Engineering	7B	Editorial Board Meeting of the EEE
11 ⁰⁰ -11 ³⁰ COFFEE BREAK				
11 ³⁰ -12 ³⁰	11A	Electronics	8B	Editorial Board Meeting of the EEE
12 ³⁰ -13 ³⁰ CONFERENCE LUNCH				
13 ³⁰ -14 ¹⁵	ELECTRONICS 2015 CLOSING SESSION IN ROOM A			



Welcome

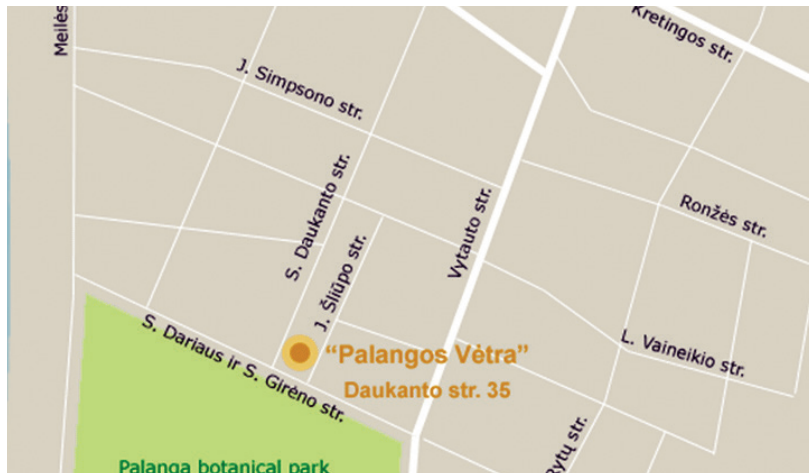
The 19th **International Conference ELECTRONICS 2015** is taking place in Palanga, a seaside resort town in western Lithuania, on the shore of the Baltic Sea. It is the busiest summer resort in Lithuania and has beaches of sand and beautiful sand dunes. ELECTRONICS 2015 is organized by Kaunas University of Technology (KTU), Faculty of Electrical and Electronics Engineering.

Technical program consists of two invited talks and technical papers oral presentations in parallel sessions: Automation, Robotics and Control; Electrical Engineering; Electronic Measurements; Electronics; High Frequency Technology, Microwaves; Microelectronics; Renewable Energy; Signal Technology; System Engineering, Computer Technologies; Telecommunications Engineering.

The accepted papers are published in the issues of the periodical scientific journal "Elektronika ir Elektrotechnika". Scientific materials published in "Elektronika ir Elektrotechnika" are abstracted and indexed in: Thomson Reuters (ISI) Web of Knowledge Citation Databases (SCIE, JCR), INSPEC, VINITI, EBSCO.



Conference Venue



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(Rector of KTU, LT)

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(Kaunas, LT)

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Vilnius Gediminas Technical University /

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West Pomeranian University of Technology,

Szczecin / Szczecin, Poland

Prof. Mattias O’Nils

Mid Sweden University / Sundsvall, Sweden

Prof. Sarunas Paulikas

Vilnius Gediminas Technical University /

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Technical University of Cluj-Napoca /

Cluj-Napoca, Romania

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Wuhan, China

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University of Belgrade / Belgrade, Serbia

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Stoynova

Technical University of Sofia / Sofia, Bulgaria

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Mugla Sitki Koçman University / Mugla,

Turkey

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Vilnius Gediminas Technical University /

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Ostrava, Czech Republic

Prof. Kazimierz Wilkosz

Wroclaw University of Technology /

Wroclaw, Poland

Dr. Mohd Asyraf Zulkifley

Universiti Kebangsaan Malaysia /

Bangi, Malaysia

Programme Events

↓ Invited Speaker



Andrius Semeskevicius, CEO LT, AB, Lithuania

How Not to HIT an Iceberg in the Ocean of IT
Monday, 15th June, 10:15–11:00, Room A

Andrius Semeskevicius is leading the division that is accountable for all the technology, information systems and infrastructure management at TEO LT. He brings many years of experience of IT management from different industries. Andrius has a proven knowledge of technology solutions becoming the engine for driving business development. His daily challenge is to make sure this “engine” is simple and secure to use.

