



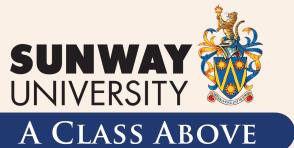
International Conference on Engineering and Advanced Technology 2025

23rd – 24th July 2025

Sponsor



Organizers



Partners



Contents

1 Sponsors, Organizers, and Partners	1
1.1 Sponsors	1
1.2 Organizers	1
1.3 Partners	2
2 Conference Programme	3
2.1 Day 1 (23 rd July 2025)	3
2.2 Day 2 (24 th July 2025)	4
3 Technical Sessions	5
3.1 Physical Presentation	5
3.2 Technical Session 1	6
3.3 Technical Session 2	7
3.4 Technical Session 3	8
3.5 Technical Session 4	9
3.6 Technical Session 5	10
3.7 Technical Session 6	12
3.8 Technical Session 7	13
3.9 Technical Session 8	14
3.10 Technical Session 9	15
3.11 Technical Session 10	17
3.12 Technical Session 11	18
3.13 Technical Session 12	19
3.14 Technical Session 13	20
3.15 Ordered by Paper ID	21
4 Keynote Speakers	25
4.1 Prof. Dr. Saidur Rahman	25
4.2 AP. Dr. Hj. Firas Basim Alnaimi	26
4.3 AP. Dr. Ali Sameer Muhsan	27
4.4 Prof. Dr. Hakim S. Sultan Aljibori	28
4.5 Ir. AP. Dr. Bashar S. Mohammed	29
4.6 Ir. Dr. Chua Yaw Long	30
5 Committees	31
5.1 Chairmen	31
5.2 Steering Committee	31
5.3 Organizing Committee	31
5.4 Scientific Committee	32
5.5 IT Coordinators	33

Sponsors, Organizers, and Partners

Sponsors

Ministry of High Education and Scientific Research, Iraq



Organizers

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University of Kufa, Iraq



Conference Programme

For latest schedule, please refer to
<https://iceat2025.github.io/schedule>.



Venue: LT7, Sunway University Building

Day 1 (23rd July 2025)

8:00	Registration
9:00	Opening ceremony
10:00	Keynote 1 Advanced Materials for Energy Storage and Heat Transfer Applications Prof. Dr. Saidur Rahman
10:45	Tea break
11:00	Keynote 2 Toward 2035: Renewable Energy Innovations Transforming Our Future AP. Dr. Hj. Firas Basim Alnaimi
11:45	Keynote 3 Hydrogen Storage and Safety: Innovations, Challenges, and Industrial Applications AP. Dr. Ali Sameer Muhsan
12:30	Lunch
14:00	Physical presentation
15:15	Tea break

Conference Programme

15:30	Physical presentation
16:30	End of day 1

Day 2 (24th July 2025)

9:30	Keynote 4 Advanced Materials in Aircraft Applications Prof. Dr. Hakim S. Sultan Aljibori
10:15	Tea break
10:45	Keynote 5 Rubbercrete Bricks: Pioneering Sustainable Construction with Scrap Tire Innovation Ir. AP. Dr. Bashar S. Mohammed
11:30	Keynote 6 Engineering Innovation: From Control to Creativity Ir. Dr. Chua Yaw Long
12:15	Lunch
14:00	Campus tour
15:15	Tea break
15:45	Closing ceremony
16:45	End of day 2

Technical Sessions

For latest updates of technical sessions and participation links,
please refer to <https://iceat2025.github.io/technicalsessions>.



Physical Presentation

Chaired by **Associate Professor Ir Dr Chua Bee Lin**
23 July, 2025 from 14:00 to 16:30

14:00	Paper ID 4 Ozone-Based Advanced Oxidation Processes for Dye Removal: A Brief Review
14:15	Paper ID 50 Numerical Investigation about Diesel Engine Powered by Waste Plastic Oil Blends under Different Load and Engine Speed
14:30	Paper ID 117 A Metal-Free Electrocatalyst for Efficient Hydrogen Production
14:45	Paper ID 118 Development and Optimization of Recyclable GF-reinforced PLA Resin Composite for Renewable Energy Applications
15:00	Paper ID 120 Bibliometric Analysis on Smart Self-Healing Nanocoating for 316L Stainless Steel Biomedical Implants

Technical Sessions

15:30	Paper ID 127 Effective Removal of Amoxicillin from Medical Wastewater Using an Eco-Friendly Modification of a Walnut Shell as an Adsorbent
15:45	Paper ID 132 Experimental and Computational Evaluation of Graphene-Enhanced Fiberglass/Polyester Nanocomposites
16:00	Paper ID 155 Buckling Analysis of Corrugated Plate Fuselage Under Uniform Pressure Loading Condition
16:15	Paper ID 180 Application of Kaplan Meier estimator model for validation of AURKC as an early biomarker for Kidney Cancer

