



Case Study

Ariff Alzakri



EPSRC & NERC Industrial CDT
for Offshore Renewable Energy

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QED Naval Limited

Enabling Tidal Energy to Compete on Cost

Broadening horizons

IDCORE is helping shape the futures of both researchers and the offshore renewable sector alike. For students such as Ariff, IDCORE is broadening horizons, giving him new skills and opportunities, and preparing him for a variety of careers in the sector. For the industry more broadly, IDCORE is connecting companies to new talent, and shaping its future leaders.

Ariff came into IDCORE wanting to delve deep into the technical details of a project. Originally, he was considering a project in the wind industry, having worked on wind projects during his undergraduate degree. However, through IDCORE he was introduced to the tidal energy sector, finding this offered him a greater opportunity for engaging with such technical details. The benefits of IDCORE's matching process flow towards industry as well, bringing new talent into this relatively nascent sector. As David Dai, one of Ariff's three academic supervisors, noted, IDCORE attracts a large number of highly motivated and capable students, engaging them across the offshore renewables sector.

Project

Ariff's project involves analysing the transient loads on tidal turbine blades. It has evolved into a modelling-based project, comparing fluid-structure interaction simulations of different fidelities. It is hoped that this research will help his sponsor organisation, QED Naval, to reduce costs while ensuring the accuracy of their modelling. David has been impressed with the speed at which Ariff has progressed, learning how to use challenging tools in a very short space of time, and delivering well on his planned

tasks and aims. The allocation of three academic supervisors with complementary expertise, along with one industrial supervisor for each IDCORE student, has greatly contributed to Ariff's development, alongside his own talent and enthusiasm.

IDCORE is also helping Ariff develop skills and knowledge beyond the purely technical. A highlight of his IDCORE experience so far was the environmental and societal impact module delivered during the first year of his IDCORE training. This module, delivered near Oban in Scotland, allowed him to engage with different knowledge and ways of thinking beyond his highly technical background. His time working with QED Naval has also exposed him to many different aspects of commercial delivery in the sector. As QED Naval is a relatively small organisation, Ariff has become involved in several parts of day-to-day operation, making his time with the company invaluable.



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New career path

All of this new knowledge and skills development has prepared Ariff for an entirely different career than he had originally imagined. He came into IDCORE aiming to become a research engineer, knowing he found the research process rewarding. However, his experiences and training have led to him considering new avenues such as project management and leadership at larger scales.

I think I have a lot more ambitions than I had before taking this role. I think it's broadened my horizons in terms of what I want to do in my career. The options are there, and I'm looking on my path to see what I can do.

Ariff Alzakri

This broadening of his horizons has helped to fuel Ariff's future aspirations. He speaks of his desire to take the skills and knowledge he's developing through IDCORE and apply them overseas. Originally Ariff comes from Malaysia and wants to contribute towards the development of international collaboration and energy-sharing in the south-east Asia region. He credits IDCORE with helping him develop the stakeholder management skills which will be essential for such an endeavour.

These kinds of big-picture impacts are also what his supervisor, David, hopes will arise from the IDCORE programme at large. David is already seeing several IDCORE alumni starting to shape the offshore renewables industry, and celebrates this fact. He wants to see IDCORE alumni taking on more leadership roles and applying their diverse training to create further progress in offshore renewables.

In the long run, I'm not just hoping, I think it's going to happen that IDCORE students take important, leading roles in the sector.

*David Dai, Senior Lecturer,
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