

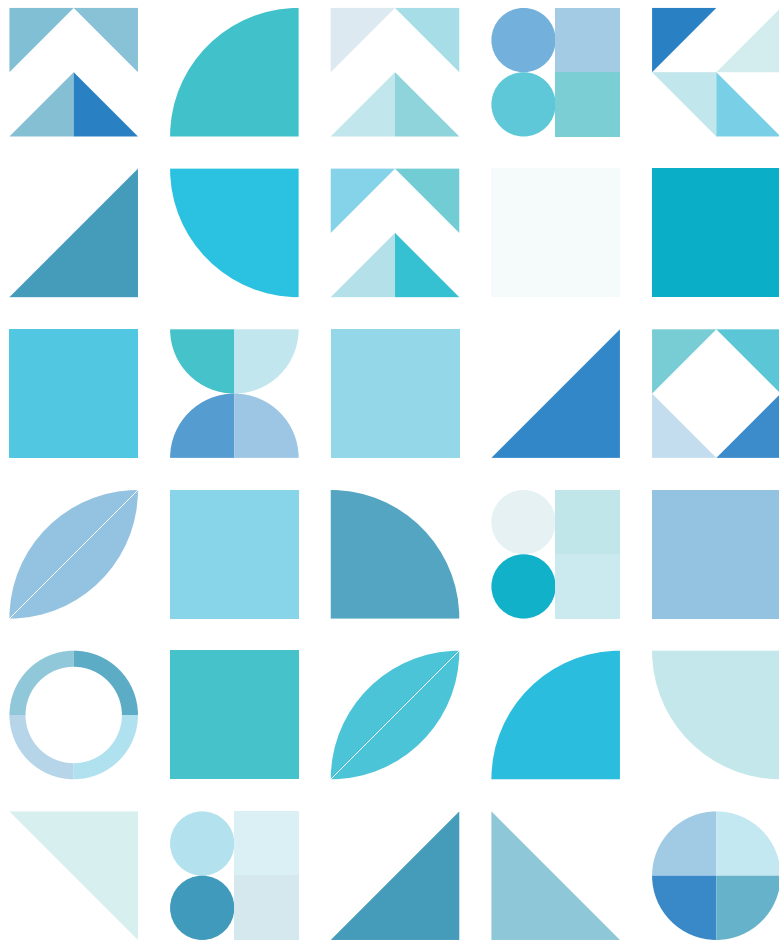


UAEU

جامعة الإمارات العربية المتحدة  
United Arab Emirates University

## 6<sup>TH</sup> INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY: GENERATION AND APPLICATIONS (ICREGA)

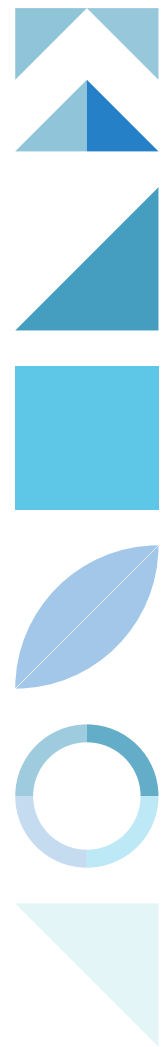
# TECHNICAL PROGRAM



# ICREGA 2021

UAE UNIVERSITY, AL AIN, UNITED ARAB EMIRATES (UAE)  
FEBRUARY 2<sup>ND</sup> TILL 4<sup>TH</sup>, 2021





# PROGRAM AT A GLANCE



## TUESDAY 2<sup>ND</sup> FEBRUARY 2021

- 08:45 AM UNTIL 08:50 AM  
UAE NATIONAL ANTHEM  
OPENING REMARKS: DR MAHMOUD F. AL AHMAD, CONFERENCE CHAIRMAN & DR KHAULA ALKAABI, CONFERENCE CO-CHAIR
- 08:50 AM UNTIL 09:00 AM  
WELCOMING SPEECH: H.E. ZAKI NUSSEIBEH, MINISTER OF STATE AND CHANCELLOR OF UAE UNIVERSITY
- 09:00 AM UNTIL 09:15 AM  
DIALOGUE SESSION WITH H.E. SUHAIL MOHAMED FARAJ AL MAZROUEI, MINISTER OF ENERGY AND INFRASTRUCTURE
- 09:15 AM UNTIL 10:15 AM  
PROFESSOR RACHID YAZAMI, PROFESSOR EMMANOPANEL DISCUSSION: "CHALLENGES AND OPPORTUNITIES FOR GREEN ENERGY TECHNOLOGY DEPLOYMENT". PANELISTUIL M TENTZERIS, PROFESSOR SAIFUR RAHMAN. MODERATOR: PROFESSOR MICHAEL G. PECHT.  
All of the above are on this link:  
<https://uaeu-ac-ae.zoom.us/j/93316451442?pwd=YTVCTW9HUHhjUnIKRHV5bE9RY0JZdz09>
- 10:15 AM UNTIL 10:25 AM  
KEYNOTE DR FATIMA TAHIR, IEEE UAE SECTION CHAIR  
<https://uaeu-ac-ae.zoom.us/j/93730607348>
- 10:30 AM UNTIL 11:30 AM  
KEYNOTE PROFESSOR RACHID YAZAMI, THE KEY ROLE OF LITHIUM BATTERIES IN THE FUTURE ENERGY TRANSITION  
<https://uaeu-ac-ae.zoom.us/j/95764945538?pwd=a2h5dkhpQTNEZDczUpTRk9RdXpMQT09>
- 01:00 PM UNTIL 03:50 PM  
CONCURRENT TECHNICAL SESSIONS (S1)  
<https://uaeu-ac-ae.zoom.us/j/97991182326?pwd=QXNuNlowcUk0NlIDMlJ1WC8ySU9yZz09>
- 04:00 PM UNTIL 05:40 PM  