Technical Session 1

Functional Materials and Nanotechnology in Chemical Engineering

Chaired by **Professor Nishanth Gopalakrishnan Chemmangattuvalappil**

23 July, 2025 from 10:00 to 12:30

10:00	Paper ID 20 Improving The Properties Of Thermoplastic Materials Using Polyester Resin With Nanoparticles: The State-Of-The-Art
10:15	Paper ID 45 A Review of Novel Nanocomposite Adsorbents for Ultra-Deep Desulfurization of Diesel Fuel: Recent Advances and Future Perspectives
10:30	Paper ID 119 Impact of Nanomaterials Concentrations on the Stress-Strain Behavior and Elastic Modulus of Resin Coatings under an Applied Load

Technical Sessions

10:45	Paper ID 130 Optimization of CO ₂ -Assisted Gravity Drainage Operational Parameters: Insights from a 2D Hele-Shaw Model
11:00	Paper ID 163 Drilling Fluid Enhancement via Nanoparticle Addition
11:30	Paper ID 168 Characterization and Properties of Reaction Majnoon Field rock stone with Carbon Dioxide
11:45	Paper ID 175 Advanced Multiple Sclerosis Data Analysis Using Intensity-Guided Skull Removal and Level Set Method for Enhanced Accuracy
12:00	Paper ID 205 A comprehensive overview of carbon dioxide separation technologies for post-combustion capture

Technical Session 2

Intelligent Power and Communication Systems for Smart Infrastructure

Chaired by **Ts. Dr Nor Akmar Mohd Yahya**

23 July, 2025 from 10:00 to 12:15

10:00	Paper ID 8 Three-Phase Seventeen-Level Cascaded Switched-Capacitor Multilevel Inverter for Grid-Connected PV Systems
10:15	Paper ID 177 Safety-Oriented Design and Analysis of Dielectric Materials and Plate Geometry in Capacitive Wireless Power Transfer Systems

Technical Sessions

10:30	Paper ID 47 Adaptive Algorithm for Transmission Images in 3D LTE Wireless Communication System Channel Based on MIMO-OFDM
10:45	Paper ID 34 A High-Performance, Low-Cost Solution for Enhancing Capacity in Urban 5G Small Cells
11:00	Paper ID 166 Design and Implementation of a Reconfigurable Dual Band Low Noise Amplifier for Modern Receiving Systems
11:30	Paper ID 112 Band Pass Filter Utilizing a Stepped Impedance Resonator for Modern Wireless Communication System
11:45	Paper ID 29 Intelligent Power and Communication Systems for Smart Infrastructure
12:00	Paper ID 200 Bit Error Rate Analysis of Adaptive Modulation Techniques in Power Line Communication Channels

Technical Session 3

Composite Materials, Structural Mechanics, and Manufacturing Innovations

Chaired by **Associate Professor Dr Anwar P.P. Abdul Majeed**

23 July, 2025 from 10:00 to 12:15

10:00	Paper ID 170 A Review of Origami Structure According to Pattern, Manufacturing and Application
10:15	Paper ID 161 Study The Effect of Twin Wire Arc Spraying Parameters on Surface Properties of Stainless Steel

Technical Sessions

10:30	Paper ID 154 An Analytical Review of Incremental Single Sheet Metal Forming Techniques
10:45	Paper ID 150 Numerical analysis of multi -layer composite under free vibration conditions
11:00	Paper ID 144 Effect of blades shape and duct geometrical parameters on Aerodynamic performance of a small-sized axial fan
11:30	Paper ID 109 Effect of Nano Silica Fillers on Dynamic Mechanical Performance and Accelerated Ageing Behavior of Carbon/Epoxy Composites
11:45	Paper ID 191 Designing a Structured Simulation and Project Based Learning Spine for Mechanical Engineering Education
12:00	Paper ID 213 Experimental Determination of the Influence of Perforation of Adherend to the adhesive bond strength

Technical Session 4

AI-Driven Intelligent Systems for Cybersecurity, Healthcare, and Smart Infrastructure

Chaired by **Dr Farrukh Hassan**

23 July, 2025 from 14:00 to 04:45

02:00	Paper ID 10 Optimizing Operating Room Scheduling Using Artificial Bee Colony and Bat Algorithm: A Comparative Analysis
02:15	Paper ID 25 SmartSARIMAX: An Advanced Model for Bandwidth Prediction in Data Networks

Technical Sessions

02:30	Paper ID 74 A Multi-Kernel Convolutional Neural Network Model for Classifying Plant Leaf Diseases
02:45	Paper ID 92 Review paper: Deep Learning Based Biometric Recognition Model Using Finger and Palm Vein Images
03:00	Paper ID 104 Machine Learning-Driven Meta surfaces for Adaptive 6G Beamforming in Dynamic Terahertz Channels
03:30	Paper ID 111 Predicting Adult Income Utilizing Various Artificial Intelligence Models
03:45	Paper ID 114 Analyzing Power Plant Data Using Artificial Intelligence to Enhance Maintenance Strategy
04:00	Paper ID 193 Leveraging AI for Customer Segmentation and Predictive Insights to Elevate E-Commerce Satisfaction
04:15	Paper ID 201 PhisNet: Intelligent Detection of Phishing
04:30	Paper ID 202 A Real-Time Fall Detection Framework using Vision Transformer and LSTM for Elderly People

