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## PROGRAM

### IEEE GLOBAL ENERGY CONFERENCE 2024

Dec 4-6, 2024 University of California Riverside

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	OPENING CEREMONY	December 4, 2024 Wednesday	Pacific Time
Conference Center	Alfredo M. Morales, General Chair	Opening Speech	09:00
	Idris Demir, Chancellor of Batman University	Opening Speech	09:15
	Reza Abbaschian, Representing Winston Chung Center, UCR		09:30
	Kathleen Kramer, IEEE President-Elect		10:00
	Josep M. Guerrero Aalborg University, Department of Energy Technology Denmark		10:30
	Mohamed BECHERIF, UTBM France		11:00
	Best Paper Awarded	Will be announced	
	Best Presentation Awarded	Dec 6, 2024 Friday 18:00	

<https://batman-edu-tr.zoom.us/j/91625285975?pwd=Z5BWCObuqDw5kYpd94Vaem8CQvCwa.1>

	SESSION I Chair: T. Cetin Akinci	December 4, 2024 Wednesday	Pacific Time
HALL A	Advanced Load Flow & Fault Analysis of Renewable Energy Integration in IEEE 9 Bus Power System	Saha Sajib, Alam Md. Ferdosh, Sayada Rezwana, Rahman Rashedur M., Hasan A S M Jahid	13:30-15:00
	A Cost-Effective 3D Finite Element Model for Predicting Transient Heat Transfer in U-tube Ground Heat Exchangers	Gamage Kumudu, Walive Pathirana Manula Randhika Pathirana, Harbor David, Jo Wonjun, Jeem Abid, Chung Julius	
	Generating Energy or Saving Energy to Reduce Turkey's Energy Import Dependency	Cagman Selman	
	An Overview of Planning for Vehicle-to-Grid Systems with Large-Scale Adoption of Electric Vehicles	Mohammadi Fazel, Mirhashemi Mahmood	
	Mitigation of FIDVR using Solid State Transformer in Active Distribution Systems	Ghambirlou Khaled	
	Design of a prototype dynamic line rating system for real-time monitoring of overhead transmission lines	Pablo Gomez, Erkan Dursun	
Zoom Link:	<a href="https://batman-edu-tr.zoom.us/j/98669166535?pwd=SkWmBE9gqYUx1F7Jg5eNVopy">https://batman-edu-tr.zoom.us/j/98669166535?pwd=SkWmBE9gqYUx1F7Jg5eNVopy</a>		

	SESSION II Chair: Heybet Kilic	December 5, 2024 Thursday	IST (GMT+3)
HALL A	Maximize the Electricity Production From PV System Employing the Optimum Tilt Angle	Abed Muntadher	09:00-10:30
	Evaluation of Mo-promoted Ni/AC catalysts in CO2 methanation: Effect of different synthesis method	Akpasi Stephen, Kiambi Sammy	
	Optimized Output Impedance for Parallel Inverters in Microgrids Utilizing ABC Algorithm and Droop Control Method	JOUDA Mohammed, Wadi Mohammed, Salemdeeb Mohammed, Tur Mehmet Rida	
	Forecasting Wind Energy Production: Analysis of Meteorological and Temporal Variables Using Optimized Regression Modeling	Yuksekk Gokhan	
	Frequency Stability Improvement of Integrated Micro-Grid Using Battery Storage System Based Distribution Static Compensator (BESS-DSTATCOM)	Imtiaz Saqif, Munir Hafiz Mudassir, Ali Maqsood, Heybet Kilic Heybet, R. Altmania Mohammad, Yilmaz Musa Yilmaz, Yang Lijun	
Zoom Link:	<a href="https://batman-edu-tr.zoom.us/j/95871845302?pwd=oxhgaRlgrLZ5kuZhwYNT7agVxAADcd.1">https://batman-edu-tr.zoom.us/j/95871845302?pwd=oxhgaRlgrLZ5kuZhwYNT7agVxAADcd.1</a>		

