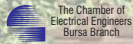




ELECO 2015

**9th International Conference on
Electrical and Electronics Engineering**

**26-28 November 2015
Bursa - TURKEY**



Uludag University
Faculty of Engineering and Architecture
Department of Electrical and
Electronics Engineering



Istanbul Technical University
Faculty of Electrical and
Electronics Engineering



The Scientific And
Technological
Research Council of Turkey



IEEE REGION 8
Europe, Middle East, Africa
IEEE Turkey Section CAS Chapter



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*“Peace at home
Peace in the world”*

K. Atatürk



ELECO® 2015

9th International Conference on Electrical and Electronics Engineering



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Department of Electrical and
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www.eleco.org.tr - eleco@emo.org.tr



Dear Colleagues

Dear Colleagues,

Welcome to ELECO 2015 Conference, the 9th International Conference on Electrical and Electronics Engineering, to be held on 26–28 November 2015, in Bursa-Turkey.

On behalf of the Organizing Committee of ELECO 2015, I would like to thank to all contributors for their valuable papers which are presented in this conference proceeding. Conference papers are the results of extensive analytical, experimental and computational works. In this respect, we should congratulate them for their success since every paper has been carefully reviewed by the international referees.

ELECO conferences are organized as international conferences in odd numbered years and as national conferences in even numbered years. As such, ELECO 2015 is the 9th international conference. ELECO 2015 aims to bring together researchers from many countries, serves as a forum for electrical, electronics engineers and scientists in academia and industry to present their works and to share their experiences in the area of electrical and electronics engineering. ELECO Conferences are jointly organized by Uludag University, Istanbul Technical University (ITU) and the Chamber of Turkish Electrical Engineers (EMO) Bursa Branch. The IEEE Region 8, IEEE Circuits and Systems (CAS) Turkey section and The Scientific and Technological Research Council of Turkey are co-sponsors of ELECO.

Taking the broad scope of the technical program, it is probably the largest electrical and electronics engineering conference ever held in Turkey. The scope of the conference covers topics ranging over electric power systems, electrical machines and drives, power electronics, high voltage techniques, electrical materials, electronics, circuits and systems, signal processing, electromagnetics, antennas and propagation, microwave theory, communication systems, mechatronics, control theory, control applications, automation

systems, robotics and intelligent control systems. In addition, I'm proud of announcing that ELECO 2015 is the largest ELECO conference ever held. This year, 400 papers have been submitted to ELECO 2015 at the beginning, approximately 40 papers were eliminated before the evaluation phase because they are submitted only as abstracts. Remaining 360 papers were evaluated by the reviewers; according to review reports 189 papers have been accepted for oral and 83 papers for poster presentations. If we look at the contributions with respect to geographical point of view, it is seen that ELECO 2015 contributions are coming from 25 different countries from five continents. 255 reviewers from 23 different countries evaluated the papers submitted to the conference.

The program of ELECO 2015 will include eight focused invited talks held by selected experts in their research area. Special thanks to our invited speakers for their contributions!

The conference venue is Bursa, which is one of the most popular historical and touristic cities in Turkey. Uludag, a top skiing resort, is in one hour driving distance. There are a number of thermal water springs and Roman Baths in the city. History of Bursa goes back to BC period. City was influential during West Roman Empire which last until 13th century. It had the most prosperous period when it was capital of Ottoman Empire in the 14-15th centuries. Bursa is not only famous with its natural beauty and history, but also important with its industry. It was traditionally a silk and textile town, now hosting to automotive, machine tool, chemical, food, electronics and software industries. I hope this conference would contribute to the science and technology, and also promote the understanding and friendship between the scientist and engineers gathered from various countries.

Prof. Dr. H. Hakan KUNTMAN
Chairman, ELECO 2015

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Thursday, 26 November 2015	Hours			
	09:00 10:15	Opening Ceremony	Conference Registration	
	10:15 10:30	The Scientific Journal of EMO on Electrical, Electronics, Biomedical and Computer Engineering		
	10:30 11:30	Opening Presentation Selected Emerging Technologies in the World and Technology State of Turkey Siddik B. Yarman Istanbul University, Turkey		
	11:30 12:15	ROOM EE	ROOM ART	
		Invited Talk Do Communication Engineers Need Circuit Theory? Prof. Josef A. Nossek Technische Universitaet Muenchen	Invited Talk Smart Grids for Smart Cities Prof. Carlo Alberto Nucci University of Bologna	
	12:15 13:00	Lunch		
	13:00 13:45	ROOM EE	ROOM ART	ROOM ACC
Invited Talk The Challenges and Opportunities for the Characterisation of Quantifying Stochastic Electromagnetic Fields Prof. Dave Thomas University of Nottingham		Invited Talk Safe and Secure Parking in Smart Cities Prof. Yorgos J. Stephanedes University of Patras	Invited Talk CAD Tools for Circuits and Systems Prof. Franco Maloberti Pavia University	

ELECO 2015 CONFERENCE PROGRAM



Thursday, 26 November 2015	Hours						
	13:45 14:00	Coffee Break					
	14:00 15:30	ROOM EE	ROOM ART	ROOM ACC	ROOM CE	ROOM BAOB	ROOM ME
		Session LA1 Electronics 1	Session LB1 Signal Processing 1	Special Session Automation Systems for Smart Grids	Session LD1 Energy Sources and Power Markets	Session LE1 Intelligent Systems 1	An IEEE CASS Outreach Project Special Session on New Directions in EE Education and the Position of CAS Courses
	15:30 15:45	Coffee Break					
	15:45 17:15	Session LA2 Electronics 2	Session LB2 Signal Processing 2	Session LC1 Electric Vehicles	Session LD2 Induction Motors	Session LE2 Intelligent Systems 2	
18:00 20:00	Cocktail Party						
Friday, 27 November 2015	09:00 09:45	ROOM EE			ROOM ART		
		Invited Talk Reliability and Operational Performance of Electric Power Systems Incorporating an Increased Penetration of Renewable Energy Sources and Storage Facilities Prof. Evangelos Dialinas National Technical University of Athens			Invited Talk Advances made in the Simulation of Floating Impedances using Modern Electronic Circuit Building Blocks Prof. Raj Senani Netaji Subhas Institute of Technology		
	09:45 10:00	Coffee Break					
	10:00 11:30	ROOM EE	ROOM ART	ROOM ACC	ROOM CE	ROOM BAOB	POSTER HALL
	Special Session Advances in Analog Signal Processing 1	Session LB3 Image Processing	Session LC2 Solar Power	Session LD3 Electric Machines 1	Session LE3 Communication Theory & System 2	Session P1 Poster Session	

ELECO 2015 CONFERENCE PROGRAM



Hours							
Friday, 27 November 2015	11:30 11:45	Coffee Break					
		ROOM EE	ROOM ART	ROOM ACC	ROOM CE	ROOM BAOB	POSTER HALL
	11:45 13:15	Special Session Advances in Analog Signal Processing 2	Session LB4 Communication Theory & System 1	Session LC3 Wind Power	Session LD4 Electric Machines 2	Session LE4 Digital Systems	Session P2 Poster Session
	13:15 14:00	Lunch					
	14:00 18:00	Social Events Iznik Tour - Tirilye Tour Golyazi Tour - Bursa City Tour					
Saturday, 28 November 2015		ROOM EE	ROOM ART	ROOM ACC	ROOM CE	ROOM BAOB	POSTER HALL
	09:00 10:30	Session LA3 High Frequency Circuits	Session LB5 Electromagnetics	Session LC4 Electric Power Distribution Systems	Session LD5 PE-Converters	Session LE5 Control Theory 1	Session P3 Poster Session
	10:30 10:45	Coffee Break					
	10:45 12:15	Session LA4 Sensors and instrumentation	Session LB6 Microwave 1	Session LC5 Power System Protection and High Voltage Engineering	Session LD6 EM and PE Applications	Session LE6 Control Theory 2	Session P4 Poster Session
12:15 13:00	Lunch						

ELECO 2015 CONFERENCE PROGRAM

Hours							
		ROOM EE	ROOM ART	ROOM ACC	ROOM CE	ROOM BAOB	POSTER HALL
Saturday, 28 November 2015	13:00 14:30	Session LA5 Biomedical Electronics	Session LB7 Microwave 2	Session LC6 Power System Optimization		Session LE7 Control Theory 3	Session P5 Poster Session
	14:30 14:45	Coffee Break					
	14:45 16:15		Session LB8 Antennas			Session LE8 Control Theory 4	
	17:00 17:30	Closing Ceremony					

- Room EE** Conference Hall of The Chamber of Electrical Engineers
- Room ART** Conference Hall of The Chamber of Architects of Turkey
- Room ACC** Conference Hall of The Chamber of Certified Public Accountants
- Room CE** Conference Hall of The Chamber of Civil Engineers
- Room ME** Conference Hall of The Chamber of Mechanical engineers
- Room BAOB** Conference Hall of The Bursa Academic Chambers Union

Social Events

A social program including touristic visits and sightseeing will be available to ensure that delegates have the opportunity to meet each other informally for the exchange of views and information.



