



**14th INTERNATIONAL CONFERENCE on
ELECTRICAL and ELECTRONICS ENGINEERING**
Bursa, Turkey, November 30-December 2, 2023
Virtual Conference



ELECO 2023 Conference Program (1st Day) – Thursday, 30.11.2023

Day	Hours (GMT+3)	ELECO 2023			
Thursday, 30.11.2023	10:00 - 11:00	Opening Ceremony  YouTube link Burak OZGEN, EMO Bursa Branch Chairman Ozcan KALENDERLI, Conference Chairman Mahir ULUTAS, Chamber of Turkish Electrical Engineers (EMO) Chairman			
	11:00 - 12:00	Session Chair: Professor Ahmet CANSIZ Istanbul Technical University, Istanbul, Turkey Invited Talk – 1  YouTube link Room-Temperature Superconductivity - or Not? Opportunities and Challenges for Physicists and Engineers Professor Dirk van der MAREL University of Geneva, Geneva, Switzerland			
	12:00 - 13:00	Session Chair: Assist. Professor Lale ERDEM ATILGAN Istanbul Technical University, Istanbul, Turkey Invited Talk – 2  YouTube link Physics of Music, at the Crossroads of Art and Science Professor Dirk van der MAREL University of Geneva, Geneva, Switzerland (10:00- 11:00 for Switzerland GMT+1)			
	13:00 - 14:00	Break			
	14:00 - 15:00	Session Chair: Professor Aydogan OZDEMIR Istanbul Technical University, Istanbul, Turkey Invited Talk – 3  YouTube link Building Resilience and Safeguarding Our Modern Society Against Power Outages and Large-Scale Blackouts Professor Mahmoud Fotuhi-FIRUZABAD Sharif University of Technology, Tehran, Iran (14:30-15:30 for Iran GMT+3.30)			
	15:15 - 16:45	Session - T1 Energy Sources and Power Markets -1	Session - T2 Control Systems-1	Session - T3 Biomedical Electronics	Session - T4 Antennas-1
	17:00 - 18:30	Session - T5 Energy Sources and Power Markets -2	Session - T6 Control Systems-2	Session - T7 Biomedical Electronics	Session - T8 Antennas-2



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ELECO 2023 Conference Program (2nd Day) – Friday, 01.12.2023

Day	Hours (GMT+3)	ELECO 2023		
Friday, 01.12.2023	10:00-11:30	Session – F1 Electric Power Systems-1	Session – F2 Electrical Machines-1	Session – F3 Artificial Intelligence-1
	11:45-13:15	Session – F4 Electric Power Systems-2	Session – F5 Electrical Machines-2	Session – F6 Artificial Intelligence-2
	13:30-14:30	Session Chair: Assoc. Professor Emre UGUR Bogazici University, Istanbul, Turkey Invited Talk – 4  YouTube link Sim to Real Transfer for Robot Navigation Professor Erdal KAYACAN Paderborn University, Paderborn, Germany (11:30-12:30 for Germany GMT+1)		
	14:45-16:15	Session – F7 Electromagnetics	Session – F8 Circuits and Systems-1	Session – F9 Artificial Intelligence-3
	16:30-17:30	Session Chair: Assoc. Professor Nihan KAHRAMAN Yildiz Technical University, Istanbul, Turkey Invited Talk – 5  YouTube link Artificial Intelligence, Cyber Security and Power Networks: the IEC 61850 Standard Professor Sule YILDIRIM-YAYILGAN Norwegian University of Science and Technology, Gjøvik, Norway (14:30-15:30 for Norway GMT+1)		
	17:30-19:00	Session - F10 Communication Systems	Session - F11 Circuits and Systems-2	Session – F12 Cyber Security
	19:30-21:00	Session Chair: Professor Cem GOKNAR Isik University, Istanbul, Turkey  Zoom link Cevdet ACAR - Circuits and Systems Special Session Commemoration and Conversation Meeting (in Turkish)		



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ELECO 2023 Conference Program (3rd Day) – Saturday, 02.12.2023

Day	Hours (GMT+3)	ELECO 2023			
Saturday, 02.12.2023	10:00 - 11:30	Session – S1 Energy Sources and Power Markets-3	Session - S2 Power Electronics-1		Session - S3 Signal and Image Processing
	11:45 - 13:15	Session - S4 Energy Sources and Power Markets-4	Session - S5 Power Electronics-2		Session - S6 Signal and Image Processing
	13:30 - 14:30	Session Chair: Professor Oguzhan CICEKOGLU Bogazici University, Istanbul, Turkey Invited Talk – 6  YouTube link Fractional-Order Circuits and Systems: Recent Advancements and Multidisciplinary Horizons Assoc. Professor Norbert HERENC SAR Brno University of Technology, Brno, Czechia (11:30-12:30 for Czechia GMT+1) 			
	14:45 - 16:15	Session - S7 Electric Power Systems-3	Session - S8 Power Electronics-3	Session - S9 Electronics	Session – S10 Other Topics-1
	16:30 - 17:30	Session Chair: Assoc. Professor Hasbi ISMAILOGLU Yalova University, Yalova, Turkey Invited Talk – 7  YouTube link Electrical Properties of Polypropylene Loaded with Nanometric Clay Professor Huseyin R. HIZIROGLU Kettering University, Michigan, USA (08:30-09:30 for USA GMT-5) 			
	17:30 - 19:00	Session - S11 Robotics	Session – S12 Power Electronics-4	Session – S13 Sensors	Session – S14 Other Topic-2



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Thursday, 30.11.2023, Hours: 15:15-16:45 (for Turkey GMT+3)

Hours: 14:15-15:45 (for Greece GMT+2)

Session – T1

Session Chair: Assoc. Professor **Theofilos PAPADOPOULOS**
Democritus University of Thrace, Komotini, Greece



[Zoom link](#)

01 - Energy Sources and Power Markets-1

**ID 32: Economic Analysis of Solar Energy Power Plant Under the Consumptions
Realized in Different Hours and Tariffs**

Cihan Karaman
Aden Solar Energy Ltd. Co., Turkey

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**ID 84: Cost and Energy Optimization in Ground Mounted Solar Energy Power
Plant Projects**

Cihan Karaman
Aden Solar Energy Ltd. Co., Turkey

[84.pdf](#)



**ID 88: A Novel Hybrid Model Proposal derived from Prevalent Methods for
Power Generation Prediction of Solar Power Plants**

Necati Aksoy, Istemihaan Genc
Istanbul Technical University, Turkey

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**ID 188: Enhancing State Estimation Accuracy in Power Systems: An ANN-Based
Data Mining Approach Defending Cyber Attacks**

Cenk Andic¹, Ali Ozturk², Belgin Turkey¹
¹Istanbul Technical University, Turkey; ²Duzce University, Turkey

