

10. European Conference on Renewable Energy Systems (ECRES 2022) CONFERENCE PROGRAMME (PHYSICAL SECTION)

1. DAY [7 May 2022 Saturday] - HALL A (PHYSICAL SESSIONS)

09:00-09:15	OPENING SESSION - The Welcome Message	Prof. Dr. Erol Kurt (Founder & Chairman)
	SESSION 1A - Special Session (Advances in solar energy)	Session Chair: Dr.Rupendra Kumar Sharma
09:15-10:30	9- Energy Analysis of a Small-scale Multi-effect Distillation System Powered by Photovoltaic/thermal Collectors	Mahmoud Sheta , Ahmed Elwardany, Shinichi Ookawara, Hamdy Hassan
	14- Thermal management of photovoltaic cell using heat pipe and phase change material (PV-HP-PCM): a numerical study	Ramadan Gad , Hatem Mahmoud, Shinichi Ookawara, Hamdy Hassan
	69- Deposition process and electrical properties of electrodeposited SnS with different concentrations of TEA	Boubakri Asma , Koumya Yassine, Rajira Amal, Al Maggoussi Abdelmajid, Abounadi Abdelhadi, Achargui Noureddine
	146- Development of BiOI thin films for lead-free graded bandgap perovskite solar cells	Nor Azlian Binti Abdul Manaf , Salmiah Binti Ibrahim
	245- Modeling, design, and construction of Parabolic Trough Solar System	Maryam Khan, Hafiz Mohammad Mutee ur Rehman, Muhammad Muqet Rehman , Woo Young Kim
	252- Analysis of Silicon Heterojunction Solar Cells under Low Illumination Conditions	Rupendra Kumar Sharma , Mathieu Boccardb, Jakub Holovsky
10:30-10:50	COFFEE BREAK	
	SESSION 2A Nano-scale production and characterization	Session Chair: Dr. Yasemin Oztekin Ciftci
10:50-12:05	267- Optoelectronic Properties of Semiconductor NiHfSi Compound via Ab-initio Methods	Ilknur K. Durukan , Yasemin O. Ciftci
	268- Theoretical Analysis of Thermodynamic Properties of RhTiAs Half Heusler Compound	Ilknur K. Durukan , Yasemin O. Ciftci
	222- High Breakdown Field and Low Trapping Effects up to 1400 V in Normally Off GaN-on-Silicon Heterostructures	Abid Idriss , Hamdaoui Youssef, Mehta Jash, Medjdoub Farid
	274- First-Principles Study on Thermoelectric and Electronic Properties of Half-Heusler BeCaGa Compound Under Strain	Ilknur K. Durukan , Yasemin O. Ciftci
	98- NiW6Se8 Chevrel Phase for Photocatalytic Water Splitting: A DFT Study	Tugce Sevinc Dag , Aysenur Gencer, Faruk Ozel, Gokhan Surucu, Yasemin O. Ciftci
12:05-12:15	BREAK	
	SESSION 3A Energy and environmental management	Session Chair: Dr. Nor Azlian Binti Abdul Manaf
12:15-13:30	10-Energy audit of a residential building in semi-arid climate: a case study	Issa Jumatatu Bosu , Hamdy AboAli Hassan
	33- Regional approach to renewables	Jiri Stodola , Petr Stodola, Jan Furch
	65-Wealth Effects of Financing by Sustainability-Linked bonds: A note	Christian Pohl , Dirk Schiereck
	184- Spillover effects of CO2 emission, renewable and non-renewable energy consumption on environmental degradation	Amjad Naveed , Nisar Ahmad, Reza FathollahZadeh Aghdam
	257-The effect of using four types coated electrodes on surface roughness of titanium metal by electrical discharge machining (EDM)	Maryam A. Sadik , Shukry H. Aghdeab, Raed R. Shwaish
	26-Hybrid sorbents for carbon capture in waste-to-energy technologies	Maris Klavins