BAOB AUDITORIUM

Opening Presentation

Selected Emerging Technologies in the World and Technology State of Turkey

Thursday, 26 November 2015

10:15 - 11:15

Siddik B. Yarman

Istanbul University, Turkey

ROOM EE

INVITED TALK

**Do Communication Engineers
Need Circuit Theory?**

Thursday, 26 November 2015

11:30 - 12:15

Prof. Josef A. Nossek

Technische Universitaet Muenchen

ROOM ART

INVITED TALK

Smart Grids for Smart Cities

Thursday, 26 November 2015

11:30 - 12:15

Prof. Carlo Alberto Nucci

University of Bologna

ROOM ACC

INVITED TALK

**The Challenges and Opportunities for the
Characterisation of Quantifying
Stochastic Electromagnetic Fields**

Thursday, 26 November 2015

13:00 - 13:45

Prof. Dave Thomas

University of Nottingham

ROOM CE

INVITED TALK

Safe and Secure Parking in Smart Cities

Thursday, 26 November 2015

13:00 - 13:45

Prof. Yorgos J. Stephanedes

University of Patras

ROOM BAOB

INVITED TALK

CAD Tools for Circuits and Systems

Thursday, 26 November 2015

13:00 - 13:45

Prof. Franco Maloberti

Pavia University



ROOM EE

Session LA1

Electronics 1

Thursday, 26 November 2015

14:00-15:30

Session Chairman: Munir Al-Absi
King Fahd University

134. Design and Comparison of High Bandwidth Limiting Amplifier Topologies
Umüt Yilmazer, Caglar Yilmazer, Ali Tokar

Turkey

32. A New Fast and Accurate Current-Mode Folding Amplifier

Mohanad Elhassan, Sagar Dhar, Munir Al-absi, Muhammad Abuelma'atti
Saudi Arabia

311. A Low Power, Low Noise Neural Amplifier, Using Bulk-driven Cascode
Current Mirror Load

Noushin Ghaderi, Sayed-Mahdi Kazemi-Ghahfarokhi
Iran

281. A CCII-Based Relaxation Oscillator as a Versatile Interface for Resistive
and Capacitive Sensors

Shahid Malik, Tarikul Islam, Shaikh Ali Akbar
India

ROOM ART

Session LB1

Signal Processing 1

Thursday, 26 November 2015

14:00-15:30

Session Chairman: Mustafa Ulutaş
Karadeniz Technical University

73. Early Detection Of Defect In Gear Systems Using Autocorrelation Of
Adaptive Morlet Wavelet Transforms

**Mouloud Ayad, Mouhamed Rezki, Kamel Saoudi, Abderrazak Arabi,
Mourad Benziane, Djamel Chikouche**
Algeria

107. A Novel Keypoint Based Forgery Detection Method Based on Local
Phase Quantization and SIFT

**Beste Ustubioglu, Gul Muzaffer, Guzin Ulutas, Vasif Nabiyeve, Mustafa
Ulutas**
Turkey

310. Efficient Mixed Implementation Method for Audio Source Tracking
Issa Jaafar, Jarvis Tirk

Canada

339. Head Rotation Classification Using Dense Motion Estimation and
Particle Filter Tracking

Filiz Gurkan, Bilge Gonsel, Deniz Kumlu
Turkey

132. Rotation Invariant Copy Move Forgery Detection Met hod
Emre Gurbuz, Guzin Ulutas, Mustafa Ulutas

Turkey



ROOM ACC

Special Session

Automation Syst. for Smart Grids

Thursday, 26 November 2015

14:00-15:30

Session Chairman: Aydogan Ozdemir

Istanbul Technical University

40. Cooperation scheme between KNX and a microgrid control system for enhanced demand-side management

Dimitrios Stimoniaris, Theofano Kollatou, Dimitrios Tsiamitros, Vasileios Kikis, Stylianos Asimonis, Mustafa Alparslan Zehir, Alp Batman, Mustafa Bagriyanik, Aydogan Ozdemir, Evangelos Dialynas
Greece, Turkey

156. Development of a Field Data-based Virtual Test Bed for Microgrid Integration of Building Automation Technologies

Mustafa Alparslan Zehir, Alp Batman, Mehmet Ali Sonmez, Aytug Font, Mustafa Bagriyanik, Aydogan Ozdemir, Dimitrios Tsiamitros, Dimitrios Stimoniaris, Theofano Kollatou, Evangelos Dialynas
Turkey, Greece

98. A Building Automation System Demonstration

Selahattin Gokceli, Halim Bahadir Tugrel, Sinem Pisirgen, Gunes Karabulut Kurt, S. Berna Ors
Turkey

350. Demand Response: A Way to Balance Production and Consumption of Energy for Turkey

Nurettin Besli, Yilmaz Dagtekin
Turkey

ROOM CE

Session LD1

Energy Sources and Power Markets

Thursday, 26 November 2015

14:00-15:30

Session Chairman: Mustafa Bagriyanik

Istanbul Technical University

34. Analysis of Electricity Price In The Turkish Domestic Energy Market

Alisan Ayvaz, Okan Ozgonenel, Birsen Boylu
Turkey

114. Citizens' Opinions About Nuclear Power Plants

Mustafa Ozcan
Turkey

90. Determination of Regional Transmission Connection Capacities in a Deregulated Environment

Ali Haydar Guvercinci, Sinan Eren, Yusuf Yanik, Ozgur Tanidir
Turkey

332. Design and Implementation Of Smart Wireless Street Lighting System With Ad-Hoc Network Configuration

Gunawan Wibisono, Achmad Bayhaki
Indonesia

29. A low pressure Organic Vapor Phase Deposition

Mehdi Azadmehr, Truls R. Aagaard, Andre Vike, Richard Tjosvoll, David Gordon
Norway

ROOM BAOB

Session LE1

Intelligent systems 1

Thursday, 26 November 2015

14:00-15:30

Session Chairman: Ece Olcay Günes
Istanbul Technical University

113. Distance Estimation using Stereo Vision for Indoor Mobile Robot Applications

Serdar Solak, Emine Dogru Bolat
Turkey

169. A New Emigrant Creation Strategy For Parallel Artificial Bee Colony Algorithm

Dervis Karaboga, Selcuk Aslan
Turkey

368. Seminal Quality Prediction using Optimized Artificial Neural Network with Genetic Algorithm

Azam Asilian Bidgoli, Hossein Ebrahimpour-Komleh, Seyed Jalaeddin Mousavirad
Iran

64. Fish Freshness Testing with Artificial Neural Networks

Ayten Atasoy, Umit Ozsandikcioglu, Selda Guney

Turkey

112. Emphysema Discrimination from Raw HRCT Images by Convolutional Neural Networks

Esra Mahsereci Karabulut, Turgay Ibrikli
Turkey

ROOM ME



An IEEE CASS Outreach Project

Invited Session on New Directions in EE Education and the Position of CAS Courses

Thursday, 26 November 2015

14:00-15:30

Session Chairman: I. Cem Goknar
Dogus University

Circuit Theory as Basis for Physically Consistent Modeling of Communication Systems

Joseph A. Nossek

On the Teaching of the Axiomatics of Lumped Physical Systems

Vedat Tavsanoğlu

University for the Knowledge Age

Franco Maloberti

Project Based Learning to Increase Interest and Produce Highly Skilled Graduates in Engineering

Cuneyt Guzelis

On the Modeling of Electron Devices: concept, accuracy criterion with application examples, importance in EE education

H.Hakan Kuntman

ROOM EE

Session LA2 Electronics 2

Thursday, 26 November 2015
15:45-17:15

Session Chairman: Milan Stork
University of West Bohemia, Pízen

258. Fractional Order Two-Port Network Oscillators Based on Single Non-Zero Transmission Matrix Element

Lobna Said, Ahmed Radwan, Ahmed Madian, Ahmed Soliman
Egypt

342. Voltage controlled oscillator

Milan Stork, Petr Weissar, Kamil Kosturik
Czech Republic

119. Pulse Width Modulation with Frequency Changing

Milan Stork, Petr Weissar, Kamil Kosturik
Czech Republic

335. Modulator Based on Electronic Change of Phase Shift in Simple Oscillator

Roman Sotner, Aslihan Kartci, Jan Jerabek, Norbert Herencsar, Jiri Petrzela
Czech Republic

97. Reduction of coupling capacitance, using a capacitor-transistor coupling circuit

Majid Eslami Farsani , Noushin Ghaderi
Iran



ROOM ART

Session LB2 Signal Processing 2

Thursday, 26 November 2015
15:45-17:15

Session Chairman: Aydın Akan
Istanbul Technical University

211. Detection of ECG beat using ensemble empirical mode decomposition

Dhouha Rezgui, Zied Lachiri

Tunisia

74. 3D Pose Estimation for Laparoscopic Instruments: A Single Camera and a Planar Mirror Approach

