

# **IET National Travel Award Report – Powering Net Zero 2025**

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First of all, I am sincerely grateful to the Institution of Engineering and Technology for supporting my travel to Glasgow for an oral presentation of my research at the 3rd IET International Conference on Powering Net Zero 2025. The travel award helped me share my work on sustainable propulsion systems, which is a key area for global net-zero.

My research focused on how hydrogen, despite being a “clean” fuel, presents challenges, particularly related to the fuel's reactivity. At the conference, I had the opportunity to present my findings and answer questions, which helped me understand what could make hydrogen more viable across a variety of applications. (Figure 1)

Connecting with researchers and engineers at the conference was highly rewarding. Sessions ranged from energy storage and hydrogen to the nuclear sector, simultaneously considering the evolving landscape for AI. Panel discussions with experts from academia and industry offered perspectives that will undoubtedly influence the next stage of my PhD research.

It was personally very beneficial for me to hear from like-minded individuals interested in similar topics, including using hydrogen as a fuel of the future. A special mention is needed for the German Aerospace Center, which showcased their next steps in carbon-neutral aviation, and Ricardo Plc for pioneering hydrogen in automotive applications.

Before arriving in Glasgow, I also had the incredible opportunity to visit Edinburgh for the first time. This city has committed to achieving Net Zero by 2030, positioning it among the most determined states in climate action. This clearly represents a significant move towards a sustainable future of engineering.

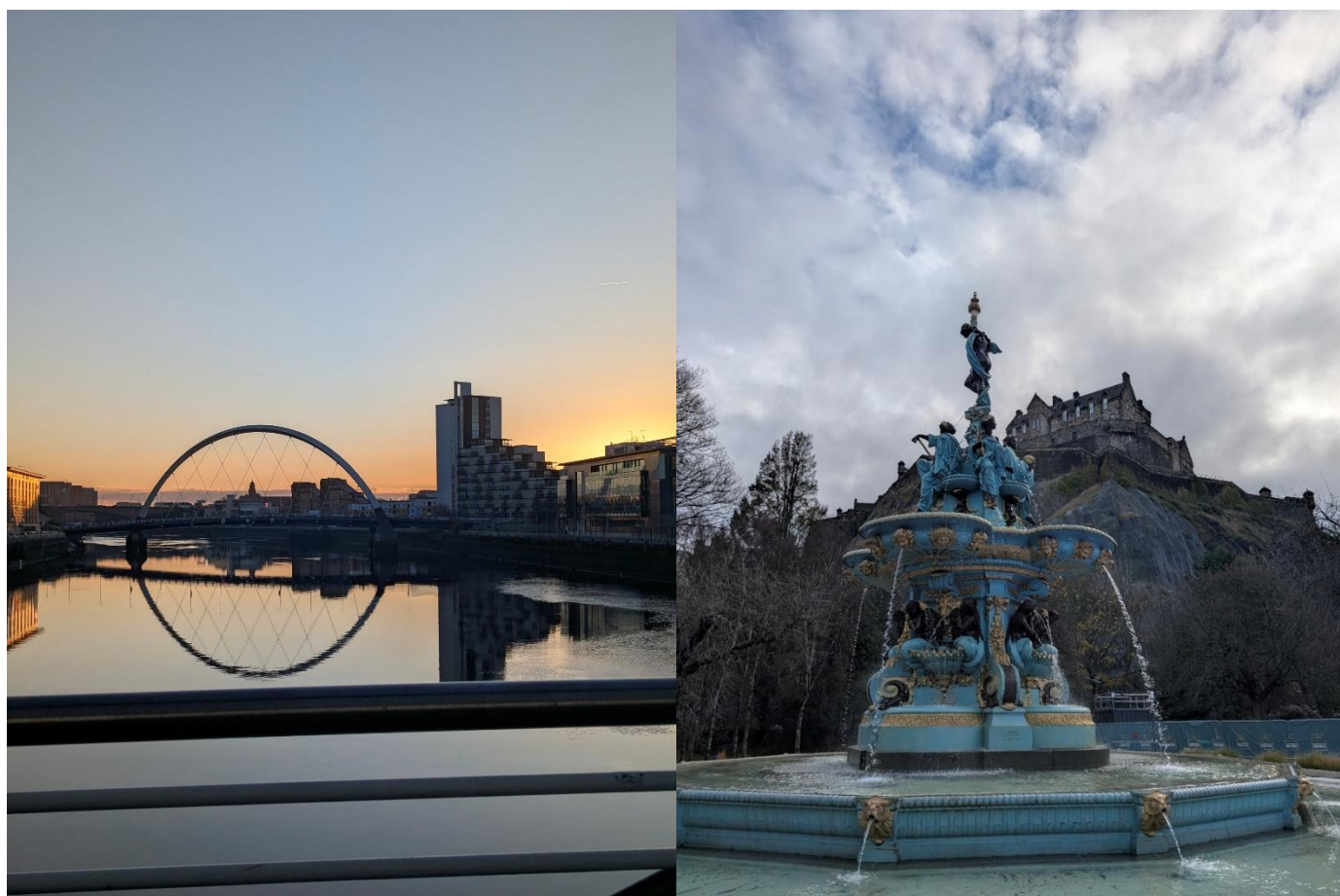
Scotland as a whole has set exceptionally ambitious climate goals and experiencing this environment firsthand reinforced the importance of research in sustainable energy and low emissions, taking into account hydrogen-electric, hydrogen-combustion and hybrid propulsion systems. Thus, beyond the academic development, this award allowed me to experience two remarkable cities. Both of them contributed to a deeper appreciation of the engineering challenges shaping our transition to a more sustainable world. (Figure 2)

Lastly, I would again like to express my gratitude to the IET for enabling me to present my work and for supporting my participation at Powering Net Zero 2025. Experiences like this help set the foundation for my long-term goal of becoming a Chartered Engineer.

Thank you.



*Figure 1 – Me after the oral presentation of my research*



*Figure 2 – Pictures from Glasgow (left) and Edinburgh (right)*