13:30-14:20	LUNCH	
	SESSION 4A Material Characterization	Session Chair: Dr. H. Hilal Kurt
14:20-15:25	269- Defect effects on hardness of B2-type YIn Compound	Ilknur K. Durukan , Yasemin O. Ciftci
	273- Pressure Effect on the Elastic and Electronic Properties of RhTiSb Half Heusler Compound	Yasemin O. Ciftci , Ilknur K. Durukan
	127- Special optical fiber design for modification of dispersion characteristics	Gulbakhar Yussupova , Nazym Kussambayeva, Yegzekova, Anara, Zhadyra Sadvakassova, Saule Nurymova, Dilfuza Akhmedova
	220- Behavior of bean straw under inert torrefaction	Mohamed Khairy Elsayed , Mona Gamal, Shinichi Ookawara, H. Sekiguchi, Ahmed Elwardany
	173-3D numerical simulation of a salt gradient solar pond	Ibtissem Mhamdi, Fakhreddine Segni Oueslati , Haykel Ben Hamed
15:25-15:45	COFFEE BREAK	
	SESSION 5A Auxiliary Components of Energy Systems	Session Chair: Dr. Mohsen Assadi
15:45-16:50	215- A fuel flexible combined heat and power micro gas turbine test rig for dispatchable generation	Mohsen Assadi
	51- A computational approach to the role of tramp elements in steel	Aurélie Jacob, Erwin Povoden-Karadeniz
	140- Utilization of similarity on model-prototype transition of francis turbines	Sena Gozde Yildirim , Sila Fatma Seydim, Kaan Guzey, Ece Nil Kantar, Asli Beril Ejder, Ece Ayli, Kutay Celebioglu, Selin
	139- The performance enhancement of stay vanes in rehabilitation process of Francis Turbines	Kaan Guzey , Oguzhan Ulucak, Ece Ayli, Kutay Celebioglu, Selin Aradag
	214- Influence of SiO ₂ , Al ₂ O ₃ and CNT Nanoparticles Fuel Blends on Performances and Exhaust Emission Characteristics of Diesel Engine	Anes G. Mrwan, Ang F. Chen, M. Akmal Adzmi, I. M. Yusri, Abdullah Adam , Farad Jaliliantabar

1. DAY [7 May 2022 Saturday] - HALL B (PHYSICAL SESSIONS)

SESSION 1B Optimization of Energy Systems		Session Chair: Dr. Mayorkinos Papaalias
09:15-10:30	11- The heat transfer phenomena of PCMs & NEPCMs for melting and solidification cycles in different container-shapes	Allan T. Muzhanje, Mohsen A. Hassan, Shinichi Ookawara, Hamdy Hassan
	50- Impact of CsF on phase transitions of K ₂ CO ₃ .	Natalia Mazur, Henk Huinink, Hartmut Fischer, Pim Donkers, Olaf Adan
	68- Cold Flow Simulation of Fluidized Bed Reactor Based on Different Air Nozzle Directions	Mohamad M. Alashmawy, Hassan Shokry Hassan, Shinichi Ookawara, Ahmed E. Elwardany
	85- Numerical analysis on deformation and stresses in RM1 NACA-4415 wind turbine	Khurshid Alam, Muhammad Iqbal, Ahmed Al Balushi, Afzal Husain, Sakhi Jan, Saeed Badshah
	246- Assets migration by means of solving of portfolio optimization	Krassimira Stoyanova, Vassil Guliashki
	260- Design optimisation of hydrogen pressure vessels for deep sea autonomous underwater vehicles powered using an alkaline fuel cell	Valter Luiz Jantara Junior, Mayorkinos Papaalias
10:30-10:50	COFFEE BREAK	
SESSION 2B Biomass & Biodiesel & Combustion & Photovoltaic		Session Chair: Dr. Ehssein Chighali
10:50-12:05	67- Greenhouse tomato wastes valorization investigation: case study of biogas production in Tunisia	Skandar Rejeb, Ahmed Hannachi
	138- An investigation of the influence of biodiesel blends on the performance parameters, combustion, and emissions characteristics of compression ignition engines	Mohamed E. Khidr, Tamer F. Megahed, Shinichi Ookawara, Ahmed E. Elwardany
	147- Comparative study on n-butanol and ethyl acetate as promising four-carbon oxyfuels in a compression ignition engine	Shadrack Kimanzi Musyoka, Ahmed S. Khalil, Shinichi A. Ookawara, Ahmed E. Elwardany
	204- Production of bioethanol and biogas from olive mill solid lignocellulose biomass	Hassan Azaizeh, Hiba N. Abu Tayeh
	151- Experimental Investigation of Heating and Evaporation Characteristics of Single Suspended Aniline Droplet.	Hesham Elkady, Rami Zewail, Shinsuke Mori, Ahmed E. Elwardany
	154- A new indirect photovoltaic power optimization method based on the measured temperature and irradiance	Ehssein Chighali, Ba Abdellahi, Aroudam Elhassen
12:05-12:15	BREAK	
SESSION 3B Optimization of Energy Devices		Session Chair: Dr. Khurshid Alam
12:15-13:30	162- Design of Log-Periodic Tooth Nano-Antenna for Energy Harvesting in the Infrared Band	Fahad Al-Qahtani, Ali Yahyaoui, Jawad Yousaf, Hatem Rmili
	174- Study of waste-heat powered facemask	Jan H. Wiśniewski
	87- Investigation Into The Effects of Improper Maintenance On Wind Turbines	Michael S. Davis, Mohammad R. Madani
	175- Li-ion battery thermal parameter identification and core temperature estimation	Khadija Saqli, Houda Bouchareb, Oudghiri Bentaie Mohammed, Kouider Nacer M'sirdi
	240- Optimal Design of a Coupled Photovoltaic-Electrolysis-Battery System for Hydrogen Generation	Aisha AIObaid, Raymond Adomaitis
	244- Recyclable humidity sensor based on a bio-waste material for multifunctional applications	Maryam Khan, Hafiz Mohammad Mutee ur Rehman, Muhammad Muqet Rehman, Woo Young Kim

