

## 9. European Conference on Renewable Energy Systems (ECRES 2021) CONFERENCE PROGRAMME

### 1. DAY (21 April 2021) - HALL A

09:00-09:15	<b>OPENING SESSION - The Welcome Message</b>	<b>Prof. Dr. Erol Kurt (Founder &amp; Chairman)</b>
<b>SESSION 1A - Special Session (Advances in waves and renewable energy in the ocean)</b>		
09:15-10:30	119-Characteristics of Beach Erosion at Kkotji Beach in Korea	Hyun Dong Kim (The World Association for Waterborne Transport Infrastructure(PIANC) ); Jinwoo Jeong (Catholic Kwandong University); Kyu-Han Kim (Catholic Kwandong University)
	203-Continuous Ocean Data Analysis Using Artificial Intelligence	Kisu Kwak (MiraeOcean Corporation); Kyu-Han Kim (Catholic Kwandong University); Chi-ok An (MiraeOcean Corporation); Byung-sun Cho (MiraeOcean Corporation); Young-eun An (MiraeOcean Corporation)
	204-Stability Analysis of Sunken Vessel for Artificial Reef Use	Hyun Dong Kim (The World Association for Waterborne Transport Infrastructure(PIANC) ); Kyu-Han Kim (Catholic Kwandong University); Hyumin Oh (Kanto Gakuin University)
	97-Optimization of an Offshore Wind Jackets Manufacturing Project through an Investment Analysis using 3D Discrete-Event Simulation	Adolfo Lamas (Navantia, S.A., S.M.E.); Santiago José Tutor Roca (UMI Navantia-UDC); Inés Taracido (Navantia, S.A., S.M.E.)
	94-Determination of wind energy potential and evaluation of the feasibility analysis of a wind turbine via RETScreen for Çerçekköy, Turkey	Ahmet Erhan Akan (Tekirdağ Namık Kemal University); Aytac Perihan Akan (Hacettepe University)
<b>SESSION 2A Characterization of Photovoltaics</b>		
10:35-11:50	155-High Strength and Lightweight Steel Profiles Used in the Installation of Photovoltaic Systems	Celal Erkal Kahraman (Özkan Demir Çelik Sanayi A.Ş.); Hakan Erçay (Özkan Demir Çelik Sanayi A.Ş.); Tuncay Dikici ( International Advanced Researches and Engineering Congress)
	182-Optoelectronic Properties of Zn doped Lead free photovoltaic CsSn3 compound	Yasemin Oztekin Ciftci (Gazi University)
	180-Physical Properties of newly synthesized superconductor compound LaNiGe via Ab-initio calculations	Yasemin Oztekin Ciftci (Gazi University); ilknur Kars Durukan (Gazi University)
	181-Pressure-induced Effects on Phase Transition Elastic Properties, Electronic, Vibrational and Thermodynamic Properties of CeAs Compound :Ab-initio S	Yasemin Oztekin Ciftci (Gazi University); ilknur Kars Durukan (Gazi University)
	200-p-n heterojunction diode based on TiO2/p-Si	Betül Şekertekin (Ankara Yıldırım Beyazıt University), Kenan Ozel (Ankara Yıldırım Beyazıt University), Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
<b>SESSION 3A Energy and environmental management</b>		
11:55-13:10	2-Towards integration of carbon capture and storage approaches in waste processing technologies	Maris Klavins (University of Latvia), Dmitry Porshnov (University of Latvia)
	30-Promising HDR project in the North Caucasus	Alan B Lolaev (VSC RAS; NOSU); Anatoly Gurbanov (IGEM,VSC RAS); Victor Gazeev (IGEM, VSC RAS); Aleksey Lexin (IGEM RAS); Aleksan Oganessian (NCIMM, VSC RAS)
	23-Renewable energy supply chain network design	Bader A. Al-Ablani ( Benha University); Marwa Mekky M. (Cairo university); Noura A. Al-Ghimlas ( Kuwait University)
	92-Torrefaction and Carbonization of Water Hyacinth Stems and Leaves: Impact on Energy	Amr M. Sanad (Egypt-Japan University of science and technology); Hamdy Hassan (EJUST); Hassan Shokry (Egypt-Japan University of science and technology); Shinichi Okawara (Tokyo institute of Technology); Ahmed Elwardany (Egypt-Japan University of Science and Technology (E-JUST))
	88-Clean power generation: environmentally friendly lubrication products and pollution prevention	Helena M Wilhelm (Vegoor Tecnologia Aplicada); Paulo Fernandes (Vegoor Tecnologia Aplicada); Luis Dill (Vegoor Tecnologia Aplicada); Camila Steffens (Vegoor Tecnologia Aplicada); Kethlyn Moscon (Vegoor Tecnologia Aplicada); Luana Moreira (Vegoor Tecnologia Aplicada); Thiago Zanin (COPEL)
<b>BREAK</b>		
14:00-15:30	<b>KEYNOTE SESSION 1A</b>	
	Prof. Dr. Birol Kilkış - Ostim Technical University, Ankara, Turkey <b>Is exergy destruction minimization is the same thing with energy efficiency maximization?</b>	<b>Session Chair: Prof. Dr. Erol KURT</b>
	Prof. Dr. Sanjeevikumar Padmanaban - Department of Energy Technology, Aalborg University, Denmark <b>A State-of-The-Art: DC-to-DC Converters for Fuel Cell Vehicular Power Train – Power Electronics in Fuel Cell Technology</b>	
