

All-Vacuum-Deposited Organic and Perovskite Optoelectronics for Weak-Light Sensing and Energy Harvesting



Prof. Shun-Wei Liu

Biography :

Dr. Shun-Wei Liu is the Academic Vice President of Ming Chi University of Technology, where he is also a Chair Professor in the Department of Electronic Engineering and the Founding Director of the Organic Electronics Research Center. His research explores the fundamental physics of organic and hybrid perovskite materials and translates these insights into next-generation optoelectronic technologies. The Liu group has advanced a diverse portfolio of devices, ranging from SWIR/NIR organic imagers and transparent photovoltaics to medical OLED lighting, perovskite solar cells and photodetectors, and ultralight flexible electronics. Professor Liu has authored more than 240 peer-reviewed publications, with an H-index of 40 from the SCOPUS database, and his group's work has consistently bridged academic discovery with industrial translation. Over the past five years, their display and sensing innovations have been licensed to multiple companies, generating royalties of over USD 650,000. These contributions have been recognized through some of Taiwan's highest honors, including the Ta-Yao Wu Memorial Award, the Award for Excellent Contribution in Technology Transfer, and the Outstanding Young Researcher Award. In recognition of his international standing, Professor Liu was appointed Adjunct Professor at the Korea Advanced Institute of Science and Technology in 2024. The following year, he was elected a Fellow of the Royal Society of Chemistry, underscoring his dual impact on advancing organic and perovskite optoelectronics and shaping their industrial adoption.