13:30-14:20	LUNCH	
	SESSION 4B Advances in Energy Modeling	Session Chair: Dr. Denis Chikurtev
14:20-15:25	237- Integration of data centres as active entities into energy systems modelling	Juan Jerez , Juan Gea-Bermúdez, Claire Bergaentzlé, Dogan Keles
	249- Intentions to charge Electric Vehicles with Vehicle-to-grid technology among people with different motivations for energy saving	Zbigniew Bohdanowicz, Jarosław Kowalski , Cezary Biele
	15- Experimental Study of Waste Heat Recovery from Industrial Chimney Using Thermoelectric Generator (TEG) Cooled by Natural Convection	Alfred Ochieng , Hamdy Hassan
	250- Evaluation of energy efficiency of an intelligent infrared heating system for industrial buildings	Veneta Yosifova, Denis Chikurtev , Milena Haralampieva, Rosen Petrov
	12- Economic and efficiency analysis of coupled of different ratios of PV and wind energy systems for green hydrogen production	Mohamed Nasser , Tamer F. Megahed, Shinichi Ookawara, Hamdy Hassan
15:25-15:45	COFFEE BREAK	
	SESSION 5B Plasmas & Gases	Session Chair: Dr. Maria Solakidou
15:45-16:50	276- Simulation of DC Capacitive Discharge Plasma	Bekir Dursun , Erol Kurt
	272- Ab-initio Study on Hydrogen Storage of Ni substituted CuZn in B2 structure	Yasemin O. Ciftci , Ilknur K. Durukan
	144- Dual cocatalytic nanohybrids Au-TiO ₂ -RuO ₂ accelerate photocatalytic hydrogen production from water	Maria Solakidou , Areti Zindrou, Asterios Mantzani, Yiannis Deligiannakis
	223- Towards highly efficient high power X-band AlN/GaN MIS HEMTs operating above 50V	Kathia Harrouche , Sri Saran Vankatachalam, François Grandpierron, Etienne Okada, Farid Medjdoub

	1. DAY [7 May 2022 Saturday] - POSTER SESSION	
	105- Study of Growth Rate of Tetraselmis striata Microalgae for Biofuel Production	Sameer Al-Asheh , Ahmad Aidan, Rawan Abu Alwan, Dana Kadadou, Yousef Elzanaty, Maitha Ahli, Ghadeer Hegab
	46- Wave energy potential of the coast of the island of El Hierro for the exploitation of a Wave Energy Converter (WEC).	Isidro Padrón, Manuel D. García, Devis Avila , Graciliano N. Marichal