

## 4<sup>th</sup> Annual Conference Solar And Wind Power: Next Generation of Energy Solution

Wednesday 5 <sup>th</sup> June 2024: Online			
09:15 - 09:30	Opening / Welcome	Dr Nazmi Sellami, Edinburgh Napier University	
09:30 - 10:00	Keynote talk 1	Sweco: Renewable Energy projects	Neh Sharma (Sweco)
10:00 - 10:30	Keynote talk 2	Energy Research at Napier	Prof Tariq Muneer (Edinburgh Napier University)
<b>Session 1: Solar Energy - Chair Dr Firdaus Muhammad Sukki, Edinburgh Napier University</b>			
10:30 - 10:55	Presentation 1	Power Generation Strategies to Convert the Energy Intensive Campuses in the UK Higher Education Institutions to Low Emission Facilities: Case Study based Analysis	Anusha Wijewardane (University of Dundee)
10:55 - 11:20	Presentation 2	Enhanced Cryptosystem for Smart Solar Power Plant Operational Cybersecurity	Bhuvaneshwari A J (Sri Sivasubramaniya Nadar College of Engineering)
11:20 - 11:45	Presentation 3	Empowering Sustainable Futures: A Comprehensive Study on AC Power Generation Analysis in the Eastern Coast Region of Malaysia Using Artificial Neural Network (ANN)	Nurfadzilah Ahmad (UiTM)
11:45 - 12:10	Presentation 4	Design of solar photovoltaic system for listed (heritage) building	Rasheed O Shobande (Edinburgh Napier University)
12:10 - 12:35	Presentation 5	Nexus between Building Integrated Photovoltaic (BIPV) and Cultural Heritage; Characterisation of Screen-Printed Traditional Symbols on Solar Cells	Samuel Amo Awuku (Robert Gordon University)
<b>12:35 - 13:30 Lunch break</b>			
<b>Session 2: Wind Energy - Chair Dr Pablo Sola, Edinburgh Napier University</b>			
13:30 - 13:55	Presentation 6	Securing the Breeze: ASCON and Lightweight Cryptography in Wind Energy Cybersecurity	Bhuvaneshwari A J (Sri Sivasubramaniya Nadar College of Engineering)
13:55 - 14:20	Presentation 7	Generative design and additive manufacturing techniques on the optimization of multi-MW offshore direct-drive wind turbine electrical generators	Daniel Gonzalez-Delgado (Edinburgh Napier University)
14:20 - 14:45	Presentation 8	Resilience assessment of offshore wind to hydrogen systems	Natalia-Maria Zografou-Barredo (Newcastle University)
14:45 - 15:10	Presentation 9	Startup Dynamics of Drag-based Multibladed Vertical Axis Wind Turbine	Taimoor Asim (Robert Gordon University)
15:10 - 15:35	Presentaion 10	Aero-Servo-Elastic Simulation of the IEA 15MW Reference Wind Turbine Using Validated Wind Speed Data	Magnus Bichan (Edinburgh Napier University)
15:35 - 16:00	Presentation 11	Maximising solar and wind utilisation through distributed thermal storage and predictive control	Robert J Barthorpe (The University of Sheffield)
16:00 - 16:25	Presentation 12	Development of a novel J-shape Vertical Axis Wind Turbine	Patrick Verdin (Cranfield University)
16:25 - 16:30	Closing comments	Dr Nazmi Sellami, Edinburgh Napier University	