	SESSION III Chair: Bilal Gümüş	December 5, 2024 Thursday	IST (GMT+3)
HALL B	Performance Analysis of a MIMO Channel Simulator for Smart Grid Communications	Ali Ahmed	09:00-10:30
	Energy disaggregation of appliances considering simultaneous activation using dictionary learning technique	Sundas Ms., Sajjad Dr. Malik Intisar Ali, Abbas Muhammad	
	Edge-Based Machine Learning for Immediate Botnet Detection and Response in IOT Networks	A Boomika, Anwar Shifana	
	From Storage to Mobility: Addressing Battery Issues in Qatar's Energy Storage and Electric Vehicle Sectors	Maher Kenza	
	Enhancing Solar Power Forecasting through Feature Engineering with Wavelet Transform	Kavaz Ayse Gokcen	
	PID-F Controlled LFC in a Two-Area Power System with Renewable Integration Using Metaheuristic Approaches	Can Özey, Izci Davut, Ekinci Serdar, Ghandour Raymond, Salman Mohammad	
Zoom Link:	<a href="https://batman-edu-tr.zoom.us/j/98669166535?pwd=SkWmBE9gqYUx1F7Jg5eNVopy14M.1">https://batman-edu-tr.zoom.us/j/98669166535?pwd=SkWmBE9gqYUx1F7Jg5eNVopy14M.1</a>		

<b>SESSION IV Chair: İbrahim Kaya</b>		<b>December 5, 2024 Thursday</b>	<b>IST (GMT+3)</b>
<b>HALL A</b>	Scenario-Based Insights into GCC's Net-Zero Transition: Balancing Economic Growth with Carbon Management	Shahzad Sulman, Alsenani Theyab, Kilic Heybet, Siddiqui Usman	<b>10:45-12:15</b>
	CFD Investigation on Heat Transfer Performance of Different Pipe Geometries at Various Reynolds Numbers	Kepekci Haydar, Ağca Mehmet Emin	
	Comparison of Sensorless Control Methods for Interior Permanent Magnet Motor	Sapmaz Tunahan, Bakan Faruk	
	Predicting First-Order System Parameters using Neural Networks Trained on Multiple Test Signals	Vispute Siddhant, Ushkewar Sandeep, PATIL GAURAV	
	Effect of Wire Size and Slot Filling Factor on The Number of Turns Per Pole in Design of SRM	Geçer Bekir, tosun öztürk, oyman serteller necibe, Akpolat Alper Nabi, Kari Kaşoğlu Gülten	
	Improving the performance of an incremental conductance MPPT algorithm using Harris-Hawks optimization in photovoltaic systems	ASTA OMAR Seraj, ERKAL Bilgehan	
<b>Zoom Link:</b>		<a href="https://batman-edu-tr.zoom.us/j/92118291591?pwd=aVtdVdVsYF1PQcqwNUpNWfuEVapmt.1">https://batman-edu-tr.zoom.us/j/92118291591?pwd=aVtdVdVsYF1PQcqwNUpNWfuEVapmt.1</a>	

<b>SESSION V Chair: Sandeep Ushkewar</b>		<b>December 5, 2024 Thursday</b>	
<b>HALL B</b>	Model-Free Voltage Calculation in Power Systems: Applying Gaussian Process Regression for Real-Time Voltage Estimation in DER-Rich Low-Voltage Networks	Shahzad Sulman, Alsenani Theyab, Abbasi Muhammad Abbas, Kilic Heybet, Ay Avsin	<b>10:45-12:15</b>
	A Sustainable Dispositional and Situational Security Awareness Model for Smart Grids	Sani Abubakar Sadiq, Yuan Dong, Lawal Yahaya, Loukas George, Dong Zhao Yang	
	Virtual Synchronous Generator Droop Control for Renewable Energy Sources	Çakmak Fevzi, Aykat Sükrü, Kazanbaş Mehmet Cemil, Akgül Sabahattin	
	PV Systems Generation Prediction Considering Cloud Cover Using Deep Learning Techniques	Wadi Mohammed, Salemedeb Mohammed, JOUDA Mohammed, Tur Mehmet Rida, Ayachi Bilel, Husain Nour	
	Prediction of time-delay neural network modeling for first order control system	Patil Ashwini, PATIL GAURAV, Ushkewar Sandeep	
	Investigation of machine learning for predicting the output of photovoltaic solar power	Ali Ahmed	
<b>Zoom Link:</b>		<a href="https://batman-edu-tr.zoom.us/j/95619554409?pwd=2iakNx14NgDFnlvLN4HaQs5Sjae">https://batman-edu-tr.zoom.us/j/95619554409?pwd=2iakNx14NgDFnlvLN4HaQs5Sjae</a>	