CONCURRENT TECHNICAL SESSIONS (S2)  
<https://uaeu-ac-ae.zoom.us/j/98810195575?pwd=VkhLdUJNVZTXVEtPNHVtMnhVdThhUT09>
- 04:00 PM UNTIL 05:40 PM  
CONCURRENT TECHNICAL SESSIONS (S3)  
<https://uaeu-ac-ae.zoom.us/j/91779706442?pwd=cTc3T2VUcHdWWE40WW4wbzdyMHZZZz09>

## WEDNESDAY 3<sup>RD</sup> FEBRUARY 2021

- 09:00 AM UNTIL 11:30 AM  
CONCURRENT TECHNICAL SESSIONS (S4)  
<https://uaeu-ac-ae.zoom.us/j/98884595420?pwd=UzVJUi8zTDY5WVRrUHFMY2daRjUrQT09>
- 09:00 AM UNTIL 11:30 AM  
CONCURRENT TECHNICAL SESSIONS (S5)  
<https://uaeu-ac-ae.zoom.us/j/92081768771?pwd=bllqQzU4bXlrR3lhbDM4dmNCbDNKQT09>
- 01:00 PM UNTIL 04:10 PM  
CONCURRENT TECHNICAL SESSIONS (S6)  
<https://uaeu-ac-ae.zoom.us/j/94398822409?pwd=MG9qckllLzJRT0lsaVNXbWJKbDBOZz09>
- 04:20 PM UNTIL 06:00 PM

## THURSDAY 4<sup>TH</sup> FEBRUARY 2021

- 09:00 AM until 11:50 AM  
**CONCURRENT TECHNICAL SESSIONS (S8)**  
<https://uae-u-ac-ae.zoom.us/j/93720747655?pwd=Vy9ZVTljaTY2bW1DdGhMZEtZVhkdz09>
- 09:00 AM until 11:30 AM  
**CONCURRENT TECHNICAL SESSIONS (S9)**  
<https://uae-u-ac-ae.zoom.us/j/98740793952?pwd=VWhPTzIEOGRzTVk1N3dDT3VoZGtBdz09>
- 05:00 PM until 05:50 PM  
**KEYNOTE PROFESSOR EMMANOUIL M TENTZERIS, "ZERO-POWER" FLEXIBLE WIRELESS MODULES FOR "GREEN" SMART CITIES, SMART PRECISION AGRICULTURE AND INTERNET OF THINGS APPLICATIONS**  
<https://uae-u-ac-ae.zoom.us/j/93918745791?pwd=QnJ1algvbFJsSHdreWI2VlpUUG40Zz09>
- 06:00 PM until 06:50 PM  
**KEYNOTE PROFESSOR SAIFUR RAHMAN, ROLE OF THE SMART GRID IN FACILITATING THE INTEGRATION OF RENEWABLES**  
<https://uae-u-ac-ae.zoom.us/j/95620711722?pwd=S2pzNmFecUJwU1RxajBDNDNESWxKZz09>
- 06:55 PM until 07:00 PM  
**CLOSING CEREMONY**  
<https://uae-u-ac-ae.zoom.us/j/99704365114?pwd=b0RrWHhmNnVUN1dYMDFSWVRaeTg5QT09>

