



World Renewable

Energy Congress

Manchester - UK 26-29 August 2025

Hotel Hyatt Regency Programme

Manchester – Where Industry Meets Academia

**Leading the Way in Combating Climate Change
through Innovative Renewable Solutions and
Sustainable Technologies**

This prestigious global event will bring together the sharpest minds in academia and the most forward-thinking leaders in industry to collaborate on solutions for a cleaner and more sustainable future.

Organised by the **World Renewable Energy Congress and Network**. WREC-24 is a global platform for innovation, knowledge sharing, and significant collaboration in renewable energy and combating climate change.

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MAIN – PROGRAMME

There will be a special workshop, “*Powering Sustainable Cities: Accelerating Renewable Energy Integration for Cleaner Air and Circular Economies*”, 14:00-15:00. This is a free event, followed by the WREN council meeting.

Registration is from 08:45 – 16:00. Every day. There are two main rooms on the second floor: ROTHWELL and BERNSTEIN. Presentations only on TUESDAY - 26, WEDNESDAY- 27 and THURSDAY -28 of August.

Time	TUESDAY – 26 August
09:00 – 09:30	OPENING CEREMONY
09:30 – 10:30	PLENARY – a, Rothwell Room Chair: Prof Salam Darwish – UK
09:30 – 10:00	Some methods of increasing the self-consumption rate of energy generated in PV installations in buildings Dorota Chwieduk Institute of Heat Engineering, Faculty of Power and Aeronautical Engineering, Warsaw University of Technology, 00665 Warsaw, POLAND
10:00 – 10:30	Tripling Renewable Power Capacity by 2030: Global Target as a Milestone towards 100% Renewable Energy? Rainer Hinrichs-Rahlwes European Renewable Energies Federation (EREF), BELGIUM GERMANY
10:30 – 11:00	Coffee Break
11:00 – 12:30	PLENARY – b, Rothwell Room Chair: Prof Hussein Kazem - Oman
11:00 – 11:30	Techno-economic evaluation of green hydrogen production in Oman: Expectations and challenges Hussein A. Kazem ^{1*} , Miqdam T. Chaichan ² , Ali H. A. Al-Waeli ³ , K. Sopian ⁴ ¹ Faculty of Engineering, Sohar University, Oman ² Energy and Renewable Energies Technology Research Centre, University of Technology, Iraq ³ Engineering Department, American University of Iraq, Sulaimani, Kurdistan Region, Sulaimani, Iraq ⁴ Department of Mechanical Engineering, Universiti Teknologi PETRONAS, Seri Iskandar 32610, Malaysia
11:30 – 12:00	Double Quantum Dots: Nucleation Features, Characterization and Application for New Generation Up- and Down Conversion of Mid-Infrared Radiation Karen M. Gambaryan <i>Department of Physics of Semiconductors and Microelectronics, Institute of Physics, Yerevan State University, Armenia</i>
12:00 – 12:30	Photovoltaics Technology: Driven by Innovation Lawrence L. Kazmerski ^a and Antonia Sônia A.C. Diniz ^b