	Assoc. Prof. Dr. Selami Balci - Department of Electrical Electronics Engineering, Karamanoğlu Mehmetbey University, Turkey <b>The Co-Simulation Studies of the Power Electronic Circuits with FEA Software</b>	
<b>SESSION 4A Energy Harvesters</b>		
15:35-16:50	221-MPPT System Implementation for A Piezoelectric Energy Harvester	Davut Özhan (Artuklu University), Erol Kurt(Gazi University)
	220-Comparison of the Efficiency Values of the Rectifiers Used in the RF Energy Harvesting Systems	Kayhan Celik (Gazi University), Erol Kurt(Gazi University)
	45-Energy Harvesting Through Landscape Design	Işıl Kaymaz (Ankara University); Ecem Hoşgör (Ankara University)
	156-The use of ZnO thin films as a friction layer in energy harvesting	Gizem Durak Yüzüak (Recep Tayyip Erdoğan University); Seray Özkan (Recep Tayyip Erdoğan University); Ercüment Yüzüak (Recep Tayyip Erdoğan University)
	47-A two-step metal-assisted chemical etching process for formation of silicon nanowires based black silicon	Hazem ElGhoniemy (King Saud University); Talal Albuqami (King Saud University); Ahmed ElNaggar (King Saud University); Mohamed Ramy (King Saud University)
<b>SESSION 5A Advances in Power Electronics</b>		
16:55-18:10	54-Design of 2S2L based buck - boost converter with wide conversion range	Nagi Reddy Bandi (Vignana Bharathi Institute of Technology, Hyd), Prasanna Chunduru(Vignana Bharathi Institute of Technology, Hyd), Surya Prakash Jalli(Vignana Bharathi Institute of Technology, Hyd), Akshay Reddy Bobbala(Vignana Bharathi Institute of Technology, Hyd), Dinesh Goud Kotha(Vignana Bharathi Institute of Technology, Hyd)
	138-An Averaged Large-Signal Model Method of DC-DC Isolated Forward Resonant Reset Converter Based on Solar Cells Battery Charger for IoT Application	Wachiravit - Pattarapongsathit (King Mongkut's University of Technology North Bangkok), Bilsalam Anusak (King Mongkut's University of Technology North Bangkok)
	34-System Integration and Data Models to Support Smart Grids Energy Trading	Fabio R Silva (International Energy Research Centre (IERC)); Eoin O'Leidhin (International Energy Research Centre (IERC)); Farah Tahir (International Energy Research Centre (IERC)); Karen Mould (International Energy Research Centre (IERC)); Brian O'Regan (International Energy Research Centre (IERC))
	121-Issues of renewable energy sources with on-grid type inverter connected to an off-grid system	Mantas Zelba (Kaunas University of Technology); Tomas Deveikis (Kaunas University of Technology); Justinas Barakauskas (Kaunas University of Technology)
	59-Estimating of the Output Voltage Parameters for T-type Inverter with ANN	Tuğba Atar (Karamanoğlu Mehmetbey University); Selami Balci (Karamanoğlu Mehmetbey University); Ahmet Kayabaşı (Karamanoğlu Mehmetbey University)
<b>SESSION 6A Thermodynamical Issues</b>		
18:15-19:30	32-The Impact of Radiant Heating on the Performance of Sustainable Constructional Component under Elevated Temperature: Part 2	Wail Nourilidean Al-Rifaie (Philadelphia University, Amman-Jordan); Talal Alhajri (Gulf University); Waleed Ahmed (UAE University)
	40-Exergy assessment of the energy efficiency of the clean room air treatment system	Nikolay Kharlamov Khalamov (National Research University of Electronic Technology), Andrei Sergeevich Riabyshevskov (National Research University of Electronic Technology), Valery Ivanovich Karakeyan (National Research University of Electronic Technology), Mikhail Aleksandrovich Gundartsev (National Research University of Electronic Technology), Valeria Pavlovna Sharaeva (National Research University of Electronic Technology)
	46-Thermal Energy Grid Simulation (TEGSim) for Smart Urban Regions	David Huber (TU Wien); Viktoria Illyes (TU Wien); Veronika Turewicz (Geological Survey of Austria); Stefan Hoyer (Geological Survey of Austria); Gregor Götzl (Geological Survey of Austria); Karl Ponweiser (TU Wien)
	51-Energetic analysis of a PVT-based solar-driven hybrid adsorption-compression refrigeration system	Mohamed G. Gado (Egypt-Japan University of Science and Technology), Tamer F. Megahed(Egypt-Japan University of Science and Technology), Shinichi Ookawara(Egypt-Japan University of Science and Technology), Sameh Nada(Egypt-Japan University of Science and Technology), Ibrahim I. El-Sharkawy(Egypt-Japan University of Science and Technology)
	56-Energy analysis of vapor compression refrigeration cycle using a new generation refrigerants with low Global Warming	Hasan Köten (Istanbul Medeniyet University); Rabah Touibi (Djilali Bounaama University)