### CONCURRENT TECHNICAL SESSIONS

- S1: Harvesting, Materials and Storage I [Tuesday, 01:00 pm - 03:50 pm]
- S2: Solar cells and PV I [Tuesday, 04:00 pm - 05:40 pm]
- S3: Models and predictions I [Tuesday, 04:00 pm - 05:40 pm]
- S4: Sustainability and Economic Considerations I [Wednesday, 09:00 am - 11:30 am]
- S5: Models and predictions II [Wednesday, 09:00 am - 11:30 am]
- S6: Hybrid and Electric Vehicles [Wednesday, 01:00 pm - 04:10 pm]
- S7: Solar cells and PV II [Wednesday, 04:20 pm - 06:00 pm]
- S8: Harvesting, Materials and Storage II [Thursday, 09:00 am - 11:50 am]
- S9: Sustainability and Economic Considerations II [Thursday, 09:00 am - 11:30 am]



# CONCURRENT TECHNICAL SESSIONS

## S1: Harvesting, Materials and Storage I

[Tuesday, 01:00 PM until 03:50 PM]

Session Chair: Dr Mahmoud Al Ahmad [m.alahmad@uaeu.ac.ae](mailto:m.alahmad@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/97991182326?pwd=QXNuNlowcUk0NlIDMIJ1WC8ySU9yZz09>

**01:00 PM: Design methodology for efficient vibration energy harvester based on electromagnetic induction principle.** Rim Abidi (UAE University, United Arab Emirates); Asma Abdelrazaq (UAE University, United Arab Emirates); Huda Al Nuaimi (UAE University, United Arab Emirates); Khulood Al Marzooqi (UAE University, United Arab Emirates); Mahmoud Alahmad (UAEU, United Arab Emirates).

**01:20 PM: Porous Silicon NWs with FiTC-doped Silica Nanoparticles.** Amine El Moutaouakil (United Arab Emirates University, United Arab Emirates); Mahmoud Al Ahmad (United Arab Emirates University, United Arab Emirates); Abdul Kareem Kalathil Soopy (United Arab Emirates University, United Arab Emirates); Adel Najar (UAEU, United Arab Emirates).

**01:40 PM: Rf Energy Harvesting system for GSM900 and GSM 1800 bands.** Marwan Malaeb (Rochester Institute of Technology, United Arab Emirates); Boutheina Tlili (Rochester Institute of Technology dubai, United Arab Emirates).

**02:00 PM: Removal of heavy metals in sub-surface horizontal flow constructed wetland: approach to energy free treatment.** Abdul Mannan Zafar (United Arab Emirates University, United Arab Emirates); Ibrahim Kamil (University of Engineering and Technology Lahore, Pakistan); Asad Javed Bhutta (United Arab Emirates University, United Arab Emirates); Ashraf Aly Hassan (United Arab Emirates University & University of Nebraska Lincoln, United Arab Emirates); Zainab Cheema (University of Engineering and Technology Lahore, Pakistan); Aasiya Sarwar (University of Engineering and Technology Lahore, Pakistan); Mahnoor Ishtiaq (University of Engineering and Technology Lahore, Pakistan); Khalid Mehmood (Technical University of Cologne, Germany).

**02:20 PM:** Coffee Break

**02:30 PM: Facile development of InP nanowires via metal-assisted chemical etching and their optical properties.** Abdul Kareem Kalathil Soopy (United Arab Emirates University, United Arab Emirates); Adel Najar (United Arab Emirates University, United Arab Emirates, United Arab Emirates).

**02:50 PM: Optical Properties of Porous InP Generated via Metal Assisted Chemical Etching.** Abdul Kareem Kalathil Soopy (United Arab Emirates University, United Arab Emirates); Adel Najar (UAEU, United Arab Emirates).

**03:10 PM: Identifying Highly Stable Structures of ABX<sub>3</sub> Compounds: Cases of CaTiO<sub>3</sub> and CsGeCl<sub>3</sub> Perovskites.** Fahhad H. Alharbi (King Fahd University of Petroleum and Minerals, Saudi Arabia); Abduljabar Alsayoud (King Fahd University of Petroleum and Minerals, Saudi Arabia); Saad Alqahtani (King Fahd University of Petroleum and Minerals, Saudi Arabia).

**03:30 PM: Modular Hybrid Energy System for Refugee Camps.** Bassel Soudan (University of Sharjah, United Arab Emirates); Abdollah Masoud Darya (University of Sharjah, United Arab Emirates).



## S2: Solar cells and PV I

[Tuesday, 04:00 pm until 05:40 pm]

Session Chair: Rachid Errouissi [rachid.errouissi@uaeu.ac.ae](mailto:rachid.errouissi@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/98810195575?pwd=VkhLdUJNVtZxVetPNHVtMnhVdThhUT09>

**04:00 PM: Analysis and Design of a Solar Home System.** Md. Nasir Uddin (Northern University Bangladesh, Bangladesh); Zahidul Rony Islam (Northern University Bangladesh, Bangladesh).