12:30 – 14:00	<p>^aRenewable and Sustainable Energy Institute (RASEI). University of Colorado Boulder, Colorado USA; ^bPontificia Universidade Católica de Minas Gerais (PUCMinas), Belo Horizonte, Brazil</p> <p>Lunch Break</p>
14:00 – 15:30	<p>PLENARY – c, Rothwell Room Chair: Prof. Nader Mohammed Al-Bastaki – Bahrain</p>
14:00 – 14:30	<p>Developing a Mine Tailings Database to support Low Carbon Concrete and Circular Economy in Western Australia Amitha Varghese¹, Martin Anda¹, Biji Kurup¹ Shri Rai, David Goodfield² ¹Murdoch University, Perth, WA 6150, Australia ²Carbonomics Australia, Perth, Australia</p>
14:30 – 15:00	<p>From Linear to Circular for the Recovery of Energy and Materials Anastasia Zabaniotou, Emeritus Professor Aristotle University of Thessaloniki, Greece CHEVALIER DANS L'ORDE DES PALMES ACADEMIQUES' Bioenergy and Waste to Energy Chairperson at WREC/WREN</p>
15:00 – 15:30	<p>Strategic Deployment of Grid-Forming Inverters to Enhance Frequency Resilience in Low-Inertia Power Systems Dlzar Al Kez*, Aoife Foley ^a School of Engineering, The University of Manchester, Manchester, United Kingdom</p>
15:30 – 16:00	<p>Coffee Break</p>
16:00 – 17:30	<p>PLENARY – d, Rothwell Room Chair: Assoc. Prof. Dr. Uroš Stritih - Slovenia</p>
16:00 – 16:30	<p>The Imperative of Renewable Energy in Realising the Just Energy Transition Outlook of South Africa Kola O. Odeku Faculty of Management and Law, School of Law University of Limpopo, South Africa</p>
16:30 – 17:00	<p>Geothermal Heat Pumps – Moving Beyond Space Heating to Process Heating. Neil J Hewitt Ulster University, Centre for Sustainable Technologies 2-24 York Street, Belfast BT15 1ED, Northern Ireland, UK</p>
17:00 – 17:30	<p>Energy retrofit of older UK housing: a case study providing longer-term assessment of benefits. Arthur Williams & Tom Rogers, Nottingham Trent University, Nottingham, UK</p>
17:30 – 17:40	<p>IMPACT OF AGROFORESTRY ON COCOA PRODUCTION FOR ENVIRONMENTAL MANAGEMENT IN YEWA SOUTH LOCAL GOVERNMENT AREA OF OGUN STATE, NIGERIA. James Oluwagbemiga Oyesola University of Greater Manchester, Bolton, UK. Furat Al-Faraj University of Greater Manchester, Bolton, UK Vincent C Uzomah University of Salford, UK</p>

17:40 – 17:50	Comparative Analysis of the Physical Properties of Soils Contaminated With Long-Term Greywater in Two Local Government Areas of Rivers State, Nigeria Favour Chukumela Woko, and Vincent C. Uzomah* SCHOOL OF SCIENCE, ENGINEERING AND ENVIRONMENT, UNIVERSITY OF SALFORD - UK.
17:50 – 18:00	Exploring female academic leadership towards a sustainable built environment in Northern Nigeria Amina Batagarawa ¹ ; Komali Yenneti ² ; Mohamed Farid Almetwaly Alsaïd Ahmed ³ ; Rukayyatu Bashiru Tukur ¹ ; Louis Gyoh ² ; Megan Lawton ² ; Rasha Hamed Sayed Hassan Bondok ³ ¹ Centre for Clean Energy and Climate Change (CLEANE), Baze University, Nigeria ² Wolverhampton University, UK ³ Ain Shams University, Egypt
Time	WEDNESDAY – 27 August
09:00 – 10:30	PLENARY – e, Rothwell Room Chair: Prof Peter Farrell - UK
09:00 – 09:30	Improving European polymer-processing industries through energy optimization and AI solutions – theoretical study Ivana Špelić, Alka Mihelić-Bogdanić, Kristina Špelić and Dubravka Mendeš Poljak ^a <i>University of Zagreb Faculty of Textile Technology, Zagreb, Croatia</i> ^b BCC Services, Croatia
09:30 – 10:00	Renewable energy district heating: LoT-NET and the Warwick case study R.E.Critoph, R.Moss School of Engineering, University of Warwick, Coventry, CV4 7AL, UK
10:00 – 10:30	20 years of Renewable Energy Projects and Applications Tony Book 40 Benett Drive, Hove BN3 6UT, UK
10:30 – 11:00	Coffee Break