Industrial renaissance, triggered by everyday objects becoming smart and connected, will develop further and change the game rules of business. In his presentation “How Not

to HIT an Iceberg in the Ocean of IT” Andrius speaks about security issues, brought by these processes: what damage can be done to business when you don’t mind IT security? From simple everyday examples about companies keeping servers and backups under the desk, using laptops and phones without caution, to complex malware attacks of major industrial players. How much a company should invest in IT security? What would be the right balance between indoor IT and outsourced IT? Your chance to make more money with help of IT should not become a “trap”.

Invited Speaker



**Vytautas Zinkevičius,
FIMA, UAB, Lithuania**

The Invisible Power of Engineering
Monday, 15th June, 11:30–12:30, Room A

We encounter engineering that is not visible to the naked eye every day. From adjustable air-conditioning system in the office to the electric energy that moves the speed train, it is all around us, it lets us live a comfortable modern life, opens up new opportunities and promotes the continuous progress of mankind. Intelligent engineering solutions company FIMA Business Development Director Vytautas Zinkevičius will tell how engineering discreetly shaped the modern world. Vytautas Zinkevičius, with 8 years working for the FIMA Company, values the experience, professionalism, expertise and susceptibility for innovation, with a view to the company vision.

Business Development Director of FIMA, the leading developer of intelligent engineering solutions, will tell about the executed and ongoing public and private infrastructure modernization projects in Lithuania and neighbouring countries markets. Security system installation for liquefied natural gas terminal in Klaipeda, Minsk water theme park engineering infrastructure, installation of TEO LT high energy efficiency data centre – these are just a few projects, which will reveal a wide range of the portfolio of solutions and expertise of the company.

Information for Participants



Registration

Sunday, 14th June
At 16:00

Conference Desk

Working Hours:

Sunday, 14th June
16:00–19:00

Monday, 15th June
8:30–16:00

Tuesday, 16th June
8:30–16:00.

Wednesday, 17th June
8:30–14:00



Presentation Time

Invited papers:

45 minutes, including discussion.

Contributed papers:

15 minutes, including discussion.



Language

The official language of the ELECTRONICS 2015 Conference is English.



Entrance

To the Conference Events:

Each participant will receive a name tag at the Conference Desk.

The tag is the official pass for entry to the Conference events.

Presenters will be registered by chair before each session.



Equipment

1. PC (Microsoft Windows 8 and MS Office 2013).
2. Projector. You may bring your presentation on CD media or on a USB stick and use our PC.



Messages

Please check the Conference bulletin board from time to time for possible changes to the program and for other announcements.



Social Events

Sightseeing tour:

Sunday, 14th June
19:00–20:00

Welcome Party:

Monday, 15th June
18:00–21:30.

Bus Trip and

Conference Dinner:

Tuesday, 16th June
18:00–21:30.



Live Broadcast

The presentations of session in Room A will be broadcasted live via Youtube and will be made available at Conference website (<http://electronics.ktu.lt>).



Monday, 15th June

Room A

10:00–10:15 **SESSION 1A**
Chairs: Petras Barsauskas, Algimantas Valinevicius
OPENING AND WELCOME

10:15–11:00 **SESSION 2A**
Chairs: Algimantas Valinevicius, Darius Andriukaitis,
Dangirutis Navikas
Invited Speaker Andrius Semeskevicius
How Not to HIT an Iceberg in the Ocean of IT

11:00–11:30 COFFEE BREAK

11:30–12:30 **SESSION 3A**
Chairs: Algimantas Valinevicius, Darius Andriukaitis,
Dangirutis Navikas
Invited Speaker Vytautas Zinkevicius
The Invisible Power of Engineering

12:30–13:30 CONFERENCE LUNCH

13:30–15:00 **SESSION 4A**
Chair: Dangirutis Navikas, Electronics
Processing Sorted Subsets in a Multi-Level Reconfigurable Computing System
Artjom Rjabov, Valery Sklyarov, Iouliia Skliarova, Alexander Sudnitson (Portugal, Estonia)
Presenter: Aleksander Sudnitson (Estonia)
Reconnection-less OTA-based Biquad Filter with Electronically Reconfigurable Transfers
Roman Sotner, Jiri Petrzela, Jan Jerabek, Tomas Dostal (Czech Republic)
Presenter: Roman Sotner (Czech Republic)
An Effective Pre-Processing Technique for Robust ESPRIT-Based Single-Tone Frequency Estimation against an I/Q Mismatch
Sangdong Kim, Bong-seok Kim, Daegun Oh, Jonghun Lee (South Korea)
Presenter: Sangdong Kim (Republic of Korea)

