

Postdoctoral Associate in Structural Design of Composite Morphing Blades for Tidal Turbines (6 months)

At the School of Engineering at The University of Edinburgh, we are looking for a person who can contribute to the design of morphing blades for tidal turbines and to make technical drawings that can be used to commission their manufacturing. The candidate must have expertise in composite materials and finite element analysis. Expertise in wind or tidal turbine design is desirable but not essential. They will work under the supervision of Dr Eddie McCarthy at the University of Edinburgh. Remote working can be considered. The position is for six months, starting asap. The post holder will design two sets of morphing blades: a 2D extruded blade section with a chord of about 15 cm and a span of 40 cm that will be tested in a water tunnel, and three 60-cm-span blades that will be tested on a model-scale turbine in the Flowave facility. Both sets of blades have a flexible trailing edge. A design deformation, which is to be computed with finite element analysis, must be achieved for nominal pressure distributions. If time permits, a fatigue analysis will be undertaken in the finite element analysis code of choice.

Please contact Dr. Eddie McCarthy, ed.mccarthy@ed.ac.uk for more information.