11:00 – 12:30	<p style="text-align: center;">PLENARY – f, Rothwell Room Chair: Mr Rainer Hinrichs-Rahlwes – Germany</p>
11:00 – 11:20	<p>Calculation of energy consumption of a heating system with a solar seasonal heat storage tank for a single-family building Assoc. Prof. Dr. Uroš Stritih University of Ljubljana, Faculty of Mechanical Engineering, Ljubljana, Slovenia</p>
11:20 – 11:40	<p>Optimal Sizing of Photovoltaic Water Pumping Systems in Southern Iraq: A Case Study Ali H. A. Al-Waeli^{1*} Ali Abdulrazaq Ahmed¹, Hussein A. Kazem², Miqdam T. Chaichan³ ¹Engineering Department, American University of Iraq, Sulaimani, Kurdistan Region, Sulaimani, Iraq ²Faculty of Engineering, Sohar University, Sohar, Oman ³Energy and Renewable Energies Technology Research Center, University of Technology- Iraq</p>
11:40 – 12:00	<p>Site selection for thermal energy storage in underground rock mass and mining area for the renewal energy system in Korea Junkyo Kim¹, Jiyeon Ku¹, Hyeong-Dong Park^{2,3} ¹-Department of Energy Systems Engineering, Seoul National University, Seoul South Korea ²-Department of Energy Resources Engineering, Seoul National University, Seoul South Korea ³-Research Institute of Energy and Resources, Seoul National University, Seoul, South Korea</p>

12:00 – 12:20	<p>Degradation Science Study of a Brazil Research Floating PV System Antonia Sônia A.C. Diniz^a, Denio Alves Cassini^a, Vinícius Camatta Santana^a, and Lawrence L. Kazmerski^b ^aPontifícia Universidade Católica de Minas Gerais (PUC Minas), Belo Horizonte, Brazil; ^bRenewable and Sustainable Energy Institute (RASEI), University of Colorado Boulder, Boulder, Colorado USA</p>
12:20 – 12:30	<p>An Intelligent Dimensionality Reduction Model for Real-Time Condition Monitoring of Wind Power Generators 1-Ms. Ga-Eun Jung*, and Jun-Yeop Lee Dept. of Electrical Engineering, Changwon National University, Changwon, South Korea, 2- Byeong-Soo Go DNA+ Research Institute, Changwon National University, Changwon, South Korea, 3- Seok-Ju Lee† School of Aerospace Engineering, Changwon National University, Changwon, Republic of Korea</p>
12:30 – 14:00	Lunch Break
11:00 – 12:30	<p>PLENARY – g, Bernstein Room Chair: Dr Arthur Williams – UK</p>
11:00 – 11:20	<p>Beyond Fossil Fuels: Green Hydrogen and Wind Energy - Building a Secure and Sustainable Energy Future Ann Wolter, Abdul Salam Darwish, Peter Farrell University of Bolton, UK.</p>
11:20 – 11:40	<p>Sustainable Wastewater Management in Ajman – UAE Khadija Ali Alblooshi, Abdul Salam Darwish, Peter Farrell University of Greater Manchester, Bolton, UK</p>
11:40 – 12:00	<p>Analysis of Retail Markets for Sustainable District Heating: A Case Study in Northern Ireland Alastair Brown^a, Aoife Foley^b, David Lavery^c, Seán McLoone^c, Dizar Al Kez^{b*} ^a School of Mechanical and Aerospace Engineering, Queen's University Belfast, United Kingdom ^b School of Engineering, University of Manchester, Manchester, United Kingdom ^c School of Electronics, Electrical Engineering and Computer Science, Queen's University Belfast, United Kingdom</p>
12:00 – 12:20	<p>Investigating the Effects of Dielectric Compound Parabolic Concentrators, of Different Dielectric Materials, on Photovoltaic Cell Efficiency Leah Duffy^{1*}, Anita Ortega², Sarah McCormack² ¹Technological University Dublin, Dublin D01 K822, Ireland. ²Department of Civil, Structural and Environmental Engineering, School of Engineering, Museum Building, Trinity College Dublin, The University of Dublin, Dublin D02 PN40.Ireland</p>
12:20 – 12:30	<p>Statistical – Characteristics of Solar and Wind Potential for Rabat, Morocco Hassan NFAOUI^{*1}, Faissal ELMARIAMI² & Ali SAYIGH³ 1. Solar Energy & Environment laboratory, Sciences Faculty, Mohammed V University, Rabat, Morocco, 2. Department of Electrical Engineering, National Superior School of Electricity and Mechanics, Hassan II University, Morocco, 3. Chairman of WREC & Director General-WREN, Brighton, UK.</p>

