



# The Second International Conference : Sustainable Development Research and Aviation (CAS 2024)

From May 22nd to 23rd, 2024,



# Day 1: 22<sup>nd</sup> May 2024

<b>Time</b>	<b>Event</b>	
8:30 am - 9:00 am	Registration & Light Refreshment	
9:00 am - 9:30 am	Welcome Speech & Opening Ceremony	
9:30 am - 9:45 am	Istanbul Gelisim University, Vice Rector	
9:45 am - 10:00 am	Alnoor University President Prof. Yassin Taha Al-Hajar	
10:00 am - 10:45 am	Conference Chair: Prof. Talal Yusaf Triangular International Collaboration (Iraq-Malaysia-Australia) Sustainability and Aviation	
10:45 am - 11:00 am	Coffee Break	
11:00 am - 11:30 am	<b>Keynote Speaker 1: Navigating Sustainability: How Higher Education Can Lead the Way in Aviation, Prof. Abood Al Sawafi, Al Maarif Consultancy</b>	
11:30 am - 01:00 pm	Parallel Plenary Session A	
	<b>Parallel Session 1: Energy applications for Aviation and transportation. Chair: Prof. Abood Al Sawafi</b>	<b>Parallel Session 2: AI Technology and Sustainability. Chair: Dr Abdul Salam Mohammed</b>
	Room1:	Room2:
	Onsite and online session Papers: T1.1-to-T1.6	Onsite and online session Papers: T2.1-to-T2.6
01:00 pm - 2:00 pm Networking Lunch		
2:00 pm - 02:30 pm	<b>Keynote Speaker 2: Innovative Sustainable Energy Strategies for Smart Cities. A Case Study of Markaz Knowledge City, Kerala, India, Dr Abdul Salam Mohammed, Markaz Knowledge City, India</b>	
2:30 pm - 03:00 pm	<b>Keynote Speaker 3: accelerating Energy Transition: Technologies Imperatives &amp; Strategic Partnership (Academia-Industry-Government Agencies Perspectives), Prof. Ts Dr Shahrina Md Nordin Universiti Teknologi PETRONAS</b>	
Parallel Plenary Session B		
3:00 pm - 05:00 pm	<b>Parallel Session 3: Environmental pollution. Chair: Prof. Talal Yusaf</b>	<b>Parallel Session 4: Alternative energies and fuel. Chair: Prof. Ts. Ir. Dr. k. kadirgama Kumran</b>
	Room1:	Room2:
	Onsite and online session Papers: T3.1-to-T3.5	Onsite and online session Papers: T4.1-to-T4.8
<b>End of Day 1</b>		



Day 2: 23<sup>rd</sup> May 2024

<b>Time</b>	<b>Event</b>	
8:30 am – 9:00 am	Guest and Speaker s' arrival with light refreshment	
9:00 am – 9:15 am	Chair to welcome Speakers and guests	
9:15 am – 10:00 am	<b>Keynote Speaker 4: Economic evaluation and Optimisation Analysis of Hydrogen Production at Shagaya Power Plant, Kuwait, Prof. Dr Mohammed Abdul-Niby, Dean of College Engineering, Australian University of Kuwait</b>	
10:00am – 10:15 am	Coffee Break	
10:15 am – 10:45 am	<b>Keynote Speaker 5: MXene: Emerging Nano Materials for Energy Sustainable, Prof.Ts.Ir.Dr.k.kadirgama Kumran, Malaysia</b>	
	Parallel Plenary Session C	
10:45 am – 12:30 pm	<b>Parallel Session 5: Emerging technologies in Cyber Security and Sustainability. Chair: Prof Dr Mohammed Abdul-Niby</b>	<b>Parallel Session 6: Policy and systems in Renewable Energies. Chair: Prof.Ts.Ir.Dr.k. Kumran</b>
	Room1:	Room2:
	Onsite and online session Papers: T5.1-to-T5.6	Onsite and online session Papers: T6.1-to-T6.7
12:30 pm – 01:30 pm	Networking Lunch	
01:30 pm – 02:00 pm	<b>Keynote Speaker 6: Sustainability in Materials, Design and Tribology recent challenges and recommendations, Dr Belal Yousif, University of Southern Queensland</b>	
	Parallel Plenary Session D	
02:00 pm – 03:30 pm	<b>Parallel Session 7: Engineering and Sustainability. Chair: Dr Belal Yousif</b>	<b>Parallel Session 8: Waste to Energy. Chair: Prof Dr Shahrina Md Nordin</b>
	Room1:	Room2:
	Onsite and online session Papers: T7.1-to-T7.5	Onsite and online session Papers: T8.1-to-T8.6
	Panel Discussion	
03:30 pm – 4:30 pm	<b>"Fostering the Future of Renewable Energy Technologies in Mosul and Iraq : The Vital Role of Alnoor University"</b>	
	Prof. Talal Yusaf – Chair Prof. Abood Al Sawafi Prof.Ts.Ir.Dr.k.kadirgama Kumran.	Prof. Dr Mohammed Abdul-Niby Prof. Dr Shahrina Md Nordin Dr Abdul Salam Mohammed
04:30 pm – 5:00 pm	<b>Dedicated meeting of the NoorCas2024 Team</b>	
	<b>End of the Conference</b>	



