IET Travel Award Report – RoboSoft Conference 2025

My name is Yao Yao, and I am currently a DPhil student in Engineering Science at the University of Oxford, conducting research in the field of soft robotics. I am grateful to the IET for awarding me a Travel Award, which enabled me to attend the IEEE RoboSoft 2025 Conference held in Lausanne, Switzerland, from 22nd to 26th April 2025. RoboSoft is a flagship international conference in soft robotics, where the latest research breakthroughs, technological advancements, and emerging trends are presented. The conference gathers many of the most influential researchers and leaders in the field, offering a unique opportunity for early-career researchers like myself to engage with and learn from the broader research community.

The technical scope of RoboSoft 2025 spanned a wide range of topics, including soft robot materials, biomimic design, modelling and simulation, real-world applications of soft robotic systems, and etc. Attending this conference allowed me to stay up to date with the most recent innovations in the field and gain exposure to new methodologies and application areas that could influence and enhance my own research moving forward.

I was honoured to have my paper—"JAMMit! Monolithic 3D-Printing of a Bead Jamming Soft Pneumatic Arm"—accepted at RoboSoft. I was invited to give a full-length oral presentation, accompanied by an interactive poster session. My research focuses on the monolithic 3D-printing of a variable stiffness bellow-type soft pneumatic actuator using a central bead-jamming mechanism. The project contributes to ongoing discussions around soft robot design and manufacturability. Presenting this work to an international audience and receiving insightful feedback from respected researchers was both rewarding and motivating.

In addition to the formal conference sessions, RoboSoft provided exceptional networking opportunities. I was able to connect with fellow postgraduate students, early-career researchers, and senior academics from institutions around the world. Through both formal discussions and informal interactions at social events, I exchanged ideas and gained diverse perspectives. These conversations have already sparked the potential for future collaborations and postdoctoral opportunities. Speaking with leaders in different areas of soft robotics also helped me to better understand the broader vision of the field and how my work may contribute to it.

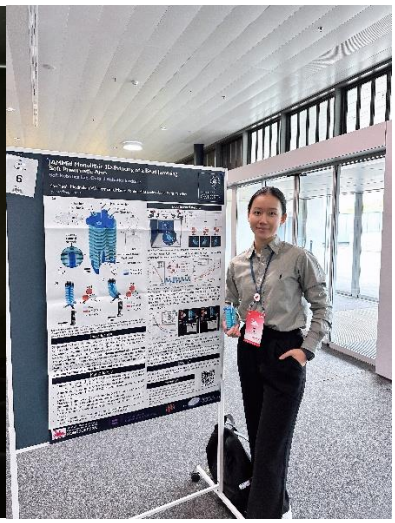
Another highlight of the trip was the opportunity to take part in academic lab visits. Before the official conference, I joined a one-day lab tour in Zurich, where we visited leading research laboratories at ETH Zurich and Empa. These visits offered valuable insights into world-class experimental setups, robotic testbeds, and interdisciplinary research initiatives. During the conference itself, I also had the chance to visit laboratory at EPFL in Lausanne, where I observed ongoing projects and interacted with

students and researchers working on cutting-edge soft robotic systems. These visits were highly inspirational and offered new ideas for potential techniques and methodologies I could adopt in my own work.

The IET Travel Award played a crucial role in making this trip possible. Without this financial support, attending the conference would not have been feasible. The award covered essential expenses, including travel and accommodation, and enabled me to share my work with a global audience, enhance the visibility of my research, and form meaningful academic connections. Featuring the IET logo on my presentation slides and poster also helped spark conversations about the institution's support of early-career researchers. The recognition and visibility granted by the award made a real difference in the reception of my work and my ability to engage with the community.

In keeping with the IET's sustainability values, I made efforts to minimise the environmental impact of my travel. While in Switzerland, I relied entirely on public transportation—including trains, buses, and metro systems—for both local and intercity travel. The Swiss public transport network is efficient, reliable, and environmentally friendly, making it an ideal choice for sustainable research-related travel.

In summary, attending RoboSoft 2025 with the support of the IET Travel Award has been an incredibly valuable and enriching experience. It allowed me to present my work at a prestigious international conference, gain insights from world-class labs, and establish new professional connections that will continue to shape my research career. I am deeply appreciative of the IET's support and look forward to carrying its values forward in my future work.



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