14:00 – 15:30	<p align="center">TECHNICAL SESSIONS – 1, Rothwell Room Chair: Prof Peter Farrell – UK</p>
14:00 – 14:10	<p>Stomata Space: Rethinking Architecture as an Air Purification System in Polluted Urban Environments Anwar F. Ibrahim^{1,2}, Shaden Abusafieh³, Reem Hussein², ¹Department of Architecture/ College of Engineering, Al-Yamamah University, Al-Riyadh, KSA ²Department of Architecture/ College of Architecture, Jordan University of Science and Technology, Irbid, Jordan. ³Department of Architecture/ College of Engineering, Middle East University, Amman, Jordan.</p>
14:10 – 14:20	<p>Achieving Sustainable Infrastructure Development through Green Financing PPPs: A Bibliometric Review Shaikha Ali Alshehhi, Abdul Salam Darwish, Peter Farrell University of Greater Manchester, Bolton, UK.</p>
14:20 – 14:30	<p>Students as change agents: Investigating the impact of project-based learning on renewable energy awareness and program advocacy in moroccan higher education Asmaa ZRAIOUIL* National School of Business and manag. Casablanca, Hassan 2 Univ., Morocco And Sarah JUIDETTE National School of Business and management Casablanca Hassan 2 University, Morocco</p>
14:30 – 14:40	<p>Optimising Energy Efficiency in Dubai Using Climate Data: A Smart Cooling Strategy for a Net-Zero Future Kais Muhammed Fasel, Abdul Salam Darwish, Peter Farrell University of greater Manchester – UK.</p>
14:40 – 15:10	<p>Greening the Desert: Evaluating Al Ain as a Model for Sustainable Urbanism and Green Architecture in Arid Climates ¹Ghanim M. Al Hajeri, Abdul Salam Darwish, Peter Farrell University of Greater Manchester, Bolton, UK.</p>
15:10 – 15:30	<p>Modelling and Performance Analysis of Solar Power Generation System with Thermal Storage Ren Chun Saw¹, M.P.G Sirimanna² ¹ Health Safety & Environment Department, British Steel Limited, Brigg Road, Scunthorpe, DN16 1XA, United Kingdom ² College of Engineering, Environment and Science, Coventry University, Priory Street, Coventry, CV1 5FB, United Kingdom</p>
15:30 – 16:00	<p>Coffee Break</p>

