

6th Solar and Wind Power Conference

JUNE 10-12, 2026

Merchiston campus, Edinburgh Napier University
Edinburgh, Scotland



Day 1, Wednesday 10th June 2026 - Glassroom B70

8:30 - 9:15	Registration	
9:15 - 9:30	Opening Remarks	Dr Nazmi Sellami, Conference Chair Edinburgh Napier University
Session 1 Hi-Scot project. Chair:		
09:30 - 09:50	Application of Solar Thermal Energy to Processes (ASTEP), Development and Demonstration	Dr Mohamed Egiza Robert Gordon University
09:50 - 10:10	Integration of Building-Integrated Photovoltaics (BIPV) in Historic Buildings for Renewable Energy Generation	Sangram Kshirsagar Edinburgh Napier University
10:10 - 10:40	Break & Networking	
10:40 - 11:00	The Role of Historic Buildings towards Scotland's Net-zero Emission 2045: A Review of Policy and Guidance	Linda Hijriyah Edinburgh Napier University
11:00 - 11:20	Are Historic Buildings Untouchable? Public Perceptions of Custom BIPV in Scottish Historic Buildings	Dr Samuel Awuku Edinburgh Napier University
11:20 - 13:00	Panel Discussion: Hi-Scot project	
11:20 - 12:00	Speakers introductions	
12:00 - 13:00	Moderated discussion + audience Q&A	
13:00 - 14:00	Lunch & Networking	
14:00 - 14:30	Keynote talk 1: Ten-year operating experience of a 350kW Scottish solar farm: Energy yield, economics and Carbon savings.	Professor Tariq Muneer Edinburgh Napier University
14:30 - 15:00	Keynote talk 2: Ground-Mounted Solar PV Construction Quality Control, Challenges & Lessons Learned	Gideon Babalola Awolola Sunel UK Limited
Session 2. Solar. Chair: Dr Firdaus Muhammad Sukki		
15:00 - 15:20	Comparison of Performance and Thermal Behaviour of Floating and Ground Based Photovoltaic Modules	Armin Shamaeizadeh University of East Anglia
15:20 - 15:40	Optimising CycleGAN Hyperparameters for Building Façade Segmentation to Support BIPV Potential Prediction	Mohammed Abdulhameed Edinburgh Napier University
15:40 - 16:00	Break & Networking	
16:00 - 16:20	Real-Time Solar PV Forecasting Using NWP Cloud Cover and Extra-Terrestrial Irradiance	Gayan Madusanka Edinburgh Napier University
16:20 - 16:40	Energy Harvesting from Flow-Induced Oscillations of a Delta Wing: A Novel Wing-Rock Based Energy Extraction Concept	Marc Hinton University of Brighton
Online presentations		
Parallel Session 2 - Online - Solar Chair: Dr Carolina Costa Pereira (Edinburgh Napier University)		
15:00 - 15:20	Analysis of Electricity Consumption Profiles for Households with Rooftop Solar PV and Other Low-Carbon Technologies in Northern Ireland	Rahul Sajith Pillai Ulster University
15:20 - 15:40	The Impact of Climate Change on Nigerian Electricity Demand	Uchechukwu Okoro University of Dundee
15:40 - 16:00	Machine Learning for Crop Yield Modelling and Photovoltaic Energy Optimization in Agrivoltaic Systems	Abubakar Suleiman Edinburgh Napier University
16:00 - 16:20	SoC-Aware Battery Control for MPPT and Reconfigurable Pack Balancing	Walid Issa Sheffield Hallam University
16:20 - 16:40	A Hybrid DEA-XGBoost Framework for Efficiency Assessment and Prediction in Solar and Wind Energy Systems	Sara Fanati Rashidi VSB-Technical University of Ostrava
16:40 - 17:00	Enhancing Photovoltaic Efficiency Under Partial Shading: A Greylag Goose Optimization Based MPPT Approach	Abdullahi Abubakar Mas'ud Jubail Industrial College



