

## **Vasiliki Areniki**

Year 2 (2020-21) : BEng Electrical and Electronic Engineering

UROP (Summer 2021) undertaken in the Dept of Physics

**UROP title:** Solar water - pumping in humanitarian situations

My UROP was one of my favourite experiences during my degree. As I've always enjoyed projects involving a holistic approach of an issue, such as humanitarian, social and financial aspects, working on a UROP for me proved an ideal option. I could have chosen to do an internship, but the idea of working on something with the possibility to achieve real change seemed more interesting than working in industry, only for the sake of gaining this experience.

I met my supervisor (Philip Sandwell) in a different project through the Public Engagement Horizons module, and after a few weeks of talking to him I realised that he works in pretty much the exact same areas which inspired me to study electrical engineering: sustainable energy, but with a humanitarian focus. It was pure luck, but I happened to meet someone whose job is basically my dream job. Before, I didn't even really know if someone could do that type of job. It was a bit daunting asking him if he would be eager to supervise me, but I had nothing to lose really. And I realised that talking to people is a very powerful means of achieving personal and professional development. Now, my UROP has shown me that this area is significantly under-researched, meaning it was an ideal place to put some effort into.

My research identified a niche: no specific data backing up the solarisation of diesel systems in UN-run refugee camps across the world. There was some preparation in terms of reading up on investigating, but that was a really big part of research anyway, along with the ability to work with minimal data and numerous assumptions. Therefore, it gave me the opportunity to work on something purely novel, and of a high importance for humanitarian organisations. After my UROP, I pretty much knew for sure that I wanted indeed to go into energy policy and analysis in the humanitarian sector. Not entirely engineering, but way closer to me as a person, compared to my actual degree.

I did my UROP remotely, partly because of covid, but partly also because it was basically a laptop-based data analysis of the situation, due to the topic I researched about, but still managed to keep in close contact with my supervisor and get all the necessary help and support. It was an amazing experience to start networking with people doing science but in humanitarian organisations, and this will definitely be proven useful in subsequent collaborations (there have already been a few ideas for potential collaborations in the future!).

Overall, my UROP was a great experience. Tough yes, I felt lost many times and probably I had no idea what was going on, but the skills I developed will stay with me for a long time and, regardless of whether I work in that sector, the ability to communicate effectively with people and try to achieve a common goal is, indeed, very powerful.