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ID 85: Development of Black-Box Equivalent Models from Ambient Data

Theofilos Papadopoulos, Georgios Barzegkar-Ntovom, Eleftherios Kontis,
Nikolaos Batzis
Democritus University of Thrace, Greece

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Thursday, 30.11.2023, Hours: 17:00-18:30 (for Turkey GMT+3)

Hours: 16:00-17:30 (for Greece GMT+2)

Session – T5

Session Chair: Assoc. Professor **Semih ASLAN**, Texas State University, Austin, Texas, United States



[Zoom link](#)

01 - Energy Sources and Power Markets-2

ID 139: Analyzing the Impacts of Inertial Support of Wind Farms on the Primary Frequency Response

Mertcan Acar, Istemihan Genc
Istanbul Technical University, Turkey

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ID 40: Forecasting of Wind Turbine Output Power with Artificial Neural Network in Izmir, Türkiye

Arda Sen¹, Cenk Andic¹, Esra Aydin¹, Mikail Purlu², Belgin Turkey¹
¹Istanbul Technical University, Turkey; ²Sivas Cumhuriyet University, Turkey

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ID 154: Validation of Wind Turbine Model Software Simulation Using Real Time Wind Speed Measurements

Alexis Polycarpou¹, Sotiris Shiacallis², Nicholas Christofides¹, Antonis Papadakis³, Theofilos Papadopoulos³, Oguzhan Ceylan⁴
¹Frederick University, Cyprus; ²T.P. Aeolian Dynamics Ltd., Cyprus;
³Democritus University of Thrace, Greece; ⁴Kadir Has University, Turkey

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ID 181: Discernment of Static Eccentricity and Electrical Load Unbalance Currents through Space Vector Stray Flux in Permanent Magnet Synchronous Generator based Wind Turbines

Ilyas Aladag¹, Taner Goktas², Muslum Arkan³
¹Osmaniye Korkut Ata University, Turkey; ²Dokuz Eylul University, Turkey;
³Inonu University, Turkey

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ID 160: Residual Voltage Tests of 4.5 kV Metal Oxide Surge Arrester

Emre Tunc, Murat Fidan
Bolu Abant Izzet Baysal University, Turkey

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Saturday, 02.12.2023, Hours: 10:00-11:30 (for Turkey GMT+3)

Session – S1

Session Chair: Assoc. Professor **Oguzhan CEYLAN**, Kadir Has University, Istanbul, Turkey



[Zoom link](#)

01 - Energy Sources and Power Markets-3

ID 212: Effect of the Depth of Discharge and C-Rate on Battery Degradation and Cycle Life

Gokhan Yuksek, Alkan Alkaya
Mersin University, Turkey

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ID 9: Model Predictive Controlled Application of Power Management Algorithm for Battery Energy Storage System Providing Frequency Ancillary Service

Kubra Nur Akpınar¹, Nur Sarma², Burcu Gundogdu³, Okan Ozgonenel⁴

¹Marmara University, Turkey; ²Durham University, United Kingdom;

³Hakkari University, Turkey; ⁴Ondokuz Mayıs University, Turkey

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ID 117: SPI Communicated Battery Stack Monitoring/Controlling Chip's AUTOSAR Compliant Driver Software Development Difficulties and Methods to Overcome

Burak Ozan, Mesut Celen, Metehan Ileri, Cagri Gurbuz
AVL Turkiye Research & Engineering, Istanbul, Turkey

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ID 128: Proton Exchange Membrane Fuel Cell System Mathematical Modeling on MATLAB Simulink Environment

Tuna Han Ozdemir, Cemil Sen, Ertas Levent Yuksel
AVL Turkiye Research and Engineering, Turkey

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Saturday, 02.12.2023, Hours: 11:45-13:15 (for Turkey GMT+3)

Session – S4

Session Chair: Professor **Ismail H. ALTAS**, Karadeniz Technical University, Trabzon, Turkey



[Zoom link](#)

01 - Energy Sources and Power Markets-4

ID 151: Minimization of Residential Electricity Bill using EMS

Husnu Alay¹, Cenk Andic¹, Esra Aydin¹, Mikail Purlu², Belgin Emre Turkey¹

¹Istanbul Technical University, Turkey; ²Sivas Cumhuriyet University, Turkey

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ID 136: A Probabilistic Approach to Modelling Home Appliances for Demand Side Management

Fatih Cakil, Ibrahim Gursu Tekdemir

Bursa Technical University, Turkey

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ID 199: Usage Simulation and Demand Side Management Potential of Time-Shiftable Household Appliances: A Case Study for Turkey

Recep Cakmak

Samsun University, Turkey

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ID 1: Forecasting Türkiye's Electricity Prices by Alpha-Stable Periodic AutoRegressive Time Series

Ferit Acar Savaci, Ege Tamci

Izmir Institute of Technology, Turkey

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Friday, 01.12.2023, Hours: 10:00-11:30 (for Turkey GMT+3)

Hours: 17:30-19:00 (for Iran GMT+3.5)

Session – F1

Session Chair: Professor **Aydogan OZDEMIR**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

02 - Electric Power Systems-1

ID 8: Proactive Allocation of Mobile Energy Storage Systems Before a Natural Disaster to Improve Distribution System Resilience

Sobhan Aghababaei¹, Meghdad Tourandaz Kenari², Mohammad Sadegh Sepasian¹, Aydogan Ozdemir²

¹Shahid Beheshti University, Iran; ²Istanbul Technical University, Turkey

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ID 80: One Day-Ahead Optimal Scheduling in a 5 Bus Distribution Test System

Sibel Cevik Bektas, Ismail Hakki Altas
Karadeniz Technical University, Turkey

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ID 205: A Fault Indicator Device (FID) with Energy Harvesting and Direct SCADA Connection Capability for Distribution Systems

Ceyhan Ankitci¹, Furkan Eris¹, Faruk Kaymak¹, Abdulhameed Aboumadi², Adnan Tan³, Alper Terciyanli¹, Erman Terciyanli², Kamil Cagatay Bayindir⁴

¹Endoks, Turkey; ²Inavitas, Turkey; ³Wattox, Turkey; ⁴Ankara Yıldırım Beyazıt University, Turkey

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ID 50: Monitoring Voltage Distortions Caused by Supraharmonics in Active Distribution Networks

Ozgur Arda Kucukaslan¹, Ayse Nur Onder Erkan², Kerim Kaya³, Caner Ozen³, Busra Buyukbas³, Nafiz Ozcan², Pertev Cinalioglu², Murat Gol¹, Arsalan Bayatmakoo³

¹METU, Turkey; ²ENTT Energy, Turkey; ³Yesilirmak EDAŞ, Turkey

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ID 15: Suppression of Conducted Emissions in Three Phase Adjustable Drive Systems