Erdal Dayak, Ulus Cevik

Turkey

312. New Models for Telemetry System to Measure the Pressure Characteristics of Gastrointestinal Tract

Issa Jaafar, Hayder J Essa

Canada, Iraq

247. New Methods of Density Estimation for Vehicle Traffic

Fevzi Yasin Kababulut, Damla Kuntalp, Timur Duzenli

Turkey

176. Source Microphone Identification Using Multitaper MFCC Features

Omer Eskidere, Ali Karatutlu

Turkey

ROOM ACC

Session LC1

Electric Vehicles

Thursday, 26 November 2015
15:45-17:15

Session Chairman: Serhat Seker
Istanbul Technical University

347. Distributed Storage Capacity Modelling of EV Parking Lots
Sitki Guner, Aydogan Ozdemir

Turkey

118. Examination of EV-Grid Integration Using Real Driving and Transformer Loading Data

Fatih Erden, Mithat C. Kisacikoglu, Ozan H. Gurec

Turkey

355. Performance Analysis of Optimal Online and Delayed Charging of Plug-in Electric Vehicles

Somayeh Hajforoosh, Mohammad Ali Sherkat Masoum, Syed Islam
Australia

316. Impact of EV Charging Strategies on Peak Demand Reduction and Load Factor Improvement

Ahmet Dogan, Murat Kuzlu, Manisa Pipattanasomporn, Saifur Rahman, Tankut Yalcinoz

Turkey, United States

407. On the Optimum Powertrain Configuration of Fuel Cell Powered Vehicle for Minimum Hydrogen Consumption

Gurcan Sari, Yasin Ozcelep, Ayten Kuntman

Turkey

ROOM CE

Session LD2

Induction Motors

Thursday, 26 November 2015
15:45-17:15

Session Chairman: Derya Ahmet Kocabas
Istanbul Technical University

299. Design and Optimization of an Axially-Slitted High-Speed Solid Rotor Induction Motor

Ahmet Hakan OGUZ, Mehmet Onur GULBAHCE, Derya Ahmet KOCABAS
Turkey

141. Speed Sensorless Direct Torque Control for Three-Level Diode-Clamped Inverter Fed Induction Motor Using Adaptive Flux Observer

Mehmet Ali Usta, Halil Ibrahim Okumus, Selcuk Guven, E. Selin Durak
Turkey

402. Novel Rotor Design for High-Speed Solid Rotor Induction Machines

Daniel Tunc Mcguiness, Mehmet Onur Gulbahce, Derya Ahmet Kocabas
Turkey

401. Performance Comparison of Different Rotor Types for High-Speed Induction Motors

Daniel Tunc Mcguiness, Mehmet Onur Gulbahce, Derya Ahmet Kocabas
Turkey

409. Design and Finite Element Analysis of a Radial-Flux Salient-Pole Eddy Current Brake

Ali Sinmaz, Mehmet Onur Gulbahce, Derya Ahmet Kocabas
Germany, Turkey



ROOM BAOB

Session LE2

Intelligent systems 2

Thursday, 26 November 2015

15:45-17:15

Session Chairman: Neyir Ozcan Semerci
Uludag University

142. PeTraLi: A Simulation for The Observation of Drivers' Experiences Assisted Personal Traffic Lights

Caglayan Sever, Kader Nikbay, Bekir Tefvik Akgun

Turkey

307. Random Forest Based Diagnosis Approach For Rail Fault Inspection In Railways

Yunus Santur, Mehmet Karakose, Erhan Akin

Turkey

337. Moving Object Tracking Within Surveillance Video Sequences Based On EDContours

Gokhan Ciplak, Sedat Telceken

Turkey

18. On Achieving Reachability Paths of Petri nets

Hanife Apaydin Ozkan

Turkey

236. Optimized Design of Fractional-Order PID Controllers for Autonomous underwater vehicle Using Genetic Algorithm

Nastaran Radmehr, Hamed Kharrati, Navid Bayati

Iran

ROOM EE

Invited Talk

**Reliability and Operational Performance of Electric Power Systems
Incorporating an Increased Penetration of Renewable Energy Sources and
Storage Facilities**

Friday, 27 November 2015

09:00 - 09:45

Prof. Evangelos Dialinas

National Technical University of Athens

ROOM ART

Invited Talk

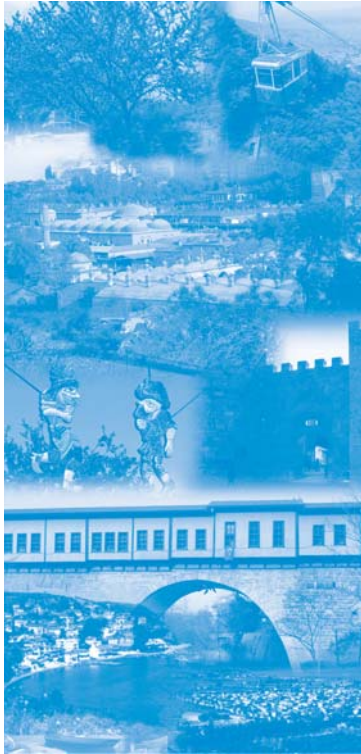
**Advances made in the Simulation of Floating Impedances using Modern
Electronic Circuit Building Blocks**

Friday, 27 November 2015

09:00 - 09:45

Prof. Raj Senani

Netaji Subhas Institute



BURSA

Bursa was the capital of the Ottoman Empire between 1326 and 1365. The mausoleums of the early Ottoman sultans are located in Bursa and the city's main landmarks include numerous edifices built throughout the Ottoman period. Bursa also has thermal baths and several museums, including a museum of archaeology. The shadow play characters Karagöz and Hacivat are based on historic personalities who lived and died in Bursa. Bursa is also home to some of the most famous Turkish dishes such as İskender kebab, specially candied marron glacés, peaches and Turkish delight. The historic towns of İznik (Nicaea), Mudanya and Zeytinbağı are all situated in the Province of Bursa.

Bursa is a picturesque city located in the foothills of Mount Uludag amidst green countryside and forest. Mount Uludag is Turkey's ski resort and a wonderful place to visit all year round. Bursa is a highly developed industrial city including textile and automotive companies.



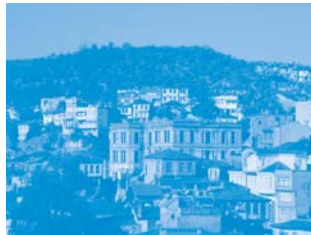
GOLYAZI

Golyazi was founded on a coast of a small peninsula of a Lake Uluabat (Apolyont) about 41 km away from City Bursa. Its history goes up to Roman Time and it's possible to see the trace of Roman Time at base stones of houses. It bears geographical and historical features. It's known as the center of Apollonian Kingdom.



İZNIK

The magical city İznik is one of most important tourism centres of Bursa. İznik is a mystical city that serves as a capital to many states like; Anatolian Seljuk State (1075-1097), Byzantine (1204-1261), and Ottoman State (1331-1335). Two Christian Consuls were held in İznik. The first one is the Consul in the year 325 where the Christian credo was defined. Therefore in 1962, İznik was announced as the third holy city of Christianity after Jerusalem and Vatican City in the 19th Consul held in Vatican City. Thus, the importance of İznik regarding the belief tourism, gradually increases.



TİRİLYE

Tirilye is a town in Bursa Province and situated 12 km in the west of Mudanya. The area which was inhabited since 5th Century BC. Tirilye had been an important religious center for Greek Orthodox Christians for a long time. Tirilye is a first level protected area since 1980 because of the Byzantine and Ottoman architectural monuments and it is considered as an open-air museum thanks to the historical buildings and houses.



ROOM EE

Special Sessions

Advances in Analog Signal Processing 1

Friday, 27 November 2015

10:00-11:30

Session Chairman: Hakan Kuntman
Istanbul Technical University

130. MOS-Only Third Order Butterworth Filter with DTMOs Tuning Technique for High Frequency Applications

Atilla Uygur, Bilgin Metin, Oguzhan Cicekoglu, H.Hakan Kuntman
Turkey

2. Broad-Band Transimpedance Amplifier TIA in CMOS 0.18 μ m Technology using matching Technique

Jawdat Abutaha, Metin Yazgi
Turkey

140. New Memristor Emulator Circuit Using OTAs And CCIIs

Hasan Sozen, Ugur Cam
Turkey

295. A New Neuron Model Suitable for Low Power VLSI Implementation

Ozgun Erdener, Serdar Ozoguz
Turkey

290. Design Considerations of MOS-Only Allpass Filters

Hacer Yildiz, Ali Toker, Selcuk Kilinc, Serdar Ozoguz
Turkey

ROOM ART

Session LB3

Image Processing

Friday, 27 November 2015

10:00-11:30

Session Chairman: Vedat Tavsanoğlu
Yildiz Technical University

298. Cross Correlation Based Clustering for Feature Selection in Hyperspectral Imagery

Huseyin Cukur, Hamidullah BinoI, Faruk Sukru Uslu, Yusuf Kalayci, Abdullah Bal Turkey

