

International Travel Grant Report – SPIE Photonics Europe 2026

In Spring 2026, I was honoured to attend SPIE Photonics Europe from April 12th to April 16th in Strasbourg. I am grateful to obtain the financial support of IET International Travel Grant. SPIE Photonics Europe is a premier cross-disciplinary event, held every two years. It aimed to gather academic researchers and industrial engineers to share the latest technological developments and exchange ideas regarding significant advances in optics and photonics technologies, providing an excellent platform to foster international collaborations.

In order to reduce carbon emissions and promote environmental sustainability, I chose a sustainable travel option for this trip. I travelled entirely by rail, taking a train from Cambridge to London, followed by the Eurostar from London St Pancras International to Paris Gare du Nord, and subsequently the high-speed TGV from Paris Gare de l'Est directly to Strasbourg. I took the same route for my return journey to Cambridge. Choosing international rail travel over flying significantly reduced the carbon footprint of my trip, cutting emissions by approximately 90%. Additionally, I booked a hotel within walking distance of the conference venue, which eliminated the carbon emissions associated with a daily commute.

SPIE Photonics Europe covered a broad range of topics within the field, such as nanotechnologies, biomedical photonics, imaging, sensing, and quantum technologies. The conference featured a wide variety of plenary talks, keynotes, and technical presentations from world-renowned experts, and a two-day industry exhibition. The industry exhibition included great talks and demonstrations showing the industrial translation of fundamental optical physics into real-world engineering applications, particularly in areas like high-speed communications, medical diagnostics, and advanced material characterisations.

During the event, I primarily focused on sessions aligned with my research areas, specifically terahertz photonics, metamaterials, and nanophotonics. These sessions were filled with cutting-edge discussions about THz generation, THz detection, imaging systems, and metasurfaces. During the conference, I delivered an oral presentation on my recent research findings, entitled "Terahertz Emission Enhancement from a Gallium Phosphide Metasurface". I shared the current bottlenecks, our experimental methodologies, and the promising results we have achieved. The following Q&A session is incredibly valuable. Attendees asked insightful questions that inspired me with new perspectives.

The event provided exceptional networking opportunities. Outside of the formal presentations, I engaged in extended discussions with peers and professors during poster sessions and coffee breaks. I had the chance to meet researchers whose papers I had read before, allowing me to discuss details that are rarely covered in

publications. Furthermore, the industry exhibition allowed me to connect with leading



manufacturers of photonics and terahertz equipment. Discussing the capabilities of next-generation instruments provided me with a clear picture of how our laboratory infrastructure might evolve in the coming years.

Last but not least, I would like to express my sincere gratitude to the Institution of Engineering and Technology for providing the international travel grant, which made this professional development a reality. The IET International Travel Grant has been supportive in advancing my research career. Attending SPIE Photonics Europe 2026 provided me with an excellent platform to share my work on terahertz devices with a global audience. The constructive feedback I received during my oral presentation has directly influenced my current methodology and will undoubtedly strengthen my upcoming journal publications. Furthermore, this grant has not only accelerated my professional development as a researcher but also empowered me to engage in international collaborations to actively engineer a better world.