



ieCRES

8th International Engineering Conference
for Renewable Energy and Sustainability

8th International Engineering Conference on Renewable Energy & Sustainability

ieCRES 2023
8 - 9 May 2023

 engconf.iugaza.edu.ps

 ieCRES@iugaza.edu.ps



First Session

Track: Renewable Energy Technologies (e.g. Hydro, Solar, Wind, Offshore, Geo-Thermal, Bio, etc.)

Venue: Conference Hall at Tayba Building

8 May, 2023 (11:30 – 13:00)

Session Chair: Prof. Ammar Abu-Hudrouss

| Time | Authors | Title |
|---------------|--|---|
| 11:30 – 11:45 | Hatem Elaydi Hosam Zaqout Mohammed Ayesh Ahmed Salha Omar Hammad | Investigative Study of Installed Solar Energy System at IUG |
| 11:45 – 12:00 | Yasser Nassar Hala El- Khozondar Nasser Abouhmod Ahmed Abubaker Abdussalam Ahmed Abdulgader Alsharif Mohamed Khaleel Mohamed El-Naggar Rifa El-Khozondar | Regression Model for Optimum Solar Collectors' Tilt Angles in Libya |
| 12:00 – 12:15 | Mohammed Shabat Guillaume Zoppi | Simulation on the Perovskite-Based Solar Cell with Graphene Derivative |
| 12:15 – 12:30 | Rifa El-Khozondar Hala El-Khozondar Yasser Nassar Ehab Bayoumi Hilmy Awad | Efficiency improvement of Ag-doped CdSe quantum dot sensitized solar cells |
| 12:30 – 12:45 | Yasser Nassar Khalid Amer Hala El- Khozondar Abdussalam Ahmed Abdulgader Alsharif Mohamed Khaleel Mohamed El-Naggar Rifa El-Khozondar | Thermal-electrical Analysis of a New Hybrid PV/T Flat-Plate Solar Collector |
| 12:45 – 13:00 | Abu Nayem Noman Md Mahmud Sohan Md Sakib Khan | Power Transformer Fault Classification Based On Cumulative Distribution Transformation utilizing Singular Value Decomposition |

Second Session

Track: Information Systems (IS)

Venue: Conference Hall at Al-Quds Building

8 May, 2023 (11:30 – 13:00)

Session Chair: Prof. Aiman Abu Samra

| Time | Authors | Title |
|---------------|---|--|
| 11:30 – 11:45 | Aiman Abu Samra Jehad Aldahdooh Abeer Ashour Mai Ghazal Raghad Abu Arja | Traffic Congestion Prevention using Ant Colony Optimization |
| 11:45 – 12:00 | Mabrouka Fadel Ali Ukasha Amnah Fadil | Image Segmentation Algorithms |
| 12:00 – 12:15 | Hanan Abu-Mariah Wesam Ashour | Moving Object Detection Based on Clustering and Event-Based Camera |
| 12:15 – 12:30 | Rajai Al-Himdiat Wesam Ashour Ramy Battrawy Didier Stricker | Accelerating the Run-Time of Convolutional Neural Networks through Weight Pruning and Quantization |
| 12:30 – 12:45 | Saleh Alwahaishi | A Smart Interactive Behavioral Chatbot: A Theoretical Prototype |
| 12:45 – 13:00 | Majdi El Bireki Ali Ukasha Mohammed Babana | An Efficient Approach Compared with Neural Networks Method for Watermarked Image |

Third Session

Tracks: Sustainable Built Environment & Sustainable Management

Venue: Conference Hall at Al-Lehedan Building

8 May, 2023 (11:30 – 13:00)

Session Chair: Prof. Mazen Abu Altayef

| Time | Authors | Title |
|---------------|--|--|
| 11:30 – 11:45 | Mohammed Eteriki Wedad El-Osta Yaser Nassar Hala El-Khozondar | Effect of Implementation of Energy Efficiency in Residential Sector in Libya |
| 11:45 – 12:00 | Sanaa Saleh Ola. Al-Farra | The Effect of Roofs-Types on the Design of Energy-Efficient Buildings in Gaza Strip: A Co-simulation Parametric Study |
| 12:00 – 12:15 | Imadeddin Al-Ghariz Yunes Mogheir | Assessment of the Impact of Climate Change on Rainfall Patterns in the Gaza Strip |
| 12:15 – 12:30 | Zakaria Helles Yunes Mogheir | Factors Affecting the Infiltration Rate of Stormwater (Case Study: Three Large Stormwater Infiltration Basins in the Gaza Strip) |
| 12:30 – 12:45 | Tamer Al-Najar Husam Al-Najar Wessam Al-Madhoun | Appropriate Water Supply Management Considering the Israeli Invasions of the Gaza Strip |
| 12:45 – 13:00 | Mohammad Abuhaiba Mohammad Dader Taleb Elrayyes Wesam Elbakry | Towards green and circular economy, the development of roof tiles and bricks from sand plastic composite |



