

ENGINEERING TRAVEL AWARD WINNER 2023



Dr Matthew Allmark is a 'Disglair ('Bright') Lecturer in Engineering at Cardiff University. He led the design and development of instrumented lab-scale tidal turbines - 3 were produced and utilised heavily for characterising tidal turbine response to differing flow conditions. Using these research turbines he worked on the implementation of differing control strategies for tidal turbines, implementing control strategies that reduce torsional fluctuations on the TST drive train by 50%. His application to the WLCOW outlined his proposed project seeks to setup a collaborative engagement between the National Renewable Energy Laboratories (NREL, USA) to compare two computationally inexpensive modelling approaches and he will therefore travel to NREL in Colorado USA. NREL are world leading developers of software and technologies which support renewable energy systems design and development. This collaboration can yield long and meaningful international research links which can help accelerate both the Welsh and international transitions towards net zero.