14:00 – 15:30	<p align="center">TECHNICAL SESSIONS – 2, Bernstein Room Chair: Dr Yasser O Kayed - UAE</p>
14:00 – 14:10	<p>IMPLEMENTATION OF STORAGE SYSTEMS FOR PERFORMANCE ENHANCMENT OF SOLAR AND WIND HYBRID SYSTEMS ¹Huda Kauser, ²Ahmed Said Obaid Albusaidi*, ³Anju Parameswaran, and ⁴Hussein A. Kazem, ¹Department of Electronics and Communication Bharatiya Engineering Science and Technology Innovation University Hyderabad, India, ²Dept. of Electrical and Computer Engineering, University of Nizwa, Nizwa, Oman, ³Dept. of Electrical and Computer Engineering, University of Nizwa, Nizwa, Oman, ⁴Faculty of Engineering, Sohar University, PO Box 44, Sohar, PCI 311, Oman,</p>
14:10 – 14:20	<p>Optimization of Photovoltaic Powered Electrolysis for Hydrogen Production system Matouk M. Elamari Researcher assistant, Applied Research and Development Organization, Tripoli, Libya</p>
14:20 – 14:30	<p>Long-Term Performance Analysis of a Solar PV-Based Injera Baking System with Thermal Storage Abdulkadir A. Hassen^{1*}, Gashaw G. Birhanu¹, Demiss A. Ambie¹, , Ole J. Nydal² ¹School of Mechanical and Industrial Engineering, College of Technology and Built Environment, Addis Ababa University, Addis Ababa, Ethiopia. ²Department of Energy and Process Engineering, NTNU, Trondheim, Norway</p>
14:30 – 14:40	<p>Development of PV/T Heat Pump Dryer Systems with Thermal storage for Drying Agricultural Produce: A review Mohammedamin Gemeda¹, Abdulkadir Aman Hassen^{2*} ^{1,2}School of Mechanical and Industrial Engineering, College of Technology and Built Environment, Addis Ababa University, Addis Ababa, Ethiopia.</p>
14:40 – 14:50	<p>Unraveling Complementary Technologies: How Electric Vehicles Drive Residential Solar and Storage Adoption Nikhil Jayaraj^{1*} ¹Curtin University, Kent St, Bentley WA 6102, Australia</p>
14:50 – 15:00	<p>Experimental and Numerical Investigation of a Heating Unit for PV Based Injera Baking Application Gashaw G. Birhanu^{1,*}, Demiss A. Ambie¹, Abdulkadir A. Hassen¹, Ole J. Nydal² ¹School of Mechanical and Industrial Engineering, College of Technology and Built Environment, Addis Ababa University, Addis Ababa, Ethiopia. ²Department of Energy and Process Engineering, NTNU, Trondheim, Norway</p>
15:00 – 15:10	<p>Influence of Adsorber Bed Geometry on Evaporator Performance in Adsorption Refrigeration Systems Ibrahim J. Mwasubila¹, Cuthbert Z. M Kimambo¹, Joseph H. Kihedu¹, Ole J Nydal² ¹Department of Mechanical and Industrial Engineering, University of Dar es Salaam (UDSM), Tanzania ²Department of Energy and Process Engineering - Norwegian University of Science and Technology (NTNU), Norway</p>

15:10 – 15:20	<p>Efficiency Optimization of the Pump as Turbine coupled to a Self-Excited Induction Generator system supplying a variable resistive load Emanuel J. Nyirenda^{1,2}, Joseph H. Kihedu¹, Cuthbert Z.M. Kimambo², Torbjorn K. Nielsen³ ¹Mechanical and Industrial Engineering Department, University of Dar es Salaam, Tanzania ²Electrical Engineering Department, Malawi University of Business and Applied Sciences, Malawi ³Department of Energy and Process Engineering, Norwegian University of Science and Technology, Norway.</p>
15:20 – 15:30	<p>Review of Exergy Analysis in Cooking Systems with Thermal Storage Anna K. Sharishoy¹, Joseph H. Kihedu¹, Cuthbert Z. M. Kimambo¹, Ole J. Nydal² ¹ Department of Mechanical and Industrial Engineering- University of Dar es Salaam, Tanzania ² Department of Energy and Process Engineering, Norwegian University of Science and Technology, Norway</p>
15:30 – 16:00	Coffee Break
16:00 – 17:30	<p>TECHNICAL SESSIONS – 3, Rothwell Room Dr Eng. Khaled Alhosani – Ajman, UAE</p>
16:00 – 16:10	<p>Prediction of Power Generation Based on Hydrological Variables of the Hydropower Reservoir Joseph H. Kihedu¹ and Elinainyi E. Kalalu² ¹ Department of Mechanical and Industrial Engineering University of Dar es Salaam (UDSM), Tanzania ² Tanzania Electricity Supply Company (TANESCO), Mtera, Tanzania.</p>
16:10 – 16:25	<p>Experimental Analysis Of Small-Scale Photovoltaic Powered Simultaneous Milk Pasteurization And Cooling Utilizing Heat Recovery With Thermal Storage. Fikadu Geremu Bodena¹, Demiss Alemu Amibe², Ole Jorgen Nydal³, and Trygve Magne Eikevik⁴ ¹<i>School of Mechanical and Industrial Engineering, College of Technology and Built Environment, Addis Ababa University, Addis Ababa, Ethiopia,</i> ²<i>School of Mechanical and Industrial Engineering, College of Technology and Built Environment, Addis Ababa University, Addis Ababa, Ethiopia,</i> ³<i>Department of Energy and Process Engineering, Norwegian University of Science and Technology (NTNU), 7491 Trondheim, Norway,</i> ⁴<i>Department of Energy and Process Engineering, Norwegian University of Science and Technology (NTNU), 7491 Trondheim, Norway,</i></p>
16:25- 16:40	<p>Modeling and Simulation of a Grab-Type Ship Unloader System Using Modelica Ga-Eun Jung¹, Jae-In Lee², Seok-Ju Lee³ ¹Dept. of Electrical Engineering; Changwon National University; Changwon, Republic of Korea ²Advanced Nano Science and Technology Research Institute, Changwon National University, Changwon, Republic of Korea ³School of Aerospace Engineering, Changwon National University, Changwon, Republic of Korea</p>