Fourth Session

Track: Control and Communication
Venue: Conference Hall at Al-Quds Building
9 May, 2023 (09:00 - 10:30)
Session Chair: Prof. Mohammed Al-Hanjouri

| Time | Authors | Title |
|---------------|---|---|
| 09:00 – 09:15 | Hatem Elaydi Obada Al-Garamani | Grid Load Balancing Using Phase Adapter Via Fuzzy Logic |
| 09:15 – 09:30 | Yousef E M Hamouda | Smart Hybrid Power Sources Controller based on Fuzzy Logic for Energy Management using Wireless Sensor Networks |
| 09:30 – 09:45 | Hilmy Awad Gculisiwe Magagula Yasser Nassar Hala El- Khozondar Ehab Bayoumi | Fuzzy Controller for a Unity-Power Factor Boost Converter in Three-Phase Induction Motor Drives Applications |
| 09:45 – 10:00 | Fady El-Nahal Ahmed Skaik | Radio over Fiber (RoF) Transmitter Architecture for Fronthaul 5G and beyond Networks |
| 10:00 – 10:15 | Abdussalam Ahmed Hisham Ramadhan Mohamed El Malki Yasser Nassar | Modeling and Control of a half Car Active Suspension System using Sliding Mode Controller and Linear Quadratic Regulator Controller |
| 10:15 – 10:30 | Mustafa Emheisen Abdussalam Ahmed Triwiyanto Triwiyanto Yasser Nassar | Performance Evaluation of PID and MPC for Analysis of Vehicle Handling |



Fifth Session

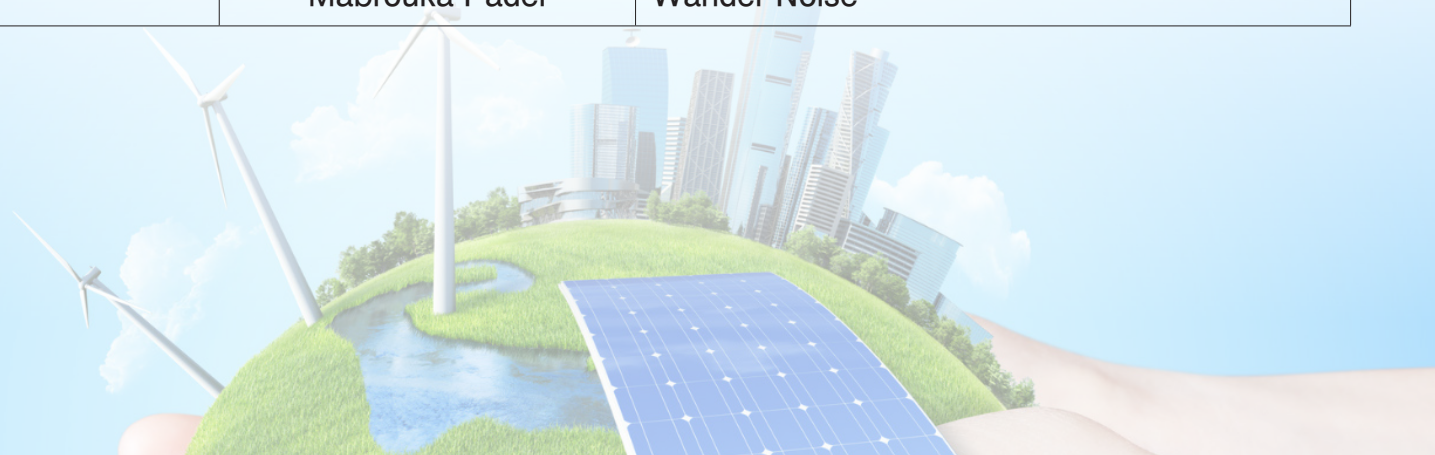
Track: Renewable Energy Technologies (e.g. Hydro, Solar, Wind, Offshore, Geo-Thermal, Bio, etc.)

Venue: Conference Hall at Al-Lehedan Building

9 May, 2023 (09:00 - 10:15)

Session Chair: Prof. Mohamed Abdelati

| Time | Authors | Title |
|---------------|--|--|
| 09:00 – 09:15 | Hala El-Khozondar Mohamed Shabat | Simulation of nanoparticles perovskite solar cells |
| 09:15 – 09:30 | Hala El-Khozenadar Mohamed El-Naggar Yasser Nassar Ahmed El-Louh Mahmoud Al-Ghaffari Hamza Nassar Mohammed Al-Nahhal | Linear Fresnel collector (LFC) for enhancing solar water desalination process |
| 09:30 – 09:45 | Ahmed Makhzom Tareq Foqha Abdallah Eshdok Mansour Salem Yasser Nassar Ibraheem AlShareef Samer Alsadi Hala El-Khozondar | Estimation of CO ₂ emission factor for Power Industry Sector in Libya |
| 09:45 – 10:00 | Abdallah Salem Essam Hamza Yasser Nassar Ibrahim Hmady | Numerical Simulation of Aerodynamics Performance of NERL S826 Airfoil |
| 10:00 – 10:15 | Ali Ukasha Mousa Omar Mabrouka Fadel | Simulation for Design the Compressed ECG Signal Transmission System with Baseline Wander Noise |



