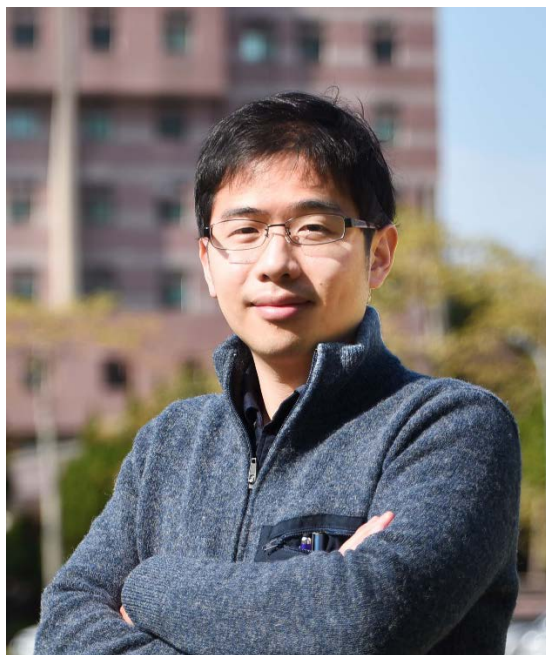


## 國立清華大學第 26 屆新進人員研究獎得獎人簡介



化學工程學系 潘詠庭副教授

潘老師於 2009 年畢業於台灣大學化工系，之後在美國伊利諾大學取得化工博士 (2017)，並在美國洛杉磯阿拉莫斯國家實驗室擔任博士後研究員(2017-2018)。潘詠庭老師在 2018 年 8 月加入清華大學化工系，主要的研究領域為淨零碳排相關的電化學轉化和非均相催化反應工程。在電化學轉化方面，專注於應用在燃料電池、電解水產氫、與二氧化碳電解的薄膜電極和電極觸媒材料開發。在非均相催化上，著重二氧化碳轉化反應之觸媒開發與反應工程優化。潘老師的研究團隊透過奈米尺度的電極結構工程、奈米尺度的負載式觸媒研究、以至於對單科觸媒顆粒原子級別的元素分布控制，來優化薄膜電極的質傳、電荷傳遞、以及電化學反應之動力學。其研究成果獲得多方肯定，包括「台灣氫能與燃料電池學會」的「優秀年輕學者獎」、「台灣觸媒學會」的「優秀論文獎章」、和「國立清華大學工學院新進人員研究獎」等。除了研究外，潘老師也致力於研究推廣和學術服務。潘老師目前擔任台灣電化學學會之秘書長一職，並在 2022 年主辦了綠色電化學科技國際研討會(International Conference on Green Electrochemical Technologies, ICGET)，同時積極參與美國電化學學會 Electrochemical Society (ECS)的相關學術活動。

Professor Yung-Tin Pan joined the Department of Chemical Engineering at National Tsing Hua University in August 2018. Before joining NTHU, professor Pan earned his bachelor's degree in Chemical Engineering from National Taiwan University (2009).

He then received his Ph.D. at the University of Illinois at Urbana-Champaign in the US (2017). He then conducted his postdoctoral research at the Los Alamos National Laboratory in the US (2017-2018). Professor Pan's research focuses on electrochemical and thermochemical conversion processes that can contribute to a net zero emission society. For electrochemical conversion, his group is devoted in developing membrane electrodes and electrode materials for polymer electrolyte membrane fuel cells (PEMFC), PEM water electrolysis (PEMWE), and CO<sub>2</sub> electrolysis. For thermochemical processes, his group aims on catalyst development and reaction engineering for CO<sub>2</sub> utilization processes. One of the major achievements of Professor Pan's group is bridging the gap between fundamental catalyst study and practical membrane electrode operation. This is realized by conducting research at various length scales ranging from micrometer/nanometer scale electrode structure engineering, nanoscale catalyst supported interaction, and atomic scale composition control of individual catalyst particles to optimize mass/charge transport and electrode kinetics simultaneously. Due to his outstanding research performance, he was awarded "Outstanding Young Researcher Award" from the "Taiwan Association for Hydrogen Energy and Fuel Cell", "Outstanding Paper Award" from the "Catalysis Society of Taiwan", and the "New Faculty Research Award" from the "College of Engineering, NTHU". Furthermore, he is also dedicated in academic services. He has served as the secretary general of the "Electrochemical Society of Taiwan, ECS-Tw" since 2022 and hosted the "2022 International Conference on Green Electrochemical Technologies (ICGET)" at NTHU. He and his group members are also actively participating in academic events hosted by the Electrochemical Society (ECS).