A Novel Low Voltage Low Power OTA Based on Level Shifter Current Mirror

Okkes Gokalp Sokmen, Hamdi Ercan, Sezai Alper Tekin, Mustafa Alci (Turkey)

Presenter: Okkes Gokalp Sokmen (Turkey)

Development of a Wireless Low Power Data Logger with High Performance Converter

13:30–15:00 Francisco Javier Quiles, Manuel Ortiz, Andres Gersnoviez, Maria Brox, Alberto Olivares, Peter Glosekotter (Spain, Germany)

Presenter: Maria Brox Jimenez (Spain)

New Current-Mode Class 1 Frequency-Agile Filter for Multi Protocol GPS Application

Mesut Atasoyu, Bilgin Metin, Hakan Kuntman, Norbert Herencsar (Turkey, Czech Republic)

Presenter: Bilgin Metin (Turkey)

15:00–15:30 COFFEE BREAK

SESSION 5A

Chair: Saulius Japertas, Telecommunications Engineering

Measurement of Switching Latency in High Data Rate Ethernet Networks

Tomas Hegr, Miroslav Voznak, Milos Kozak, Leos Bohac (Czech Republic)

Presenter: Miroslav Voznak (Czech Republic)

Signal Propagation Model for Microcells at 900 MHz Frequency Range

Saulius Japertas, Karolis Pilipavicius, Janarthanan Dilip (Lithuania)

Presenter: Saulius Japertas (Lithuania)

15:30–17:00 **Performance of Two-Hop DS-CDMA Systems Using Amplify-and-Forward Protocol over Different Fading Channels**

Nuri Kapucu, Mehmet Bilim, Ibrahim Develi (Turkey)

Presenter: Nuri Kapucu (Turkey)

The Impact of Packet Loss on Quality of H.264/AVC Video Streaming

Sarunas Paulikas, Darius Gursnys, Aurimas Anskaitis, Arunas Saltis (Lithuania)

Presenter: Aurimas Anskaitis (Lithuania)

Dual-Hop N-Relay Assisted Transmission for IDMA Systems over Weibull Fading Channels

Mehmet Bilim, Nuri Kapucu, Ibrahim Develi (Turkey)

Presenter: Mehmet Bilim (Turkey)

- 15:30–17:00 **Design and Simulation of a Multihoming-Based Inter-System Handoff Scheme in NEMO**
 Shayla Islam, Aisha Hassan Abdalla, Mohamed Hadi Habaebi, Wan Haslina Hassan (Malaysia)
Presenter: Shayla Islam (Malaysia)
- Electromagnetic Compatibility Problems in LTE Mobile Networks 800 MHz Frequency Band**
 Evaldas Stankevicius, Arturas Medeisis, Sarunas Paulikas, Aurimas Anskaitis (Lithuania)
Presenter: Aurimas Anskaitis (Lithuania)

18:00–21:30 WELCOME PARTY

Room B

12:30–13:30 CONFERENCE LUNCH

SESSION 1B

Chair: Ints Mednieks, System Engineering, Computer Technology

- 13:30–15:00 **A New Technique for Optimizing Resource Allocation and Data Distribution in Mobile Cloud Computing**
 Pham Phuoc Hung, Tuan-Anh Bui, Eui-Nam Huh (Belgium, South Korea)
Presenter: Pham Phuoc Hung (South Korea)
- Fault Diagnosis on Bevel Gearbox with Neural Networks and Feature Extraction**
 Tayyab Waqar, Mustafa Demetgul, Cemal Kelesoglu (Turkey)
Presenter: Mustafa Demetgul (Turkey)
- Controlling the Progression of Age-related Macular Degeneration Using the Image Quality Index and the Reference Image**
 Janusz P. Kowalski, Jakub Peksinski, Grzegorz Mikolajczak (Poland)
Presenter: Jakub Peksinski (Poland)
- Analysis of the South Slavic Scripts by Run-Length Features of the Image Texture**
 Darko Brodic, Zoran N. Milivojevic, Alessia Amelio (Serbia, Italy)
Presenter: Darko Brodic (Serbia)