Technical Session 5

Mechanical Systems, Materials Engineering, and Thermal-Energy Applications

Chaired by **Dr Shahrooz Eftekhari**

23 July, 2025 from 14:00 to 04:45

14:00	Paper ID 82 PMMA/PEEKs/MFP Ternary Composites Mechanical /Morphological Assessment for dental application.
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Technical Sessions

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- 14:15 Paper ID 18
Surface Modification of Mg Alloys for Biomedical Applications Through the Electrospinning Process: A Review
- 14:30 Paper ID 105
Insights into Experimental and Numerical Evaluation of Liquid Desiccant Dehumidifier System Powered by Solar System
- 14:45 Paper ID 80
Investigation of the Effect of Layer Number and Plate Perforation on the Ballistic Performance of Armor: A Review
- 15:00 Paper ID 70
Numerical Investigation of Thermal - Hydraulic Performance of a Solar Air Heater Duct with transverse W-Shaped Rib Turbulators
- 15:30 Paper ID 31
Design and analysis of a planetary geared five-bar slider mechanism for generating long dwell periods
- 15:45 Paper ID 36
Study of 3D-Printed Honeycomb Orientation on Vibration Energy Harvesting
- 16:00 Paper ID 178
Numerical analysis of perforation steel plates impacted by blunt, conical, hemispherical, and spherical projectiles
- 16:15 Paper ID 203
Evaluation of Mechanical and Thermal Properties of a Reinforced Thermosetting Polymer with Glass Fiber and Multi-Walled Carbon Nanotubes
- 16:30 Paper ID 216
Prosthetic Finger Design for Partial Hand Amputees: A Five-Bar Linkage Approach

**Technical Session 6
Smart and Sustainable Materials
in Civil Infrastructure Engineering**

Chaired by **Ts. Dr Tan Tee How**

23 July, 2025 from 14:00 to 16:30

14:00	Paper ID 100 Effect of Soil Density on the Seismic Response of a Circular Shallow Foundation Using PLAXIS Analysis
14:15	Paper ID 137 The aesthetics of techniques in contemporary interior design (Kingdom of Jordan News Channel studio as a case study)
14:30	Paper ID 147 An analysis of the environmental impacts of electronic waste and important precautions
14:45	Paper ID 190 Reactive Powder Concrete Reinforced with Manufactured Fibers or Recycled from Waste Tire
15:00	Paper ID 212 Behaviour of Fibre-Reinforced Lightweight Self-Compacting Concrete Containing Recycled Brick Aggregate and Silica Fume
15:15	Paper ID 192 Valorization of Dredged Sediments from Cameron Highlands Reservoirs: Characterization and Pollution Risk Assessment for Sustainable Construction Materials Recovery
15:30	Paper ID 96 Experimental Investigation of Energy Performance in Double-Glazed Windows Utilizing Air and Phase Change Materials

Technical Sessions

- 15:45 Paper ID 165
A State-of-the-Art Review of Glazed Fenestration Systems for Enhanced Thermal Performance and Solar Heat Gain Mitigation in Building Envelopes
- 16:00 Paper ID 169
Enhancement of wall insulation and reduction of heat gain in buildings by different ways: review

Technical Session 7

Hydraulic and Urban Systems in Civil Engineering

Chaired by **Associate Professor Ir Dr Ali Najah Ahmed Al Mahfoodh**

23 July, 2025 from 14:00 to 16:30

- 14:00 Paper ID 57
Structural Performance of High Strength Self-Compaction Concrete Beam with Perforated Steel Box Shear Connectors
- 14:15 Paper ID 131
Hydrodynamic Based Model to Simulate Water Quality in Kufa River, Iraq
- 14:30 Paper ID 133
Long Term Degradation of Tigris River at Al-Nuhairat Bridge Location
- 14:45 Paper ID 135
Experimental and numerical study of eco-friendly corbels under static loadin
- 15:00 Paper ID 148
Lead Removal from Water Using CTAB-Enhanced Nanosilica-Coated Sand Barrier under Continuous Flow: Experimental Study and Breakthrough Curve Modelling

Technical Sessions

- 15:30 Paper ID 149
Spatial analysis of noise pollution in the College of Engineering/ University of Basrah using (GIS) technology
- 15:45 Paper ID 167
Towards Sustainability in Urban Spaces: Evaluating Applied Architectural Ideas
- 16:00 Paper ID 176
Development of a Curve Number Map for the Ali Al-Gharbi District, Southern Iraq, Using GIS
- 16:15 Paper ID 181
Future Forecasts Of Rainfall Utilising The LARS-WG And CMIP6 Models