Secil Genc¹, Nur Sarma², Burcu Gundogdu³, Okan Ozgonenel¹, Cenk Gezeğin¹, Umit Kemalettin Terzi⁴

¹Ondokuz Mayıs University, Turkey; ²Duzce University, Turkey; ³Hakkari University, Turkey; ⁴Marmara University, Turkey

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Friday, 01.12.2023, Hours: 11:45-13:15 (for Turkey GMT+3)

Session – F4

Session Chair: Professor **Belgin TURKAY**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

02 - Electric Power Systems-2

ID 179: A New Approach for Distribution System Reconfiguration with PV, ESS and EV Availability

Yusuf Topçuoglu¹, Tayfur Gokcek¹, Yavuz Ates², Ozan Erdinc¹

¹Yildiz Technical University, Turkey; ²Celal Bayar University, Turkey

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ID 94: Accurate Estimation of PV Cell Equivalent Circuit Parameters with Evolutionary Algorithms

Elif Seher Serinken, Revna Acar Vural

Yildiz Technical University, Turkey

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ID 131: Improving Low Voltage Ride Through Capability in Grid Connected PV System Using SOS-WOA Based PI Controller

Busra Ozgenc, Ismail Hakki Altas

Karadeniz Technical University, Turkey

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ID 26: Controlling and Tracking the Maximum Active Power Point in a Photovoltaic System Connected to the Grid Using the Fuzzy Neural Controller

Elnaz Yaghoubi, Elaheh Yaghoubi, Ziyodulla Yusupov

Karabuk University, Turkey

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ID 185: The Effect of Economic Conditions on Optimal Sizing and Feasibility of Hybrid Power System

Musa Terkes¹, Alparslan Demirci¹, Zafer Ozturk², Ali Ozturk², Salih Tosun², Cenk Andic³

¹Yildiz Technical University, Turkey; ²Duzce University, Turkey; ³Istanbul Technical University, Turkey

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Saturday, 02.12.2023, Hours: 14:45-16:15 (for Turkey GMT+3)

Hours: 12:45-14:15 (for Bosnia and Herzegovina - Serbia GMT+1)

Session – S7

Session Chair: Professor **Canbolat UCAK**, Yeditepe University, Istanbul, Turkey



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02 - Electric Power Systems-3

ID 201: Performance Analysis of Directional Overcurrent Protection in Multi Source Microgrid

Habip Yildirim, Omer Usta
Istanbul Technical University, Turkey

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ID 204: Design and Development of Energy Management System for Hybrid Microgrid

Abdulhameed Aboumadi¹, Zekeriya Gunes¹, Yunus Yalman², Adnan Tan¹,
Alper Terciyani¹, Erman Terciyani¹, Kamil Cagatay Bayindir²
¹Inavitas, Turkey; ²Ankara Yıldırım Beyazıt University, Turkey

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ID 7: Lightweight Photovoltaic Forecasting Method for Agricultural Microgrids

Paul D. Brown, Murat Gol
Middle East Technical University, Turkey

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ID 93: The Voltage Conditions Stability Analysis in the Occurrence of the Asymmetric Loading of the Low Voltage Power Distribution Network
Srdjan Jokic¹, Aleksandar Simovic¹, Aleksandar Lemez¹, Zlatan Stojkovic²,
Vladimir Vujovic¹, Marko Malovic¹

¹University of East Sarajevo, Bosnia and Herzegovina; ²University of Belgrade, Serbia

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ID 82: Delay-Dependent Stability Analysis of Single-Area Load Frequency Control System with Aggregated Inverter Air Conditioners

Muhammed Al-Shalah, Salman Aziz, Saffet Ayasun
Gazi University, Turkey

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Friday, 01.12.2023, Hours: 10:00-11:30 (for Turkey GMT+3)

Session – F2

Session Chair: Assoc. Professor **Derya Ahmet KOCABAS**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

03 - Electrical Machines-1

ID 207: High Frequency Induction Motor Design with the Examination of Slot/Pole Combinations

Lale T. Ergene¹, Ferdi Kocak¹, Turan Alp Sarikaya¹, Burak Gulmez²

¹Istanbul Technical University, Turkey; ²Wat Motor Co., Turkey

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ID 213: Design of High Efficient 1.1 kW 8 Pole Induction Motor for Industrial Application

Ilayda Tig¹, Murat Imeryuz¹, Mert Akcomak², Abdullah Polat²

¹Istanbul Technical University, Turkey; ²Wat Motor, Turkey

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ID 219: An Approach on Thermal Analysis of 3-Phase Squirrel Cage Induction Motor

Mertcan Karakus, Guven Onur, Derya Ahmet Kocabas

Istanbul Technical University, Turkey

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ID 114: Trend Analysis and Continuous Wavelet Transform for Bearing Fault Detection in Induction Motors

Ilker Aydin^{1,2}, Serhat Seker¹

¹Istanbul Technical University, Turkey; ²Aselsan, Turkey

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ID 203: ANSYS Based BLDC Broken Magnet Failure Analysis for a Light Electric Vehicle

Mahmut Abacı, Duygu Bayram Kara

Istanbul Technical University, Turkey

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Session – F5

Session Chair: Professor **Lale TUKENMEZ ERGENE**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

03 - Electrical Machines-2

ID 112: Improvement of the Demagnetization State of an External Rotor In-Wheel Motor

Hatice Kurnaz Araz, Furkan Aydogan, Levent Akgul
CDMMOBIL Electric Vehicle and Transportation Technologies Inc., Turkey

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ID 206: Performance Analysis of Five-Phase Synchronous Reluctance Motor

Lale T. Ergene, Alper Tap, Murat Yilmaz, Sinan Oguzhan Baskurt
Istanbul Technical University, Turkey

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ID 208: Position Sensorless Speed Control of BLDC Motor with Using Back-EMF Method

Lale T. Ergene, Kadir Akgul, Oguz Gurkan Cetintas
Istanbul Technical University, Turkey

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ID 209: Space Harmonics Modelling and Analysis of a 3 Phase Asymmetrical Unevenly Chorded Winding

Osman Can Soygenc^{1,2}, Derya Ahmet Kocabas¹
¹Istanbul Technical University, Turkey; ²AVL Turkiye Research and Engineering, Istanbul, Turkey

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ID 216: A General MMF and Winding Factor Calculation Model for Electrical Machines

Halil Deveci^{1,2}, Derya Ahmet Kocabas²
¹European Organization for Nuclear Research (CERN), Switzerland;
²Istanbul Technical University, Turkey

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Saturday, 02.12.2023, Hours: 10:00-11:30 (for Turkey GMT+3)

Session – S2

Session Chair: Assoc. Professor **Murat YILMAZ**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

04 - Power Electronics-1

ID 100: Multiple Output Application of Quasi-Resonant Flybacks on TV Applications