Prediction of the Optical Character Recognition Accuracy Based on the Combined Assessment of Image Binarization Results

13:30–15:00 Piotr Lech, Krzysztof Okarma (Poland)
Presenter: Krzysztof Okarma (Poland)

Classification of Multisensor Images With Different Spatial Resolution

Aivars Lorencs, Ints Mednieks, Juris Sinica-Sinavskis (Latvia)
Presenter: Ints Mednieks (Latvia)

15:00–15:30 COFFEE BREAK

SESSION 2B

Chair: Fevzi Kentli, Renewable Energy

Mathematical Modeling of Two-Axis Photovoltaic System with Improved Efficiency

Fevzi Kentli, Musa Yilmaz (Turkey)
Presenter: Fevzi Kentli (Turkey)

Possibilities to Reduce Cogging Torque of PMSG with Non-Overlapping Concentrated Windings

Baiba Ose-Zala, Vladislav Pugachov (Latvia)
Presenter: Baiba Ose-Zala (Latvia)

A Simpler Single-Phase Single-Stage Grid-Connected PV System with Maximum Power Point Tracking Controller

15:30–17:00 Selim Borekci, Ekrem Kandemir, Ali Kircay (Turkey)
Presenter: Selim Borekci (Turkey)

Efficiency in Centralized DC Systems Compared with Distributed DC Systems in Photovoltaic Energy Conversion

Mehmet Ali Ozcelik, Ahmet Serdar Yilmaz, Selahattin Kucuk, Mehmet Bayrak (Turkey)
Presenter: Mehmet Ali Ozcelik (Turkey)

Multi-Criteria Design Optimization of Ultra Large Diameter Permanent Magnet Generator

Ott Pabut, Martin Eerme, Ants Kallaste, Toomas Vaimann (Estonia)
Presenter: Ott Pabut (Estonia)

Design and Analyze of a Parallel Connection Model for Hybrid Energy Systems

Naki Guler, Sevki Demirbas, Erdal Irmak (Turkey)
Presenter: Naki Guler (Turkey)

18:00–21:30 WELCOME PARTY



Tuesday, 16th June

Room A

SESSION 6A

Chair: Ahmet Bedri Ozer, System Engineering, Computer Technology

Activity Recognition in Adaptive Assistive Systems Using Artificial Neural Networks

Stefan Oniga, Jozsef Suto (Hungary, Romania)
Presenter: Stefan Oniga (Hungary)

Fast Statistical Image Binarization of Colour Images for the Recognition of the QR Codes

Krzysztof Okarma, Piotr Lech (Poland)
Presenter: Krzysztof Okarma (Poland)

Laser Scanner Calibration Dependency

Ago Molder, Olev Martens, Tonis Saar, Raul Land (Estonia)
Presenter: Ago Molder (Estonia)

9:00–10:30

FPGA Implementation of Range Addressable Activation Function for Lattice-Ladder Neuron

Tomyslav Sledevic, Dalius Navakauskas (Lithuania)
Presenter: Tomyslav Sledevic (Lithuania)

Underwater Broadband Acoustic Scattering Modelling Based on FDTD

Shao Jie, Zhao Weisong, Jin Xiangjun, Zhang Xin, Reza Malekian (China, South Africa)
Presenter: Jie Shao (China)

A New Relation Between “Twiddle Factors” in the Fast Fourier Transformation

Jozsef Suto, Stefan Oniga (Hungary)
Presenter: Jozsef Suto (Hungary)

Source Traffic Modeling in WSN for Acoustic Sensing in Reverberant Environment

Nenad B. Cetic, Miroslav V. Popovic, Miodrag M. Djukic, Jelena V. Kovacevic (Serbia)
Presenter: Nenad B. Cetic (Serbia)