**04:20 PM: Design and Analysis of an AC Coupled Photovoltaic System for an Off-grid Community in Chittagong Hill Tracts.** Subrata Das (SEMwaves Ltd., United Kingdom (Great Britain)); Yee Kwan Tang (University of Glasgow, United Kingdom (Great Britain)); Suman Marma (SEMwaves Ltd., United Kingdom (Great Britain)); Kamrul Hasan (SEMwaves Ltd, United Kingdom (Great Britain)); Kaysar Ahmed (J&C Impex Limited, Bangladesh); Azizun Nessa (Middlesex University, United Kingdom (Great Britain)); M. T. Bin Ali (SEMwaves Ltd., United Kingdom (Great Britain)); Sudip Kumar Pal (Chittagong University of Engineering and Technology, Bangladesh); Chong Li (Rankine Building & University of Glasgow, United Kingdom (Great Britain)); Dhou Aong Gya Marma (J&C Impex Limited, Bangladesh); Shimul Saha (SEMwaves Ltd., United Kingdom (Great Britain)).

**04:40 PM: Embodiment Design and Detailed Design of a Pyramid Solar Still with an Automatic Feedwater System.** Mahmoud M Elgendi (UAE University & Minia University, United Arab Emirates); Alyaa AlHefeiti (UAE University, United Arab Emirates); Houreyah Almarshoodi (UAE University, United Arab Emirates); Aysha Aldhaheri (UAE University, United Arab Emirates); Wafa Alshehhi (UAE University, United Arab Emirates); Mohamed Y. E. Selim (UAE University, United Arab Emirates).

**05:00 PM: Power Flow Control of a Hybrid Battery/Supercapacitor Standalone PV System under Irradiance and Load Variations.** Nahla Ezzeldin Zakzouk (Arab Academy for Science and Technology and Maritime Transport, Egypt).

**05:20 PM: Simulation of the Floating PV System to Supply Electricity Demand for the City of Surabaya, Indonesia.** Elieser Tarigan (University of Surabaya & Electrical Engineering, Indonesia).

## S3: Models and predictions I

[Tuesday, 04:00 pm until 05:40 pm]

Session Chair: Dr Atef Amin Abdrabou [atef.abdrabou@uaeu.ac.ae](mailto:atef.abdrabou@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/91779706442?pwd=cTc3T2VUcHdWWE40WW4wbzdYMHZZZz09>

**04:00 PM: Heat loss analysis of the linear Fresnel concentrator solar receiver.** Dr Hani Beltaggy, Uniersitie de Tizi Ouzou, Algeria.

**04:20 PM: Estimation of starting voltage of PEMFC by using statistical analysis and artificial neural networks.** Amine Abbou (Mohammadia School of Engineers, Morocco); Saad Khan (United Arab Emirates University, United Arab Emirates); Abdennebi Hsnaoui (ENSM of Rabat, Morocco); Waqar Ali Sher (Bahaudin Zakaria University, Pakistan); Muhammad Haris (Multan, Pakistan); Faisal Yamin (Abaysn University Islamabad, Pakistan); Hussain Shareef (United Arab Emirates University, United Arab Emirates)

**04:40 PM: Design and Analysis of a Morphing Trailing Edge System.** Md Zishan Akhter (United Arab Emirates University, United Arab Emirates); Ahmed Ali (Nanyang Technological University, Singapore); Farag Omar (UAEU, United Arab Emirates)

**05:00 PM: The Use of a Probabilistic Model for the Economic Operation and Lifetime Extension of a Photovoltaic-Wind Distribution Network.** Amir Abdul Majid (University of Science and Technology of Fujairah, United Arab Emirates)

**05:20 PM: Managing Energy Consumption of Wireless Multipath TCP Connections Using Software-Defined Networking: A Review.** Ramiza Shams (UAE University, United Arab Emirates); Atef Abdrabou (UAE University, United Arab Emirates)



## S4: Sustainability and Economic Considerations I

[Wednesday, 09:00 am until 11:30 am]

Session Chair: Dr Waleed Khalil Ahmed [w.ahmed@uaeu.ac.ae](mailto:w.ahmed@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/98884595420?pwd=UzVJUi8zTDY5WVRrUHFmY2daRjUrQT09>

**09:00 AM: Sustainable Development in Green Energies, and the Environment.** Abdeen M Omer (Researcher, United Kingdom (Great Britain))