**Keynote Speaker 1:** Navigating Sustainability: How Higher Education Can Lead the Way in Aviation  
Prof. Abood Al Sawafi, Al Maarif Consultancy

**Keynote speaker 2:** Innovative Sustainable Energy Strategies for Smart Cities. A Case Study of Markaz Knowledge City, Kerala, India, Dr Abdul Salam Mohammed, Markaz Knowledge City, India

**Keynote speaker 3:** accelerating Energy Transition: Technologies Imperatives & Strategic Partnership (Academia-Industry-Government Agencies Perspectives), Prof. Ts Dr Shahrina Md Nordin Universiti Teknologi PETRONAS



## Parallel Session 1:

## Energy applications for Aviation and transportation.

Video Call Link:

<https://meet.google.com/zss-mfsu-ghb>

<b>T1.1 Onsite</b>	Experimental Study on Thermofluid in Laminar Forced Convection over Longitudinally Fin Flat Tube Ahmed H. Ahmed, Maki H. Zaidan, Manar S.M. Al-Jethelah
<b>T1.2 Onsite</b>	Effect of upstream fin length on longitudinally finned flat tubes bank performance based on FLC and constructal design Ahmed Hasan Ahmed, Maki H. Zaidanb, Manar S.M. Al-Jethelah
<b>T1.3 Online</b>	The Effect of Mind Wandering and Attention on the Cognitive Abilities of Preparatory School Students Sajjad Abdomran Hussein, Khalidah Raheem Sabah
<b>T1.4 Onsite</b>	Theoretical and Experimental Study on Thermal Hydraulic Performance in Laminar Forced Convection over Fin Flat Tube in Channel Flow Ahmed H. Ahmed, Maki H. Zaidan, Manar S.M. Al-Jethelah
<b>T1.5 Onsite</b>	The implicated role of miRNA-4512 and miRNA-3-124p in pathogenesis of systemic lupus erythematosus Hasan Obeid, Israa Abdul Wahed Dheeb, Hazim Kadhim Abdulkareem
<b>T1.6 Onsite</b>	Integrated Surface Facility and Reservoir Modeling for Sustainability CO2 Storage: An Offshore Field Case Edo Pratama, Syahrir Ridha, Shwetank Krishna, M Oggi Refani



## Parallel Session 2: AI Technology and Sustainability

Video Call Link:

<https://meet.google.com/jfz-sree-kdj>

<b>T2.1 Online</b>	A Review on the Applications of Artificial Intelligence Techniques in the Wastewater: The Challenges and Performance Yahya A. Zakur, Ali H. Al-taie, Seyed Bagher. Mirashrafi, Fausto P. G. Márquez, and Yousif A. Zakoor
<b>T2.2 Online</b>	IoT Solutions for Improved Agricultural Efficiency and Sustainability Mohamed Ismail Lafta, Wisam Dawood Abdullah
<b>T2.3 Online</b>	Impact of AI on Sustainable Development, Nadia Mahmood Hussien, Yasmin Makki Mohialden , Nada Thanoon Ahmed
<b>T2.4 Online</b>	Human Expressions and Feeling Recognition Based on Deep Learning and Transfer Learning Zahraa Fawzi Hassan , Faiz Al Alawy , Hazim Oudah Saiwan
<b>T2.5 Online</b>	Develop a new Student Attendance system Using QR Code for Smartphone Thulfiqar H. Mandeel , Noor Aldeen A. Khalid2
<b>T2.6 Online</b>	The Artificial Intelligence and Deep Learning Techniques for Sustainable Energy Systems: A Review, Outstanding Issues and Future Trends, Bilal Naji Alhasnawi , Marek Zanker and Vladimír Bureš
<b>T2.7 Online</b>	AI INTEGRATED SUSTAINABLE CITY MANAGEMENT SYSTEM ADOPTED IN MARKAZ KNOWLEDGE CITY AN INNOVATIVE APPROACH Nisam Rahman A



## Parallel Session 3: Environmental pollution.

Video Call Link:

<https://meet.google.com/apr-yqzc-jey>

<b>T3.1 Online</b>	تأثير جهد تحمل الاداء باختلاف ازمنة الاحماء في الدوبامين واللايسين للاعبين الشباب بكرة القدم C,E وفيتامن السيد خالد حاكم حسوئي أ.د أسعد عدنان عزز
<b>T3.2 Online</b>	Sustainable human resources management, Technological innovation for renewable energy ايمان علي احمد الحياي , ريان محمد ذياب , يونس غازي رجب
<b>T3.3 Onsite</b>	Analysis of Transmitted Data for Known Plaintext Attack and Perceptual Encryption Feature Tariq Adnan Fadil*, Ali H. Alnooh2, Sarah Ali Abdullah
<b>T3.4 Online</b>	THEORETICAL AND EXPERIMENTAL STUDY TO INVESTIGATE THE EFFECT OF UPSTREAM FIN LENGTH ON LONGITUDINAL FIN FLAT TUBE BANK PERFORMANCE Ahmed H. Ahmed, Maki H. Zaidan, Manar S.M. Al-Jethelah
<b>T3.5 Onsite</b>	Towards Sustainable Sewage Treatment: Integrating Environmental Impact Reduction & Resource Management in STPs Dr. ABDUL SALAM,FAIROOS SAQAFI , ABDUL NAZIR , BLESSY NINAN



## Parallel Session 4: Alternative energies and fuel

Video Call Link: <https://meet.google.com/yzm-ayqd-zyd>

<b>T4.1 Onsite</b>	Hydrate Process for Land Transport of Stranded Natural Gas Mohamed Iqbal Pallipurath, Abdul Salam Mohammed, Nisam Rahman and Abdurahiman Chalil
<b>T4.2 Onsite</b>	Early Detection of Rheumatoid Arthritis Disease is Associated with a Deficit in the “CD4 and CD25” in Peripheral Blood Roa Noori Ali and Orass Madhi Shaheed
<b>T4.3 Onsite</b>	SIMULATION ON HYDROGEN PRODUCTION USING 1KW ELECTROLYSER FOR D. Ramasamy , K. Kadirgama , Talal Yusaf , Naven Sankran
<b>T4.4 Onsite</b>	Transport innovation demonstrations at major international events Louis Fernandes, Steve Hall, and Talal Yusaf
<b>T4.5 Onsite</b>	Improve PV System Stability Using Virtual Synchronous Generator Diana Sabah Obaid, Raof Fadhil Idan
<b>T4.6 Onsite</b>	A New Efficient MPPT for Photovoltaic System Using the Arithmetic Optimizer Algorithm Ahmed Obaid Aftan, Jameel kadhim abed, Farah.M.Salim
<b>T4.7 Online</b>	Potential of Solar and Wind Energy in Basra, Iraq A. Alsalman, M. Y. Ong, B. Albadran, J. M. Abdul-Jabbar, J. Milano2, F. Ideris, C. H. Tan2, T.Yusaf, S. K. Tiong, S. Nomanbhay
<b>T4.8 Online</b>	Extraction of oil from Canarium odontophyllum kernel using different solvents for the production of biodiesel Fazril Ideris, Saiful Hasmady, Nur Mazlini Razali, Arridina Susan Silitonga, Raja Mohamad, Jassinnee Milano, Mei Yin Ong, Fitranto Kusumo





