



IET International Travel Award Report 2024

Zygimantas Vainauskas – MEng Aerospace Engineering with Industry (University of Leicester)

I am incredibly grateful to the Institution of Engineering and Technology (IET) for sponsoring my attendance at the 75th International Astronautical Congress 2024 in Milan, Italy – a global event that brings together enthusiasts, researchers and industry leaders keen to collaborate and contribute to the technological advancements on and beyond Earth. Contributing to 7 papers and presenting 2 of them was a great experience.

Much of my work focused on critical space-related issues, such as mitigating space debris, developing sustainable transport chains for asteroid mining, and defining regulatory boundaries for space activities. During my oral presentations, I explored black holes by utilising hypothetical tachyons as well as reflected on human significance in the grand scheme of the universe, considering the impact of our cascading actions on a cosmic scale.

A particularly rewarding experience was engaging in discussions with experts from organisations, such as the Italian and European Space Agencies. I also had the opportunity to attend multiple technical sessions and oral presentations on a variety of different topics, spanning from theoretical physics to sustainable flight. All these experiences have certainly given me a lot of food for thought.

The IAC 2024 provided an incredible platform to discuss potential collaborations with international universities and industry leaders. I engaged in conversations with huge corporations like Airbus and Leonardo, as well as intriguing start-ups. These discussions will be invaluable as I transition into the next stage of my career. Furthermore, the trip also allowed me to experience the cultural engineering heritage of Milan. Visiting the Leonardo da Vinci Museum of Science and Technology reminded me of the innovation that engineers have carried forward for centuries, and how we continue to shape the future of humanity.

I have included a picture of myself and co-author Sam at the Space Park Leicester stand, where we got to meet the Executive Director, Richard Ambrosi, (Figure 1) as well as a picture next to the Macchi C.205 Veltro fighter aircraft from the Leonardo da Vinci Museum of Science and Technology (Figure 2).

Finally, this award has allowed me to contribute to several important projects, moreover, it gave me the opportunity to network with young professionals and engineering company representatives at a key point in my career – my final year at university. I do not think there could have been a better chance to expand my engineering views. Therefore, I would like to extend my sincere gratitude to the IET for allowing me to present my papers at this event. My ultimate goal is to use the ideas gained during this trip to initiate new projects that can create job opportunities for people and power a more prosperous world. Consequently, I am hopeful that this will one day lead to me becoming a chartered engineer with the IET.

Thank you!

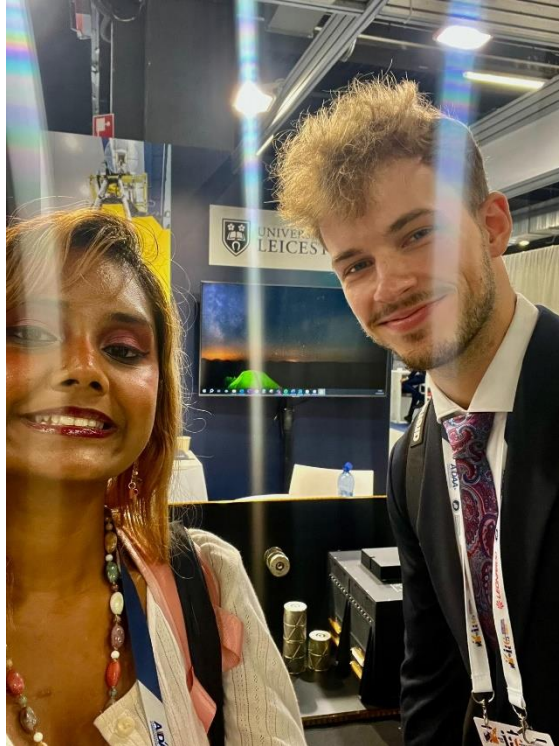


Figure 1 - IAC 2024: University of Leicester / Space Park Leicester stand



Figure 2 - Leonardo da Vinci Museum of Science and Technology: Macchi C.205 Veltro