157. Auto-focusing with Multi Focus Color Image Fusion Based on Curvelet Transform on Microscopic Imaging

Hulya Dogan, Selen Ayas, Murat Ekinci Turkey

189. A Comparison of Line Detection Methods for Power Line Avoidance in Aircrafts

Omer Emre Yetgin, Zekeriya Senturk, Omer Nezh Gerek Turkey

291. PDEs-Based Gaussian Noise Removal from Color Images

Sinem Ozdemir, Bekir Dizdaroglu
Turkey

147. Chaotic Digital Image Watermarking Scheme Based on DWT and SVD

Gokcen Cetinel, Llukman Cerkezi Turkey

225. Implementation of 3D Face Construction from a Face Image

Abdullah Taha Arslan, Erol Seke
Turkey



ROOM ACC

Session LC2

Solar Power

Friday, 27 November 2015

10:00-11:30

Session Chairman: Aysen Basa Arsoy
Kocaeli University

171. An Optimal Installation Strategy of Photovoltaic-Based DGs and Capacitors Considering Distributed VAR Support of Photovoltaic Converters
Tohid Sattarpour, Daryoush Nazarpour, Sajjad Golshannavaz Iran

138. Photovoltaic Power from Commercial and Industrial Rooftops – Analysis for Cities of Brimbank and Hobsons Bay in Victoria, Australia
Mark Nuccio, Cagil Ozansoy Australia

187. Sample Criteria for Integration of Solar Plant Systems to Electrical Distribution Network
Nazmiye Kopacak, Musa Aydin Turkey

219. Performance Evaluation of Serhatkoy PV (1.2 MW) Power Plant
Ozgun Cemal Ozerdem, Samuel Nii Tackie, Samet Biricik
Turkey, Ghana

95. Conceptual Design of Solar and Sea Based Renewable Energy Production With Thermoelectric Generator
Ali Ekber Ozdemir, Yavuz Koysal, Tahsin Atalay, Engin Ozbas Turkey

364. A Regression Based Hourly Day Ahead Solar Irradiance Forecasting Model by Labview using Cloud Cover Data
Oguzhan Ceylan, Michael Starke, Phil Irminger, Ben Ollis, Kevin Tomsovic
United States

ROOM CE

Session LD3

Electric Machines 1

Friday, 27 November 2015

10:00-11:30

Session Chairman: Adnan Kaypmaz
Istanbul Technical University

358. Design of Axial Flux Permanent Magnet Generator for Generator Driven Electromagnetic Launches
Ceyhun Sezenoglu, Abdulkadir Balıkcı
Turkey

367. Restarting Schema of Electrical Motors After a Short Out Range Supply Voltage Outages Heavily Loaded Industrial Facilities
Selahattin Küçük, Luis Fernandez Fernandez, Mehmet Bayrak, Ahmet Serdar Yılmaz
Turkey, Spain

181. Optimization of an MHD Pump by Tabu Search Method
K.hadidja Bouali, Fatima Zohra Kadid, Rachid Abdessemed
Algeria

184. 9 Parameters Estimation of an Extended Induction Machine Model Using Genetic Algorithms
Julien Maitre, Bruno Bouchard, Abdenour Bouzouane, Sebastien Gaboury
Canada

ROOM BAOB

Session LE3

Communication Theory 2

Friday, 27 November 2015

10:00-11:30

Session Chairman: Sait Eser Karlik
Uludag University

285. Comparative Analysis of the Effect of Optical Fiber Spin Profiles on Polarization Mode Dispersion
Serif Ali Sadık, Arif Başgümüş, Fırat Ertaç Durak, Sait Eser Karlık, Ahmet Altuncu
Turkey

36. A Novel Digital Frequency De-hopper using Bandpass Sampling Technique
Muhammad Zeeshan, Shoab Ahmed Khan
Pakistan

240. Performance Analysis of MSK Architectures
Mehmet Sonmez, Ayhan Akbal
Turkey

286. Pilot Tone Investigation for Joint Channel Estimation, Equalization, and Demodulation Based on Neural Networks
Mursel Onder, Aydın Akan
Turkey

246. Performance Analysis of C-MRC Technique in DF Based Cooperative System with Co-Channel Interference
Hayri Aslan, Hacı İlhan, Özgür Ozdemir
Turkey



POSTER HALL

Session P1

Friday, 27 November 2015

10:00-11:30

Session Chairman: Jaroslav Koton
Brno University of Technology

86. A Novel High Gain and Low Power Band-Pass Preamplifier using Active Inductor

Zahra Dorostghol, Noushin Ghaderi Iran

122. A Novel Ultra High Speed and Low Power Phase Detector, Using Carbon Nanotube Field Effect Transistor

Noushin Ghaderi, Mahboubeh Alidadi-Shamsabadi Iran

125. Wideband common gate LNA with novel input matching architecture

Sana Arshad, Rashad Ramzan, Qamar-ul Wahab

Pakistan, United Arab Emirates, Sweden

262. Design and Realization of Different Microstrip Low Pass Filter Topologies by aid of AWR Microwave Office iFilter Wizard

Osman Selcuk, Oguzhan Kizilbey Turkey

327. RFT Based Multiband Matching Network Design with Foster Resonance Sections

Serkan Yildiz, Ahmet Aksent, Binboga Siddik Yarman Turkey

365. Design of Third-Order Square-Root-Domain Filters Using State-Space Synthesis Method

Ali Kircay, M. Serhat Keserlioglu, F.Zuhaf Sagi Turkey

208. Low-Cost and Low-Power Video Filtering with Parallel Many Cores

Yilmaz Serhan Gener, Abdullah Yildiz, Sezer Goren Turkey

45. Mixed Lumped and Distributed Element Broadband Equalizer Design
Metin Sengul Turkey

52. Chaos Synchronization of the Fractional Order Time Delay System
Gulten Cetintas, Vedat Celik Turkey

404. Voltage-Mode CFTA-C Fifth-Order Low-Pass Filter Design and Optimization

Jaroslav Koton, Norbert Herencsar, Radka Havlikova, Kamil Vrba, Martin Veclovsky

Czech Republic

58. A High Performance Multiply-Accumulate Unit with Double Carry-Save Scheme for 6-Input LUT Based Reconfigurable Systems

Ugur Cini, Olcay Kurt Turkey

403. Implementation of Enigma Machine Using Verilog on an FPGA
Deniz Engin, S.Berna Ors Turkey

269. Implementation of Two Indoor Localization Algorithms on an FPGA
Onur Azbar, S.Berna Ors, Gunes Karabulut Kurt Turkey

253. A Metamaterial Based Broadband Microstrip Antenna
Huseyin Akcelik, Okan Mert Yuicedag, Erdal Torun, Hasan Kocer Turkey

139. High Frequency Gaussian Beam Interaction With Plasma Medium
Selcuk Alparslan Avci, Erkan Afacan Turkey



ROOM EE

Special Session

Advances in Analog Signal Processing 2

Friday, 27 November 2015

11:45-13:15

Session Chairman: Serdar Ozoguz
Istanbul Technical University

265. MISO Universal Frequency Filter with Dual-Parameter Control of the Pole Frequency

Jan Jerabek, Roman Sotner, Norbert Herencsar, Josef Polak, Jan Dvorak, Jaroslav Koton
Czech Republic

319. A 0.13 μ m CMOS 5-MHz BW 47-dB SNDR All-Digital Time-Mode First-Order Delta-Sigma ADC with 3-bit Gated VCO Quantizer
Guangyu Zhu, Fei Yuan, Gul Khan
Canada

46. MOS only oscillator using adder and subtractor circuits
Merih Yildiz, Cem Goknar, Shahram Minaei
Turkey

19. A New Reconfigurable Filter Structure Employing CDTA For Positioning Systems
Ersin Alaybeyoglu, H.Hakan Kuntman
Turkey

213. A New VDTA Based Frequency Agile Filter
Ersin Alaybeyoglu, H.Hakan Kuntman
Turkey

ROOM ART

Session LB4

Communication Theory 1

Friday, 27 November 2015

11:45-13:15

Session Chairman: Turgay Temel
Bursa Technical University

231. Performance of Multiple-Input Multiple-Output OFDM with Index Modulation
Ertugrul Basar
Turkey

80. Implementation of Pre-FFT Beamforming in MIMO-OFDM
Selahattin Gokceli, Merve Uslu, Gunes Karabulut Kurt, Berna Ozbek, Hakan Alakoca, Mehmet Akif Durmaz
Turkey

100. Performance Analysis of a Multi-antenna Based Cooperative Relaying Scheme over Fading Channels in Spectrum Sharing Environment
Md Fazlul Kader, Soo Young Shin
Republic Of Korea

411. Jitter Estimation and Mitigation in Sub-Nyquist Sampling using Slepian Functions
Hasan Basri Celebi, Lutfiye Durak-Ata
Turkey

186. Optimized Two-piecewise Companding Transform for Peak-to-average Power Ratio Reduction in OFDM Systems
Sana Mazahir, Nida Ishtiaq, Shahzad Amin Sheikh
Pakistan



