



Case Study

Mitch Shields

Background

Mitch was well acquainted with the offshore energy sector long before he joined the IDCORE programme. After completing an undergraduate degree in geology, he went on to become a diver in the commercial and recreational industries. He took his education further by earning a master's degree in geographical information systems, along with an internship in the offshore surveying industry, which later developed into a full-time role. During his time in this role, he engaged with several offshore renewables projects and realised he wanted to take another step back into education to progress his career. IDCORE seemed to be the ideal opportunity to do this while maintaining his connection with industry, something he was keen not to lose.



Marubeni



While applying for IDCORE, Mitch was conscious of the lack of formal engineering training in his background and wondered whether it might hamper his chances. However, he feels that both IDCORE and his project sponsor, Ossian, highly value his individual skills and experiences. He has been able to bring his own expertise and diverse knowledge to bear on both his project and his wider work with Ossian. Mitch serves as a strong example of the varied pathways which can lead to a career in offshore renewables research through IDCORE.

IDCORE training

Mitch describes how the cohort model within the centre helped him develop his skills and knowledge in several areas. As he puts it, "it's very hard to be an expert in everything", and the students consistently support one another, sharing their particular expertise to help everyone learn. This is essential, as the first year of training within the centre is so broad, covering many key topics for the offshore renewables sector. Alongside this, the cohort are constantly developing skills in stakeholder management, something Mitch now uses on a regular basis within Ossian. This detailed education has benefited Mitch in his project, a highly interdisciplinary undertaking requiring extensive stakeholder engagement.

The highlight of IDCORE for me has been the cohort. Everyone has really diverse backgrounds, but we're all working towards the same goal. You can rely on your colleagues to support you and help you through the things you're struggling with, and vice versa.

Mitch Shields

Project details

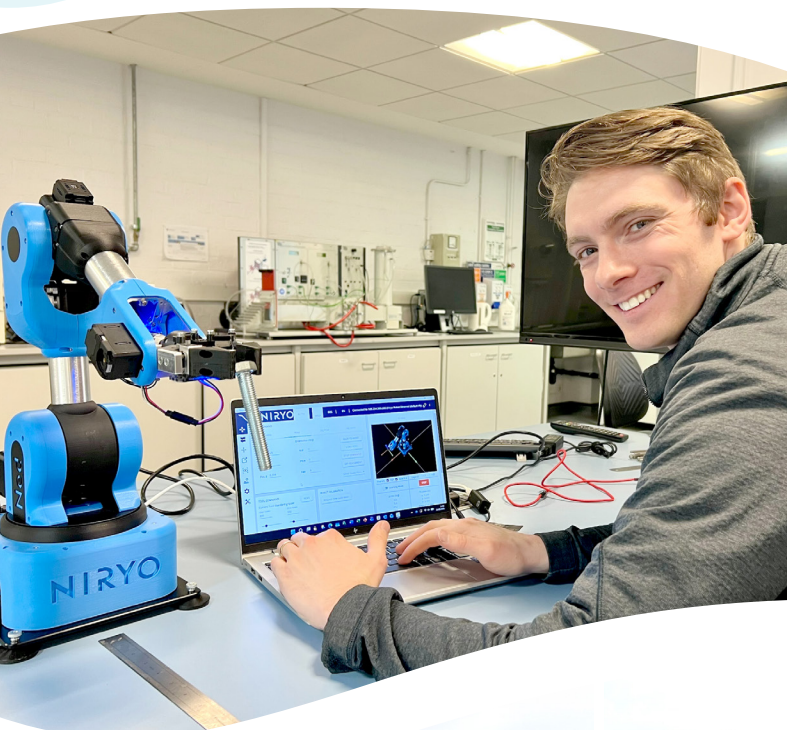
The project Mitch is undertaking with Ossian is to create an operations and maintenance development plan for major component exchange on their proposed floating wind farm. This means considering the practical ways the main parts of their floating wind turbine units can be repaired. There are two methods for doing this: in situ exchange (operating on site), and tow-to-port, where the whole unit is transported for repair. This project requires Mitch to consider a range of issues: logistics, economics and technical engineering considerations, as well as engaging stakeholders across the sector. The interdisciplinary nature of this project appealed to Mitch, allowing him to make use of his IDCORE training and industry experience.

Beyond the project

Beyond the core aims and objectives of his project, Mitch has taken on further responsibilities within Ossian. He feels this increased integration with his sponsor organisation has enhanced his understanding of the overall project. José Oliveira (Mitch's industrial supervisor) describes how the team identified key areas where we needed to develop our understanding and felt that Mitch was the "right person for the job" to step in and fill them. He is involved in regular engineering management meetings and has become a valued member of the team, contributing to effective decision-making.

I believe the sector needs greater understanding of how to scale up and commercialise technologies. In practice, this means selecting technologies to focus on reducing costs and removing barriers to deployment. I see Mitch's work as key to achieving this for floating offshore wind, with operations and maintenance representing a significant proportion of costs on such projects. This is an area where I believe IDCORE has an opportunity to help progress in the sector, and that continuing to communicate with developers will be essential for creating effective research.

*José Oliveira, Technical Development Director,
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