**1. DAY (21 April 2021) - HALL B**

<b>SESSION 1B Optimization of Energy Systems</b>		<b>Session Chair: Dr. Evgenii Denisov</b>
09:15-10:30	137-Use of synthesis gas as fuel for a solid oxide fuel cell	Jesus Antonio Alvarez-Cedillo (National Polytechnic Institute); Teodoro Alvarez-Sanchez (National Polytechnic Institute); Mario Aguilar Fernandez (National Polytechnic Institute)
	153-Application of PEMFC electrical fluctuation for in-situ diagnostics	Evgenii Denisov (Kazan National Research Technical University)
	41-Deep-learning approach to the iron concentration evaluation in silicon solar cell	Oleg Ya Olikh (Taras Shevchenko National University of Kyiv); Oleg Lozitsky (Taras Shevchenko National University of Kyiv); Oleksii Zavorhodnii (Taras Shevchenko National University of Kyiv)
	48-Performance investigation of an integrated solar-powered RO/Adsorption cooling trigeneration system.	Ahmed A Hassan (Egypt-Japan University of Science and Technology (E-JUST)); Ahmed Elwardany (Egypt-Japan University of Science and Technology (E-JUST)); Ibrahim El-Sharkawy (Egypt-Japan University of Science and Technology (E-JUST))
77-Enhancing the flexibility of electricity generation and heating for Kizildere II geothermal power plant by demonstrating heat storage systems	Elie Ghanatos (CEA Grenoble); Sylvie Rouge (CEA Grenoble); Jérôme Pouvreau (CEA Grenoble); Ural Halaçoğlu (Zorlu Energy Group); Hakan Alp Sahiller (Zorlu Energy Group); Raziye Sengun (Zorlu Energy); Ismail Pekduz (Zorlu Energy Group); Valdimarsson Pall (Reykjavik University); Sebastian Gamisch (Fraunhofer, Institute for Solar Energy Systems ISE); Mayra Paulina Alferez Luna (Fraunhofer, Institute for Solar Energy Systems ISE); Shiladitya Paul (TWI); Alexandre Sabard (TWI); Francesco Fanicchia (TWI); Volkan Ediger (Kadir Has University); Gokhan Kirkil (Kadir Has University); Emilien BAUDOUIN (Naldeo)	

<b>SESSION 2B Energy Efficiency in Buildings</b>		<b>Session Chair: Dr. Filiz Bal Kocçiyigit</b>
10:35-11:50	37-Performance Assessment of The Windows Glazing System for The Office Building	Pinar Usta (Isparta University of Applied Science); Başak Zengin (Nisantasi University)
	55-Hybrid Dedicated Outdoor Air System in Buildings	Dararat Tongdee (Naresuan University); Somchai Maneewan (Naresuan University); Chantana Punlek (Naresuan University)
	142-The importance of natural insulation building materials in sustainable energy efficient buildings	Filiz Bal Kocçiyigit (Atılım University); Hatice Mehtap Öz (Tarsus University); Ercan Köse (Tarsus University); Gülşen Bilge Ülkü (Atılım University); Baris Kocçiyigit (Atılım University); Elmas Pak (Izmir Bakırçay University); Ece Dinç (Atılım University); Oğuz Emrah Turgut (Izmir Bakırçay University); Cahit Canberk (Izmir Bakırçay University)
	144-The place of biopolymer-based composites in energy-efficiency architectural design	Filiz Bal Kocçiyigit (Atılım University); Gülşen Bilge Ülkü (Atılım University); Ercan Köse (Tarsus University); Oğuz Emrah Turgut (Izmir Bakırçay University); Elmas Pak (Izmir Bakırçay University); Hatice Mehtap Öz (Tarsus University); Cahit Canberk (Izmir Bakırçay University); Ece Dinç (Atılım University); Baris Kocçiyigit (Atılım University)
166-Bioinspired polymer materials for thermal management of heating and cooling in buildings	George T Stibianu (Petru Poni Inst. of Macromolecular Chemistry); Alexandra Bargan (Petru Poni Inst. of Macromolecular Chemistry); Mihaela Dascalu (Petru Poni Inst. of Macromolecular Chemistry); Carmen Racles (Petru Poni Inst. of Macromolecular Chemistry); Adrian Bele (Petru Poni Inst. of Macromolecular Chemistry); Codrin Tugui (Petru Poni Institute of Macromolecular Chemistry); Cristian Ursu (Petru Poni Institute of Macromolecular Chemistry); Maria Czacu (Petru Poni Institute of Macromolecular Chemistry)	

<b>SESSION 3B Materials Characterization</b>		<b>Session Chair: Dr. Sibel Yılmaz Ekinci</b>
11:55-13:10	52-Testing the Abrasion Resistance of Broadband Anti-reflection Coatings for Solar Modules	Sibel Yılmaz Ekinci (Duzce University); Adam Michael Law (Loughborough University); John Michael Walls (Loughborough University)
	86-Ageing effect evaluation of PV installation after 10 years continuous operation	Nikolay Tyutyundzhiev (Institute of Electronics, Bulgarian Academy of Sciences); Plamen Tsankov (Technical university of Gabrovo); Konstantin Lovchinov (Bulgarian Academy of Sciences); Gergana Alexieva (Sofia University, Faculty of Physics)
	177-Evaluation of Mechanical and Thermodynamic Properties of BaZn compound by DFT	ilknur Kars Durukan (Gazi University); Yasemin Oztekin Ciftci (Gazi University)
	178-Ab initio Calculations of the Mechanical Vibration and bond Nature of the CdSr Compound	ilknur Kars Durukan (Gazi University); Yasemin Oztekin Ciftci (Gazi University)
193-Molarity of precursor dependent morphological properties hydrothermally grown TiO2 films	Aycan Atlı (Ankara Yıldırım Beyazıt University); Abdullah Yıldız (Ankara Yıldırım Beyazıt University)	