ROOM ACC

Session LC3

Wind Power

Friday, 27 November 2015

11:45-13:15

Session Chairman: İstemihan Genc
Istanbul Technical University

5. Probabilistic Assessment of Wind Turbine Produced Power by Considering Fluctuations of Temperature and Velocity

Parisa Mohammadalizadeh, Babak Yousefi Khanghah, Farzad M shahir
Iran

251. Grid Connection and Power Quality Optimization of Wind Power Plants
Fikri Baris Uzunlar, Onder Guler, Ozcan Kalenderli
Turkey

363. Hybrid Model for Short Term Wind Speed Forecasting Using Empirical Mode Decomposition and Artificial Neural Network
Emrah Dokur, Mehmet Kurban, Salim Ceyhan
Turkey

150. Optimal Integration of Wind Power Resources in Distribution Networks Considering Demand Response Programs
Saeed Abapour, Alireza Eyvazizadeh Khosroshahi, Amir Farakhor, Mehdi Abapour
Iran

149. Short-term Scheduling of Distribution System Along with Wind Power Generation Considering Energy Storage System
Saeed Abapour, Amir Farakhor, Alireza E. Khosroshahi, Mehdi Abapour
Iran

ROOM CE

Session LD4

Electric Machines 2

Friday, 27 November 2015

11:45-13:15

Session Chairman: Guven Onbilgin
Ondokuz Mayıs University

344. BLDC wheel hub motor and motor controller performance test of a concept electric robotic vehicle in HIL according to real driving characteristics
Mehmed Yuksel, Stefan Losch, Sven Kroffke, Michael Rohn, Frank Kirchner
Germany

324. Performance Investigation of Extended Kalman Filter Based Observer for PMSM Using in Washing Machine Applications
Handan Nak, Mehmet Onur Gulbahce, Metin Gokasan, Ali Fuat Ergenc
Turkey

254. Novel Flux Switching Axial Field Hybrid Excitation Synchronous Machines, Comparison of Serial and Parallel Models
Emin Yildiriz, Guven Onbilgin
Turkey

92. A Novel Designing Approach to Dual Rotor Switched Reluctance Motor Based Electric Vehicles
Majid Aryanezhad, Elahe Ostadaghaee
Iran

ROOM BAOB

Session LE4 Digital Systems

Friday, 27 November 2015

11:45-13:15

Session Chairman: S. Berna Ors Yalcin
Istanbul Technical University

175. New Orthogonalizing Boolean Equation using in the Calculation of Test Patterns for Combinatorial Circuits

Yavuz Can, Georg Fischer

Germany

128. Reliable Address Translation for Instructions

Ismail Kadayif, Bora Ugurlu Turkey

412. A two-input 8-transistor SRAM cell with enhanced noise immunity

Alexander S. Korotkov, Dmitry V. Morozov, Johann Hauer

Russian, Germany

264. An Efficient Low Area Implementation of 2-D DCT on FPGA

Atakan Dogan Turkey

330. Data Hiding Method Using Image Interpolation And Pixel Symmetry

Utku Esen, S. Berna Ors Turkey

266. Pseudo-Random Number Generation Based on Generalized Delayed Logistic Map

Samar Ismail, Lobna Said, Ahmed Radwan, Ahmed Madian, Mohamed Abu-El Yazeed Egypt



POSTER HALL

Session P2

Friday, 27 November 2015

11:45-13:15

Session Chairman:

15. A Hybrid "K-Means, Vss Lms" Learning Method For RBF Network In Short-Term Load Forecasting

Ehsan Mostafapour, Morteza Farsadi, Mehdi Panahi Iran

237. The Assessment of Offshore Wind Power Potential of Turkey

Mehmet Argin, Volkan Yerci Turkey

233. Calculation of Optimum Fixed Tilt Angle of PV Panels Depending on Solar Angles and Comparison of the Results with Experimental Study Conducted in Summer in Bilecik, Turkey

Akif Karafil, Harun Ozbay, Metin Kesler, Huseyin Parmaksiz Turkey

294. Cloud-based Long Term Electricity Demand Forecasting using Artificial Neuro-Fuzzy and Neural Networks

O. Tolga Altinoz, Erhan Mengusoglu Turkey

248. Sahara Solar Breeder Project for Renewable Energy in Algeria

Yahia Miloud, Mohamed Mostefai, Abdellah Miloudi Algeria

60. A Web-based Dispatcher Information System for Electricity Transmission Grid Monitoring and Analysis

Sinan Eren, Dilek Kucuk, Cevdet Unluer, Mehmet Demircioglu, Yusuf Arslan, Sena Sonmez Turkey

390. An Improved Particle Swarm Optimization Method to Optimal Reactive Power Flow Problems

Eren Baharozu, Gurkan Soykan, Ozkan Altay, Ozcan Kalenderli Turkey

199. Evaluation of Parametric and Non-Parametric Methods for Power Curve Modelling of Wind Turbines

Delshad Panahi, Sara Deilami, Mohammad.A.S. Masoum Australia

191. Investigating Voltage Stability Problem in the Electrical Power System Using Gravitational Search Algorithms

Ali Ozturk, Salih Tosun, Selman Alkan, Beytullah Bozali Turkey

164. AVR and PSSs Revisited

Guillermo Castro, Juan Bermudez, Manuel Jimenez, Manuel Alvarez, Alex Arreaza Venezuela, Sweden

200. Pscad Modeling of 154 kV İkitelli-Yenibosna 1-2 Double Circuit Overhead Transmission Line in İstanbul District

Meral Ay, Mehmet Ugras Cuma Turkey

220. Taking Irregular Distribution Of Pollution And Evaporation Coefficient Into Consideration In Determination Of Insulator Surface Leakage Currents

Dursun Ozturk, Mehmet Cebeci Turkey

296. Delay Dependent H_∞ Based Robust Control Strategy for Unified Power Quality Conditioner in a Microgrid

Majid Aryanezhad, Elahe Ostadaghaee Iran

65. Residential Hybrid Solar-Hydrogen Power System Design for A Sustainable Power Management

Gokay BAYRAK, Zehra Ural Bayrak, Muhsin Tunay Gencoglu Turkey

206. Estimation of Online Transmission Line Parameters and Fault Location by Using Different Differential Equation Algorithms

Dogan Yildiz, serap Karagol, Okan Ozgonenel Turkey

400. Integration Criteria of Turkish Wind Energy Generation Plants and Assessment of the Criteria by Analysis

Serhat Uzun, Elif Inan, Levent Ovacik Turkey



ROOM EE

Session LA3

High Frequency Electronics

Saturday, 28 November 2015

09:00-10:30

Session Chairman: Siddik Binboga Yarman
Istanbul Technical University

282. Designing a New High Q Fully CMOS Tunable Floating Active Inductor Based on Modified Tunable Grounded Active Inductor

Hadi Ghasemzadeh Momen, Metin Yazgi, Ramazan Kopru
Turkey

30. Broadband Single Matching with Lumped Elements

Metin Sengul
Turkey

123. A Novel Broadband Compact 3dB 180° Power Divider/Combiner Derived From the Wilkinson Power Divider/Combiner

Oguzhan Kizilbey, Osman Palamutcuogullari, Siddik Binboga Yarman
Turkey

145. Transformerless Bandpass Matching Network Design for Y-Shaped Monopole Antenna

Cagatay Aydin, Dogu Cagdas Atilla, Cahit Karakus, Ramazan Kopru, Siddik Yarman
Turkey

ROOM ART

Session LB5

Electromagnetics

Saturday, 28 November 2015

09:00-10:30

Session Chairman: Dave Thomas
University of Nottingham

366. An Application of High-Power Electromagnetic Pulse: Forming of sheet metal using electromagnetic waves

Gokhan Inanan, Elif Aydin, Besim Baranoglu
Turkey

83. Electrostatic analysis of a short accident in cable trays for intelligent pressure transmitters

Jaeyul Choo, Sangyong Jeong, Hyungtae Kim, Yeongjin Yu, Hyunshin Park, Choongheui Jeong
Republic of Korea

162. A Novel Numerical Method for Evaluation of Hypersingular Integrals in Electromagnetics

Gokhun Selcuk, Oguz Demir, Sencer Koc
Turkey

243. Solving Inversion Problem for Refractivity Estimation Using Artificial Neural Networks

Cemil Tepecik, Isa Navruz
Turkey

ROOM ACC

Session LC4

Electric Power Distribution Systems

Saturday, 28 November 2015

09:00-10:30

Session Chairman: M. Hakan HOCAOGLU
Gebze Technical University

349. Optimal Placement and Operation of BESS in a Distribution Network Considering the Net Present Value of Energy Losses Cost
Murtaza Farsadi, Tohid Sattarpour, Amin Yazdani Nejadi Iran

68. Economic Dispatch Problem for Distribution Network Including Wind Turbines and Diesel Electric Generators
Murtaza Farsadi, Abdolreza Sadighmanesh Iran

105. The Role of The Intelligent Reconfiguration of Distribution Network on Reduction The Energy Not Supplied Costs in the electricity market through case studies using softwares NEPLAN & DigSILENT Power Factory
Farhad Nazari Heris Iran

148. Impact of active network management in operation of Tabriz distributio system
Saeed Abapour, Amir Farakhor, Alireza E. Khosroshahi, Mehdi Abapour Iran