Selin Haznedaroglu Ozen¹, Ugur Emre Dogru¹, Ramazan Onder Yasar¹,
Erdem Akboy²

¹Arcelik Inc. Co., Turkey; ²Yildiz Technical University, Turkey

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ID 173: A Novel RMS Voltage Control Method for UPS Applications

Ahmet Faruk Bakan¹, Burak Gunay², Fevzi Zengin²

¹Yildiz Technical University, Turkey; ²Inform Electronic, Turkey

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ID 215: Design and Analysis of a Six-Phase Vienna Rectifier

Furkan Duran^{1,2}, Derya Ahmet Kocabas²

¹QRTECH AB, Mölndal, Sweden; ²Istanbul Technical University, Turkey

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ID 171: An Innovative DC-DC Modular Multilevel Converter Topology for Interconnection Asynchronous High Voltage Direct Current Power Grids

Abdurrahim Erat, Ahmet Mete Vural

Gaziantep University, Turkey

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ID 202: Assessment of Power Transformer based on Karl Fischer, Dissolve Gas Analysis and Adaptive Neuro-Fuzzy Interference System

Permit Mathuhu Sekatane

Tshwane University of Technology, South Africa

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Saturday, 02.12.2023, Hours: 11:45-13:15 (for Turkey GMT+3)

Session – S5

Session Chair: Assoc. Professor **Gokay BAYRAK**, Bursa Technical University, Bursa, Turkey



[Zoom link](#)

04 - Power Electronics-2

ID 119: A Case Study Inverter Safety in Compliance with ISO26262

Isil Cosar Ertas^{1,2}, Selin Ozcira Ozkilog¹, Cetin Dalkilog², Osman Can Soygenc²
¹Yildiz Technical University, Turkey; ²AVL Türkiye Research and Engineering, Turkey

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ID 145: Ripple Reduction Techniques for Inverter Application by Using Passive Components

Ali Mutlu, Deniz Yildirim
Istanbul Technical University, Turkey

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ID 99: Dead Time Control with FPGA for Electric Vehicle 3 Phases Inverter Application

Ugur Ayaz, Serhat Tugan, Cagri Gurbuz
AVL Türkiye Research & Engineering, Turkey

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ID 211: A Comparative Study for Interleaved Boost Converter with Coupled/Uncoupled Inductors

Didar Ciftci, Arda Akyildiz, Bati Eren Ergun, Mehmet Onur Gulbahce
Istanbul Technical University, Turkey

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ID 218: Synchronous Boost Converter Design for an E-Scooter Application and Comparison with Conventional Boost Converter

Mustafa Burak Akbas, Guven Onur, Derya Ahmet Kocabas
Istanbul Technical University, Turkey

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Saturday, 02.12.2023, Hours: 14:45-16:15 (for Turkey GMT+3)

Hours: 11:45-13:15 (for United Kingdom GMT+0)

Session – S8

Session Chair: Assoc. Professor **Ozgur USTUN**, Istanbul Technical University, Istanbul, Turkey



[Zoom link](#)

04 - Power Electronics-3

**ID 138: Investigation of Long Short-Term Memory Networks in Short-Term
Electric Vehicle Charging Load Modeling**

Egemen Karabiyik, Aysegul Sari Karabiyik
AVL Turkiye Research and Engineering, Turkey

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**ID 217: Design and Simulation of a Resonant Converter Based EV Charger for
ITUEV Team**

Adnan Alhallak¹, Guven Onur², Derya Ahmet Kocabas²
¹Baykar Makine Inc., Turkey; ²Istanbul Technical University, Turkey

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**ID 221: Analysis and Design of Half-Bridge LLC Resonant Converter for 36V Light
Electric Vehicle Battery Charging System**

Ibrahim Sara^{1,2}, Ozgur Ustun^{1,3}
¹Istanbul Technical University, Turkey; ²Exagate Ar-Ge Ltd. Sti., Turkey;
³Mekatro Ar-Ge Ltd. Sti., Turkey

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**ID 170: Modelling of a Renewable-Based Charging Station for Electric Vehicles
using Simulink**

Nur Sarma, Vita de Munck
Durham University, United Kingdom

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**ID 130: Thermal Propagation Analysis of an Electric Vehicle Battery by Using
1D-3D Coupled Simulation Approach in GT-Suite**

Burak Akar, Fatih Yalcin, Efe Afacan
FEV TR Automotive and Energy Research and Engineering Ltd. Co., Turkey

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Saturday, 02.12.2023, Hours: 17:30-19:00 (for Turkey GMT+3)

Session – S12

Session Chair: Assoc. Professor **Davut ERTEKIN**, Bursa Technical University, Bursa, Turkey



[Zoom link](#)

04 - Power Electronics-4

**ID 113: Design and Implementation of Phase-Shifted Full-Bridge Converter with
a Current Doubler for HV to LV Battery Charger in EVs**

Tevhide Dayioglu Yurdakonar, Murat Yilmaz
Istanbul Technical University, Turkey

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**ID 124: A Battery-connected Switched-Capacitor-based Power Step-Up
Converter for V2G Applications**

Hakan Tekin¹, Goknur Sertekli¹, Eren Mutlu¹, Hikmet Karsiyaka¹, Davut Ertekin²
¹Sezer Sound and Electrical Equipment Industry Inc., Turkey; ²Bursa Technical University, Turkey

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ID 210: Design of DAB Converter for Type-2 Charging Infrastructures

Alper Emre Ozden, Abdulsamed Lordoglu, Mehmet Onur Gulbahce
Istanbul Technical University, Turkey

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**ID 57: A New Numerical Approach for Simulation of Power Electronic
Converters**

Altan Onat, Kerim Oruklu
Eskisehir Technical University, Turkey

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**ID 165: Design and Implementation of a Peak Current Controlled Active Clamp
Forward Converter for Railway Applications**

Onder Ercan, Murat Yilmaz
Istanbul Technical University, Turkey

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Saturday, 02.12.2023, Hours: 14:45-16:15 (for Turkey GMT+3)

Session – S9

Session Chair: Professor **Alexander S. KOROTKOV**
Peter the Great St. Petersburg Polytechnic University, Russia



[Zoom link](#)

07 - Electronics

ID 61: Determination of Channel Parameters of FinFET Using Artificial Neural Networks in Current Mirror Applications

Mucahit Osman Kagnici, Sinem Keles
Istanbul Medeniyet University, Turkey

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ID 55: A New VGA Circuit Using a Feedback Structure in 0,35µm CMOS Technology

Eyup Selim Kalkisim¹, Metin Yazgi², Mustafa Aktas¹
¹Ondokuz Mayıs University, Turkey; ²Istanbul Technical University, Turkey

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ID 83: DC-DC Buck Converter Using DTMOS Technique for Ultra Low Voltage Applications