<b>SESSION: VI Chair: Davut izci</b>		<b>December 5, 2024 Thursday</b>	
<b>HALL A</b>	Optimal Placement of Grid-Forming Inverters in Low Inertia Power Systems using Bacterial Foraging Optimization	Shahzad Sulman, Alsenani Theyab, Wheeler Patrick, Kilic Heybet	<b>13:30-15:00</b>
	Fault Analysis in Power Transformers with Finite Element Analysis and Deep Learning: A Study on Flux Distributions	Sinay Merve, Balci Selami, Kayabaşı Ahmet, Aslan Muhammet Fatih, Aslan Büşra	
	Integration of Charging Stations with Hybrid Renewable Energy Systems And Development of a Control Method	Şahin Zeynep, Bilen Burak, Korkmaz Haşim Mert	
	Optimizing ML-Based Solar PV Forecasting Models in Smart Grids	Ozdemir Gokcen, Kuzlu Murat, OZDEMIR Umut, Catak Ferhat Ozgur	
	Comparative Assessment of the Patterns of Solar Irradiance from Multiple Locations Using Deep Learning Methods	Ali Ahmed	
	<b>Zoom Link:</b>		

<b>SESSION VII Chair: Korhan Kayisli</b>		<b>December 5, 2024 Thursday</b>	
<b>HALL B</b>	A Novel Hybrid GGWO–Takagi Sugeno Kang Fuzzy Type 2 Based Maximum Power Point Tracking for Photovoltaic Systems Operating Under Partial Shading Conditions	Özcan Ömer faruk , Kilic Heybet, Özgüven Ömerülfaruk	<b>13:30-15:00</b>
	Leveraging Explainable Artificial Intelligence (XAI) Methods Supporting Local and Global Explainability for Smart Grids	Ozdemir Gokcen, OZDEMIR Umut, KUZLU Murat, Catak Ferhat Ozgur	
	Performance Evaluation of a Dynamic RESTful API Using FastAPI, Docker and Nginx	Ali Ahmed	
	Model-Based Analysis of Factors Influencing Solar Energy Efficiency: Dust Accumulation and Shading Effects	TUR Mehmet Rida, Padmanaban Sanjeevikumar, Hossain Eklas, AL-HAJI Rami, Wadi Mohammed, SHobole Abdulfetah	
	Mitigating Sub-Synchronous Resonance with Adaptive Phase-Dependent Switching in static sub synchronous series compensator	Shahzad Sulman, Alsenani Theyab, Kilic Heybet	
	Preview of 3-Phase Induction Motor Design	Turun Ferhat, Öner Yasemin, Şenol İbrahim, Etçi Harun	
<b>Zoom Link:</b>		<a href="https://batman-edu-tr.zoom.us/j/93042306403?pwd=cFJNRcEGIR6u0gWWvXZxnVQ0bkr9.1">https://batman-edu-tr.zoom.us/j/93042306403?pwd=cFJNRcEGIR6u0gWWvXZxnVQ0bkr9.1</a>	