Technical Session 8

Sustainable Structural Systems and Materials in Civil Engineering

Chaired by **Professor Ir Mo Kim Hung**

24 July, 2025 from 10:00 to 12:30

- 10:00 Paper ID 55
Structural Behavior of One-Way Reinforced SCC Slabs Made with a Variety of Recycled Aggregates under Repeated Load
- 10:15 Paper ID 61
Mechanical Properties of Modified Porous Concrete incorporating Different Types of Lightweight Aggregate
- 10:30 Paper ID 46
Flexural Behavior of Hybrid Concrete Tee Beams Reinforced with GFRP Bars
- 10:45 Paper ID 49
Investigation the Efficacy of Steel Section Reinforcement in Hybrid Deep Beam Applications

Technical Sessions

11:00	Paper ID 11 Enhancing Metakaolin Reactivity in Geopolymers: A Comprehensive Review of Key Influencing Parameters
11:30	Paper ID 138 Behavior of Recycled Aggregate Concrete Slab–Column Connection Strengthened by NSM GFRP bars
11:45	Paper ID 183 Influence of steel plate on enhancing the punching strength of voided slabs
12:00	Paper ID 195 Criteria for Evaluating the Performance of Government Projects
12:15	Paper ID 210 Development of Sustainable Fibre Reinforced High Strength Lightweight Concrete with Recycled Fine Aggregate and Silica Fume

Technical Session 9 **Biofuels, Catalysis, and Resource Recovery**

Chaired by **Ir Dr Yoon Li Wan**

24 July, 2025 from 10:00 to 12:45

10:00	Paper ID 15 Pyrolysis of Local Oil Seed for Biodiesel Production: A Review
10:15	Paper ID 44 Catalytic Deoxygenation of Hydrolyzed Animal Fat-Derived Oil Using a Zeolite Catalyst
10:30	Paper ID 66 Enhancing Sulphur Removal from Iraqi Qayyarah Crude Oil through Glass Waste-Based Adsorption at Varied Temperatures and Contact Durations

Technical Sessions

- 10:45 Paper ID 77
Optimization of Thermal and Temporal Parameters in Ethanol-Assisted Soxhlet Extraction of Bioactive Drugs: A Kinetic Comparison of Eugenol and Caffeine
- 11:00 Paper ID 89
Experimental Investigation and optimization for desulfurization of diesel fuel using microwave irradiation and activated carbon
- 11:30 Paper ID 94
Catalytic Deoxygenation of Hydrolyzed Oil of Beef Tallow over Lanthanum-Embedded HZSM-5 Zeolite Catalyst to Produce Biofuels
- 11:45 Paper ID 157
Synthesis and Characterization of Niobium promoted Ni/Mesoporous MCM-41 for potential application in steam reforming of glycerol using a fixed bed reactor
- 12:00 Paper ID 164
Elucidating CO₂ adsorptivity of Ni-Co-Y/MCM-41 as a potential pathway for CO₂ reforming of ethanol
- 12:15 Paper ID 189
Screening of hydrophilic deep eutectic solvents for ultrasound probe-assisted extraction of rosmarinic acid from salvia officinalis with high-performance liquid chromatography analysis
- 12:30 Paper ID 198
Efficient Glycerol Removal from Biodiesel Using Deep Eutectic Solvents Combined with Activated Carbon

Technical Session 10
**Environmental and Wastewa-
ter Treatment Technologies**

Chaired by **Ir Dr Ayu Haslja Abu Bakar**

24 July, 2025 from 10:00 to 12:30

10:00	Paper ID 13 Treatment of petroleum refinery wastewater by advanced oxidation process (AOPs) Minireview
10:15	Paper ID 19 Treatment of Petroleum refinery wastewater by electrooxidation using anode composed of composite materials
10:30	Paper ID 23 Assessment of Photocatalytic Process using composite photocatalysts for COD reduction for Al-Dewaniyah Petroleum refinery wastewater: RSM
10:45	Paper ID 38 Hydrodynamic Characteristics of Two-Phase Systems in Tapered Bubble Columns (TBCs)
11:00	Paper ID 73 Equilibrium Analysis and Adsorptive Removal of Lead (Pb) by Activated Carbon Derived from Ceratophyllum demersum: Effect of Activation Methods
11:30	Paper ID 97 Adsorptive desulphurization of model diesel by activated carbon loaded with Ni oxide nanoparticles prepared from local Iraqi pomegranate
11:45	Paper ID 115 Modeling of the adsorption process of the organic pollutant from synthetic wastewater using different adsorbents

Technical Sessions

12:00	Paper ID 129 A Review of Natural Clay Ceramic Membranes: Manufacturing Techniques and Implementations in Industrial and Municipal Wastewater Treatment
12:15	Paper ID 143 Kinetic model of Lead (Pb) Adsorption by Raw and Carbonized Ceratophyllum demersum: Mechanisms and Rate Analysis"

