

## Concurrent Technical Sessions

Based on The Technical Session Schedule

## Session No.13

## TRACK (1)

 Auditorium 1, Ground floor, B105

Chair: Prof. Khalil Abdelrazek

## Sustainable Manufacturing and Industrial Ecology

Graphite-TiO<sub>2</sub>-Doped Sand Granules for Enhanced Continuous Organic Pollutants Removal via Synergistic Adsorption and Photocatalytic Degradation. *Khalil Abdelmawgoud, and Nasser Barakat*

Stand-Alone Crude Oil Heating Station Using Innovative Renewable Energy Thermal System. *Masoud Al-Mahmoudi, Abdullah Al-Janabi, Sulaiman Al-Obaidani, and Nabeel Al-Rawahi*

The Impact of Courtyard Modification on Indoor Air Temperature in Typical Schools: A Case Study in Oman. *Mutaib Alsaadi, Sharifah Fadzil, NAJIB AL-ASHWAL, and David Dalumo*

Analyzing Total Cost Ownership between Electric and Internal Combustion Engine City Cars in Jakarta, Indonesia. *Arthy Lazuardy, Rahmat Nurcahyo, and Farizal Farizal*

The Use Of Lidar Data/Technique For Terrain Survey – A Comparative Study To Conventional Methods. *Sharifah Fairuz Syed Fadzil*

Climate-Responsive Vernacular Mosque Design; Comparative analysis between Hot-Humid and Hot-Arid Regions. *Rosniza Othman, and Shaimaa Ashour*

Application of Artificial Neural Network and Response Surface Methodology in Adsorption of Acenaphthene using Tea Waste Biochar. *Muhammad Raza Ul Mustafa, Nur Afia Arif Shah Bin Anuar Shah, Hifsa Khurshid, Umer Rashid, Zeyneb Kilic, and Imran Baig*

From Waste to Power: Exploring the Energy Potential of Industrial-Agro Residues. *Mohamed Ismail, Waleed Alyousefi, Reda AL-Helal, Yousef Abdul Basit, Khalid Alrumayh, Kamran Shah, and Mostafa Azam*

Solar-based Smart Water Pumping System For Irrigation Application. *Abdulrahman Ghanem, Abdulrahman Alzer, Sivakumar Selvam, and Umashankar Subramaniam*

## Session No.14

## TRACK (2)

 Auditorium 2, 2nd floor, B105

Chair: Prof. Nasser A M Barakat

## Sustainable Construction and Resilient Infrastructure

Sustainable Electrochemical Cathodes and Biomass-Derived Anodes for High-Performance Microbial Fuel Cells. *Nasser Barakat*

The design needs for Community Centres to improve a sustainable social interactions. *SILVIA MAZZETTO, and Renad Algarni*

Architectural typologies and sustainable transformations of urban fabric. *SILVIA MAZZETTO, and Albtoul Binatteeq*

Exploring Community needs in Saudi Arabia: the vibrant artistic context of Qiddiya. *SILVIA MAZZETTO and Hessah Alduraibi*

The influence of crude oil contamination on the microstructure properties of fly ash – based geopolymer. *Rajab Abousnina*

A Novel Change Management Framework for Sustainable Pavement Solutions Implementation. *Haya AlBader, Haya Almutairi, Abeer AlSubaie, and Khaled Alrasheed*

Envisioning Next-Generation Libraries: Aligning Services with Sustainable Development Goals for Transformative Impact. *Haya AlBader, and Abeer AlSubaie*

Fostering Sustainable and Healthy Cities: Co-creating Green Public Spaces through Augmented Reality. *Avar Almutkhtar*

Identification of dune sands used in building by their characteristics and a granular model for an arid environment. *Mhammed Abdeldjalil*

A Novel Multi input High Gain DC–DC Converter for Renewable Energy Sources Integration. *Seshagirrao Vemparala, Sagar Bhaskar Mahajan, Dhafar Almakhlis, and Mahmoud F. Elmorshedy*

## Session No.17

## TRACK (4)

 1-A13, 1st Floor, B 105

Chair: Dr. Basel Sultan

## Future Cities: Innovative Approaches for a Sustainable Tomorrow

Forecast and Management Approach Challenges for Electric Vehicle Battery Waste in Indonesia. *Arief Nurdini, Rahmat Nurcahyo, and Farizal Farizal*

Enhancing UAV-Based Human Detection in Thermal Imaging with Custom Dataset. *Haleem Farman, Ahmed Sedik, Abdulaziz Mohammed Fahad Obaid, Maged Abdullah Esmail, and Moustafa Nasralla*

Impact of Integrated ICT Approaches in Improving Urban Mobility in Riyadh City. *Rasha Moussa*

Role of Incorporating Edge-Oxidized Graphene Oxide on Enhancing Properties of Cement Mortar Containing Various Sizes of Waste Crumb Rubber. *Mohammed Alami*

Technoeconomic assessment of green and blue hydrogen production in Saudi Arabia. *Yousef Alshammari, and Abdullah Alyousef*

A Novel Deep Learning Framework for Contraband Items Recognition in Smart City Applications. *Shehzad Khalid, Zubair Ahmed, Ayesha Noor, and Waqar Asif*

Mapping the Way Forward: Integrating Sustainability Literacy into Architecture Education. *Wafa Abdelmajeed Labib, Eman Abowardah, Amal Abbas Abdelsattar, and Marwa Fahmy Abdelalim*

A New Approach to Leveraging AI for Sustainable Healthcare in Smart Cities. *Muhammad Babar, and Basif Qureshi*

Assessing the Livability of UAE Residential Areas Based on People's Preferences: An Application of Building Information Modeling (BIM). *Lama Abumoeilak*

Mapping Computer Science Program to the UNSDGs: A Framework and Case Study from PSU. *Najla Althuniyan, and Loyal Kazma*

## Session No.16

## TRACK (6)

 Hall 1-A01, B 105, 1st Floor

Chair: Dr. Moustafa Nasralla

## Policies, Regulations, and Economics for Achieving SDGs

Impact of Using Artificial Intelligence Tools in Higher Education. *Rasha Moussa*

Factors Affecting Health and Safety Performance in Building Projects of Sindh Pakistan. *Haseeb Haleem Shaikh, Noor Yasmin Zainun, Shabir Hussain, and Qasim Hussain Khahro*

High Strength Concrete Columns Reinforced with Cross-Spirals as a Seismic Mitigation System. *Olaniyi Arowajolu, Ahmed Ibrahim, Mohammed, Al-Osta, and Riyadh Hindi*

Investigating Alkali-Silica Reaction in Geopolymer Concrete Using Local Aggregates. *Sikandar Hayat, Ali Murtaza Rasool, Asif Hameed, and Fawad S. Rasool*

Effect of Carbon Nanotubes and Steel Fibers on the Rigid Pavement Reinforced with Steel Bars and GFRP Bars. *Amany Salman, Amany Salman, Ahmed Hassan, Sameh Galal, and Abeer Hassan*

3D Printing Technology for Construction: A Structural Shift in Building Infrastructure. *Mohamed Yassin, and Haitham Rashed*

Analytical Study for Innovative sustainable University campus design in Egypt. *Hesham Helal, and Rania Ismail*

Empowering Smart Education in the Age of Smart Cities: Combating Fake News and Misinformation through Propaganda Text Analysis. *Mehre Munir, Ahmed Sedik, and Pir Pir Noman Ahmad*

Adaptation Technology for Humanitarian Architecture Facing Climatic Changes in Coastal Zones. *Donia Abdelgawad, Amal Abbas Abdelsattar, and Salma Dwidar*