SPRINGER NATURE



Day2, Thursday 11 th June 2026 - Glassroom B70		
9:00 - 9:30	Registration	
09:30 - 10:00	Securing the Future Grid: The Role of HVDC in Strengthening the UK's Energy Resilience	Dr. Kamyab Givaki
Session 3. Wind. Chair: Dr Pablo Sola (Edinburgh Napier University)		
10:00 - 10:20	A Qualitative Review Of Wind Energy Potential, Regulation, And Challenges In Indonesia	Dinda Jhaneta Priceli University of Dundee
10:20 - 10:40	PRELIMINARY ASSESSMENT OF WIND ENERGY POTENTIAL FROM HIGH-SPEED TRAIN-INDUCED AIRFLOW	Ramy Nagla The British University in Egypt
10:40 - 11:10	Break & Networking - Glassroom B70	
11:10 - 11:30	Orientation Dependent Wake Interaction in Compact Vertical Axis Wind Turbine Arrays at Newhaven Port	Adam Moutray University of Brighton
11:30 - 11:50	FBG Optical Sensors for Structural Health Monitoring in Offshore Wind Turbine Generators	Abdelfateh Kerrouche Edinburgh Napier University
11:50 - 12:10	Reframing the Energy Transition in Sri Lanka: A Critical Assessment of Solar Potential and the Role of Solar Wind Hybrid Systems.	Tenisha N Arachchige University of Dundee
12:10 - 12:30	URANS Investigation of Synthetic Jet Flow Control for Aerodynamic Performance Enhancement of the NREL S809 Wind Turbine Aerofoil	Mahmoud Eltaweel University of Hertfordshire
12:30 - 12:50	From Variability to Stability: Hybrid Solar-Wind Systems as Active Stability Resources in Low-Inertia Power Networks	Wattala Fernando University of Dundee
12:50 - 14:00	Lunch & Networking - Glassroom B70	
Session 4 Wind. Chair: Dr Taimoor Asim (Robert Gordon University)		
14:00 - 14:20	Influence of Nacelle-Induced Vortices on Wind Turbine Wake Dynamics	Jaidon Kurisinkal Robert Gordon University
14:20 - 14:40	Improving Electricity Affordability in Sri Lanka through Solar and Wind Energy Procurement and Ownership Reform	Amandi Hapuarachchi University of Dundee
14:40 - 15:00	Generative Design for Lightweight Supporting Structures of 100 kW Permanent Magnet Direct-Drive Wind Turbine Generators	Ran Su Edinburgh Napier University
15:00 - 15:20	Wind-Heat-Storage Dynamics in Scotland: Offshore Wind, Heat Demand, and Thermal Storage Opportunities	Gayan Madusanka Edinburgh Napier University
15:20 - 15:50	Break & Networking	
15:50 - 16:10	Site-Specific Aerodynamic Optimization of a Small-Scale Wind Turbine Blade for Low-Wind Speed Regimes: A Case Study of Samsun, Turkey	Kadir Kayay Ondokuz Mayıs University
16:10 - 16:30	Thermal Analysis of the NREL 15 MW Offshore Wind Turbine Generator Using Lumped-Parameter Thermal Network Modelling	Olamide Ogunesan Edinburgh Napier University
16:30 - 16:50	The Impact of Onshore Wind Farm Development on Soil Carbon Content in the UK: A Literature Review	Luke Bradley Edinburgh Napier University
16:50 - 17:00	Closing remarks	Dr Nazmi Sellami

9:00 - 9:30			Day2, Thursday 11th June 2026 - Room: B55		
09:30 - 10:00	Keynote talk: Bridging Design and Installation: Why Engineers Should Understand Field Realities.	Rasheed Shobande Octopus Energy			
Parallel Session 3 - Solar. Chair: Dr Carolina Costa Pereira (Edinburgh Napier University)					
10:00 - 10:20	Low-Cost Aluminum-Foil Reflectors For Enhanced Evacuated Tube Solar Collector Efficiency: An Experimental Study	Mahmoud Eltaweel University of Hertfordshire			
10:20 - 10:40	Preliminary Insights into PV Thermal Management with Shape-Stabilised PCMs: Numerical and Experimental Study	Alexander Arbuthnott Edinburgh Napier University			
10:40 - 11:10 Break & Networking - Glassroom B70					
11:10 - 11:30	Copper Mesh-Enhanced Phase Change Materials for Thermal Management of Photovoltaic Panels: Preliminary Results	Arthur Vilaronga UNESP			
11:30 - 11:50	Experimental Investigation and Intelligent Performance Modeling of a Magnetite Nanofluid-Enhanced Solar-TEG System with Integrated Heat Pipe	Murat şener Ondokuz Mayıs University			
11:50 - 12:10	Investigation of Solar Photo-Thermal Conversion of Fatty Acid Coated Silver Enhanced PCMs: A Preliminary Study	MUMTAHINA MIM Edinburgh Napier University			
12:10 - 12:30	Computational Fluid Dynamics Analysis of Floating Photovoltaic Panel Configurations	ITYONA AMBER Robert Gordon University			
12:30 - 12:50	Proceeding Article: Quantifying Solar Variability in Sub-Saharan Climates: Analysis using MSWX Atmospheric Reanalysis Data for the Nigerian Power Grid	Muhammad Ibrahim Musa University of Dundee			
12:50 - 14:00 Lunch & Networking - Glassroom B70					
Parallel Session 4 - Solar. Chair: Dr Kadir Kaya (Ondokuz Mayıs University)					
14:00 - 14:20	Techno-Economic Evaluation of 10MW Solar PV in Indonesia: A Case Study of Belitung Island	Wattala Fernando University of Dundee			
14:20 - 14:40	Optimising Solar-Wind Hybrid Mini-Grids for Reliable Energy Access in Rural Somalia	Abdurahmen Ibrahim RCEEE			
14:40 - 15:00	Preliminary Feasibility Study of 2 GW Solar PV Electricity Supply Trade in ASEAN Power Grid between Indonesia and Singapore	Mohammad Rifky Wahyudi University of Dundee			
15:00 - 15:20	Data driven maintenance optimisation for hybrid offshore wind-solar plants under grid and logistics constraints	Yakubu Wagaja Robert Gordon University			
15:20 - 15:50 Break & Networking					
15:50 - 16:10	Automated Prediction of BIPV Facade Area and Urban Shading Effects Using Image based Modelling	Chibuike Ukaoha Edinburgh Napier University			
16:10 - 16:30	Solar Photovoltaic Development: Growth Patterns and Policy Insights in India and Indonesia	Wattala Fernando University of Dundee			
16:30 - 16:50	Ensuring Data Integrity in Solar and Wind Energy Assets Using a BIM-Blockchain Framework for Tamper-Proof Digital Twin Data Management	Kadir Kaya Ondokuz Mayıs University			