**BREAK**

<b>SESSION 4B Advances in Batteries</b>		<b>Session Chair: Dr. Carlos Frajua</b>
15:35-16:50	61-Technological Forecasting for Electric Battery Technology in the Electric Vehicle Industry	Hasan Köten (Istanbul Medeniyet University)
	124-Hybrid State of Charge Estimation of Lithium-Ion Batteries; Improvements on Electric Vehicle Battery management system	Odera N Ohazurike (Southern University and A&M College)
	162-TCAD-Model of Betavoltaic Battery Structure with Vertical Micro Trenches	Andrew A Pugachev (National Research University Higher School of Economics), Konstantin Petrosyants (National Research University Higher School of Economics), Igor Kharitonov (National Research University Higher School of Economics)
	172-Developing a Real-time Power Price Algorithm for an Autonomous Demand Side Management in Solar Community-grids with Battery Storage	Sebastian Finke (Bochum University of Applied Sciences); Michele Velenderic (Green Power Brains); Semih Severengiz (Bochum University of Applied Sciences)
173-Investigation of geometries for increasing the energy density in electromechanical battery flywheels	Daniel Coppede (UFABC); Souza Marco (IFSP); Renato Souza (IFABC); Wilson Silva Junior (IFSP); Roberto Duarte (IFSP); Fabio Bortoli (IFSP); Carlos Frajua (IFSP)	

<b>SESSION 5B Hybrid Energy Systems</b>		<b>Session Chair: Dr. Csaba Csaki</b>
16:55-18:10	175-Modelling and control of a hybrid wind solar system optimized by Fuzzy Based MPPT controller	Mebrouk MM Mennad (Djillali Liabès University), Bentaallah Abderrahim (Djillali Liabès University), Djerrir Yousef (Djillali Liabès University), Ameur Aissa (Laghout University), Bessas Aicha (Amar Telidji University)
	168-Analysis and Optimizes of Hybrid wind and solar PV Generation system for off-grid Small Village	Nabaz Mohammedali Rasool Rasool (Cyprus International University), Serkan Abbasoğlu (Cyprus International University), Mehrshad Radmehr Hashemipour (Cyprus International University)
	36-Artificial neural network forecasting models for wind and photovoltaic energy prediction utilizing time-series input data with different resolutions	Mutaz Alshafeey (Corvinus University of Budapest); Csaba Csaki (Corvinus University of Budapest)
	62-New concepts and technologies for electrical machines and mechanical engineering	Amangeryy Zhundusbekov (Gumnyov Eurasian National University); Aidan A. Saparganyev (Gumnyov Eurasian National University); Nurhan Ungarova (Gumnyov Eurasian National University)
96-Computational thermal-fluid coupling analysis of a variable nozzle turbine for solar power generation	Abdelmadjid Chehhat (Abbes Laghrour University), Arrif Toufik (URAER), Mouna Maache (Abbes Laghrour University)	

<b>SESSION 6B Materials Characterization</b>		<b>Session Chair: Bekir Dursun</b>
18:15-19:30	195-The Fabrication of n-SnO2/p-Si Heterojunction Diode	Kenan ÖZEL (Ankara University), Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
	202-Effect of substrate rotation speed on the optical, and electrical properties of TiO2/FTO blocking layer fabricated by Spin-Coating	Abdullah Atılgan (Ankara Yıldırım Beyazıt University); Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
	205-High performance ion-exchange microporous zeolite material for application in the cold plasma device	Hilal Kurt (Gazi University), B.G. Salamov (Gazi University)
	206-Filamentation in a plasma cell with GaP wafer	Hilal Kurt (Gazi University), B.G. Salamov (Gazi University)
207-Mean Electron energy Distribution in a Plasma System with ZnSe	Hilal Kurt (Gazi University), Selçuk Utaş (Gazi University)	

**1. DAY (21 April 2021) - HALL C**

<b>SESSION 1C Power electronic applications</b>		<b>Session Chair: Dr. Driada Mitrushi</b>
09:15-10:30	63-Analysis of positive output buck-boost topology with extended conversion ratio	Nagi Reddy Bandi (Vignana Bharathi Institute of Technology, Hyd), Sahithi Priya Kosika (Vignana Bharathi Institute of Technology, Hyd), Manish Patel Gadam (Vignana Bharathi Institute of Technology, Hyd), Jagadhishwar Banoth (Vignana Bharathi Institute of Technology, Hyd), Ashok Banoth (Vignana Bharathi Institute of Technology, Hyd), Srikanth Koundinya (Vignana Bharathi Institute of Technology, Hyd)
	148-Smart grid simulation based on high level architecture	Muhammad Majid Hussain (University of South Wales); Abdul Razaq (Abertay University); Muhammad Siddique (NFC IET Multan)
	149-Contribution to the study of a DFIG wind energy generation system based on a quasi Z source inverter	Larafa Ahcene (University Larbi Ben M'hidi Oum El Bouaghi); Oudina Sofiane (University Mohamed Khider Biskra); Tahar Bahi (ACECS-2016 Chair)
	154-Single-Phase Grid-Connected Inverter With High Frequency Isolation For DC Nano-Grids	Luis J Ruiz Caldera (Sonora Institute of Technology); José Antonio Beristáin Jiménez (Sonora Institute of Technology); Hiram Mendivil Cuadras (Sonora Institute of Technology); Javier Pérez Ramírez (Sonora Institute of Technology)
169-The possibility of integrating electricity through renewable sources in Sazani island	Driada Mitrushi (UPT, Polytechnic University of Tirana), Urım Buzra (UPT, Polytechnic University of Tirana), Daniela Topciu (University of Elbasan), Eduart Serdari (University of Vlora), Valbona Muda (UPT, Polytechnic University of Tirana)	

