Alumni Case Study

Leah Barker Ewart

EPSRC & NERC InDustrial CDT for Offshore Renewable Energy

www.idcore.ac.uk

EMPIRE engineering

Why IDCORE?

Leah describes her move to IDCORE as a 'sideways step' that provided her with some excellent training, specific knowledge about the offshore renewables sector and opportunities to diversify her experience that wouldn't otherwise have been available to her.

Leah came to IDCORE after having already spent ten years working in maritime and coastal engineering. Upon graduating from her first degree in Civil and Environmental Engineering at Imperial College she had joined Peter Fraenkel and Partners before moving on to Black and Veatch, where her work had a marine renewables focus and she started to develop a passion for this area of technology. Joining IDCORE allowed her to pursue this interest and establish a network of contacts across the industry that would allow her to build a successful career in the sector.

Project

At the time there were a number of wave energy device developers looking to reduce the costs of manufacturing their devices. Leah wanted to explore this area of work, particularly since concrete was being considered as a potential low-cost construction material, drawing on knowledge she had developed earlier in her career.

She managed to secure a project with Pelamis who were, at the time, the leading developer of wave energy convertors. Unfortunately, they lost funding and went into administration not long after the project had started, a fate that was also experienced by Albatern, the company who subsequently took on Leah's project. Despite this, Leah managed to complete her project successfully, with the final phase being funded by Quoceant, a marine energy consultancy who were also interested in the application of reinforced concrete to manufacturing processes in marine renewables. The work provided them with valuable knowledge of fabrication techniques and the benefits of different fibre-based reinforcement materials.

Despite the obvious disruption to her research, gaining first-hand experience of the commercial challenges of delivering innovative technologies in the marine environment was invaluable experience for Leah, especially as she gained that experience without her own job being on the line. This is not the only time that IDCORE has experienced these sort of challenges with a project sponsor, and yet their support and connections to the industry have meant that, like Leah, the researcher has always been able to successfully complete their EngD.

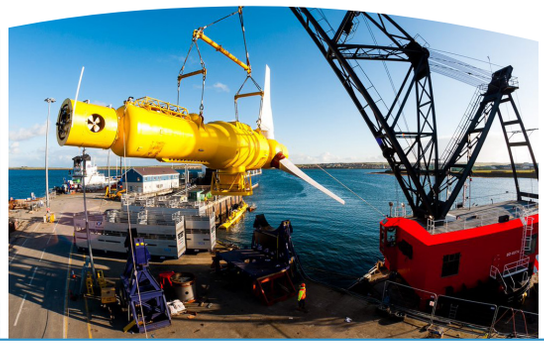
Working in wave energy was fascinating and I really enjoyed my time on the IDCORE programme – it confirmed by desire to be working in offshore renewable energy and established my credibility in the community, and this has paid dividends for my career since.

We recently held a ten-year reunion for my cohort and it reminded me what great experiences we had shared especially during the various trips we had together.

Leah Barker Ewart, Principal Engineer, Empire Engineering

Subsequent Career

After leaving IDCORE, Leah continued to work for Quoceant, but the on-going struggle to make wave energy commercially viable led to her moving into the offshore wind sector, working first for RES and now for Empire Engineering. She is still using the structural engineering skills she learnt in her first degree, but now she is applying them to the design and analysis of a range of offshore renewables projects, including taking on roles such as the owner's engineer for major offshore wind construction programmes.



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SAMS Scottish Association for Marine Science

UKRI Natural Environment Research Council

UKRI Engineering and Physical Sciences Research Council