Recep Emir¹, Sezai Alper Tekin²
¹Nuh Naci Yazgan University, Turkey; ²Erciyes University, Turkey

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ID 155: Sequential Switching Shunt Regulators for LEO Satellite Applications

Esra Baskaya, Bunyamin Tamyurek
Gazi University, Turkey

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ID 19: Experimental Comparison of Integrated Circuit Mach-Zehnder Interferometers for Different Types of Output Combiners

Fatih Ustuner¹, Ibrahim Olcer²
¹Istanbul Ticaret University, Turkey; ²Insignia Engineering, Turkey

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Session – T3

Session Chair: Professor **Sevilay CETIN**, Pamukkale University, Denizli, Turkey



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09 - Biomedical Electronics-1

ID 25: Efficiency Performance Evaluation of A Second Stage GaN Based High Frequency Inverter for Electrosurgery

Hale Tarinc, Sevilay Cetin
Pamukkale University, Turkey

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ID 39: Amazon Web Services and MicroPython Based ECG Monitoring System

Taylan Utku Mert¹, Farzin Asadi²
¹EDS Elektronik Destek Sanayi, Turkey; ²Maltepe University, Turkey

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ID 140: Breast Cancer Diagnosis: Tumor Identification and Localization Based on Millimeter-Wave Spectroscopy with a 33 GHz Patch Antenna

Iremnur Duru, Nurhan Gunes, Timucin Emre Tabaru
Sivas University of Science and Technology, Turkey

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ID 197: The Effect of Differently Optimized Histogram Stretching Techniques on the Classification Performance of Sperm Morphology

Gunel Eyyubova, Gorkem Serbes, Hamza Osman Ilhan
Yildiz Technical University, Turkey

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Session – T7

Session Chair: Professor **Nevzat G. GENCER**, Middle East Technical University, Ankara, Turkey



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09 - Biomedical Electronics-2

ID 86: Determination of DL-Based Bone Age Assessment

Dogacan Toka, Murvet Kirci
Istanbul Technical University, Turkey

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**ID 52: An Improved Artery Pressure Sensor Design That Minimally Disturbs
Blood Pressure and Flow**

Menduh Furkan Aslan, Mustafa Ilker Beyaz
Antalya Bilim University, Turkey

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**ID 187: Efficiency Analysis for Deep Brain Stimulation Using an LCC-C WPT
System Operating at 13.56 MHz Frequency**

Kemal Sahin, Sevilay Cetin
Pamukkale University, Turkey

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**ID 47: Performance Comparison of Metaheuristic Algorithms on FOPID-
Controlled Anti-Cancer Drug Delivery System**

Sena Ay, Selim Soylu
Aksaray University, Turkey

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ID 167: Potato Leaf Disease Detection Using the Convolutional Neural Network

Abdullah Haidari, Avinash Kumar
N.N. Krasovskii Institute of Mathematics and Mechanics, Russia; Ural
Federal University, Russia

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Session – F8

Session Chair: Professor **Hakan KUNTMAN**, Istanbul Technical University, Istanbul, Turkey



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11 - Circuits and Systems-1

ID 214: Monitoring Approach and Framework Development for System Tracking in IoT Devices

Gorkem Aktas, Emin Konukoglu, Yucel Aydin
Istanbul Technical University, Turkey

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ID 24: Design and Implementation of a Lightweight Bloom Filter Accelerator for IoT Applications

Huseyin Aydin Seymen, Mustak Erhan Yalcin
Istanbul Technical University, Turkey

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ID 35: An Electronically Tunable Capacitance Multiplier Employing Single Active Block for the Speech Processing Applications

Burak Sakaci¹, Deniz Ozenli¹, H. Hakan Kuntman²
¹Turkish Air Force Academy, National Defence University, Turkey; Istanbul Technical University, Turkey

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ID 48: Diode-Connected Transistor Mixer Analysis Based on a Linearized Parametric Model

Alexander S. Korotkov, Olga A. Golovan
Peter the Great St. Petersburg Polytechnic University, Russia

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ID 153: Power Redundancy Architecture Modification for Defense Industry Applications

Yaren Emre¹, Alptekin Yildiz¹, Hakan Akca²
¹Istanbul Technical University, Turkey; ²Ege University, Turkey

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Session – F11

Session Chair: Professor **Mustak Erhan YALCIN**, Istanbul Technical University, Istanbul, Turkey



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11 - Circuits and Systems-2

**ID 169: A Comprehensive Performance Space Comparison of Bandgap
Reference Circuits Through Hard Constrained Analog Circuit Multi-
Objective Optimization**

Abdullah Bayram, Enes Saglican, Engin Afacan
Gebze Technical University, Turkey

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**ID 193: FPGA Based Verification of Delay Variations and the Difficulty of Delay
Based Hardware Trojan Detection**

Fatma Nur Esirci, Hasan Mutlu, Alp Arslan Bayrakci
Gebze Technical University, Turkey

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**ID 198: Integer Point Enumeration in Multi-Dimensional Geometric Objects
with FPGA Acceleration**

Gizem Sungu Terci, Alp Arslan Bayrakci
Gebze Technical University, Turkey

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**ID 196: DELTA-V: An Open-Source High-Level Synthesis Driven ASIP Design
Automation Tool for RISC-V Microprocessors**

Muhammet Enes Yanik, Murat Tokez, Mehmet Akif Nisanci, Ihsan Cicek
Gebze Technical University, Turkey

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Session – S3

Session Chair: Professor **Ece Olcay GUNES**, Istanbul Technical University, Istanbul, Turkey



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12 - Signal and Image Processing-1

**ID 220: Exploiting Optimal Supports in Enhanced Multivariance Products
Representation for Lossy Compression of Hyperspectral Images**

M. Enis Sen, Suha Tuna

Istanbul Technical University, Turkey

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**ID 22: Analog Image Processing Using Gaussian Based Filtering for Motion
Detection Applications**

Mecid Alhamuy, Burcu Erkmen

Yildiz Technical University, Turkey

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ID 118: Diagnosis of Lung Cancer Based on CT Scans using Vision Transformers

Tolgahan Gulsoy, Elif Baykal Kablan

Karadeniz Technical University, Turkey

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ID 110: Classification of Eye Disease from Retinal Images Using Deep Learning

Begüm Sener, Emre Sumer

Baskent University, Turkey

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ID 81: Park Vector Approach based Misalignment Detection Strategy for IMs

Ege Kahraman, Anil Erkut Ersoy, Mehmet Ozan Serifoglu, Duygu Bayram
Kara

Istanbul Technical University, Turkey

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Session – S6

Session Chair: Professor **Oguzhan CICEKOGLU**, Bogazici University, Istanbul, Turkey



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12 - Signal and Image Processing-2