<b>SESSION 2C Photovoltaic materials</b>		<b>Session Chair: Dr. Luigi Vesce</b>
10:35-11:35	164-Towards high crystallinity and stable MASnI3 perovskite films treated with different antisolvents	Amal Bouich (Polytechnic University of Valencia), Shafi Ullah(Polytechnic University of Valencia), Julia Mari(Polytechnic University of Valencia), Asmaa Bouich(Ibn Tofail University), Bernabé Mari(Polytechnic University of Valencia), Mohamed Ebn Touhami(Ibn Tofail University)
	222-Analysis of Atmospheric Transported Particulate Matter and Investigation of Its Effects on Solar Panel	Serdal Arslan (Harran University), Murat Altıntaş (Harran University)
	129-Effect of the three main directions of an external magnetic field on the free convection in Fe3O4- water nanofluid filled cubic enclosure	Maache Mouna Battira (Abbes Laghrour University), Chehhat Abdelmajid (Abbes Laghrour University), Noui Samira(Elhadj Lakhdar University), Bessaih Rachid(Mentouri Luigi Vesce (University of Rome "Tor Vergata"); Maurizio Stefanelli (University of Rome "Tor Vergata"); Luigi Angelo Castriotta (University of Rome "Tor Vergata"); Jan Philipp Herterich (Fraunhofer Institute for Solar Energy Systems); Markus Kohlstädt (Fraunhofer Institute for Solar Energy Systems); Uli Wuerfel (Fraunhofer); Aldo Di Carlo (CHOSE - Dept. Electr. Eng. University of Rome Tor Vergata)
	87-Upscaling of perovskite solar cell technology by a semi-automatic blade-coating technique at ambient condition	
<b>SESSION 3C Energy optimization studies</b>		<b>Session Chair: Dr. Tapan Kumar Gogoi</b>
11:55-13:10	74-Data Extraction of Perovskite Solar Cells materials by using Natural Language Processing tools	Mary Z Jiménez-Díaz (Universidad Industrial de Santander); Cristan Camacho-Parra (Universidad Industrial de Santander); Mónica Botero-Londoño (Universidad Industrial de Santander); Franklin Sepúlveda-Sepúlveda (Universidad Industrial de Santander); Camilo Otálora-Bastidas (Universidad Industrial de Santander)
	76-Performance of a solar based combined power and cooling system under solar, solar storage and storage mode of operations	Tapan Kumar Gogoi (Tezpur University); Utpal Kumar Dutta (Tezpur University)
	116-A innovative methodology for visual impact assessment of wind power plants	Luciano Blois (University Guglielmo Marconi of Rome)
	122-Improving the fatigue of newly designed mechanical system subjected to repeated food loading	Seongwoo Woo (Addis Ababa Science and Technology University)
	170-Advanced exergoeconomic evaluation of a cogeneration system combined with a drying unit of fertilizers	Asmae Echeeri (Mohammadia School of Engineers, Mohammed V University in Rabat), Mostafa Maalmi (Mohammadia School of Engineers, Mohammed V University in Rabat)
<b>BREAK</b>		
<b>SESSION 4C Energy informatics &amp; management</b>		<b>Session Chair: Dr. Serkan Erdem</b>
15:35-16:50	184-Innovative activity of integrated business structures	Maksim I Maksimov (Plekhanov Russian University of Economics); Vladimir Velikorossof (Plekhanov Russian University of Economics), Yury Korechikov(International Academy of Business and New Technologies), Ona Grazyna Rakauskiene(Mykolas Romeris University), Anatolij Kolesnikov (Plekhanov Russian University of Economics), Evgeniy Genkin (Plekhanov Russian University of Economics)
	126-Energy Efficiency Improvement for the Mobile Air Conditioning Systems	Canak Onan (Yildiz Technical University); Serkan Erdem (Yildiz Technical University)
	146-ESS influence investigation on the operation of critical network nodes	Virginijus Vasylius (Kaunas University of Technology)
	228-Developing a LoRa based IoT application for outdoor street lighting fault detection in smart cities	Ezgin Çelik (Kahramanmaraş Sütçü İmam Üniversitesi); Mehmet Tekerek (Kahramanmaraş Sütçü İmam Üniversitesi)
	229-Sodium Doped Cadmium Telluride (CdTe:Na) Thin Films Prepared by the Spray Pyrolysis Method	Shadia J. Ikhmayies (Jordan)
<b>2. DAY (22 April 2021) - HALL A</b>		
<b>SESSION 1A - Special Session (Advances in wind, photovoltaic and harvesting systems)</b>		<b>Session Chair: Dr. Jose Manuel Lopez-Guede</b>
09:00-10:30	213-Electric Vehicle Energy Efficiency Contribution through Laboratory Implementation	Felipe A. Núñez-Donoso (Technological University of Chile INACAP); Jose Manuel Lopez-Guede (University of the Basque Country); Ekaitz Zulueta (University of the Basque Country); Unai Fernandez-Gamiz (University of the Basque Country); Josean Ramos-Hernanz (University of the Basque Country)
	214-Computational Modeling of a 2D Vanadium Redox Flow Battery Cell	Iñigo Aramendia (University of the Basque Country), Joseba Martinez-Lopez (University of the Basque Country), Unai Fernandez-Gamiz (University of the Basque Country), Mirko Messaggi (Politecnico di Milano), Matteo Zago (Politecnico di Milano), Ekaitz Zulueta (University of the Basque Country), Jose Manuel Lopez-Guede (University of the Basque Country)