<p>16:40 – 16:55</p>	<p>Environmental Performance and Market Outcomes in European Aviation: Re-evaluating the Green Premium Paradox Farrukh Mahmood 300 South End Road, Rainham, Essex, RM13 7YB, UK</p> <p>16:55 – 17:10</p> <p>Biologically, Ecologically, and Environmentally Friendly Waste Management of Batteries Dr Aram Sadig Monawar, Department of Electrical Engineering, College of Engineering and Advanced Computing, Alfaisal University, Riyadh, Kingdom of Saudi Arabia.</p> <p>17:10 – 17:25</p> <p>Re-Interpreting Traditional Urban Form: The Diriyah Gate Project as A Model for Sustainable Urbanism In Saudi Arabia. Dr Anas Hussein, Department of Architecture, College of Engineering, Al-Yamamah University, Riyadh 13541, Saudi Arabia.</p>
<p>17:25 – 17:40</p> <p>17:40 – 17:55</p>	<p>Building a Data-Envelopment Efficiency Model (DEA) for ESG-Informed Student Satisfaction Performance in UK Universities. Hafsah Akram University of Greater Manchester, GMBS Great Moor St, Bolton BL1 1SW, UK</p> <p>Optimizing Building Energy Efficiency: Integrating BIT Collectors And Heat Pumps For Sustainable Heating Solutions Fatemeh Eftekhari¹, Camilo Rindt^{1,*} ¹ <i>Energy Technology, Department of Mechanical Engineering, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, the Netherlands</i></p>

Time	THURSDAY – 28 August
09:00 – 10:30	PLENARY – h, Rothwell Room Chair: Prof Ali Sayigh - UK
09:00 – 09:30	Optimizing Solar Thermal by Managing Production and Contribution Henry K. Vandermark 31 Cambridge Terrace, Cambridge MA 02140 U.S.A.
09:30 – 10:00	Real-Time Wind Turbine Blade Fatigue Diagnosis Model Using SCADA-Driven Stress ROMs 1- Jun-Yeop Lee Dept. of Electrical Engineering, Changwon National University, Changwon, Republic of Korea 2- Ga-Eun Jung Dept. of Electrical Engineering, Changwon National University, Changwon, Republic of Korea 3- Byeong-Soo Go DNA+ Research Institute, Changwon National University, Changwon, Republic of Korea 4- Seok-Ju Lee† School of Aerospace Engineering, Changwon National University, Changwon, Republic of Korea
10:00 – 10:30	Advancing WIND-H₂ Systems: State-of-the-Art Offshore Wind Technology for Efficient Green Hydrogen Production and Sustainable Energy Transition Prof Dr Eng. Abdul Salam Darwish University of Greater Manchester, UK
10:30 – 11:00	Coffee Break
11:00 – 12:30	PLENARY – i, Rothwell Room Chair: Mr Rainer Hinrichs-Rahlwes – Germany
11:00 – 11:20	Climate Emergency and Biodiversity – Optimizing the Selection of trees for Sustainable Urban Drainage Systems Vincent C. Uzomah Civil Engineering Industrial Advisory Board Co-ordinator School of Science, Engineering & Environment SEE Building, University of Salford, Manchester, UK
11:20 – 11:40	Key & Sub Assessment Factors of Sustainability Verification System in Buildings A Local Approach Raed AbdulJabbar AlTalebi, PhD, Intl. Assoc. AIA Saydiya Neighborhood, Baghdad, Iraq
11:40 – 12:00	Environmental sustainability as a major contributor in achieving total value in the built environment Dr Jason Challender Senior Lecturer, Liverpool John Moores University, Liverpool, UK