<b>SESSION VIII Chair: Abdulkrim Oztekin</b>		<b>December 5, 2024 Thursday</b>	
<b>HALL C</b>	Numerical Model for Thermal Performance: Analysis of a Panel Radiator Cap and Ventilation Grills	ışıkşaçar sinem, Erbaş Murat, büyüğü atilla	<b>15:15-16:45</b>
	Preview of Single Phase Induction Machine	Turun Ferhat, Öner Yasemin, Şenol İbrahim, Etçi Harun	
	Design of Flexible Charging Simulator for Electric Vehicles	Alaca Emir, Akpolat Alper Nabi, Topcan Hamdi, Kalay Muhammet Şamil, Demir Uğur	
	Wind Turbine Fault Detection and Prediction Using Machine Learning Methods and SCADA Data	Kavaz Ayse Gokcen	
	Arc Flash Analysis Review At Various Applications And Voltage Levels Of Power Systems	Kayal Abdulhamid, BAY Ömer	
	<b>Zoom Link:</b>		

HALL A	<b>SESSION IX Chair: Korhan Kayisli</b>	<b>December 6, 2024 Friday</b>	09:00-10:30
	Systems of Smart Load Management for More Electrical Aircraft	Yildiz, Mina Seyma; KAYISLI, Korhan	
	Energy Efficiency in Agricultural Irrigation Sustainable Agriculture of the Future	Parça Taha, Tan Gökhan, Tür Mehmet Rıda	
	Integration of Sustainable Energy Sources into Data Centre Electrical Systems	Sahin Cihan, Andic Cenk, Aydın Esra, Turkey Belgin	
	Strengthening Energy Infrastructure Security: A Blockchain Approach for SCADA Systems	Sönmez Yasin	
Optimizing Parking Lot Management with Mobile Energy Suppliers for Electric Vehicles	TETİK ALİ, Yigit Hayri, Erenoğlu Ayşe, Erdinc Ozan, Boynueğri Ali		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/99927043199?pwd=ba1005hsgg9myKJegEKrpQVcxI">https://batman-edu-tr.zoom.us/j/99927043199?pwd=ba1005hsgg9myKJegEKrpQVcxI</a>		

HALL B	<b>SESSION X Chair: Heybet Kilic</b>	<b>December 6, 2024 Friday</b>	09:00-10:30
	Impacts of Electric Vehicle Charging Stations on the Capacity of Distribution Transformers	Tekin Halil, GÜMÜŞ Bilal	
	Prediction of Electricity Production from Wind and Solar Energy by Employing Regression Models	Orenc Sedat, ACAR Emrullah, BAKIŞ Enes , Özerdem Mehmet Sirac	
	A Novel Puma Optimizer Based TID Controller for Load Frequency Control	Andic Cenk, Ozturk Ali, Aydın Esra, Turkey Belgin	
Core Loss Analysis in Power Transformers: A Finite Element Method Approach Considering Voltage Harmonics Impact	Hashemi Mohammad Hassan, Polat Huseyin, Guven Basaran Seda		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/99611000038?pwd=kSwZs363p440eUkQvYnNmQUQ">https://batman-edu-tr.zoom.us/j/99611000038?pwd=kSwZs363p440eUkQvYnNmQUQ</a>		

HALL C	<b>SESSION XI Chair: Omer Faruk Ertugrul</b>	<b>December 6, 2024 Friday</b>	10:45-12:15
	Increasing Electric Power System Stability by Integrating Renewable Energy	Korot, Asem Hussein Mustafa ; Al-VOZBAKY, Omar Sharaf AL-Deen; KAYISLI, Korhan	
	Effect of Volt/Var Control on Optimal Hosting Capacity of Distributed Energy Resources	Kim, Insu	
	Direct synthesis-based optimal PID2 controller design for enhanced load frequency control in electrical power systems	Güler Yavuz, Nalbantoğlu Mustafa, KAYA Ibrahim	
	Optimal Parameter Extraction of Triple-Diode Photovoltaic Model Using Frilled Lizard Optimization	DAL Süleyman, SEZGIN Necmettin	
Dynamic Economic Load Dispatch Using GAMS	Aydın Esra, Andic Cenk, Turkey Belgin		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/97656488751?pwd=aOBpJBRmsabiQrhHZhxGMgTs9I">https://batman-edu-tr.zoom.us/j/97656488751?pwd=aOBpJBRmsabiQrhHZhxGMgTs9I</a>		