**09:20 AM: A review of RE technology that is currently emerging for electricity generation in Indonesia.** [Erdiwansyah Erdiwansyah](#) (Universitas Syiah Kuala, Indonesia); Mahidin Mahidin (Universitas Syiah Kuala, Indonesia, Indonesia); Husni Husin (Universitas Syiah Kuala, Indonesia); Nasaruddin Nasaruddin (Universitas Syiah Kuala, Indonesia, Indonesia); M Zaki (Universitas Syiah Kuala, Indonesia); Muhibbuddin Muhibbuddin (Universitas Syiah Kuala, Indonesia); Hamdani Hamdani (Universitas Syiah Kuala, Indonesia, Indonesia)

**09:40 AM: Potential Opportunities for Waste to Energy and Recycling in the Kingdom of Saudi Arabia.** [Rasha Mamoun Elhassan](#) (King Khalid University, Saudi Arabia)

**10:00 AM: Water hyacinths: worthless to economic through multiple usage & suitable harvesting technology.** [Md. Nasir Uddin](#) (Northern University Bangladesh, Bangladesh); Zahidul Rony Islam (Northern University Bangladesh, Bangladesh)

**10:20 AM:** Coffee Break

**10:30 AM: An Overview of Energy Status in Bangladesh.** [Md. Nasir Uddin](#) (Northern University Bangladesh, Bangladesh); Zahidul Rony Islam (Northern University Bangladesh, Bangladesh)

**10:50 AM: GIS-based improved solid waste management for waste collection and waste to energy plant location in Lahore.** [Abdul Mannan Zafar](#) (United Arab Emirates University, United Arab Emirates); Iftikhar Ahmed (University of Engineering and Technology Lahore, Pakistan); Asad Javed Bhutta (United Arab Emirates University, United Arab Emirates); Khalid Mehmood (Technical University of Cologne, Germany); Aniq Waris (University of Engineering and Technology Lahore, Pakistan); Noshaba Mahmood (University of Engineering and Technology Lahore, Pakistan); Hafsa Khan (University of Engineering and Technology Lahore, Pakistan); Ashraf Aly Hassan (United Arab Emirates University & University of Nebraska Lincoln, United Arab Emirates)

**11:10 AM: The Impact of Radiant Heating on the Performance of Sustainable Constructional Component under Elevated Temperature.** [Wail Al-Rifaie](#) (University of Tikrit & Al-Rifaie Bureau for Engineering Consultations, Iraq); Talal Al-Hajri (Gulf University, Bahrain); Waleed Ahmed (United Arab Emirates University & Al Ain, United Arab Emirates)







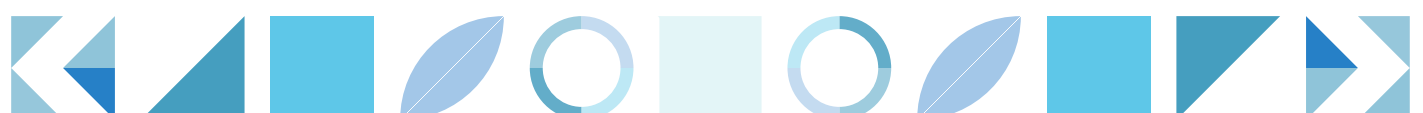
## S5: Models and predictions II

[Wednesday, 09:00 am until 11:30 am]

Session Chair: Dr Mohammednoor Al Tarawneh [mn.altarawneh@uaeu.ac.ae](mailto:mn.altarawneh@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/92081768771?pwd=bllqZU4bXlrR3lhbDM4dmNCbDNKQT09>

- **09:00 AM: Predictive Modeling of A Bio-Fuelled Diesel Engine Using System Identification Approach.** [Priteshkumar Shah](#) (Symbiosis International University, India); [Ravi Sekhar](#) (Symbiosis Institute of Technology, Pune, India); [Punit Singh](#) (Symbiosis Institute of Technology, Pune, India)
- **09:20 AM: ScalSPARQL: A New Scalable system for the mapping of SPARQL Queries to NoSQL languages Based on MDE approach.** [Mouad Banane](#) (University Hassan II, Morocco); [Allae Erraissi](#) (Hassan II University & Faculty of Sciences, Morocco); [Badr El Khalyly](#) (Hassan II University, Morocco); [Abdessamad Belangour](#) (Hassan II University, Morocco); [Mohamed Azzouazi](#) (Hassan II University, Morocco)
- **09:40 AM: Statistical Analysis of Accelerated PSO, Firefly and Enhanced Firefly for Economic Dispatch Problem.** [Sheroze Liaquat](#) (FAST National University, Pakistan); [Muhammad Salman Fakhar](#) (UET, Lahore, Pakistan); [Syed Abdul Rahman Kashif](#) (UET, Lahore, Pakistan); [Omer Saleem](#) (FAST National University, Pakistan)
- **10:00 AM: Risk Assessment for 11kV Unsecured Rings in Distribution Utilities in UAE Based on Probabilistic Approach.** [Omar Reyadh Al Ahmad](#) (AADC, United Arab Emirates); [Tarek Abdel-Galil](#) (University of Waterloo, Canada)
- **10:20 AM: Coffee Break**
- **10:30 AM: A Fuzzy-based smart HVAC controller for mosque buildings-A design procedure under Dubai climate.** [Issah M. Alhamad](#) (United Arab Emirates University, United Arab Emirates); [Ahmad Hamdan](#) (CEO-Cambridge Engineering Consultant & Training (CEC), Jordan)
- **10:50 AM: Protection Setting Validation Concept by Using Expert System.** [Dheka Bakti Krisnamurti Winarno](#) (PLN Indonesia, Indonesia, Indonesia)
- **11:10 AM: Synchronous machine emulation of VSC for interconnection of renewable energy sources through HVDC transmission.** [Hussain Shareef](#) (United Arab Emirates University, United Arab Emirates); [Mohammad Kanakkayil](#) (UAEU, United Arab Emirates); [K Kiranmai](#) (United Arab Emirates University, United Arab Emirates)