12:00 – 12:20	Introducing Luminescence in Compound Parabolic Concentrator Daylighting System for Enhanced Deep-Building Daylighting Chenxi Hu ^{1*} , Wai Qian Tham ¹ , Subhash Chandra ² , Brian Norton ³ , Sarah J. McCormack ¹ ¹ Department of Civil, Structural and Environmental Engineering, Trinity College Dublin, Dublin, Ireland ² Department of Geology, Trinity College Dublin, Dublin, Ireland ³ International Energy Res. Centre, Tyndall National Inst., Cork, Ireland
12:20 – 12:40	Storage Option for Non - Conventional Renewable Energy on the Path to Net Zero Vidya Amarapala, Abdul Salam Darwish, Peter Farrell, University of Bolton-UK.
12:30 – 14:00	Lunch Break
11:00 – 12:30	<p style="text-align: center;">PLENARY – j, Bernstein Room Chair: Assoc. Prof. Dr. Uroš Stritih - Slovenia</p>
11:00 – 11:15	The Role of Artificial Intelligence in Enhancing Customer Wealth: A Data-Driven Strategic Approach to Personalised Financial Services in Saudi Arabia Abdullah Muhaideb Almuhaideb ¹ , Abdul Salam Darwish ² ¹ Almuhaideb Group, Riyadh, Kingdom of Saudi Arabia ² University of Greater Manchester, Bolton, UK
11:15 – 11:35	3D printing of Luminescent solar concentrators for building facades and greenhouses Luke Marren ^{1*} , Anita Ortega ¹ , Wai Tham ¹ , Sarah McCormack ¹ ¹ Department of Civil, Structural and Environmental Engineering, School of Engineering, Museum Building, Trinity College Dublin, The University of Dublin, Dublin 2, D02 PN40.
11:35 – 11:55	Mixed Tin-Germanium Vacancy-Ordered Perovskite: A Potential Sub-Class for Stable Solar Cells Low Soon Jian ¹ , Ayu Wazira Azhari ^{1,2,a} and Mohd Saiful Adli Azizman ^{1,2} ¹ Faculty of Civil Engineering and Technology, Universiti Malaysia Perlis, Jalan Kangar-Arau, 02600, Perlis, Malaysia ² Center of Excellence for Water Research and Environmental Sustainability Growth (WAREG), Universiti Malaysia Perlis, Jalan Kangar-Arau, 02600, Perlis, Malaysia
11:55 – 12:15	Integrated Climate Vulnerability Assessment of Nigerian States: A Composite Index and Machine Learning Approach for Informed Adaptation Planning Muazu, S ¹ , Yusuf, A.Y. ² , Sabo, Y.I. ² , Lawal, A. ³ ¹ Kingston University London, United Kingdom ² Aliko Dangote University of Science and Technology, Wudil - Nigeria ³ IHERIS - Institut des Hautes Etudes de Relations Internationales et Strategiques, Lomé-Togo
12:15 – 12:30	WATER RESOURCES MANAGEMENT VULNERABILITY TO DROUGHT IN NIGERIA: AN AI-DRIVEN QUANTITATIVE ASSESSMENT Adanna Augusta Akujiokwu, Abdul Salam Darwish, Yassin Osman Civil Engineering, Greater Manchester University, Bolton, Manchester, UK.
12:30 – 14:00	Lunch Break