Technical Session 11 **Mechatronics, Robotics, and Smart Automation Systems**

Chaired by **Dr Richard Wong Teck Ken**
24 July, 2025 from 10:00 to 11:30

10:00	Paper ID 93 Evaluation and Enhancement of Solar Energy-Enabled Intelligent Structural Systems
10:15	Paper ID 87 Investigation of IMU Motion Effects based on MPU 6050 Using a Dynamic Motion Testing Device
10:30	Paper ID 64 Designing a Robotic System for Efficient Exam Paper Distribution Using Multi-Sensor Technology
10:45	Paper ID 52 AI-Based Control of Brushless DC Motors: A Practical Approach to Performance Enhancement
11:00	Paper ID 28 A Novel Coupled-Inductor Boost Converter with ANN Control for High Step-Up PV Systems
11:15	Paper ID 174 Artificial Neural Network-Based Control of Vienna Rectifier for Power Factor Correction and Capacitor Voltage Balancing

Technical Session 12
Smart Computing, IoT Systems,
and Intelligent Infrastructure

Chaired by **Dr Nor Hafizah Binti Mohamed Halip**
24 July, 2025 from 10:00 to 12:45

10:00	Paper ID 35 Evolutionary Algorithms for IoT Service Selection: A Review
10:15	Paper ID 48 Intelligent Control for Video Broadcasting in Flying Ad Hoc Networks: A Simulation Study
10:30	Paper ID 90 Patient-Specific 3D-Printed Cutting and Repositioning Guide for Mandibular Tumor Resection: Surgical Design and Validation
10:45	Paper ID 113 Swarm Intelligence in Modern Engineering A Comprehensive Review of Applications, Performance, and Emerging Trends
11:00	Paper ID 136 Learning About Syndrome Awareness and WMS Algorithm for Adaptive Neural Decoding for 6G LDPC Base Graph Enhancement
11:30	Paper ID 153 Design and Implementation of a Low Cost IoT-Based System for Enhanced Visual Feedback, Alert Systems, and Server Environment Tracking
11:45	Paper ID 194 Leveraging Augmented and Virtual Reality for Enhancing Eco-Literacy: A Study on Sustainable Green Education Using Immersive Technologies

Technical Sessions

12:00	Paper ID 197 Automated Greenhouse Management System with IOT Integration
12:15	Paper ID 199 Developing a program to track the performance of multiple projects using Earned Value and Scorecard technology
12:30	Paper ID 14 Design and Implementation of an IoT-Based System for Remote Monitoring of Vital Signs

Technical Session 13

Intelligent Systems, Cybersecurity, and Smart Infrastructure with AI

Chaired by **Dr Farrukh Hassan**

24 July, 2025 from 09:00 to 10:30

09:00	Paper ID 10 Optimizing Operating Room Scheduling Using Artificial Bee Colony and Bat Algorithm: A Comparative Analysis
09:15	Paper ID 74 A Multi-Kernel Convolutional Neural Network Model for Classifying Plant Leaf Diseases
09:30	Paper ID 104 Machine Learning-Driven Meta surfaces for Adaptive 6G Beamforming in Dynamic Terahertz Channels
09:45	Paper ID 111 Predicting Adult Income Utilizing Various Artificial Intelligence Models
10:00	Paper ID 193 Leveraging AI for Customer Segmentation and Predictive Insights to Elevate E-Commerce Satisfaction

Technical Sessions

10:15  Paper ID 201
PhisNet: Intelligent Detection of Phishing

Ordered by Paper ID

Paper ID 4		Physical Presentation		14:00 - 14:15
Paper ID 8		Technical Session 2		10:00 - 10:15
Paper ID 10		Technical Session 4		02:00 - 02:15
Paper ID 11		Technical Session 8		11:00 - 11:30
Paper ID 13		Technical Session 10		10:00 - 10:15
Paper ID 14		Technical Session 12		12:30 - 12:45
Paper ID 15		Technical Session 9		10:00 - 10:15
Paper ID 18		Technical Session 5		14:15 - 14:30
Paper ID 19		Technical Session 10		10:15 - 10:30
Paper ID 20		Technical Session 1		10:00 - 10:15
Paper ID 23		Technical Session 10		10:30 - 10:45
Paper ID 25		Technical Session 4		02:15 - 02:30
Paper ID 28		Technical Session 11		11:00 - 11:15
Paper ID 29		Technical Session 2		11:45 - 12:00
Paper ID 31		Technical Session 5		15:30 - 15:45
Paper ID 34		Technical Session 2		10:45 - 11:00
Paper ID 35		Technical Session 12		10:00 - 10:15
Paper ID 36		Technical Session 5		15:45 - 16:00
Paper ID 38		Technical Session 10		10:45 - 11:00
Paper ID 44		Technical Session 9		10:15 - 10:30
Paper ID 45		Technical Session 1		10:15 - 10:30
Paper ID 46		Technical Session 8		10:30 - 10:45
Paper ID 47		Technical Session 2		10:30 - 10:45
Paper ID 48		Technical Session 12		10:15 - 10:30
Paper ID 49		Technical Session 8		10:45 - 11:00
Paper ID 50		Physical Presentation		14:15 - 14:30
Paper ID 52		Technical Session 11		10:45 - 11:00
Paper ID 55		Technical Session 8		10:00 - 10:15