TECHNICAL PROGRAM–Thursday, 23rd May

2024

**Keynote Speaker 4: Economic evaluation and Optimisation Analysis of Hydrogen Production at Shagaya Power Plant, Kuwait, Prof. Dr Mohammed Abdul-Niby, Dean of College Engineering, Australian University of Kuwait**

**Keynote Speaker 5: MXene: Emerging Nano Materials for Energy Sustainable, Prof.Ts.Ir.Dr.k.kadirgama Kumran, Malaysia**

**Keynote Speaker 6: Sustainability in Materials, Design and Tribology recent challenges and recommendations, Dr Belal Yousif, University of Southern Queensland**



## Parallel Session 4: Alternative energies and fuel

Video Call Link:

<https://meet.google.com/nvh-hmod-zdb>

<b>T5.1 Onsite</b>	Service-Based Factors influence on Customer Sustainability Awareness and Social Competitiveness Amjad Shamim*, Haider Ali Abbasi
<b>T5.2 Onsite</b>	Investigation about wireless communications network protocols for smart cities Mustafa K.Ati , Hassan F. khazaal
<b>T2.3 online</b>	Market Orientation in Educational Organizations - Case Study at NCD in SYRIA. – 2024 LOUBNA SIJER DAGHMAN
<b>T5.4 online</b>	Cyber Security in PV Farm: Threat modelling and Dataset generation Ghufran F. hassan, Oday A Ahmed and Muntadher Sallal
<b>T5.5 online</b>	Advanced Demand Response Strategy and Development of Real-Time Data Acquisition Using The IoT-based Grasshopper Optimization Algorithm Bilal Naji Alhasnawi , Abdellatif M. Sadeq , Thulfiqar H. Mandeel , Husam Abdulrasool Hasan , Ambe Harrison , Marek Zanker and Vladimír Bureš



## Parallel Session 6: Policy and systems in Renewable Energies

Video Call Link: <https://meet.google.com/zyo-znkd-zcw>

<b>T6.1 Onsite</b>	Sustainable AI Governance for Future-Ready Public Services Mafaz Alanezi, Mohammed Q. Alchalabi
<b>T6.2 Onsite</b>	Advancing Sustainability: Analyzing Practices and Cultural Transformations in Higher Education Ismail Abdulwahhab Ismail
<b>T6.3 online</b>	Managing smart cities by designing a communications system using LoRa technology Mustafa K.Ati, Hassan F. khazaal
<b>T6.4 online</b>	Unlocking Basra (Iraq)'s Sustainable Energy Potential: A mini review A. B. J. Aljassim1, M. Y. Ong, M. H. Manhal3, A.Alemara , M. M. N. Zayid1, J. Milano, C. H. Tan, T.Yusaf, S. K. Tiong, S. Nomanbhay
<b>T6.5 Onsite</b>	Innovative Sustainable Energy Strategies for Smart Cities. A Case Study of Markaz Knowledge City, Kerala, India Abdul Salam Mohammed, Nisam Rahman A and Mohamed Iqbal Pallipurath
<b>T6.6 Onsite</b>	Enhancing Sustainability through Human-in-the-Loop Reinforcement Learning: A Polynomial Approach to Energy Optimization Muna Alsallal, Thulfiqar H Mandeel, Oday A Ahmed, Mhd Saeed Sharif
<b>T6.7 Onsite</b>	Charting Malaysia's Path to Sustainable Energy: Industry Collaboration and Support in the Transition Journey Ahmad Shahrul Nizam Bin Isha1, Rozliah Binti Shabor Rameli