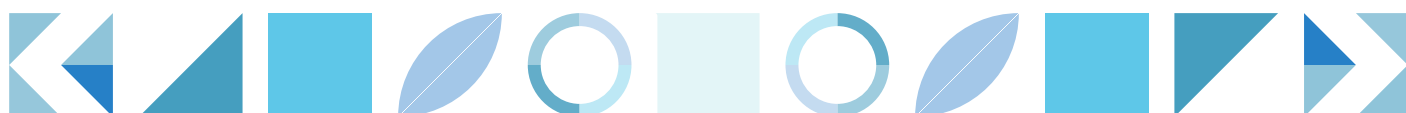
## S6: Hybrid and Electric Vehicles

[Wednesday, 01:00 pm until 04:10 pm]

Session Chair: Dr Lillian Among [lolule@uaeu.ac.ae](mailto:lolule@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/94398822409?pwd=MG9qckllLzJRT0lsaVNxbWJKbDZBOZz09>

- **01:00 PM: Integration of Bioremediation of Textile Wastewater with Biodiesel Production during Cultivation of *Chlorella Vulgaris* Microalgae.** Muhammad Tahir Fazal (Khwaja Fareed University of Engineering and Information Technology & Comsats University Islamabad, Lahore Campus, Pakistan)
- **01:20 PM: Parametric Study of Counter Flow MEMS Heat Exchanger.** Salman Hemayetuddin (UAE University, United Arab Emirates); Ahmed Abusultan (UAE University, United Arab Emirates); Ahmad Abdelrahman (UAE University, United Arab Emirates); Malick Omar (UAE University, United Arab Emirates); Issah M. Alhamad (United Arab Emirates University, United Arab Emirates); Fadi Alnaimat (UAE University, United Arab Emirates); Bobby Mathew (UAE University, United Arab Emirates)
- **01:40 PM: Analysis of Hybrid Energy Power Arrangement for Salalah Community in Oman.** Paul C Okonkwo (Dhofar University, Salalah, Oman); Marwan Farhan (Dhofar University, Oman); El Manaa Barhoumi (Dhofar University, Oman)
- **02:00 PM: Biomass Gasification of Pongamia char in a Fluidized Bed Reactor.** John Victor Christy (UAE University, United Arab Emirates); Abdel-Hamid Ismail Mourad (United Arab Emirates University, United Arab Emirates)
- **02:20 PM: Energy and Exergy Analysis of Combined Cooling and Power System Using Variable Mode Adsorption Chiller.** Ahmad Alsarayreh (Researcher & Precision Industries, United Arab Emirates)
- **02:40 PM: Coffee Break**
- **02:50 PM: A CFD Investigation on the Effect of IPSBR Operational Conditions on Liquid Phase Hydrodynamics.** Ameera Mohammad (UAU, United Arab Emirates); Aya A-H. I. Mourad (UAU, IAT, United Arab Emirates); Jawad Mustafa (UAU, United Arab Emirates); Ali Al-Marzouqi (UAU, United Arab Emirates), Muftah H. El-Naas (QU, Qatar), Mohamed H. Al-Marzouqi (UAU, United Arab Emirates); Bart Van der Bruggen (KU Leuven, Belgium); Mabruk I. Suleiman (ADNOC, United Arab Emirates), Mohamed Al Musharfy (ADNOC, United Arab Emirates).
- **03:10 PM: Treatment of saline wastewater and carbon dioxide capture using electro dialysis.** Jawad Mustafa UAU, United Arab Emirates); Ameera Mohammad (UAU, United Arab Emirates); Aya A-H. I. Mourad (UAU, IAT, United Arab Emirates); Ali Al-Marzouqi (UAU, United Arab Emirates); Muftah H. El-Naas (QU, Qatar).
- **03:30 PM: Regeneration of solvent for CO<sub>2</sub> capture: A review.** Eboseremen O Ebewe (United Arab Emirates University, United Arab Emirates); Mohamed Al-Marzouqi (UAU, United Arab Emirates)
- **03:50 PM: Feasibility study of an Offshore Wind Farm with the Egyptian-Saudi Arabia HVDC Link.** Iman Faouzi Elzemeity (University of Mansoura, Egypt); Ibrahim Elsayeed (Al Azhar University, Egypt); Asmaa Elzemeity (Mansoura University, Egypt)