Technical Sessions

Paper ID 57	●	Technical Session 7	●	14:00 - 14:15
Paper ID 61	●	Technical Session 8	●	10:15 - 10:30
Paper ID 64	●	Technical Session 11	●	10:30 - 10:45
Paper ID 66	●	Technical Session 9	●	10:30 - 10:45
Paper ID 70	●	Technical Session 5	●	15:00 - 15:30
Paper ID 73	●	Technical Session 10	●	11:00 - 11:15
Paper ID 74	●	Technical Session 4	●	02:30 - 02:45
Paper ID 77	●	Technical Session 9	●	10:45 - 11:00
Paper ID 80	●	Technical Session 5	●	14:45 - 15:00
Paper ID 82	●	Technical Session 5	●	14:00 - 14:15
Paper ID 87	●	Technical Session 11	●	10:15 - 10:30
Paper ID 89	●	Technical Session 9	●	11:00 - 11:15
Paper ID 90	●	Technical Session 12	●	10:30 - 10:45
Paper ID 92	●	Technical Session 4	●	02:45 - 03:00
Paper ID 93	●	Technical Session 11	●	10:00 - 10:15
Paper ID 94	●	Technical Session 9	●	11:30 - 11:45
Paper ID 96	●	Technical Session 6	●	15:30 - 15:45
Paper ID 97	●	Technical Session 10	●	11:30 - 11:45
Paper ID 100	●	Technical Session 6	●	14:00 - 14:15
Paper ID 104	●	Technical Session 4	●	03:00 - 03:15
Paper ID 105	●	Technical Session 5	●	14:30 - 14:45
Paper ID 109	●	Technical Session 3	●	11:30 - 11:45
Paper ID 111	●	Technical Session 4	●	03:30 - 03:45
Paper ID 112	●	Technical Session 2	●	11:30 - 11:45
Paper ID 113	●	Technical Session 12	●	10:45 - 11:00
Paper ID 114	●	Technical Session 4	●	03:45 - 04:00
Paper ID 115	●	Technical Session 10	●	11:45 - 12:00
Paper ID 117	●	Physical Presentation	●	14:30 - 14:45
Paper ID 118	●	Physical Presentation	●	14:45 - 15:00
Paper ID 119	●	Technical Session 1	●	10:30 - 10:45
Paper ID 120	●	Physical Presentation	●	15:00 - 15:15
Paper ID 127	●	Physical Presentation	●	15:30 - 15:45
Paper ID 129	●	Technical Session 10	●	12:00 - 12:15
Paper ID 130	●	Technical Session 1	●	10:45 - 11:00

Technical Sessions

Paper ID 131	●	Technical Session 7	●	14:15 - 14:30
Paper ID 132	●	Physical Presentation	●	15:45 - 16:00
Paper ID 133	●	Technical Session 7	●	14:30 - 14:45
Paper ID 135	●	Technical Session 7	●	14:45 - 15:00
Paper ID 136	●	Technical Session 12	●	11:00 - 11:15
Paper ID 137	●	Technical Session 6	●	14:15 - 14:30
Paper ID 138	●	Technical Session 8	●	11:30 - 11:45
Paper ID 143	●	Technical Session 10	●	12:15 - 12:30
Paper ID 144	●	Technical Session 3	●	11:00 - 11:15
Paper ID 147	●	Technical Session 6	●	14:30 - 14:45
Paper ID 148	●	Technical Session 7	●	15:00 - 15:15
Paper ID 149	●	Technical Session 7	●	15:30 - 15:45
Paper ID 150	●	Technical Session 3	●	10:45 - 11:00
Paper ID 153	●	Technical Session 12	●	11:30 - 11:45
Paper ID 154	●	Technical Session 3	●	10:30 - 10:45
Paper ID 155	●	Physical Presentation	●	16:00 - 16:15
Paper ID 157	●	Technical Session 9	●	11:45 - 12:00
Paper ID 161	●	Technical Session 3	●	10:15 - 10:30
Paper ID 163	●	Technical Session 1	●	11:00 - 11:30
Paper ID 164	●	Technical Session 9	●	12:00 - 12:15
Paper ID 165	●	Technical Session 6	●	15:45 - 16:00
Paper ID 166	●	Technical Session 2	●	11:00 - 11:15
Paper ID 167	●	Technical Session 7	●	15:45 - 16:00
Paper ID 168	●	Technical Session 1	●	11:30 - 11:45
Paper ID 169	●	Technical Session 6	●	16:00 - 16:15
Paper ID 170	●	Technical Session 3	●	10:00 - 10:15
Paper ID 174	●	Technical Session 11	●	11:15 - 11:30
Paper ID 175	●	Technical Session 1	●	11:45 - 12:00
Paper ID 176	●	Technical Session 7	●	16:00 - 04:15
Paper ID 177	●	Technical Session 2	●	10:15 - 10:30
Paper ID 178	●	Technical Session 5	●	16:00 - 16:15
Paper ID 180	●	Physical Presentation	●	16:15 - 16:30
Paper ID 181	●	Technical Session 7	●	16:15 - 04:30
Paper ID 183	●	Technical Session 8	●	11:45 - 12:00