14:00 – 15:00	TECHNICAL SESSIONS – 5, Rothwell Room Chair: Prof Hussein Kazem - Oman
14:00 – 14:15	Unlocking Sustainable Governance through Digital Procurement in Nigeria's Oil and Gas Industry: A Conceptual Review Imran Hussaini Ibrahim ¹ , and Dr. Akponanabofa Henry Oti ² Department of Civil Engineering, School of Engineering, University of Greater Manchester, Deane Road, BL3 5AB.
14:15 – 14:30	Thermal Evaluation of Ionic Liquids for Heat Extraction in PV Cells Mooney Gaulyte ^{1*} , Anita Ortega ² , Sarah McCormack ² 1 Technological University Dublin, Dublin D01 K822, Ireland. 2 Department of Civil, Structural and Environmental Engineering, School of Engineering, Museum Building, Trinity College Dublin, The University of Dublin, Dublin 2, D02 PN40
14:30 – 14:45	Variations in local microclimatic indicators induced by solar farm implementation. Sean Morris ¹ , Dr. Anita Ortega ¹ , Joesph O'Connell ¹ , Prof. Sarah McCormack ¹ , Prof. Jane Stout ² . 1 Department of Civil, Structural and Environmental Engineering, School of Engineering, Museum Building, Trinity College Dublin, The University of Dublin, Dublin 2, D02 PN40. 2 Department of Botany, School of Natural Sciences, Trinity College Dublin, The University of Dublin, Dublin 2, D02 PN40. Ireland
14:45 – 15:30	CLOSING CEREMONY Briefing about FRIDAY Visits Prof Ali Sayigh & Prof Salam Darwish - UK
15:30 – 16:00	Coffee Break
19:30 – 22:00	GALA DINNER by Tickets Only at ROTHWELL – ROOM Hyatt Regency

PROGRAMME AT A GLANCE

World Renewable Energy Congress – Manchester City

UK - Leading the way in combating Climate Change and the use of Renewable Energy

(NOTE: Friday Visit- Spaces are limited, you must book in advance)

Location	Hyatt Regency, Manchester, UK 26-29 August 2025				
Time Date	Tuesday 26	Wednesday 27	Thursday 28	Friday 29	
09:00 – 17:30, REGISTRATION Every Day				ACTIVITIES	
09:00 – 09:30	Opening Ceremony	Plenary-e	Plenary-h	GA- Visit Manchester University, GB- Visit Manchester Metropolitan University	GC- Visit Salford University
09:30 – 10:30					
10:30 – 11:00	Coffee Break				
11:00 – 12:30	Plenary-b	Plenary-f Plenary-g	Plenary-i Plenary-j	For Groups GA & GB Coffee Breaks at each University Lunch at Hyatt level -2 Lunch for GC- at Maxwell	
12:30 – 14:00	Lunch Break & Exhibition visit				
14:00 – 15:30	Plenary-c	Tech Session-1 T. Session-2	Tech Session-5 Closing Ceremony	GC-visit by COACH to 1- Waste to Energy 2- University of Greater Manchester A- Medical School B- Car Design Centre Return to Hyatt Regency	
15:30 – 16:00		Coffee Break			
16:00 – 17:30	Plenary-d	Tech Session- 3 T. Session- 4	FREE		
19:30 – 22:00		FREE - EVENING	Gala - Dinner	FREE - EVENING	

NOTE: On Monday 25 August, in the afternoon, there will be One Workshop and WREN Council Meeting:

1. 14:00 – 15:00: Powering Sustainable Cities: Accelerating Renewable Energy Integration for Cleaner Air and Circular Economies, Second Floor Hyatt Regency

¹Prof Dr Abdul Salam Darwish, ²Dr Khaled Alhosani, ²Dr Yaser Kaied

¹ Univ. of Greater Manchester, Bolton, UK. ²Ajman Municipality and Planning Det., Ajman, UAE.

2. Followed by

15:00 – 15:30: WREN COUNCIL - MEETING at Second Floor Hyatt Regency - All are welcome

15:30 – 16:00: Coffee Break