HALL A	<b>SESSION XII Chair: Emrullah Acar</b>	<b>December 6, 2024 Friday</b>	13:30-15:00
	Design of a Phase Shifted Full Bridge DC-DC ZVS Converter with Analog Control	Saglam Alperen, KAYISLI Korhan	
	Evaluation of Energy Storage Solutions in Microgrids: A Comparison in Terms of Flexibility and Economics	Oymak Aysenur, Demirel Ibrahim Halil, Tur Mehmet Rıda	
	Development of Supported Catalyst for Hydrogen Production from Sodium Borohydride	Sayilgan Ahmet, Onat Erhan, Ekinci Selma, Izgi Mehmet Sait	
	Machine Learning Approaches for Predicting Power Generation in Wave Energy Converters	BAKIŞ Enes , BAKKAL Salih	
Adaptive Active Filter and Wavelet PWM-Based Multilevel Inverter Structure for Improved Power Systems in More Electric Aircraft	Macit Çatalbaş Nurbanu, Pakfiliz Ahmet Güngör, Soysal Gökhan, Çatalbaş Mehmet Cem		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/95808257492?pwd=JX0c33qRbNBsxtkSVJjkt0U4LX">https://batman-edu-tr.zoom.us/j/95808257492?pwd=JX0c33qRbNBsxtkSVJjkt0U4LX</a>		

HALL B	<b>SESSION XIII Chair: M. Rıda Tur</b>	<b>December 6, 2024 Friday</b>	13:30-15:00
	Deep Learning-Based Time Series Prediction of Micro Gas Turbine Power Output	BAKIŞ Enes , ACAR Emrullah	
	An Improved Red Kite Optimization Algorithm for Designing Automatic Voltage Regulator Systems	Ersali Cihan	
	Load-Frequency Control with Mountain Gazelle Optimization Algorithm for Improving Energy Quality	Cem Haydaroğlu	
Analog FOPID Controller Design for a Non-Ideal DC-DC Buck Converter Using a Novel Optimization Algorithm	Ersali Cihan		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/95735306377?pwd=cGWtYofDIS6Zr2Rbcb9Qx0aK">https://batman-edu-tr.zoom.us/j/95735306377?pwd=cGWtYofDIS6Zr2Rbcb9Qx0aK</a>		

HALL A	<b>SESSION XIV Chair: Erkan Dursun</b>	<b>December 6, 2024 Friday</b>	15:45-17:00
	A Comprehensive Analysis of NGFWs for Cyber-Physical System Security After the CrowdStrike Incident	İş Hafzullah	
	Automatic Overload Detection System Application in Induction Motors with Deep Convolution Neural Networks	Miro Penchev, Alfredo M Morales	
	Simulation of the Flywheel Energy Storage system for an industrial robotic system	Celikel Resat, Yilmaz Musa, Yilma Musa, Aydogmus Omur	
	Integrating Artificial Neural Networks for Predictive Life Cycle Assessment of Electric Vehicles in Sustainable Transportation	Akinci Tahir Cetin, Penchev Miroslav, Martinez-Morales Alfredo A., Todd Michael, Yilmaz Musa, Raju S.K. Arun	
	Smart Meter Analytics for Residential Energy Efficiency	Akinci Tahir Cetin, Sengezer Erhan, Dursun Erkan, Gokmen Gokhan Penchev Miroslav, Martinez-Morales Alfredo A., Yilmaz Musa, Raju S.K. Arun	
Analyzing Smart Meter Data for Residential Energy Optimization	Alfredo M Morales		
<b>Zoom Link:</b>	<a href="https://batman-edu-tr.zoom.us/j/97157316995?pwd=3NtszDLYtqbKO19Wx5ANKwJL4">https://batman-edu-tr.zoom.us/j/97157316995?pwd=3NtszDLYtqbKO19Wx5ANKwJL4</a>		