Technical Sessions

Paper ID 189	●	Technical Session 9	●	12:15 - 12:30
Paper ID 190	●	Technical Session 6	●	14:45 - 15:00
Paper ID 191	●	Technical Session 3	●	11:45 - 12:00
Paper ID 192	●	Technical Session 6	●	15:15 - 16:30
Paper ID 193	●	Technical Session 4	●	04:00 - 04:15
Paper ID 194	●	Technical Session 12	●	11:45 - 12:00
Paper ID 195	●	Technical Session 8	●	12:00 - 12:15
Paper ID 197	●	Technical Session 12	●	12:00 - 12:15
Paper ID 198	●	Technical Session 9	●	12:30 - 12:45
Paper ID 199	●	Technical Session 12	●	12:15 - 12:30
Paper ID 200	●	Technical Session 2	●	12:00 - 12:15
Paper ID 201	●	Technical Session 4	●	04:15 - 04:30
Paper ID 202	●	Technical Session 4	●	04:30 - 04:45
Paper ID 203	●	Technical Session 5	●	16:15 - 16:30
Paper ID 205	●	Technical Session 1	●	12:00 - 12:30
Paper ID 210	●	Technical Session 8	●	12:15 - 12:30
Paper ID 212	●	Technical Session 6	●	15:00 - 15:15
Paper ID 213	●	Technical Session 3	●	12:00 - 12:15
Paper ID 216	●	Technical Session 5	●	16:30 - 16:45

Keynote Speakers

Prof. Dr. Saidur Rahman



Professor Saidur Rahman is currently working as a Distinguished Research Professor and Head of the Research Centre for Nano-Materials and Energy Technology (RCNMET) at Sunway University. He is also working with Lancaster University as a full Professor. Previously, he worked as a Chair Professor at the Center of Research Excellence in Renewable Energy at King Fahd University of Petroleum and Minerals (KFUPM), Saudi Arabia. Prior to joining KFUPM, Prof. Saidur worked 18 years in University of Malaya, a premier University in Malaysia. He is ranked 1 in Malaysia according to top 2% Scientist by Stanford/Elsevier Analysis. He is also number 1 Scientist in Malaysia according to AD scientific, research.com and GPS scholar. Clarivate Analytics/Thomson Reuters awarded him highly cited researcher for being among the top 1% researchers for most cited documents in his research field for the eight consecutive years (2014-2021). In 2019 and 2024, Prof. Saidur won Vice Chancellor's award for achievement in Research, Sunway University. Prof. Saidur published more than 900 journal and conference papers. Majority of them are in top ranking high impact journals. His publications are cited more than 77,000 times with an h-index of 139 according to Google Scholar citation. He has supervised more than 80 postgraduate students so far and has secured and managed more than 25 million ringgit research grants as a PI and member. Prof. Saidur is working in the area of emerging nano-materials (MXenes) and their applications in energy storage, heat transfer, solar energy harvesting and environmental remediation.

Speech Sessions

Advanced Materials for energy storage and heat transfer applications

AP. Dr. Hj. Firas Basim Alnaimi



Dr. Firas Basim Ismail, Associate Professor and Head of the Smart Power Generation Research Center, Universiti Tenaga Nasional (UNITEN), Malaysia. Adjunct Professor, Sohar University, Oman. (Concurrent post)

Dr. Firas Basim Ismail holds a Ph.D. in Mechanical Engineering from Universiti Teknologi PETRONAS, Malaysia (2010), an M.Sc. in Mechanical Engineering from the University of Technology, Iraq (2003), and a B.Sc. in Mechanical Engineering from the University of Technology, Iraq (1999). He completed his secondary education at Baghdad College High School—American School, Baghdad, Iraq (1995).

He joined Universiti Tenaga Nasional in 2013, where he has been actively engaged in research and development in thermo-fluid dynamics, power plant performance optimization, and renewable-smart power generation technologies. He has successfully led over 25 research projects, authored more than 150 journal and conference papers, and received 61 international awards. Dr. Firas is a chartered engineer with IMechE, UK, and has been invited as a plenary speaker at several international conferences.

Speech Sessions

Toward 2035: Renewable Energy Innovations Transforming Our Future

AP. Dr. Ali Sameer Muhsan



Dr. Ali S. Muhsan is a Senior Lecturer at the Mechanical Engineering Department, Universiti Teknologi PETRONAS (UTP), Malaysia. Dr. Ali Sameer Muhsan earned his PhD in 2014 from Universiti Teknologi PETRONAS. He completed his master's degree in 2010 at Universiti Sains Malaysia. In 2006, he received his bachelor's degree from Al-Mustansiriya University in Baghdad, Iraq.

