Ocean Wave Rower Float Tests

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Description

The Ocean Wave Rower is a multi-use wave energy platform developed by Wave-tricity ltd. Due to the failures of wave energy devices to date, the company is focusing on the survivability and low maintenance of the device as the main goals for producing clean energy.

SEACAMS2 will test the device in the wave flume, housed in the new ESRI Building (Swansea University Bay Campus), the wave flume provides a facility for research, testing and development of products. It will compliment the research done by the university in marine energy, tidal power, coastal engineering and more novel areas.

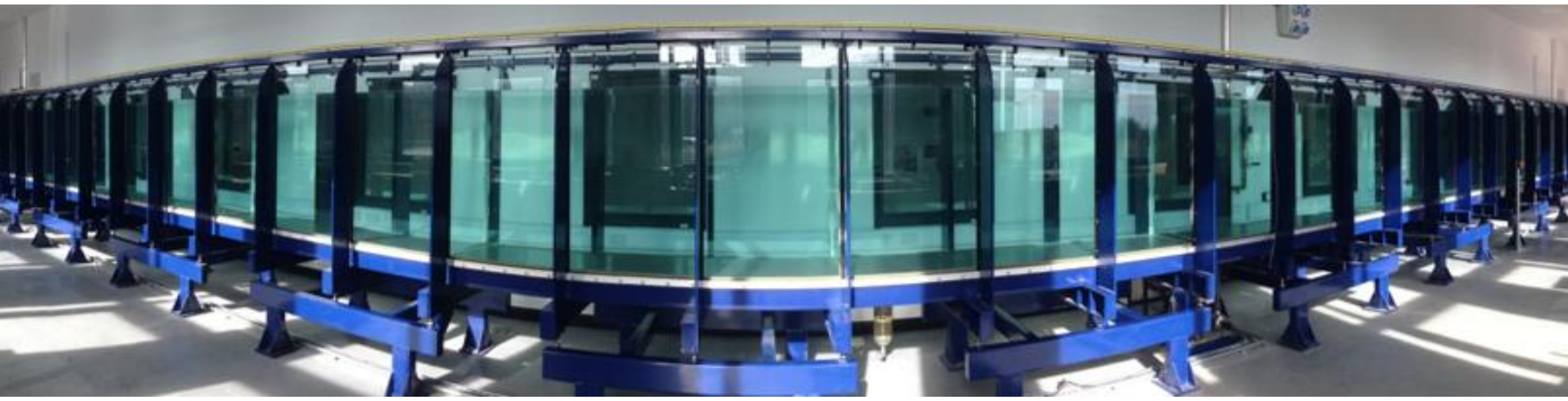
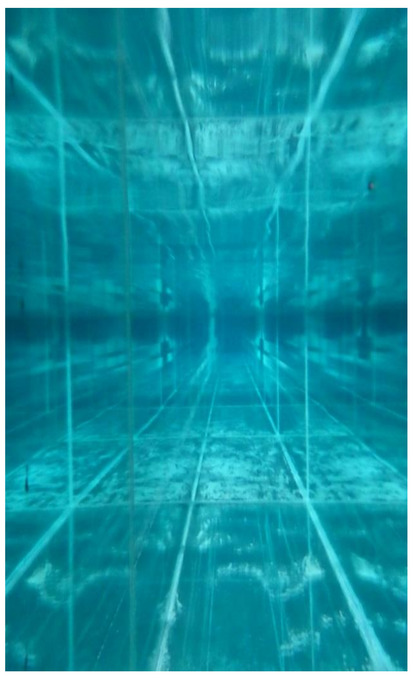


Figure 1. The specifications of the wave flume are: 30m long, 1.2m deep and 0.8m wide, with a piston wave maker for regular and random waves.

Test different configurations of the floats (at model scale)

- Different wave conditions
- Optimisation of the design of the float to improve power take-off
- Greater efficiency of power extraction with the knowledge acquired
- Better performance and hence commercial viability



The wave flume is ideally suited for :

- Wave forces on offshore and coastal structures
- Nearshore hydrodynamics, wave breaking, swash dynamics
- Wave run-up, reflection overtopping
- Testing marine energy devices
- Sediment suspension and sediment transport

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