354. Multiple Criteria Decision Making in Distribution System Planning
Ismail Sahin, Mustafa Bagriyanik Turkey

318. A Time-synchronized Power Grid Monitoring System at the Distribution Level
Ling Wu, YONG Liu, Dao Zhou, Jiahui Guo, Lingwei Zhan, Yilu Liu, Jose Gracia, Marcus Young, Burak Ozpineci, Tom King United States

ROOM CE

Session LD5

PE-Converters

Saturday, 28 November 2015

09:00-10:30

Session Chairman: Ahmet Teke
Cukurova University

275. Trapezoid Current Modulated DCM AC/DC DAB Converter for Two-Stage Solid State Transformer
Sinan Zengin, Mutlu Boztepe
Turkey

215. A Switched-capacitor DC-DC Converter with Voltage Regulation for Photovoltaic Applications
Naser Vosoughi Kurdkandi, Alireza Eyvazizadeh Khosroshahi, Seyed Hossein Hosseini
Iran

48. Enhancement of Extracted Power from Partially Shaded Multi-string PV Panels Using a New Cascaded High Step-Up DC-DC-AC Converter
Seyed Hossein Hosseini, Rasoul Shalchi Alishah, Amirreza Zarrin Gharehkhoushan Iran

163. A New Single Switch Bridgeless SEPIC PFC Converter with Low Cost, Low THD and High PF
Yasemin Onal, Yilmaz Sozer
United States

155. Speed Control of Induction Motor Based on Model Reference Adaptive Control
Hakan Acikgoz, Ceyhun Yildiz, Gulsade Kale, O.Fatih Kececioglu, Ahmet Gani, Mustafa Sekkeli Turkey



ROOM BAOB

Session LE5 Control Theory 1

Saturday, 28 November 2015

09:00-10:30

Session Chairman: Mehmet Turan Soylemez
Istanbul Technical University

321. PI-V plus Sliding Mode Based Cascade Control of Magnetic Levitation

Yakup Eroglu, Gunyaz Ablay

Turkey

345. Design of a Flight Stabilizer for Fixed-Wing Aircrafts Using H_∞ Loop Shaping Method

Seyma Akyurek, Gizem Sezin Ozden, Burak Kurkcu, Cosku Kasnakoglu, Unver Kaynak

Turkey

392. LQG/LTR Position Control of an BLDC Motor with Experimental Validation

Burak Kurkcu, Cosku Kasnakoglu

Turkey

328. Linear Matrix Inequalities Based State Feedback and Reference Feedforward Actuator Saturated H-Infinity Control of Small-Scale Unmanned Helicopter

Mert Sever, Gulay Goktas, Hakan Yazici, Ibrahim Beklan Kucukdemiral

Turkey

276. Multi-agent Formation Control with Single Integrator Agent Dynamics

Hossein Barghi Jond, Vasif V. Nabyev, Nurhan Gursel Ozmen

Turkey



POSTER HALL

Session P3

Saturday, 28 November 2015

09:00-10:30

Session Chairman: **Ozgur Ustun**
Istanbul Technical University

70. Investigation of Solar Panel Characteristics And Mppt Performance Under Partial Shading Conditions

Mustafa Engin Basoglu, Bekir Cakir Turkey

329. Electronic Differential System for an Electric Vehicle with In-Wheel Motor

Merve Yildirim, Eyyup Oksuztepe, Burak Tanyeri, Hasan Kurum Turkey

179. Optimal Design Of Induction Motor With Multi-Parameter By Fem Method

Mustafa Tumbek, Yusuf Oner, Selami Kesler Turkey

242. Speed Control Of A Dc Motor Using A Fractional Order Sliding Mode Controller

Mohammad Tabatabaei, Saeed Heidarpoor Iran

304. Tuning Cascade PI Controllers in PMDC Motor Drives: A Performance Comparison for Different Types of Tuning Methods

Taha Nurettin Guzin, Muhammet Biberoglu, Bekir Fincan, Mehmet Onur Gulbahce Turkey

356. A Novel Energy Management System for Full Electric Vehicles

Turev Sarikurt, Abdulkadir Balikci Turkey

21. A New Scheme of Symmetric Multilevel Inverter with Reduced Number of Circuit Devices

Seyyed Hossein Hosseini, Sajad Najafi Ravadanegh, Masoumeh Karimi, Yahya Naderi, Mohammad Reza Jannati Oskuee Iran

111. Implementation of Space Vector PWM In FOC of a Servo Motor Drive

Onur Ucak, Sinan Yilmaz Turkey

22. Characterization, modeling and application of Gallium Nitride Power HEMT

Quanli Ren, LianQing Zhen China

49. Large-Signal and Small-Signal Analysis of Nonlinear Three-Terminal Switching Elements

Yucel Demir, Ali Bekir Yildiz Turkey

7. Mathematical Modeling and Dynamic Analysis of Self-Lift P/O Lou Converter by Means of Signal Flow Graph

Parisa Mohammadalizadeh, Farzad Mohammadzadeh Shahir Iran

413. Development of High Efficiency Multi-Output Flyback Converter for Industrial Applications

Gurkan Tosun, Omer Cihan Kivanc, Ender Oguz, Ozgur Ustun, R. Nejat Tuncay Turkey

43. Hardware based comparison of buck-boost converter topologies in MPPT systems

Mustafa Engin Basoglu, Bekir Cakir Turkey

405. Self-Tuning Speed Control of Permanent Magnet DC Motor

Mehmet Arici, Ali Osman Arslan Turkey

395. Optimum Grounding Grid Design by using Genetic Algorithms

Soner Kara, Ozcan Kalenderli, Ozkan Altay Turkey

ROOM EE

Session LA4

Sensors and Instrumentation

Saturday, 28 November 2015

10:45-12:15

Session Chairman: Bilgin Metin
Bogazici University

127. An Arduino UNO application: GPS guided unmanned ground vehicle
Hasan Fatih Aci, Muhammed Senyurt, Tugay Bozik, Guray Gurkan
Turkey

205. Design and Implementation of Adaptive Vibration Filter for MEMS Based Low Cost IMU
Ufuk GUNER, Huseyin CANBOLAT, Ali Unluturk Turkey

165. Identification of Organically Grown Shallot Based on Electronic Nose System
Suchin Trirongjitmoah, Pakpum Somboon
Thailand

249. A Survey of Insect Eye Inspired Visual Sensors
Metehan GUZEL, Muhammet UNAL Turkey

293. Wireless Sensor Networks in Oil Pipeline Systems Using Electromagnetic Waves
Mustafa Alper Akkas, Radosveta Sokullu, Abdullah Balci
Turkey

360. Effect of Passivation on III-Nitride/Silicon Tandem Solar Cells
Huseyin Ekinci, Vladimir Kuryatkov, Iulian Gherasoiu, Sergey Nikishin
United States



ROOM ART

Session LB6

Microwave 1

Saturday, 28 November 2015

10:45-12:15

Session Chairman: Osman Palamutcuogullari
Beykent University

194. Optimal Coupling Medium For Brain Stroke Imaging with Microwaves
Mehmet Nuri Akinci, Onan Guren, Mehmet Cayoren, Ibrahim Akduman
Turkey

371. Convergence Improvement of Surrogate Based Optimization for Reconfigurable Antenna Design Using Knowledge Based 3-step Modeling
Murat Simsek, Ashrf Aoad
Turkey

51. A Compact Multiband Planar Antenna for Multiple Wireless Access Standards Applications
Ching-Song Chuang, Tsi-Tsu Ku, Yi-Ting Sie, Wei-Bin Lin
Taiwan



ROOM ACC

Session LC5

Power System Protection and High Voltage Engineering

Saturday, 28 November 2015

10:45-12:15

Session Chairman: Murtaza Farsadi
Urmia University

11. Reducing Over-current Relays Operating Times in Adaptive Protection of Distribution Networks Considering DG Penetration

Morteza Farsadi, Amin Yazdani Nejadi, Alireza Esmaeilnasab Iran

110. Assessment of Integral Based Fault Detection Methods for Power System Relaying

Ezgi Unverdi Aglar, İbrahim Gursu Tekdemir, Aysen Basa Arsoy Turkey

37. Design of an Adaptive Protection System for Microgrids with Distributed Energy Resources in Accordance with IEC 61850-7-420

Cagil Ozansoy Australia

28. A Methodology for Determining Fault Current Impact Coefficients of Distributed Energy Resources in an Adaptive Protection Scheme

Cagil Ozansoy Australia

158. Why Neutral Earthing Resistors are Ineffective for Autotransformers with the Delta Tertiary Winding

Chinthaka Seneviratne, Cagil Ozansoy Australia

303. Fractal analysis of streamer patterns in dielectric liquids under dc voltage

Aissa Yousfi, Boubakeur Zegnini Algeria

ROOM CE

Session LD6

EM and PE Applications

Saturday, 28 November 2015

10:45-12:15

Session Chairman: Muammer Özdemir
Ondokuz Mayıs University

410. Implementation of Differential Power Processing Concept to Switched-Capacitor Topology for PV Sub-module Level Power Balancing
Mustafa Gokdag, Mehmet Akbaba Turkey