	215-Automatic identification algorithm of equivalent electrochemical circuit based on electroscopic impedance data for a lead acid battery	Javier Olarte(CIC energiGUNE), Jaione Martinez de Ilarduya(Bcare), Ekaitz Zulueta(University of the Basque Country), Raquel Ferret(CIC energiGUNE), Unai Fernández-Gámiz(University of the Basque Country),Jose Manuel Lopez-Guede (University of the Basque Country)
	216-Multipurpose sensor designed to monitor electrochemical parameters of 12 V lead acid battery blocks	Javier Olarte(CIC energiGUNE), Jaione Martínez de Ilarduya(Bcare), Ekaitz Zulueta(University of the Basque Country), Raquel Ferret(CIC energiGUNE), Unai Fernández-Gámiz(University of the Basque Country), Jose Manuel Lopez-Guede (University of the Basque Country)
	217-Cell-set modelling of an Active Rotating Microtab on a DU91W(2)250 airfoil	Alejandro Ballesteros-Coll(University of the Basque Country), Koldo Portal-Porras(University of the Basque Country), Unai Fernandez-Gamiz(University of the Basque Country), Iñigo Aramendia(University of the Basque Country), Ekaitz Zulueta(University of the Basque Country), Jose Manuel Lopez-Guede (University of the Basque Country)
218-Automatic optimization algorithm for electrical energy contracts in Spanish market	Decebal Aitor Ispas-Gil, Asier Zulueta (University of the Basque Country), Ekaitz Zulueta (University of the Basque Country), Unai Fernández-Gámiz (University of the Basque Country), Jose Manuel Lopez-Guede (University of the Basque Country)	
<b>SESSION 2A Nano-scale production and testing</b>		<b>Session Chair: Dr. Abdullah Yıldız</b>
10:35-11:50	209-Gas discharge systems with CdSe electrode	Selçuk U Utaş (Gazi University), H. Hilal Kurt(Gazi University)
	210-Theoretical plasma simulation results of the microdischarge cell with GaSb cathode	Selçuk U Utaş (Gazi University), H. Hilal Kurt(Gazi University)
	212-Dependence of solution molarity on structural, optical, and electrical properties of spin coated TiO2/FTO films	Abdullah Atılğan (Ankara Yıldırım Beyazıt University); Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
	196-The Investigation of UV detection performance of SnO2/p-Si Heterojunction	Kenan Özel (Ankara University), Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
	201-Various receipts TiO2 based pastes for semi-flexible DSSCs	Abdullah Atılğan (Ankara Yıldırım Beyazıt University); İrem Sütçü (Ankara Yıldırım Beyazıt University); Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
<b>SESSION 3A - Special Session (Implementation of renewable energy systems in civil engineering:Technological, environmental and economic aspects)</b>		<b>Session Chair: Dr. Elżbieta Szafranko</b>
11:55-13:10	157-Assessment of energy saving possibilities in construction with the use of solutions based on renewable energy sources	Elżbieta Szafranko ( University of Warmia and Mazury in Olsztyn)
	158-An attempt to assess the correctness of assembly and geometry of solar panels using laser scanning	Elżbieta Szafranko ( University of Warmia and Mazury in Olsztyn); Joanna A. Pawłowicz ( University of Warmia and Mazury in Olsztyn)
	183-The impact of the external environment on energy consumption in residential ventilation and air-conditioning systems on the example of north-eastern Poland	Aldona Skotnicka-Siepsiak (University of Warmia and Mazury in Olsztyn)
	185-Analysis of the actual and standard consumption of thermal energy in buildings	Piotr Bogacz (University of Warmia and Mazury in Olsztyn)
	186-Differential settlement of pile foundation for wind turbine tower on multilayered subsoil	Ireneusz Dyka (University of Warmia and Mazury); Jolanta Harasymiuk (University of Warmia and Mazury)
<b>BREAK</b>		
<b>KEYNOTE SESSION 2A</b>		<b>Session Chair: Prof. Dr. Erol Kurt</b>
14:00-15:00	Prof. Dr. Sudan Jha - Department of Computer Science and Engineering, Chandigarh University, India <b>IoT with Green Energy</b>	
	Assoc. Prof. Dr. Sertaç Bayhan - College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar <b>Next-Generation Smart Grids: Power Electronics Dominated Power System</b>	
<b>SESSION 4A Electric machines</b>		<b>Session Chair: Dr. Sara Zerdani</b>
15:05-16:20	31-ITSW fault detection based PSD and SVM for PM Synchronous Motor	Sara Zerdani (University Med First Oujda), Larbi Elhafyani Mohamed(University Med First Oujda), Zouggar Smail (University Med First Oujda)
	60-Estimating of the Leakage Inductance Value for Single-Phase Isolation Transformer with ANFIS	Büşra Aslan (Karamanoğlu Mehmetbey University); Selami Balcı (Karamanoğlu Mehmetbey University); Ahmet Kayabaşı (Karamanoğlu Mehmetbey University)
	99-On Minimization of the Group Variability of Intermittent Renewable Generators	Dubravko Sabolić (University of Zagreb); Roman Malarić (University of Zagreb)
	128-The Magnetic Saturation effect on fault diagnosis in Squirrel Cage Induction Motor using Current Park's Vector pattern	Chaouch A Abdellah (Mostaganem University), Belaid Mohamed(Mostaganem University), Meflah Abderrahmane Mohamed Reda(Mostaganem University)
	198-Iterative EKF-Based parameters estimation algorithm for nonlinear PMSM model	Artun Sel (TOBB University of Economics and Technology), Cosku Kasnakoglu (TOBB University of Economics and Technology)