10:30–11:00

COFFEE BREAK

SESSION 7A

Chair: Bogdan Miedzinski, Electrical Engineering

Efficient Fault Feature Extraction and Fault Isolation for High Voltage DC Transmissions

Zhixiong Li, Chenxing Sheng, Yuanjing Li, J. Xing, Benyu Su
(P. R. China, Australia, UK)

Presenter: Benyu Su (China)

Simulink Model of Parallel Resonant Inverter with DSP Based PLL Controller

Selim Oncu, Harun Ozbay (Turkey)

Presenter: Selim Oncu (Turkey)

Possibility of Load Balancing in Middle Voltage Network with the Use of Active Power Filter

Marcin Habrych, Grzegorz Wisniewski, Bogdan Miedzinski, Julian Wosik, Artur Kozłowski (Poland)

Presenter: Marcin Habrych (Poland)

11:00–12:30

Reduction of EMI with Chaotic Space Vector Modulation in Direct Torque Control

Mehmet Emin Asker, Ahmet Bedri Ozer, Hasan Kurum (Turkey)

Presenter: Ahmet Bedri Ozer (Turkey)

Research of Condensate Resistance Measurement Using Single-Contact Substrate

Tomas Jukna, Vytenis Sinkevicius, Lina Urbanaviciute, Jonas Valickas (Lithuania)

Presenter: Vytenis Sinkevicius (Lithuania)

Load Flow Computations in Different Coordinate Systems for Power System with UPFC

Tomasz Okon, Kazimierz Wilkosz (Poland)

Presenter: Tomasz Okon (Poland)

A Novel Supply System for Two- Phase Induction Motor by Single Leg Matrix Converter

Branislav Dobrucky, Tomas Laskody, Michal Prazenica (Slovakia)

Presenter: Branislav Dobrucky (Slovak Republic)

12:30–13:30

CONFERENCE LUNCH

SESSION 8A

Chair: Zilvinas Nakutis, Electronic Measurements

13:30–15:00

Wavelet Transform-Based Approach to Defect Identification in Railway Carbon Contact Strips

Slawomir Judek, Leszek Jarzebowicz (Poland)

Presenter: Slawomir Judek (Poland)

Mining Shaft Inspection by Laser Photogrammetry

David Vala, Zdenek Slanina, Wojciech Walendziuk (Czech Republic, Poland)

Presenter: David Vala (Czech Republic)

Evaluation of Pt100 Sensor Deflection Effect during Strain Measurements

Wojciech Walendziuk, Adam Idzkowski, Zdenek Machacek, Zdenek Slanina (Poland, Czech Republic)

Presenter: Wojciech Walendziuk (Poland)

Low-Cost Laboratory Stand for Turbidity Measurements

Lukasz Makowski (Poland)

Presenter: Lukasz Makowski (Poland)

13:30–15:00

Fabrication of Long and Smooth Tungsten Probes for Nano-Manipulation

Xiangning Wang, Xiaojun Liu, Hao Zhao, Ming Chang, Liangzhou Chen (China, Taiwan)

Presenter: Liangzhou Chen (China)

Analysis of Smart Power Sockets Implementation

Zilvinas Nakutis, Marius Saunoris, Darius Jakavicius, Tomas Gecas, Karolis Rudaitis, Ramunas Ramanauskas, Mindaugas Knyva (Lithuania)

Presenter: Zilvinas Nakutis (Lithuania)

15:00–15:30

COFFEE BREAK

SESSION 9A

Chair: Krzysztof Okarma, Signal Technology

Psychological Stress Detection in Speech Using Return-to-Opening Phase Ratios in Glottis

Miroslav Stanek, Milan Sigmund (Czech Republic)

Presenter: Miroslav Stanek (Czech Republic)

15:30–17:00

Multi-Resolution Feature Extraction Algorithm in Emotional Speech Recognition

Ales Zelenik, Zdravko Kacic (Austria, Slovenia)

Presenter: Ales Zelenik (Slovenia)

Assessment of Ultrasound Velocity Application for Chemical Process Monitoring

Linias Svilainis, Alberto Rodríguez, Dobilas Liaukonis, Andrius Chaziachmetovas (Lithuania, Spain)

Presenter: Dobilas Liaukonis (Lithuania)