ID 51: Building Height Prediction with Instance Segmentation

Furkan Burak Bagci, Metehan Yalcin, Ufuk Uyan, Mahiye Uluyagmur
Ozturk, Ahmet Alp Kindiroglu
Huawei Turkey R&D Center, Turkey

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ID 78: Estimation of the Level of Corrosion in Columns in Buildings

Gulluhan Irmak¹, Emin Sapmaz¹, Eray Akgun¹, Atalay Kocakusak¹, Yalcin Albayrak¹, Selcuk Helhel¹, I. Bahadır Basyigit²
¹Akdeniz University, Turkey; ²Isparta University, Turkey

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ID 133: Remote Sensing Based Building Height Regression

Furkan Burak Bagci, Metehan Yalcin, Ufuk Uyan, Mahiye Uluyagmur
Ozturk, Ahmet Alp Kindiroglu
Huawei Turkey R&D Center Turkey

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ID 103: Vehicle Crowd Density Estimation Enhanced by Video Flow Maps

Pedram Yousefi, Bilge Günsel, Yusuf Kagan Hanoglu
Istanbul Technical University, Turkey

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ID 132: Analysis of Deep Learning Models for Classifying Parking Lots in Satellite Images

Alperen Enes Bayar, Ahmet Alp Kindiroglu
Huawei Turkey R&D Center, Turkey

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Session – F7

Session Chair: Professor **Erdem YAZGAN**, TED University, Ankara, Turkey



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13 - Electromagnetics

ID 58: Determination of the Dielectric Coating Parameters to Reduce the Radar Cross Section of the Perfectly Conducting Cylinder

Tanju Yelkenci

Turkish-German University, Turkey

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ID 38: Hardware Design for Compliance to Automotive EMC Conducted Transient Disturbances Tests

Yeda Olca

AVL Research & Engineering, Turkey

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ID 146: Efficient Analysis of Shielding Effectives of Metallic Enclosures Using the HIE-FDTD Algorithm

Arzu Kalender Tutas, Fatih Kaburcuk

Sivas Cumhuriyet University, Turkey

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ID 194: Parallel Coupled Microstrip Bandpass Filter Design for C-Band TV Satellites

Mehmet Arif Yilmaz, Muhammet Hilmi Nisanci

Sakarya University, Turkey

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ID 45: Determination of Guided Wavelength in Multi-layer Microstrip Structures via Open Circuit T-Resonator

Gulden Gunay Bulut Oner¹, Suad Basbug¹, Yasemin Altuncu²

¹Nevsehir Haci Bektas Veli University, Turkey; ²Nigde Omer Halisdemir University, Turkey

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Session – T4

Session Chair: Professor **Filiz GUNES**, Yildiz Technical University, Istanbul, Turkey



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14 - Antennas-1

ID 180: Dual-Band Compact Antenna Design for Capsule Biotelemetry Applications

Mert Ciflik, Siddik Cumhuri Basaran
Akdeniz University, Turkey

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ID 182: Frequency Reconfigurable Antenna Design for Tissue Independent Medical Applications at 2.4 GHz ISM Band

Mert Ciflik, Siddik Cumhuri Basaran
Akdeniz University, Turkey

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ID 43: Design of a Compact UWB Cloverleaf Antenna with Defected Ground Structure

Atakan Cagatay Bekdemir, Fatih Erden
National Defence University, Turkey

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ID 156: Dual-Band 2x2 Cavity-Backed Antenna with Enhanced Out-of-Band Suppression for TX/RX Communication of UAVs at Ku-Band

Yavuz Asci¹, Mustafa Secmen²
¹Usak University, Turkey; ²Yasar University, Turkey

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ID 46: Multi-Layer I-Slot Microstrip Antenna for Internet of Things Applications

Gulden Gunay Bulut Oner¹, Suad Basbug¹, Yasemin Altuncu²
¹Nevsehir Haci Bektas Veli University, Turkey; ²Nigde Omer Halisdemir University, Turkey

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Session – T8

Session Chair: Professor **Gunes KARABULUT KURT**, Polytechnique Montreal, Canada



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14 - Antennas-2

ID 75: Reflect-Array Design for 28 GHz

Israa Aqrab¹, Hulya Gokalp Clarke¹, Mohmmmed Al Hannawi²

¹Ondokuz Mayıs University, Turkey; ²Kocaeli University, Turkey

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ID 120: Dual Band Linear Polarized Reflectarray System with FSS Backing

Ahmet Hulusi Gulseren¹, Aytac Alparslan², Nurhan Turker Tokan³

¹Aydin Adnan Menderes University, Turkey; ²Trakya University, Turkey;

³Yildiz Technical University, Turkey

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**ID 126: Multi Functional Terahertz Polarization Converter Having a Wideband
Almost Perfect Linear to Circular Polarization Conversion**

Oznur Turkmen-Kucuksari

Kocaeli University, Turkey

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**ID 157: Calculating Path Loss for Stratospheric Channels During High Solar
Activity**

Bensu Elmaci Gokmen¹, Funda Akleman¹, Gunes Karabulut Kurt²

¹Istanbul Technical University, Turkey; ²Polytechnique Montreal, Canada

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Session – F10

Session Chair: Assoc. Professor **Sait Eser KARLIK**, Bursa Uludag University, Bursa, Turkey



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15 - Communication Systems

ID 12: Frequency Band Specific Jamming Power Amplifier for 4G Communication

Murat Ucuncu, Atakan Yilmaz, Ozlem Kucukparlak, Selin Seker
Başkent University, Turkey

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ID 123: Design of a C Band High Efficiency Doherty Power Amplifier for 5G Applications

Onur Coskun¹, Engin Afacan²
¹Aselsan, Turkey; ²Gebze Technical University, Turkey

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ID 172: A 2-6 GHz Driver Amplifier with 27 dBm Output Power and >35 dB Flat Gain

Engin Cagdas¹, Oguzhan Kizilbey², Metin Yazgi³, Osman Palamutcuogullari³
¹Tubitak Bilgem Yital, Turkey; ²Tubitak National Metrology Institute, Turkey; ³Istanbul Technical University, Turkey

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ID 150: Secrecy Outage Probability Performances of Transmit Antenna Selection Schemes in Multi-User MIMO-OFDMA Systems

Muhammed Caglar Turkeli¹, Ahmet Faruk Coskun²
¹TUBITAK BILGEM & Bogazici University, Turkey; ²Turkcell, Turkey

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ID 20: Analysis and Implementation of a Daisy-Chain Serial Peripheral Interface Bus for a Communication Network with Multiple PLC Modules

Oguzhan Coskun¹, Erkan Egeli¹, Erdal Tarcin¹, Ibrahim Kurtulus¹, Gunes Yilmaz²
¹EMKO Electronics Inc., Turkey; ²Bursa Uludag University, Turkey