His expertise lies in nanotechnology, advanced materials, and manufacturing technology, with a strong focus on Oil & Gas applications, including proppant coating technologies, enhanced oil recovery (EOR), and drilling fluid additives. He has contributed significantly to hydrogen storage systems, thermal management, and nanomaterial development for energy applications. With over 75 high-impact publications, multiple patents, and industry collaborations, his work has led to innovative solutions for hydraulic fracturing, thermal conductivity enhancement, and energy-efficient materials. Dr. Muhsan has secured over RM2 million in research funding and has been actively involved in industry-academia partnerships, consulting on hydrogen safety, nanotechnology, and energy-efficient solutions.

Speech Sessions

Hydrogen Storage and Safety: Innovations, Challenges, and Industrial Applications

Prof. Dr. Hakim S. Sultan Aljibori



Professor Dr. Hakim S. Sultan Aljibori, has more than 20 years' experience in teaching, training and scientific research. Dr. Hakim held several positions, head of the Research Centre, head of Mechanical Engineering Department, head of strategic Studies center and dean of Faculty of Engineering in University of Warith Al-Anbiyaa, Iraq. As well as Consulting and Professional Engineer with the Board of Engineers. He completed his Bachelor's degree in Mechanical Engineering from the University of Baghdad and his M. Sc., PhD in Mechanical Engineering from University Putra Malaysia (UPM). Dr. Hakim Aljibori also has post Doctorate in Energy Systems from UPM. Prof. Hakim worked 4 years at University of Malaya (UM) and 6 years at University of Technology and Applied Sciences, Oman. He supervised 15 Master and PhD students and has been responsible for many research funded projects. His Research interested in Applied Mechanics, Composite Material, Corrosion, FEA and Energy Systems, he published 5 Chapters in Books and more than 100 papers in peer cited journal indexing in Web of Science and Scopus and holds 3 patents. He has received several awards.

Speech Sessions

Advanced Materials in Aircraft Applications

Ir. AP. Dr. Bashar S. Mohammed



Ir. Dr. Bashar S. Mohammed currently serves as an Associate Professor in the Civil and Environmental Engineering Department at Universiti Teknologi PETRONAS. With a profound expertise in civil and construction engineering, his focus lies in the development of sustainable materials, particularly rubbercrete, geopolymers, interlocking bricks, and engineered cementitious composites. Dr. Bashar has demonstrated exceptional leadership, notably as the former Chair of the Civil and Environmental Engineering Department and as Head of the Offshore Engineering Centre of Excellence at UTP. His impressive credentials, which include being a Registered Professional Engineer (BEM), Fellow and Chartered Engineer (ICE), and Project Management Professional (PMP®), reflect his unparalleled technical proficiency. Renowned for his ability to promote collaboration between global leaders, Dr. Bashar has chaired multiple international engineering conferences and served as President of the Mygeopolymer Society. His academic and leadership achievements are complemented by over 194 SCOPUS-indexed publications and numerous international honours, including multiple gold awards in prestigious innovation exhibitions. Moreover, he has authored six influential books, among them the award-winning "Rubbercrete Interlocking Bricks," which received the Best Scientific Book Award 2021 from the Malaysian Scientific Publishing Council, as well as "Design of Reinforced Concrete Elements to Eurocode 2," which honoured with the National Book Award 2018 by the National Book Development Foundation, Malaysia.

Speech Sessions

Rubbercrete Bricks: Pioneering Sustainable Construction with Scrap Tire Innovation

Ir. Dr. Chua Yaw Long



Ir. Dr. Chua Yaw Long has 22 years of teaching experience, including transnational education involving HEIs in Malaysia, UK, and Dubai. His major expertise are Control System Engineering and Engineering Design Process. He has taught a wide range of modules for undergraduates and postgraduates, in-person and virtually. He has successfully mentored colleagues to be registered as Chartered Engineers with the Engineering Council as well as Professional Engineer with the Board of Engineers Malaysia. His research focus includes capacity building (Creativity and Thinking Skills, Learning Innovation, Complex Problem- Solving Skills) and engineering related areas (Robotics, Mechatronics, Automation, Control and Renewable Energy) to bring a new paradigm shift in engineering education-social sciences studies. He has supervised over 150 research projects in various areas in STEM and Engineering Education, Capacity Building, Creativity and Innovation Engineering. He has published 55 peer-reviewed journals and proceedings.

Speech Sessions

Engineering Innovation: From Control to Creativity

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 2. Prof. Ir. Dr. Denny Ng Kok Sum, Sunway University, Malaysia.
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 3. Prof. Dr. Malik Jasim Farhan, Mustansiriyah University, Iraq.
 4. Prof. Dr. Yousef Al Assaf, Rochester Institute of Technology of Dubai.
 5. Prof. Dr. A.I. Al-Hadidy, University of Mosul, Iraq.
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