	<b>SESSION 5A Energy Policy and Future Estimation</b>	<b>Session Chair: Dr. Gumerindo Bartra Gardini</b>
16:25-17:40	29-Techno-Economic feasibility analysis of PV potential with passive cooling in the desert climate	Fahad AlAmri (Imam Abdulrahman Bin Faisal University); Ghida AlZohbi (Brussels Free University)
	95-Technological ecovillages: Auto Sustainable Urban Pilots in the Community of Luacanayacu in Chazuta, San Martin, Peru.	Gumerindo G Bartra (Pontifical Catholic University of Peru); Nerida del Carmen Pastrana (University Nacional Hermilio Valdizan); Enzo Yen Gen Fu (University Ricardo Palma)
	44-The increasing importance of smarthome applications as a major trend for the future value creation of German energy companies	Andreas Ensinger (Aalen University); Max-Robert Salzer (Aalen University); Karlheinz Bozem (Aalen University); Anna Nagl (Aalen University); David K. Harrison (Glasgow Caledonian University); Bruce Wood (Glasgow Caledonian University)
	5-Establishing Reduced Thermal Mathematical Model (RTMM) For A Space Equipment 199-Algorithms for ESS reinforced RES portfolio bidding in Turkish Energy Markets	Mustafa Akbulut (Tubitak), Zafer Karadayi(Tubitak), Ahmet Hanefi Ertas(, Bursa Technical University) Abdulhadi Ciftci (Gebze Technical University); Abdulkadir Balıkcı (Gebze Technical University)
	<b>SESSION 6A Control Systems for Renewables</b>	<b>Session Chair: Dr. Halit Cetiner</b>
17:45-19:00	39-Wireless Charging Systems for Electric Vehicles: Review article	Kerry A Sado (University of Duhok); Lokman Hadi (University of Duhok)
	50-Development of Energy Saving System Based on Microcontroller for Boiler Manufacturer	Halit Cetiner (Isparta University of Applied Sciences); Ibrahim Cetiner (Mehmet Akif Ersoy University)
	70-Development Of An Adaptive Control System For A Hot Water Supply Using Solar Power Plant	Yury Koshlich (BSTU after V.G. Shukhov); Vasily Stan (BSTU after V.G. Shukhov); Nadezhda Koshlich (Belgorod State Agricultural Univerisity Named after V. Gorin); Aleksandr Belousov (BSTU after V.G. Shukhov)
	89-Distance Protection Based on the Synchronphasor Data in Control Room 35-Power Control Strategy of a Photovoltaic System	Igor Ivankovic (Croatian Transmission System Operator Ltd); Dalibor Brnobic (STER) Bedoud Khouloud (Research Center in Industrial Technologies ), Bahi Tahar(Badji Mokhtar University), Merabet Hichem (Research Center in Industrial Technologies )
<b>2. DAY (22 April 2021) - HALL B</b>		
	<b>SESSION 1B Energy Perspectives</b>	<b>Session Chair: Dr. Maria Koukou</b>
09:00-10:30	114-Economic aspects of market formation reactive power in electric power industry	Vladimir Kolibaba(Ivanovo Power Engineering Institute), Konstantin Zhabin(Branch of JSC "SO UES" ODU Center), Vladimir Velikorosov(Plekhanov Russian University of Economics),Sergey A Fiin (Plekhanov Russian University of Economics), Ona Rakauskiene(Mykolas Romeris University), Alexey Yakushev(Plekhanov Russian University of Economics)
	103-Assessments of Global Warming Potential of Brazilian Biodiesel	Marina W Costa (Federal University of Santa Catarina); Amir Oliveira (Federal University of Santa Catarina)
	93-Energetic and financial evaluation of a solar-powered absorption chiller integration into a CO2 commercial refrigeration system	Evangelos Syngounas (National and Kapodistrian University of Athens); Dimitrios Tsimpoukis (National and Kapodistrian University of Athens); Stavros D. Anagnostatos (METRO S.A.); Maria K. Koukou (National and Kapodistrian University of Athens); Michail Gr. Vrachopoulos (National and Kapodistrian University of Athens)
	123-Geothermal projections in Colombia from Oil & Gas industry 133-Electric Energy Load Forecasting with ARIMA vs XGBoost for Australia VIC State	Eduardo Lopez-Ramos (ECOPETROL); Cesar Patino-Suarez (ECOPETROL); Angela Alvarez-Gutierrez (ECOPETROL); Albeiro Lopez-Pulido (ECOPETROL); Felipe Gonzales-Penagos (ECOPETROL); Daniela Pinilla-Granados (ECOPETROL) Muhammed Can Özdemir (Sakarya University); Hasan Köten (Istanbul Medeniyet University); Nejat Yumuşak(Sakarya University)
	167-Evaluation of the temperature impact on the production of photovoltaic energy in the Brazilian national scene	Gustavo Margarido (UFABC); Federico Bernardino Trigos (CECS/UFABC); Renato Souza (IFABC); Wilson Silva Junior (IFSP); Roberto Duarte (IFSP); Fabio Bortoli (IFSP); Carlos Frajuca (IFSP)
	<b>SESSION 2B Thermal analyses</b>	<b>Session Chair: Dr. Eusebio Conceição</b>
10:35-11:50	83-Supercritical CO2 Binary Mixtures for Brayton Power Cycles Complex Configurations Coupled to Solar Thermal Energy Plants	Paul Michael M Tafur Escanta (Polytechnic University of Madrid); Robert Valencia-Chapi (Polytechnic University of Madrid); Luis Coco-Enríquez (UPolytechnic University of Madrid); Javier Muñoz-Antón (Polytechnic University of Madrid)
	105-Effect of Position of Heat Flux Profile on the Absorber Surface of Parabolic Trough Solar Collector for Direct Steam Generation	Ram Kumar Pal (Indian Institute of Technology Delhi); Ravi Kumar Kandasamy (Indian Institute of Technology Delhi)
	152-A comparative study of melting performance for ultra-high temperature latent storage system	Alok Kumar Ray (Indian Institute of Technology Delhi); Dibakar Rakshit (Indian Institute of Technology Delhi); Ravi Kumar Kandasamy (Indian Institute of Technology Delhi); Hal Gurgenci (University of Queensland)