Sixth Session

Track: Renewable Energy Technologies (e.g. Hydro, Solar, Wind, Offshore, Geo-Thermal, Bio, etc.)

Venue: Conference Hall at Al-Quds Building

9 May, 2023 (11:00 – 12:30)

Session Chair: Prof. Hatem Elaydi

| Time | Authors | Title |
|---------------|--|--|
| 11:00 – 11:15 | Mohamed Zellagui Samir Settoul Nasreddine Belbachir | Multi-Objective Optimal Allocation of Hybrid Electric Vehicles Charging Stations and Renewable Distributed Generators into the Distribution System |
| 11:15 – 11:30 | Jawdat Abu-Taha Husam Shaheen | Developing a Micro-Grid modeling approach for Nasser Medical Complex energy demand in the Gaza Strip |
| 11:30 – 11:45 | Hala El-Khozenadar Mohammed Albardawil Mohammed Asfour Ibrahim Abu-Khater Yasser Nassar Ehab Bayoumi Ahmed Abd El Halim | DC off-Grid PV System to Supply Electricity to 50 Boats at Gaza Seaport |
| 11:45 – 12:00 | S.M Masum Salma Rahman | Investigating the Potential of a Solar Plant at Payra Port in Revolutionizing Bangladesh's energy Landscape |
| 12:00 – 12:15 | Mohamed El-Naggar Hala El-Khozondar Yasser Nassar Mahmoud Alghaffari Ahmed El-Louh Mohammed Habib Atwah Alshafai Mohammed Khalifa | Design of a solar thermal powered system for electricity generation and water desalination |
| 12:15 – 12:30 | Mohamed Abdelati Nasreddin El-Mezaini | Assessment of the THD Problem in the Southern Governorates Desalination Plant |



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Seventh Session

Track: Renewable Energy Technologies (e.g. Hydro, Solar, Wind, Offshore, Geo-Thermal, Bio, etc.)

Venue: Conference Hall at Al-Lehedan Building

9 May, 2023 (11:00 – 12:15)

Session Chair: Prof. Fady El-Nahal

| Time | Authors | Title |
|---------------|---|--|
| 11:00 – 11:15 | Khaled Dawoud Ammar Abu-Hudrouss | Off-grid Solar Photovoltaic BLDC motor Pumping Technology for Irrigation in Gaza Strip |
| 11:15 – 11:30 | Abu Nayem Noman | Wind Energy: The Promising Future of Bangladesh Power Sector |
| 11:30 – 11:45 | Ahmed Abd El Halim Yasser Nassar Hala El- Khozondar Ehab Bayoumi | Fast Charging of Lithium-ion Battery for Electric Vehicles Application |
| 11:45 – 12:00 | Malek Daher Samer Zyoud Mohammed Shabat | Design of highly efficient Thin-Film Heterojunction Solar Cells based on CIGS with Various Metal Chalcogenide Buffer Layers Replacements: SCAPS-1D Simulation software |
| 12:00 – 12:15 | Mahassen Elblbeisi Mohammed Shabat | TE transmittance of solar cell models based on perovskite and nanoparticles |



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Special Tutorial Sessions

**Workshop Title: Supporting Gazan MSMEs' innovation practices
as part of the green economy: GIZ/PEF experience**

**Place: Conference Hall at Tayba Building
9 May, 2023 (11:00 – 12:15)**

Workshop Chair: Dr. Taleb Al-Rayyes

| Time | Speaker | Title |
|---------------|------------------------|---|
| 11:00 – 11:05 | Eng. Ramadan Abu Luli | Project Concept & Philosophy |
| 11:05 – 11:10 | Ali Al Zaanin | Project Approach |
| 11:10 – 11:30 | Dr. Said Abu Jalala | Innovation in the Humanitarian Context |
| 11:30 – 11:50 | Dr. Mohammed Abu Haiba | Recycling: Manufacturing of sand plastic material |
| 11:50 – 12:10 | Dr. Tamer Ishtiwi | New concept for Water Desalination |
| 12:10 – 12:15 | Eng. Ramadan Abu Luli | Public-Private Partnership Challenges |

Conference Closing Ceremony

9 May, 2023 (13:00-14:00)

Place: Conference Hall at Tayba Building