## Parallel Session 7: Engineering and Sustainability

Video Call Link:

<https://meet.google.com/zsg-irew-vso>

<b>T7.1 Online</b>	Seven-Phase Pulse Width Modulation Rectifier With Voltage Oriented Control Technique Ali H.Sultan, Harith Al-Badrani
<b>T7.2 Online</b>	Comparison Study of SVPWM for Two and Three Level Inverters with Focus on NPC Topology Raghda M.Almula_dhanoon1, Harith Al-Badrani 1, Marcelo Pozo
<b>T7.3 Online</b>	High-Frequency Isolated Bidirectional Multi-Level Dual Active Bridge (DAB) DC-DC Power Converter: A Review Tarek Abedin, K. H. Chong, Jagadeesh Pasupuleti, S. P. Koh, C. T. Yaw, F. Benedict, S. K. Tiong, Talal Yusaf5 and K. Kadirgama
<b>T7.4 Online</b>	Rapid Review Fabrication of Nanocomposite Graphite/Tio2 Nanotubes Electrode for Supercapacitors Applied in The eVTOL Field HADI MOSTAFA KADHIM ALTALAB1 and Khaled M. Chahrour2
<b>T7.5 Online</b>	The Factors Affecting Calculations for Blue Green Laser of Different Turbidity Underwater System Ahmed Hussein Duhis, Mohanad Aljanabi, Mushtaq Talib Mohsin, Jamel Kadhim Abed
<b>T7.6</b>	Optimizing Network Performance in Educational Environments: Traffic Analysis Insights Mustafa Ahmed Mahdi and Wisam Dawood Abdullahand Ahmad Ghandour



## Parallel Session 8: Waste to Energy

Video Call Link:

<https://meet.google.com/wmk-kqvf-stb>

<b>T8.1 Onsite</b>	Advancements and Challenges in Waste-to-Energy Technologies: A Comprehensive Review Rajan Kumaresan, Kumaran Kadirgama
<b>T8.2 Online</b>	Energizing Sustainability: Waste-to-Energy Technologies for Municipal Solid Waste Management Tarek Abedin, Jagadeesh Pasupuleti , Johnny Koh Siaw Paw , Sheikh Rezaul Islam, Yaw Chong Tak , Tiong Sieh Kiong , K. Kardirgama , Tan Jian Ding 5, F. Benedict and Talal Yusaf
<b>T8.3 Online</b>	Concept study of Black Soldier Fly Larvae ( <i>Hermetia illucens</i> ) for biofuel production using microwave irradiation reactor Jassinnee Milano, Mei Yin Ong, Shir Reen Chia, Tan Chung Hong, Sieh Kiong Tiong, Saifuddin Nomanbhay, A. S. Silitonga, Hwai Chyuan Ong, and Talal Yusaf
<b>T8.4 Online</b>	Utilization of captured carbon for fuels and chemicals synthesis Chung Hong Tan, Sieh Kiong Tiong, Mei Yin Ong, Jassinnee Milano, Nomanbhay Saifuddin, Johnny Siaw Paw Koh, Chong Tak Yaw, Kumaran Kadirgama
<b>T8.5 Onsite</b>	Mechanical and Tribological Behaviour of newly sustainable Epoxy composites based on waste ceramic Talal Alsaeed, Ayedh Eid Alajmib, Jasem Ghanem Alotaibib, and Belal F. Yousif
<b>T8.6 Onsite</b>	Mini Review of development in sewage sludge to bioenergy Jassinnee Milano, Mei Yin Ong, Shir Reen Chia, Tan Chung Hong, Fazril Ideris, Sieh Kiong Tiong, Saifuddin Nomanbhay, A S Silitonga, Hwai Chyuan Ong, Talal Yusaf





The 2nd Congress on Aviation and Sustainability (CAS 2) 2024