Acoustic Spectrum Analysis of Genuine and Counterfeit Euro Coins

Alina Gavrijaseva, Olev Martens, Raul Land (Estonia)

Presenter: Alina Gavrijaseva (Estonia)

BoostEMD: an Extension of EMD Method and its Application for Denoising of EMG Signals

15:30–17:00

Robertas Damasevicius, Mindaugas Vasiljevas, Ignas Martisius, Vacius Jusas, Darius Birvinskas, Marcin Wozniak (Lithuania, Poland)

Presenter: Mindaugas Vasiljevas (Lithuania)

Method for EEG Signals Pattern Recognition in Embedded Systems

Aleksandra Kawala-Janik, Mariusz Pelc, Michal Podpora (Poland, United Kingdom)

Presenter: Aleksandra Dagmara Kawala-Janik (Poland)

18:00–21:30

BUS TRIP AND CONFERENCE DINNER

Room B

SESSION 3B

Chair: Miroslav Voznak, Telecommunications Engineering

Multi-Objective Third-party Approach for Service Class Mapping among Multiple Providers in the Internet

Nemanja M. Ninkovic, Bozidar J. Mali, Mirjana D. Stojanovic, Gordana I. Savic (Serbia)

Presenter: Nemanja M. Ninkovic (Serbia)

Calculation of the Key Length for Quantum Key Distribution

9:00–10:30

Miralem Mehic, Marcin Niemiec, Miroslav Voznak (Czech Republic, Poland)

Presenter: Miroslav Voznak (Czech Republic)

Synthesis of Cosecant Linear Antenna Array Pattern using a Novel Modified Invasive Weeds Optimization

El Hadi Kenane, Farid Djahli (Algeria)

Presenter: El Hadi Kenane (Algeria)

A Problem Analysis of RSOA-Based Optical Access

Paulius Tervydis, Ruta Jankuniene (Lithuania)

Presenter: Paulius Tervydis (Lithuania)

A New Wireless Network Scheme for Spectrum Sensing in Cognitive Radio

Serkan Ozbay, Ergun Ercelebi (Turkey)

Presenter: Serkan Ozbay (Turkey)

Assessment of DVB-T Compatibility with LTE in Adjacent Channels in 700 MHz Band

Guntis Ancans, Evaldas Stankevicius, Vjaceslavs Bobrovs (Latvia, Lithuania)

Presenter: Guntis Ancans (Latvia)

GA Based Sensing of Sparse Multipath Channels with Superimposed Training Sequence

Syed Junaid Nawaz, Moazzam I. Tiwana, Mohammad N. Patwary, Noor M. Khan, Mohsin I. Tiwana, Abdul Haseeb (Pakistan, United Kingdom)

Presenter: Junaid Nawaz Syed (Pakistan)

9:00–10:30

10:30–11:00

COFFEE BREAK

SESSION 4B

Chair: Panayiotis Vassilios Frangos, High Frequency Technology, Microwaves

80-dB Microwave Noise from an Avalanche Transistor Circuit

Gytis Mykolaitis, Saulius Kersulis, Skaidra Bumeliene, Arunas Tamasevicius (Lithuania)

Presenter: Gytis Mykolaitis (Lithuania)

Meshed Patch Antenna for Portable UHF Band Radio Communication Devices

Olegs Artamonovs, Guntars Balodis (Latvia)

Presenter: Olegs Artamonovs (Latvia)

11:00–12:30

Investigation of Anisotropic Cylindrical Semiconductor-Dielectric Waveguides

Darius Plonis, Vacius Malisauskas, Andrius Katkevicius (Lithuania)

Presenter: Darius Plonis (Lithuania)

Radiation of a Vertical Dipole over Flat and Lossy Ground Using the Spectral Domain Approach: Comparison of Stationary Phase Method Analytical Solution with Numerical Integration Results

Sotiris Bourgiotis, Ariadni Chrysostomou, Konstantina Ioannidi, Seil Sautbekov, Panayiotis Frangos (Greece, Kazakshtan)

Presenter: Panayiotis Vassilios Frangos (Greece)

Investigation of Phase Delay Dispersion of the Meander Lines using Hybrid Technique