50. An Attempt to Improve Output Voltage Quality of Developed Multi-Level Inverter Topology by Increasing the Number of Levels
Seyed Hosseini Hosseini, Kazem Varesi, Jaber Fallah Ardashir, Amin Ashraf Gandomi, Saeid Saeidabadi Iran

151. Application of Finite Control Set Model Based Predictive Method for Power Flow Control Using Unified Power Flow Controller
Amir Farakhor, Alireza Eyvazizadeh Khosroshahi, Mehdi Abapour, Saeed Azimi Saadat Iran

399. PWM Controlled Double-Fed Induction Generator for Wind Energy Applications
Can Berk Aykac, Abdullah Polat, Lale T. Ergene Turkey

192. Development of an Electronic Control Unit for PMSM Drives in Automotive Applications
Burak Soner, Arif Icke, Ahmet Can Mert, Umut Basaran, Serkan T. Impram, Ilker Sahin Turkey

ROOM BAOB

Session LE6 Control Theory 2

Saturday, 28 November 2015

10:45-12:15

Session Chairman: Gulay Oke
Istanbul Technical University

143. Design of an Experimental Platform for Process Control Systems

Cihan Uyanik, Metin Ozkan, Osman Parlaktuna

Turkey

375. Fractional order PID controller design based on Laguerre orthogonal functions

Mohammad Tabatabaei, Romina Salehi

Iran

190. Speed Control of Wind Turbine Rotor Using Genetic Algorithm

Ali Ozturk, Salih Tosun, Selman Alkan, Emre Avci, Rifat Bilir

Turkey

353. PID Controller Design Based on Second Order Model Approximation by Using Stability Boundary Locus Fitting

Furkan Nur Deniz, Baris Baykant Alagoz, Nusret Tan

Turkey

241. Obtaining the Time Response of Control Systems with Fractional Order PID from Frequency Responses

Ali Yuce, Furkan Nur Deniz, Nusret Tan, Derek P. Atherton

Turkey, United Kingdom



POSTER HALL

Session P4

Saturday, 28 November 2015

10:45-12:15

Session Chairman: **Fahri Vatansver**
Uludag University

229. Design and Application of a Novel Motorized Traction Device
Murat Fidan, Melih Coban Turkey

104. An Implementation of Analog Portable EEG Signal Extraction System
M.Emin Sahin, Yunus Ucar, Feyzullah Temurtas Turkey

359. Automatic Landmark Detection through Circular Hough Transform in Cephalometric X-rays

Yunus Kokver, Hasan Erbay, Enes Tan, Halil Murat Unver Turkey

69. Respiratory rate monitoring using infrared sensors

Fatih Erden, A. Enis Cetin Turkey

160. Pressure - Volume Controlled Mechanical Ventilator: Modeling and Simulation

Fikret Yalcinkaya, Mustafa Emrah Yildirim, Hamza Unsal Turkey

174. Hardware Implementation of Novel Image Compression-Encryption System on a FPGA

Ahmet Çağrı Bağbaba, S.Berna Örs Turkey

326. Algebraic Connectivity Approach to Formation Reconfiguration in Multi-agent Systems

Hossein Barghi Jond, Vasif V. Nabiyev, Nurhan Gursel Ozmen Turkey

129. Design and physical implementation of a data transfer interface used in network on chip

Ahmed Amine EL OUCHDI, Nasrallah TAHIR
Algeria

389. A Layered UVM Based Testbench Design for SpaceWire
Ahmet Cagri Bagbaba, Buse Ustaoglu, Inan Erdem, S.Berna Ors Turkey

317. CAMs and High Speed - High Precision data for Trigonometric functions
Nasrallah Tahir, Samir Tagzout, Ahmed Amine EL Ouchdi Algeria

252. Towards Association Rule Hiding Heuristics vs Border-based Approaches
Afrah Farea, Ali Karci Turkey

42. On Three-Axis Attitude Control Strategy with Its Application to 3d Orbital Maneuvers Considering Overactuated Space Systems

A.H. Mazinan, A. Shirazi

Iran, Canada

331. A New Image Stitching Approach for Resolution Enhancement in Camera Arrays

Mehmet Baygin, Mehmet Karakose

Turkey

146. Optimal Sample-Data Regulation based on Realizable Reconstruction Filter

Saadullah Masood Ahmad, Muwahida Liquat

Pakistan

224. Modeling and ARX Identification of a Quadrotor MiniUAV
Atakan Sarioglu, Ayhan Kural

Turkey

24. Performance Analysis and Design of Robust Controller for PWM Rectifier
Hakan Acikgoz, Gulsade Kale, O.Fatih Kececioglu, Ahmet Gani, Mustafa Sekkeli Turkey

ROOM EE

Session LA5

Biomedical Electronics

Saturday, 28 November 2015

13:00-14:30

**Session Chairman: Oguzhan Cicekoglul
Bogazici University**

325. Control Of Wheel Chair For Quadriplegia Patients: Design A Bioremotecontrol

Onur Kocak, Elif Gurel, Ali Akpek, Arif Kocoglu
Turkey

195. An Electronic Control and Image Acquisition System for Laser Scanning Microscopy

Gokhan Gumus, Baykal Sarioglu, Yigit Daghan Gokdel Turkey

61. Neural Network Design for the Recurrence Prediction of Post-Operative Non-Metastatic Kidney Cancer Patients

Baran Tander, Atilla Ozmen, Ender Ozden Turkey

255. Measuring of Diaphragm Movements by using iMEMS Acceleration Sensor

Harun Sumbul, A. Hayrettin Yuzer Turkey

297. Measurement of Human Walking on Sagittal Plane for Exoskeleton Walking Pattern Generation

Tolga Olcay, Ahmet Ozkurt, M.Evren Toygar, Taner Akkan, Yavuz Senol
Turkey

272. An Ultra Low-Voltage Ultra Low-Power Memristor

Suayb Cagri Yener, Atilla Uygur, H.Hakan Kuntman Turkey

ROOM ART

Session LB7

Microwave 2

Saturday, 28 November 2015

13:00-14:30

**Session Chairman: Dimitrios Stimoniaris
Technological Educational Institute of West Macedonia**



56. Metamaterial Based Dual-Band and Polarization Independent RF Absorber

Kadir Ozden, Okan Mert Yucedag, Ahmet Ozer, Huseyin Bayrak, Hasan Kocer Turkey

250. High Efficiency and Triple-Band Metamaterial Electromagnetic Energy Harvester

Stylios Asimonis, Theofano Kollatou, Dimitrios Tsiamitros, Dimitrios Stimoniaris, T. Samaras, J. Sahalos
Greece, Cyprus

71. Hexagon Shaped Metamaterial-Loaded Antenna for Ku Band Applications

Sultan Can, A. Egemen Yilmaz

Turkey

77. Magnetic Shielding Effectiveness and Simulation Analysis of Metallic Enclosures with Apertures

Ibrahim Basyigit, Mehmet Caglar, Selcuk Helhel Turkey

209. An RF Anechoic Box System Development for Shielding Effectiveness Measurements

Sebnem Seckin Ugurlu, Mehmet Can Ozgonul, Ahmet Ozkurt, Mustafa Secmen Turkey

ROOM ACC

Session LC6

Power System Optimization

Saturday, 28 November 2015

13:00-14:30

Session Chairman: **Okan Ozgonenel**
Ondokuz Mayıs University

17. Solving Unit Commitment and Economic Dispatch Problems Simultaneously Considering Generator Constraints by Using Nested PSO
Murtaza Farsadi, Hadi Hosseinejad, Tohid Sattarpour Dizaji
Iran

8. Solving Economic Emission Load Dispatch Problems Using Particle Swarm Optimization with Smart Inertia Factor
Farzad Mohammadzadeh Shahir, Heydar Zafari
Iran

135. Solution to Short Term Hydrothermal Scheduling Problem by Modified Subgradient Algorithm Based on Feasible Values
Salih Fadil, Burak Urazel
Turkey

222. A New Approach for Terrorist Attack Vulnerability Evaluation of Power Transmission Lines
Ersen Akdeniz, Mustafa Bagriyanik
Turkey

214. Capacitor Allocating in Order to Maximize the Loss Reduction Benefit and Voltage Profile Improvement Based on NSGA-II
Murtaza Farsadi, Tohid Sattarpour Dizaji, Hadi Hosseinejad
Iran

ROOM BA0B

Session LE7

Control Theory 3

Saturday, 28 November 2015

13:00-14:30

Session Chairman: **Seydi Dogan**
Balikesir University

239. Direct Torque Control of Sensorless Induction Motor Based on Space Vector modulation and Sliding Mode Flux Observer
Abdelkarim Ammar, Amor Bourek, Abdelhamid Benakcha
Algeria

313. Cooperative Output Regulation for Higher-order Linear Multi-agent Systems with Fixed and Switching Topologies
Waqar Ali, Muwahida Liaquat
Pakistan