## S7: Solar cells and PV II

[Wednesday, 04:20 pm until 06:00 pm]

Session Chair: Dr Mohammed Meetani [mmeetani@uaeu.ac.ae](mailto:mmeetani@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/99563588307?pwd=dU5WSE1HdVhSRWZEWkdINHp6aXY1Zz09>

- **04:20 PM: Dynamic Analysis of Large Scale PV Power Plants During Disturbances Conditions.** Mohamed Mourad (University of Assuit, Egypt); Khairy Sayed (Sohag University & Faculty Of Engineering, Egypt)  
04:40 pm: Design and simulation of high efficiency solar cell using polysilicon as solar cell gate. Abeer Sayed (Assiut University, Egypt); Mohamed Abdelgawad (Assiut University, Egypt)
- **05:00 PM: Performance Assessment of Distance Protection of PV-Integrated Microgrids.** Fadi AlAlamat (Hitachi ABB Power Grids, Jordan); Eyad A. Feilat (The University of Jordan, Jordan); Mohammed Haj-Ahmed (The University of Jordan, Jordan)
- **05:20 PM: Solar EV Charging.** Maad Shatnawi (Higher Colleges of Technology, United Arab Emirates); Khalid Bin Ari (Higher Colleges of Technology, United Arab Emirates); Khalifa Alshamsi (Higher Colleges of Technology, United Arab Emirates); Majed Alhammadi (Higher Colleges of Technology, United Arab Emirates); Othman Alamoodi (Higher Colleges of Technology, United Arab Emirates)
- **05:40 PM: Solar Energy Adoption: Technical Advantages and Challenges for the Gulf Cooperation Council Countries.** Thaier Alawadh (Sheik Khalifa Bin Zayed St - Abu Dhabi & UAEU, United Arab Emirates); Salem Alzahmi (UAEU, United Arab Emirates)



## S8: Harvesting, Materials and Storages II

[Thursday, 09:00 am until 11:50 am]

Session Chair: Dr Adel Najar [adel.najar@uaeu.ac.ae](mailto:adel.najar@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/93720747655?pwd=Vy9ZVTljaTY2bW1DdGhMZEtZVhkdz09>

**09:00 AM: Development of a Controlled Output Wind Turbine.** [Md. Nasir Uddin](#) (Northern University Bangladesh, Bangladesh); Zahidul Rony Islam (Northern University Bangladesh, Bangladesh)

**09:20 AM: Nanotechnology in Solar Still: Conceptual Design.** Mahmoud M Elgendi (UAE University & Minia University, United Arab Emirates); Mansour Al Dhaheri (UAE University, United Arab Emirates); [Ahmed Al Baeek](#) (UAE University, United Arab Emirates); Sultan Saad (UAE University, United Arab Emirates); Hamdan Al Surihi (UAE University, United Arab Emirates)

**09:40 AM: Design of a Micro-grid Integration Circuit for Ocean Wave Energy Converters.** Addy Wahyudie (UAE University, United Arab Emirates)

**10:00 AM: Graphene for next generation magnetic devices:** A first-principles study. [Pranay Ranjan](#) (United Arab Emirates University, United Arab Emirates); Atif Sattar (United Arab Emirates University, United Arab Emirates); El-Hadi Sadki (United Arab Emirates University, United Arab Emirates); Maamar Benkraouda (United Arab Emirates University, United Arab Emirates); Nouredine Amrane (UAE University, United Arab Emirates)