Antanas Gurskas, Audrius Krukonis, Vytautas Urbanavicius (Lithuania)

Presenter: Audrius Krukonis (Lithuania)

Development of Meandered Stripline-Fed Dualband Patch Antenna for WLAN/WiMAX

11:00–12:30

Mohammad Tariqul Islam, Rabah Wasel Aldhaheri, Md Rezwanul Ahsan, Muntasir Mohammad Sheikh, Mohammad Habib Ullah (Malaysia, Saudia Arabia)

Presenter: M. R. Ahsan (Malaysia)

An Octave Bandwidth Metamaterials-Based Hexagonal Patch Antenna

Dong Sik Woo, Cherl-Hee Lee, Kang Wook Kim, Hyun-Chul Choi (South Korea)

Presenter: Cherl-Hee Lee (South Korea)

12:30–13:30

CONFERENCE LUNCH

SESSION 5B

Chair: Norbert Herencsar, Electronics

Voltage-Mode CFTA-C Third-Order Elliptic Low-Pass Filter Design and Optimization Using Signal Flow Graph Approach

Norbert Herencsar, Jaroslav Koton, Jiun-Wei Horng, Kamil Vrba, Martin Venclovsky (Czech Republic, Taiwan)

Presenter: Jaroslav Koton (Czech Republic)

Optimization of the Ultrasonic Pulse Trains Excitation Signals: Initial Study

13:30–15:00

Linus Svilainis, Arturas Aleksandrovas (Lithuania)

Presenter: Arturas Aleksandrovas (Lithuania)

Implementation of Duplicate TRNG on FPGA by Using Two Different Randomness Source

Taner Tuncer (Turkey)

Presenter: Taner Tuncer (Turkey)

Microsecond Electroporator Optimization for Parasitic Load Handling and Damping

Vitalij Novickij, Voitech Stankevic, Audrius Grainys, Jurij Novickij, Sonata Tolvaisiene (Lithuania)

Presenter: Vitalij Novickij (Lithuania)

Serial-Parallel IGBT Connection Method Based on Overvoltage Measurement

Lubos Streit, Dusan Janik, Jakub Talla (Czech Republic)

Presenter: Lubos Streit (Czech Republic)

Research of Magnetic Field Detection Disturbances

Vytautas Markevicius, Dangirutis Navikas, Mindaugas Zilyus, Algimantas Valinevicius, Darius Andriukaitis, Mindaugas Cepenas (Lithuania)

Presenter: Mindaugas Cepenas (Lithuania)

Study of the Effect of the Base Layer Doping on the Thin Film Solar Cells' Performance

Mahfoud Abderrezek, Mohamed Fathi, Mohamed Ayad, Farid Djahli (Algeria)

Presenter: Mahfoud Abderrezek (Algeria)

13:30–15:00

15:00–15:30

COFFEE BREAK

SESSION 6B

Chair: Jaroslav Koton, Automation, Robotics

Incorporation of Neural Network to HPMHT for Tracking Multiple Targets

Ilke Turkmen, Harun Celik (Turkey)

Presenter: Harun Celik (Turkey)

Applications of Direct Lyapunov Method in Caputo Non-Integer Order Systems

Jerzy Baranowski, Marta Zagorowska, Waldemar Bauer, Tomasz Dziwinski, Pawel Piatek (Poland)

Presenter: Tomasz Dziwinski (Poland)

15:30–17:00

Smart Robot Arm Motion Using Computer Vision

Bilal Iscimen, Huseyin Atasoy, Yakup Kutlu, Serdar Yildirim, Esen Yildirim (Turkey)

Presenter: Yakup Kutlu (Turkey)

HIL Simulator of Drives of an Industrial Robot with 6 DOF

Viliam Fedak, Frantisek Durovsky, Robert Uveges, Karol Kyslan, Milan Lacko (Slovak Republic)

Presenter: Karol Kyslan (Slovakia)

Non-Linear Control Law for Articulated Serial Manipulators: Simulation Augmented with Hardware Implementation

Muhammad Imran Ullah, Syed Ali Ajwad, Muhammad Irfan, Jamshed Iqbal (Pakistan)

Presenter: Jamshed Iqbal (Pakistan)