89. H_{∞} Observer Design for Linear Time-delay Systems
Md. Aminul Haq, Ibrahim Beklan Kucukdemiral Bangladesh, Turkey

188. Robust & Optimal Model Predictive Controller design for Twin Rotor MIMO System
Abasin Ulasayar, Haris Sheh Zad Turkey

352. A Novel Interactive System Identification and Control Toolbox Dedicated to Real-Time Identification and Model Reference Adaptive Control Experiments
Necdet Sinan Ozbek, İlyas Eker Turkey

212. Control of Resistance Spot Welding Using Model Predictive Control
Mostafa Hemmati, Mohammad Haeri Iran





POSTER HALL

Session P5

Saturday, 28 November 2015

13:00-14:30

Session Chairman: **Serdar Ozoguz**
Istanbul Technical University

280. On the First- and Second-order Statistical Properties of Different Rayleigh Fading Channel Models

Mohamed Ali Skima, Amira Boulaaba, Hamadi Ghariani Tunisia

166. Comparison of BER Performances of MMSE Equalizer and Viterbi Algorithm for the MLSE Solution in 60 GHz Communication Channel
Cagdas Tuna Turkey

185. Bandwidth Efficient Maximum Likelihood SNR Estimators for QAM Signals in Complex AWGN Channel

Nida Ishtiaq, Shahzad Amin Sheikh, Sana Mazahir Pakistan

79. Simulation Model of Spectrum Handoff Process for Medium Access Control Protocols in Cognitive Radio Networks

Muhammed Enes Bayrakdar, Ali Calhan Turkey

91. Comparison of Real Time Image Transfer in Wireless Multimedia Sensor Networks

Arafat Senturk, Zehra Karapinar Senturk, Resul Kara Turkey

323. Ground Meat Inspection Using Hyperspectral Imaging and SVDD
Faruk Sukru Uslu, Abdullah Bal, Hamidullah Binol, Huseyin Cukur Turkey

63. Feature Selection Using Genetic Algorithms for Premature Ventricular Contraction Classification

Yasin Kaya, Huseyin Pehlivan Turkey

183. Monitoring in High Density Crowd Movements Using Particle Advection
Murat Akpulat, Murat Ekinci Turkey

230. Accelerating Discrete Haar Wavelet Transform On GPU Cluster
Selcuk Aslan, Hasan Badem, Dervis Karaboga, Alper Basturk, Tayyip Ozcan Turkey

306. A Complex-Valued Adaptive Filter Algorithm for System Identification Problem

Engin Cemal Menguc, Nurettin Acir Turkey

267. Data Encryption Based on Generalized Fractional Logistic Map
Samar Ismail, Lobna Said, Ahmed Radwan, Ahmed Madian, Mohamed Abu-ElYazeed Egypt

153. Intelligent License Plate Detection Using Genetic Algorithm
Jawad Muhammad, Halis Altun Egypt

103. Emotion Recognition from Speech Signal Using Mel-Frequency Cepstral Coefficients

Onur Erdem Korkmaz, Ayten Atasoy Turkey

159. Gender Recognition from Face Images Using PCA and LBP
Bahar Hatipoglu, Cemal Kose Turkey

341. Effect Of Plosives on Isolated Speaker Recognition System Performance
Zekeriya Senturk, Ozgul Salor Turkey

154. A Systematic Circular Weight Initialisation of Kohonen Neural Network for Travelling Salesman Problem

Jawad Muhammad, Halis Altun Turkey

394. A Monogenic Local Gabor Binary Pattern for Facial Expression Recognition
Abubakar Ashir, Alaa Eleyan Turkey



ROOM ART

Session LB8

Antennas

Saturday, 28 November 2015

14:45-16:15

Session Chairman: Dimitris Tsiamatros
Technological Educational Institute of West Macedonia

343. Hybrid Optimization Approach to the Pattern Synthesis of Conformal Antenna Array

Mahmud Esad Yigit, Tayfun Gunel Turkey

82. Application of the Taguchi Method to the Design of Circular Antenna Arrays

Bilal Babayigit, Ercan Senyigit Turkey

196. Synthesis of Linear Antenna Array Using Genetic Algorithm to Reduce Peak Sidelobe Level

Amina Khalid, Shahzad Sheikh, Ijteba Shah, Qasim Khan Pakistan

210. Horn Array Antenna Design for Ku-Band Applications

Sezgin ORDEK, Ahmet Kizilay Turkey

357. Microstrip Patch Antenna Array Design for C-Band Electromagnetic Fence Applications

Yasin Ipekoglu, Okan Mert Yuucedag, Safak Saraydemir, Hasan Kocer Turkey

ROOM ACC

Session LC7

Power Quality And Power System Dynamics

Saturday, 28 November 2015

14:45-16:15

Session Chairman: Mehmet Tumay
Cukurova University

277. Design of a Real-Time USB Interfaced Multi-Channel Power System Harmonics Detection System

Mehmet Gok, Salih Gorgunoglu, Ibrahim Sefa
Turkey

9. Analyzing of Coordinate Operational of UPFC based on Matrix Converter and Wind Turbine Generator under Unbalanced Load

Farzad Mohammadzadeh Shahir, Dariush Nazarpour
Iran

279. A Novel Model Reduction Approach to Power System Components Complexity Including SVC

Majid Aryanezhad, Elahe Ostadaghaee, Mahmood Jorabian
Iran

207. A Security Assessment for Slow Coherency Based Defensive Islanding

Mohammed Mahdi, V. M. Istemihan Genc

Turkey

94. Improvement of Power Swing Detection Performance of a Distance Relay by using k-NN Algorithm

Ibrahim Gursu Tekdemir, Bora Alboyaci
Turkey

BAOB

Session LE8

Control Theory 4

Saturday, 28 November 2015

14:45-16:15

Session Chairman: Mustak E. Yalcin
Istanbul Technical University

193. Controlling 3-DOF Helicopter via Fuzzy PID Controller

Kamil Karaman, Yusuf Talha Bekaroglu, Mehmet Turan Soylemez,
Kemal Ucak, Gulay Oke Gunel

Turkey

168. Liquid Level Process Control with Fuzzy Logic Based Embedded System

Baris Celik, Sibel Birtane, Emrah Dikbiyik, Hasan Erdal

Turkey

348. Predictive Control for improving vehicle handling and stability

Muhammad Wasim, Asad Ullah Awan, Amer Kashif

Pakistan

238. Design And Implementation Of An ARM Based Embedded System For Pedestrian Dead Reckoning

Süleyman Urmat, Mustak Erhan Yalcin

Turkey

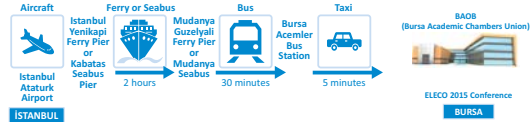
116. Line Estimation for a Line-Following Mobile Robot

Alpaslan Yufka, Aydin Aybar

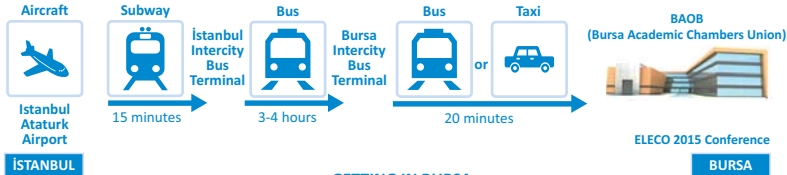
Turkey

GETTING FROM ISTANBUL TO BURSA

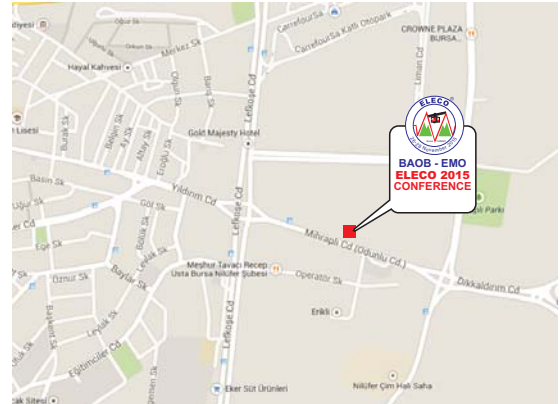
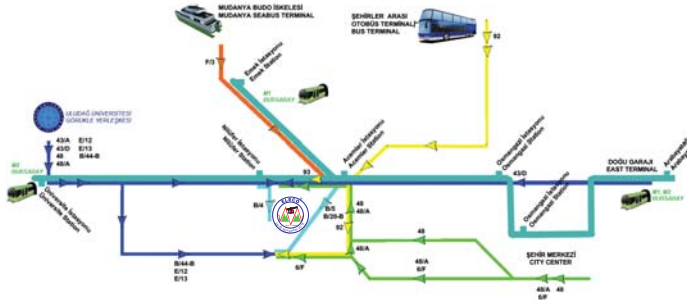
Visit the web site <http://www.ido.com.tr/> or seabus <http://www.budo.burulas.com.tr/> for the details.



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GETTING IN BURSA



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