	176-Energy production using water collectors subjected to solar radiation to improve building indoor thermal conditions 197-Thermal analysis and parametric study on the influence of thermophysical properties on dropwise condensation heat transfer	Eusebio Z:E. Conceição (University of Algarve); João Gomes (CINTAL); Mª Manuela Lúcia (University of Algarve); André Ramos (University of Algarve); Hazim Awbi (University of Reading) Mete Budakli (Ozyegin University)
	<b>SESSION 3B Theoretical studies on energy systems</b>	<b>Session Chair: Dr. Igor Lashkevych</b>
11:55-13:10	24-Power loss calculation of Photovoltaics using Python	Kerry A Sado (University of Duhok); Lokman Hadi (University of Duhok); Shivan Sado ( University of Nebraska-Lincoln); Ismail Amin (University of Duhok)
	42-Determining of optimum tilt angle of solar panels in three cities in Albania	Urim Buzra (Polytechnic University of Tirana),Mitrushi Driada(Polytechnic University of Tirana), Serdari Eduart(University of Vlora), Topciu Daniela(University of Elbasan), Muda Valbona(Polytechnic University of Tirana)
	66-Review of Thomson Heat 71-Comparison of Different Regression Algorithms for Estimating Energy Consumption	Igor Lashkevych (Insituto Politecnico Nacional); Yuri Gurevich (CINVESTAV-IPN); Viktor Matsyuk (Ternopil Volodymyr Hnatiuk National Pedagogical University)
	113-Modal Excitation Energy	Halit Cetiner (Isparta University of Applied Sciences); Ibrahim Cetiner (Mehmet Akif Ersoy University) Tark Tufan (Istanbul Medeniyet University); Hasan Köten (Istanbul Medeniyet University)
<b>BREAK</b>		
	<b>SESSION 4B Solar energy systems</b>	<b>Session Chair: Dr. İlknur Kars Durukan</b>
15:05-16:20	104-Solar collector with increased heat transfer efficiency	Andrey Batukhtin(Transbaikal State University), Sergey Batukhtin(Transbaikal State University), Marina Baranovskaya(Transbaikal State University), Pavel Safronov(Transbaikal State University)
	211-The features of the InGaAs/InP detectors in plasma systems	selçuk U Utaş (Gazi University), H. Hilal Kurt(Gazi University)
	192-Morphological properties of low temperature hydrothermally grown TiO2 films for DSSCs devices	Aycan Atli (Ankara Yıldırım Beyazıt University); Abdullah Yıldız (Ankara Yıldırım Beyazıt University)
	189-Level of meeting the needs for solar energy for hot water production in the Ionian coast of Albania 179-Analysis of optical properties of the CeTi intermetallic structure	Daniela Halili (Aleksander Xhuvani University), Serdari Eduart(University of Vlora), Mitrushi Driada(Polytechnic University of Tirana), Buzra Urim(Polytechnic University of Tirana) İlknur Kars Durukan (Gazi University); Yasemin Oztekin Ciftci (Gazi University)
	<b>SESSION 5B Numerical Calculations on Energy Systems</b>	<b>Session Chair: Dr. Laila Ouazzani Chahidi</b>
16:25-17:40	219-Ciphering and Dechiphering Technique on the Images of Energy Plants and Networks	Erol Kurt (Gazi University); Batuhan Arpacı (Union of Municipalities of Turkey)
	12-Design the Superconducting Magnet Power Supply for Medical Proton Accelerator	Shengmin Pan (Chinese Academy of Sciences)
	171-Kriging surrogate models for optimization in energy-efficient building design 151-Numerical Investigation of Energy Desorption from Magnesium Nickel Hydride based Thermal Energy Storage	Salma Lahmar (Mohammed V University in Rabat), Rachida Idchabani(Mohammed V University in Rabat), Mostafa Maalmi(Mohammed V University in Rabat) Sumeet Kumar Dubey (Indian Institute of Technology Delhi); Ravi Kumar Kandasamy (Indian Institute of Technology Delhi)
80-Selection of the Suitable Greenhouse Orientation on the basis of Energy Saving	Laila Ouazzani Chahidi (Sidi Mohamed Ben Abdellah University ); Abdellah Mechaqrane (Sidi Mohamed Ben Abdellah University )	
	<b>SESSION 6B Bioenergy &amp; biomass</b>	<b>Session Chair: Dr. Hafize Fidan</b>
17:45-19:00	65- Recycling of Waste Tires by Thermal Dissolution (Pyrolysis) and Thermochemical Degradation (Gasification)	Ibrahim Yayalık (Yıldız Technical University); Hasan Köten (Istanbul Medeniyet University)
	84-A Review of the Life Cycle Assessments of Brazilian Biodiesel	Marina W Costa (Federal University of Santa Catarina); Amir Oliveira (Federal University of Santa Catarina)
	131-Bio-energy characteristics of black pine (Pinus nigra Arn.) hydrodistillation waste products	Hafize Fidan (University of Food Technologies); Stanko Stankov (University of Food Technologies); Nadezhda Traycheva Petkova (University of Food Technologies, Plovdiv); Bozhidar Bozadziev (University of Food Technologies); Milen Dimov (University of Food Technologies); Lazar Lazarov (University of Food Technologies); Apostol Simitchiev (University of Food Technologies); Albena Stoyanova (University of Food Technologies)
	43-Effect of Estonian woody biomass gasification temperature on the composition of the producer gas 136-Predicting Cost of Farm-based Biogas Plants	Alejandro Lyons Ceron (Tallinn University of Technology); Alar Konist (Tallinn University of Technology); Heidi Lees (Tallinn University of Technology); Oliver Järvik (Tallinn University of technology) Arash Samizadeh Mashhadi (Memorial University of Newfoundland); Noori Saady (MUN); Carlos Bazan (Memorial University of Newfoundland)