15:30–17:00 **A Novel Intelligent Optimization Algorithm Inspired from Circular Water Waves**
Muhammed Emre Colak, Asaf Varol (Turkey)
Presenter: Muhammed Emre Colak (Turkey)

18:00–21:30 BUS TRIP AND CONFERENCE DINNER

 **Wednesday, 17th June**

Room A

SESSION 10A

Chair: Jozef Ritonja, Electrical Engineering

Improving Control Dynamics of PMSM Drive

Leszek Jarzebowicz, Artur Opalinski, Maciej Cisek (Poland)

Presenter: Leszek Jarzebowicz (Poland)

Cost-Effective Solution of Input Voltage Stabilizer of Auxiliary Drive Converter for Traction Vehicles

Jan Stepanek, Martin Jara, Pavel Drabek (Czech Republic)

Presenter: Jan Stepanek (Czech Republic)

Self-Tuning Control for Synchronous Machine Stabilization

Jozef Ritonja (Slovenia)

Presenter: Jozef Ritonja (Slovenia)

9:30–11:00

Novel Control Strategy of Single Matrix Traction Converter – Variable Switching Frequency

Bedrich Bednar, Vojtech Blahnik, Pavel Drabek, Martin Pittermann (Czech Republic)

Presenter: Bedrich Bednar (Czech Republic)

Predictive Control of Grid-Connected Multilevel Inverter with Output LCL Filter

Marek Pastor, Jaroslav Dudrik (Slovakia)

Presenter: Marek Pastor (Slovakia)

Distributed Measurement System with GPS Synchronisation and its use in Electric Traction

Roman Hrbac, Vaclav Kolar, Tomas Mlcak (Czech Republic)

Presenter: Vaclav Kolar (Czech Republic)

11:00–11:30 COFFEE BREAK

SESSION 11A

Chair: Reza Malekian, Electronics

Control of Grid Connected Modular Multilevel Converter

Vojtech Blahnik, Tomas Kosan, Jakub Talla (Czech Republic)

Presenter: Vojtech Blahnik (Czech Republic)

Deeper-Layer Body Tissue Temperature Control Using Multi-Sensory Transducer

Audrone Dumciene, Saule Sipaviciene (Lithuania)

Presenter: Audrone Dumciene (Lithuania)

Heterogeneous Networks for Smart Metering – Power Line and Radio Communication

Petr Mlynek, Jiri Misurec, Radek Fujdiak, Zdenek Kolka, Ladislav Pospichal (Czech Republic)

Presenter: Petr Mlynek (Czech Republic)

11:30–12:30 **Power Optimization in a Non-Coordinated Secondary Infrastructure in a Heterogeneous Cognitive Radio Network**

Tauseef Ahmed, Yannick Le Moullec (Estonia)

Presenter: Tauseef Ahmed (Estonia)

A Novel Smart ECO Model for Energy Consumption Optimization

Reza Malekian, Dijana Capeska Bogatinoska, Aleksandar Karadimce, Jasna Trengoska, William Asiama Nyako (South Africa, Republic of Macedonia)

Presenter: Reza Malekian (Republic of South Africa)

Simple Resistor-less Generator Utilizing Z-copy Controlled Gain Voltage Differencing Current Conveyor for PWM Generation

Jan Jerabek, Roman Sotner, Tomas Dostal, Kamil Vrba (Czech Republic)

Presenter: Jan Jerabek (Czech Republic)

12:30–13:30 CONFERENCE LUNCH

13:30–14:15 ELECTRONICS 2015 CLOSING SESSION

Room B

SESSION 7B

Chairs: Algimantas Valinevicius, Darius Andriukaitis,
Closed Meeting

9:30–11:00

**Editorial Board Meeting of the Research Journal of
Elektronika ir Elektrotechnika**

11:00–11:30

COFFEE BREAK

SESSION 8B

Chairs: Algimantas Valinevicius, Darius Andriukaitis,
Closed Meeting

11:30–12:30

**Editorial Board Meeting of the Research Journal of
Elektronika ir Elektrotechnika**

12:30–13:30

CONFERENCE LUNCH

13:30–14:15

ELECTRONICS 2015 CLOSING SESSION IN ROOM A



Notes

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