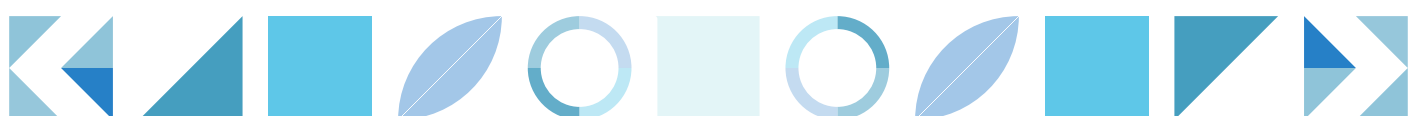
**10:20 AM:** Coffee Break

**10:30 AM: Taguchi Optimization for the Production of Optimized Sustainable Novel Aluminium MMC Using Squeeze Stir Casting Process.** [John Victor Christy](#) (UAE University, United Arab Emirates); Abdel-Hamid Ismail Mourad (United Arab Emirates University, United Arab Emirates); Arunachalam Ramanathan (Sultan Qaboos University, United Arab Emirates)

**10:50 AM: The Capabilities of 3D Printing Technology in the Production of Battery Energy Storage System.** [Kanna Abdhadi](#) (United Arab Emirates University, United Arab Emirates); [Mouza Alrashdi](#) (UAE University, United Arab Emirates); Waleed Ahmed (United Arab Emirates University & Al Ain, United Arab Emirates)

**11:10 AM: Manual Two-dimensional materials Transfer System.** [Nouf Alshamsi](#) (College of Engineering, United Arab Emirates); Mariam Alshamsi (College of Engineering, United Arab Emirates); Fatima Alhammadi (College of Engineering, United Arab Emirates); Amine El Moutaouakil (United Arab Emirates University, United Arab Emirates)

**11:30 AM: A short review on Molybdenum disulfide (MoS<sub>2</sub>) applications and challenges.** [Omnia Samy](#) (College of Engineering, United Arab Emirates); Muhammad Danang Birowosuto (CINTRA, Singapore); Amine El Moutaouakil (United Arab Emirates University, United Arab Emirates)





## S9: Sustainability and Economic Considerations II

[Thursday, 09:00 am until 11:30 am]

Session Chair: Dr Mohamed Atef [moh\\_atef@uaeu.ac.ae](mailto:moh_atef@uaeu.ac.ae)

<https://uaeu-ac-ae.zoom.us/j/98740793952?pwd=VWhPTzIEOGRzTVk1N3dDT3VoZGtBdz09>

**09:00 am: Investigation on the definition, development and policy of building without energy in Indonesia: A review.** [Mahidin Mahidin](#) (Syiah Kuala University, Indonesia); Erdiwansyah Erdiwansyah (Universitas Syiah Kuala, Indonesia); M Zaki (Universitas Syiah Kuala, Indonesia); Hamdani Hamdani (Syiah Kuala University, Indonesia); Husni Husin (Universitas Syiah Kuala, Indonesia); Muhibbuddin Muhibbuddin (Universitas Syiah Kuala, Indonesia); Hisbullah Hisbullah (Universitas Syiah Kuala, Indonesia)

**09:20 am: Economic Analysis and Comparison of Stand alone and Grid Connected Roof Top Photovoltaic Systems.** [El Manaa Barhoumi](#) (Dhofar University, Oman / Université de Tunis, Tunisie, Oman); Farhani Slah (ENSIT, Tunisia); Paul C Okonkwo (Dhofar University, Salalah, Oman); Fadhil Al Housni (Dhofar University, Salalah, Oman); Manaf Zghaibeh (Dhofar University, Oman); F Bacha (ESSTT University of Tunis, Tunisia)

**09:40 am: A New Renewable Energy Index.** [Ibrahim Jawad Hashim](#) (United Arab Emirates University, United Arab Emirates)

**10:00 am: Wind Turbine Power Augmentation Using Virtually Morphed Trailing Edge.** [Md Zishan Akhter](#) (United Arab Emirates University, United Arab Emirates); Ahmed Ali (Nanyang Technological University, Singapore); Farag Omar (UAEU, United Arab Emirates)

**10:20 am:** Coffee Break

**10:30 am: Economical Study on Load Shaving by PV Implementation for Bulk Customers in Riyadh.** [Abdulrahman M Alkelbi](#) (King Saud University & National Grid SA, Saudi Arabia); Mohamed Abbas (King Saud University, Saudi Arabia); Ali M Eltamaly (King Saud University, Saudi Arabia)

**10:50 am: Theoretical Reflections on Consumer Behavior: The Adoption and Non-Adoption of Electric Vehicles.** [Robert M. Bridi](#) (United Arab Emirates University, United Arab Emirates); Naeema M. Alhosani (UAEU, United Arab Emirates)

**11:10 am: An Optimal Stand-Alone Streetlight System Design and Cost Estimation.** [Shereen Farhana](#) (American University of Sharjah, United Arab Emirates); [Mazen Elsaadany](#) (American University of Sharjah, United Arab Emirates); Habib-ur Rehman (American University of Sharjah, United Arab Emirates)

