



Case Study

Wan Yeung



EPSRC & NERC Industrial CDT
for Offshore Renewable Energy

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Motivations and inspiration

Wan's journey to IDCORE has been interestingly unorthodox. He has previously worked in multiple industries and in several different roles. These diverse experiences have given him a unique perspective which he brings to his research, and his evident adaptability has aided his work. He hopes that, as he transitions to working in the energy sector, his story will help to inspire others seeking to make impactful contributions to tackling climate change.

Background

Wan's varied career saw him managing a small restaurant, running a telemarketing company, and working in an HR consultancy for ten years, all before retraining as an engineer. While he'd enjoyed each of these roles, he found that none of them were his passion and so went back to university to study design engineering. During his studies he had two placements, one of which was working in a design engineering role for a small firm. However, he felt this work was a little too transactional and wanted to work towards something with wider societal impact.

These diverse experiences have given Wan a unique perspective as an IDCORE researcher. His understanding of people and organisations from his HR experience, as well as his understanding of business management, give him a special appreciation of the challenges facing the offshore renewables sector. Given IDCORE's focus on promoting stakeholder engagement skills and an awareness of commercial priorities, this background has been invaluable.

The notable change in Wan's career, from HR to engineering, was motivated by the drive to follow his passions and values. When considering ways forward at the end of his degree, Wan knew that he wanted to tackle 'big-picture' issues. This is ultimately what led him towards IDCORE: it allowed him to help fight climate change, develop his professional skills, and simultaneously maintain his connection with industry.

Wan has received an industrial fellowship from the Royal Commission for the Exhibition 1851 in recognition of both his unique career trajectory and timely research. This funding is partly intended to aid Wan in sharing his story so that he might inspire others in making similar jumps into STEM research and careers. This will be a new challenge for Wan, who is not used to publicising himself, but he plans to make the most of this opportunity and hopes to help others in the process.

I need to learn to see my past as a powerful tool, as something that I can use and something that could help other people in their journeys. Maybe if I tell my story a bit more, it might help others make decisions.

I like my project with Aqualution because it's about being pragmatic and defining your own sense of purpose. Also, appreciating that Nick is running a business, and so serving as a facilitator rather than being a burden.

Wan Yeung



Dec 25

Research details

Aqualution, Wan's project sponsor, is a relatively new company to the energy sector. They are well established in the chemical production and biosciences industry; however, they are beginning to explore if they could use their technologies to produce hydrogen for the wider energy system. Wan's research is helping them to explore this potential, particularly investigating the commercial viability of such a use.

Wan's research is creating a multi-criteria decision making framework, examining hydrogen production from seawater using Aqualution's electrolysis equipment as a case study. This is an important area of research for the offshore renewables sector given the pervasive challenges of intermittent power production but also limited fresh-water resources. If cost competitive hydrogen production from seawater could be achieved, it would represent a significant opportunity for energy storage and decarbonisation more broadly.

Nick Meakin, Wan's industrial supervisor, sees the project as a cost-effective means of accessing high quality research and investigating this new opportunity. He goes so far as to say that without IDCORE it is unlikely Aqualution would have been able to carry out this research at all. Nick is keen to follow the science around this issue and produce fundamental research, believing that a negative result will be just as useful as a positive one.

This project is answering some key questions, important questions that have just been overlooked. Everyone has assumed that there will be plenty of water around, and there isn't. If there's something that's commercially useful for us then that's brilliant, but the whole point is to answer these fundamental questions. To confirm or refute that ultimately hydrogen is or isn't the answer to our energy needs.

For both Wan and Aqualution, IDCORE is acting as a key enabler for their futures. It is providing Wan with the new skills and experiences he needs for an impactful career in the energy sector, and it is allowing me and my team to understand the role they could play in the future of the UK's energy system.

Nick Meakin, CEO, Aqualution



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