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Session – S13

Session Chair: Professor **Ahmet ALTUNCU**, Afyon Kocatepe University, Afyonkarahisar, Turkey



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16 - Sensors and Instrumentation

Special Session: **Fiber Optic Based Communication and Sensor Applications**

ID 62: Fiber Bragg Grating Sensors in Industrial Heating Systems

Samil Sirin¹, Busra Durak¹, Kivilcim Yuksel Aldogan¹, Murat Merdin²,
Oguz Deniz Merdin², Damien Kinet³, Corentin Guyot³, Christophe
Caucheteur³

¹Izmir Institute of Technology, Turkey; ²MET Advanced Technology
Systems, Turkey; ³B-Sens, Belgium

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**ID 96: A New Single Ended Calibration Approach of Fiber Optic Based Linear
Type Temperature Sensor for Tunnels**

Soner Mulayim, Erkan Ozkan, Tayfun Erkorkmaz
Samm Technology Communication Industry and Trade Inc., Turkey

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ID 111: Display Methods of Fiber Optic Based Acoustic Signals

Ramazan Can Sahin, Erkan Ozkan, Tayfun Erkorkmaz
SAMM Technology Communications Industry and Trade Inc. Co.,
Turkey

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**ID 67: Transimpedance Amplifier Design and Performance Comparison for
Photoelectric Cells**

Muhammed Taha Kavlak, Umut Engin Ayten
Yildiz Technical University, Turkey

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**ID 190: Investigating the Use of Super Conducting Josephson Circuits for
Microwave Power Measurements at Cryogenic Temperatures**

Tezgul Coskun Ozturk, Oliver Kieler
TUBITAK UME, Turkey; PTB, Germany

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Session – T2

Session Chair: Professor **M. Turan SOYLEMEZ**, Istanbul Technical University, Istanbul, Turkey



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17 - Control Systems-1

ID 127: Preview Theory-Based Steering Control Approach for Lane Keeping Assist System

Nergiz Sermet, Ece Sekerciler
AVL Turkiye Research and Engineering, Turkey

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ID 109: Optimizing Autonomous Path Tracking Using Population-Based Metaheuristic and Pure Pursuit Control

Furkan Hanilci¹, Yiğit Çağatay Kuyu¹, Fahri Vatansever²
¹Karsan Automotive, Turkey; ²Bursa Uludag University, Turkey

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ID 115: On The Trail of West – East Signalling Interoperability: A Novel Proposal for STM and an Interface Proposal for ETCS Onboard Operations on Class B Trackside Signalling Systems

Cağla Kivilcim Ciftcioglu, Mehmet Turan Soylemez
Istanbul Technical University, Turkey

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ID 166: Performance of SLAM Algorithms According to Noise and Reduced Landmark Parameters

Ismail Barta, Ahmet Ozkurt
Dokuz Eylul University, Turkey

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Session – T6

Session Chair: Professor **Ibrahim Beklan KUCUKDEMIRAL**
Glasgow Caledonian University, Scotland, United Kingdom



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17 - Control Systems-2

ID 92: Predictive and Fuzzy Logic Controller Based P2 HEV Energy Management Strategy Benchmark

Onurcan Turhan, Yetkin Sayar, Burak Hacieyupoglu, Huseyin Batmaz,
Celalettin Dogukan Engin
AVL Turkiye Research and Engineering, Turkey

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ID 186: Design of Optimal Fuzzy Logic Controller for FCEVs via Big Bang-Big Crunch

Saleh Msaddi, Sabri Yilmaz
AVL Research and Engineering, Turkey

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ID 71: Development of Cost Minimization-Oriented Optimization Algorithm for Green Hydrogen Production in a Multi-Energy System Considering FCEV Availability

Nazmiye Kopacak, Hilmi Cihan Guldorum, Ozan Erdinc
Yildiz Technical University, Turkey

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ID 158: Heuristic Optimization of PI Controllers for Time-Delayed LFC-EV Systems

Omer Aydin¹, Suud Ademnur Hasen², Saffet Ayasun²
¹Erzincan Binali Yildirim University, Turkey; ² Gazi University, Turkey

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Session – S11

Session Chair: Professor **Seref Naci ENGİN**, Yildiz Technical University, Istanbul, Turkey



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19 - Robotics and Automation Systems

ID 143: Linear Quadratic Regulator Design for Wheelchair Control Using Monte-Carlo Simulation Method

Efgan Ugur¹, Tolgay Kara¹, Abdulhafez Abdulhafez²

¹Gaziantep University, Turkey; ²Hasan Kalyoncu University, Turkey

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ID 192: Real Time Computer Vision Based Robotic Arm Controller with ROS and Gazebo Simulation Environment

Abdurrahman Gumus, Egemen Aksoy, Arif Dorukan Cakir, Berat Alper Erol
Izmir Institute of Technology, Turkey

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ID 142: Decentralized Unknown Input Observer-based State and Fault Estimation for Multi Agent Systems

Omer Gursoy^{1,2}, Michael Defoort², Mohamed Djemai^{2,3}, Seref Naci Engin¹

¹Yildiz Technical University, Turkey; ²Université Polytechnique Hauts-de-France; ³ENSEA Cergy, France

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ID 41: Data-Driven Modelling of a Plug-In Hybrid Electric Vehicle

Adnan Furkan Yildiz, Rahman Sahinler, Cansu Ozturk
AVL Research and Engineering, Turkey

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ID 66: Module and Cell Configuration Optimization for Multiple Voltage Level EV Battery Pack

Nursah Oz¹, Koray Erhan², Ahmet Fevzi Baba²

¹Eskisehir Technical University, Turkey; ²Marmara University, Turkey

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Session – F3

Session Chair: Professor **Sule YILDIRIM-YAYILGAN**
Norwegian University of Science and Technology, Gjøvik, Norway



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20 - Artificial Intelligence-1

ID 2: Artificial Intelligence Approach in the Detection of Lung Diseases

Developing Post-COVID 19 with Lung Images

Aysen Ozun Turkcetin^{1,2}, Turgay Koc¹, Sule Cilekar², Yasar Inkaya², Furkan Kaya², Petek Sarlak Konya²

¹Suleyman Demirel University, Turkey; ²Afyonkarahisar Health Sciences University, Turkey

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ID 63: A Comparative Analysis of Artificial Intelligence Optimization Algorithms for the Selection of Entropy-based Features in the Early Detection of Epileptic Seizures

Yusuf Bahri Ozcelik, Aytac Altan

Zonguldak Bulent Ecevit University, Turkey

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ID 30: Evaluation and Replication of Wind Tunnel Data Using Artificial Intelligence Methods

Sezer Bulut¹, Numan Kayan¹, Ismail Kilin¹, Furkan Avcioglu¹, Halil Ibrahim Yavasoglu¹, Hidir Duzkaya¹, Tolga Inal²

