



**Seminar Topic:
Roll-to-roll Manufacturing of Photovoltaics. Moving Beyond
Perovskites to... Non-Fullerene Acceptors?**

**Dr Leonard Ng Wei Tat
CoE International Postdoctoral Fellow**

Abstract

Roll-to-roll (R2R) fabrication remains the holy grail of researchers far and wide looking to scale-up photovoltaics from lab to fab. Perovskites have captured the imagination and have been the contemporary material of choice to replace organic photovoltaic (OPV) as the photoactive material for R2R systems despite their drawbacks. However, recent advances in non-fullerene acceptor (NFA) systems have once again propelled OPVs into a new renaissance and present a credible challenger to perovskite systems. This seminar presents methods, materials, opportunities, and directions for the R2R fabrication of NFA OPVs which are emerging as a strong contender to perovskites.

Biography

Dr Leonard Ng received his PhD from the University of Cambridge (2019). He is currently an CoE International Postdoctoral Fellow from the NTU School of Materials Science and Engineering and a Visiting Scientist at the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia. He is also a Royal Academy of Engineering Enterprise Fellow in the UK where he was awarded a fellowship to support the commercialization of an invention from his PhD. He received his MSc from the University of Leeds (2015).

Dr Ng's research interests include machine-learning facilitated printable electronics, nanomaterials, and roll-to-roll fabrication of photovoltaics.

**Thursday, 24 February 2022 || Time: 2:00 pm - 3:00 pm ||
Live Streaming Link (Zoom Meeting): <https://ntu-sg.zoom.us/j/89334009376>
Meeting ID: 893 3400 9376 Passcode: 240222
Hosted by: Professor Hng Huey Hoon**