Delegation – Australia

Trong Toan Tran
University of Technology Sydney, Lecturer

Dr Trong Toan Tran is a Lecturer (Assistant Professor) and a DECRA and previously a Chancellor Postdoctoral Research Fellow at the School of Electrical and Data Engineering, Faculty of Engineering and Information Technology, UTS. He is a physicist and engineer with a background in Material Science and Chemical Engineering. He leads the Nanoscale Electro-Thermo-Optical laboratory (NETO) at UTS Tech Lab (www.tttranlab.com).

Dr Tran has made a breakthrough in the field of quantum optics and materials science with his discovery of a class of room-temperature ultra-bright quantum light sources embedded in hexagonal boron nitride. His seminal work is published in the prestigious journal, Nature Nanotechnology, attracting over 1000 citations, within only 6 years since its first publication. His work has opened up an avenue towards the fabrication of ultra-thin quantum optical devices that can be employed for a range of advanced quantum technologies and metrologies. He has also been focusing on nanoscale sensing recently and has published several breakthroughs in this field of research. In recognition of his work, Dr. Tran has been given several prestigious prizes and awards, including the 2022 Discovery Early Career Researcher Award (DECRA), the Chancellor's Postdoctoral Research Fellowship (2019), UTS Chancellor's Award for best thesis (2018), AIP Award for Postgraduate Excellence in Physics (2017), Best Poster Award at ICONN (2016), etc.

As of April 2024, Dr Tran's track record features an h-index of 31 and a total citations of over 5200. He has also attracted more than $1.5M in research income, thanks to his DECRA, CPDRF fellowship, DP as well as other small fundings. Dr Tran has supervised/co-supervised 3 PhD students to completion. He has been an invited speaker for several international conferences, such as AVS, SPIE, ICPS, ICEAN. He frequently publishes in top journals in his field, including Nature Nanotechnology (1x), Science Advances (x1), Nature Communications (1x), Advanced Materials (x4), Nano Letter (x4), ACS Nano (4x), ACS Photonics (x5), Optica (x1), Physical Review Applied (x1), ACS Applied Materials & Interfaces (x4), etc. He has been serving as a reviewer for several prestigious journals such as Nature Communications, Physical Review Letters, Physical Review B, PRX Quantum, ACS Applied Materials & Interfaces, and ACS Applied Nano-Materials. He has also been a detailed assessor for the ARC DECRA and ARC DP schemes.