¹Gazi University, Turkey; ²Turkish Aerospace Industry (TAI), Turkey

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ID 135: A Generative AI-driven Application: Use of Large Language Models for Traffic Scenario Generation

Çagri Guzay, Ege Ozdemir, Yahya Kara

AVL Turkiye Research and Engineering, Turkey

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Session – F6

Session Chair: Assoc. Professor **Cemal HANILCI**, Bursa Technical University, Bursa, Turkey



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20 - Artificial Intelligence-2

ID 148: Machine Learning Prediction Based User Interface for Aircraft Cockpit

Bilge Topal, Levent Carkacioglu, Behçet Ugur Toreyin
Istanbul Technical University, Turkey; Aselsan Inc., Turkey

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ID 159: Machine Learning Based Mobile Traffic Forecasting for Large Scale 5G Networks

Muhammet Tugberk Isyapar, Suleyman Yildirim, Ufuk Uyan
Huawei Turkey R&D Center, Turkey

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ID 11: Load Estimation of Different Types of Domestic Users Using Machine Learning Methods and Optimal Battery Sizing

Umit Can Unal¹, Hakan Irek¹, Semanur Sancar², Ayse Kubra Erenoglu³
¹Fatih Sultan Mehmet Vakif University, Turkey; ²Foton Energy, Turkey;
³Yildiz Technical University, Turkey

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ID 28: Gradient Maximization Regularization for Signed Adversarial Attacks

Deniz Sen
Huawei Turkiye R&D Center, Turkey

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ID 76: A Few-shot Learning Approach for Multi-Task CT Image Classification

Mohamed El Hacen Habib, Ayhan Kucukmanisa, Oguzhan Urhan
Kocaeli University, Turkey

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Session – F9

Session Chair: Assist. Professor **Figen OZEN**, Halic University, Istanbul, Turkey



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20 - Artificial Intelligence-3

ID 137: Digital Twin Architecture for Autonomous Driving Validation and Verification

Orkun Kizilirmak, Emre Kaplan, Cagri Guzey
AVL Türkiye Research and Engineering, Turkey

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ID 189: Reducing In-Vehicle Communication Overload and Enhancing Efficiency in Autonomous and Electrical Vehicles

Yunus Kagan Ozdemir, Ahmet Cansiz
Istanbul Technical University, Turkey

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ID 54: A Review Study on Functional Safety Verification and Validation for Autonomous Vehicles

Cuneyt Haspolat, Ecem Celik, Mert Aygun, Isil Cosar, Melike Karaduman
AVL Turkey, Turkey

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ID 121: Event Based Energy Disaggregation Algorithm for Autonomous Demand-Ready Response Operations in Homes

Rabia Seyma Gunes¹, Onur Enginar², Erman Terciyanli¹
¹Inavitas Energy, Turkey; ²Presify Analytical Software Inc.

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ID 34: A Study on Spiking Neural Network Design

Yasemin Erkan, Erdem Erkan
Bartın University, Turkey

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Session – F12

Session Chair: Assist. Professor **Mehmet Tahir SANDIKKAYA**
Istanbul Technical University, Turkey



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21 - Cyber Security

**ID 64: Uniquely Identifying Device Fingerprint via Deep Learning over Ethernet
Communication Signals**

Furkan Hasan Sakaci, Tulay Yildirim
Yildiz Technical University, Turkey

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**ID 36: Image Denoising via Multiscale Feature Extraction and Triplet Attention
based CNN**

Ahmet Ulu, Bekir Dizdaroglu
Karadeniz Technical University, Turkey

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ID 56: GUI Component Detection Using YOLO and Faster-RCNN

Sena Nur Cavsak, Aysu Deliahmetoglu, Berhan Turku Ay, Senem Tanberk
Huawei Turkey Research and Development Center, Turkey

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**ID 195: Employment and Investigation of Various CNN Models and Datasets for
Facial Expression Recognition and Classification**

Sonay Onur Avci, Olcay Akay
Dokuz Eylul University, Turkey

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**14th INTERNATIONAL CONFERENCE on
ELECTRICAL and ELECTRONICS ENGINEERING**
Bursa, Turkey, November 30-December 2, 2023
Virtual Conference



Saturday, 02.12.2023, Hours: 14:45-16:15 (for Turkey GMT+3)

Session – S10

Session Chair: Professor **Bilgin METIN**, Bogazici University, Istanbul, Turkey



[Zoom link](#)

22 - Other Topics-1

ID 72: Gear Pitting Fault Detection: Leveraging Anomaly Detection Methods

Ozan Can Alper, Hatice Dogan, Hasan Ozturk
Dokuz Eylül University, Turkey

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ID 74: Analysis of Cutter Wear Conditions in CNC Machine Tools with Wavelet Packet Transform

Mehmet Gollu, Alper Yilmaz, Gokay Bayrak
Bursa Technical University, Turkey

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ID 97: Modular PPE Detection System for Workplace Safety Management Using Pose Estimation

Selcuk Anil Karatopak, Deniz Sen
Huawei Turkiye R&D Center, Turkey

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ID 98: Comparison of Security Certification Pathways for SMEs

Gizemnur Taskin, Mehmet Tahir Sandikkaya
Istanbul Technical University, Turkey

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**14th INTERNATIONAL CONFERENCE on
ELECTRICAL and ELECTRONICS ENGINEERING**
Bursa, Turkey, November 30-December 2, 2023
Virtual Conference



Saturday, 02.12.2023, Hours: 17:30-19:00 (for Turkey GMT+3)

Hours: 16:30-18:00 (for Bulgaria GMT+2)

Session – S14

Session Chair: Professor **Aldeniz RASHIDOV**, Technical University of Gabrovo, Bulgaria



[Zoom link](#)

22 - Other Topics-2

ID 184: Production Cost Minimization Considering Integrated Carbon and Electricity Trading System

Edanur Tas¹, Tayfur Gokcek¹, Yavuz Ates², Ozan Erdinc¹

¹Yildiz Technical University, Turkey; ²Celal Bayar University, Turkey

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ID 134: Comparison of Classifiers for Text Classification in an E-commerce Service

Cagdas Dogan, Sinan Sarica
ETTS, Turkey

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ID 27: SWOT Analysis of E-Voting System in Higher Education Institutions

Aldeniz Rashidov
Technical University of Gabrovo, Bulgaria

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ID 33: Determining the Degree of Preference for Various Aspects of E-Voting System in Higher Education Institutions

Aldeniz Rashidov
Technical University of Gabrovo, Bulgaria

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ID 73: Determining Priorities of Indicators at the Examination Timetabling in a Higher Education Institution for Part-time Students

Fatme Rashidova
Technical University of Gabrovo, Bulgaria

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