

THE UNIVERSITY



OF HONG KONG

DEPARTMENT OF MECHANICAL ENGINEERING

SEMINAR

Title: Tailoring future renewable fuel systems for Net Zero UK

Speaker: Professor Jin Xuan
Department of Chemical Engineering
Loughborough University
U.K.

Date: 15 July, 2020 (Wednesday)

Time: 4:00 p.m. (Hong Kong Time)
9:00 a.m. (U.K. Time)

Registration link:

https://hkuems1.hku.hk/hkuems/ec_hdetail.aspx?guest=Y&ueid=70240

Zoom Meeting:

<https://hku.zoom.us/j/91636384962?pwd=SXpEeGE4WitlUkVzM1lzOUZSME9TZz09>

Meeting ID: 916 3638 4962

Password: 850426



Abstract:

The UK has legislated to the commitment of net zero emission by 2050. Future renewable fuel systems must be developed to achieve the target. This presentation will firstly discuss the current status of different fuel sectors in the UK such as road transport, aviation, and heating, and what steps need the UK take on these sectors to reach net zero emissions. Prof. Xuan will then give some examples of the on-going researches in his laboratory to tackle the challenges in the development of low-carbon aviation, zero-emission transport, much more decarbonised heating, and negative emission technologies such as biofuels with carbon capture utilization and storage (CCUS). He will show how his team combine classic electrochemical engineering with cutting-edge enabling tools such as AI/deep learning to deliver novel fuel production/utilisation systems with breakthroughs in efficiency and cost reduction which can be tailor-made for the UK's decarbonisation roadmap.

Short Biography:

Professor Jin Xuan holds a Personal Chair in Low Carbon Processes at the Department of Chemical Engineering, Loughborough University. He got his PhD from The Department of Mechanical Engineering, The University of Hong Kong under the supervision of Prof Dennis Leung. Prof Xuan's research focuses on the clean growth, industrial decarbonisation and sustainable development via engineering innovations in solar fuels, CCUS, hydrogen and fuel cells, etc. He is passionate about developing and applying bespoke AI and digital solutions to enable next generation energy and chemical devices, processes and systems. He is the founding editor of the Elsevier's new journal Energy and AI. He received the 2020 Beilby Medal and Prize jointly from the Royal Society of Chemistry (RSC), the Society of Chemical Industry (SCI), and the Institute of Materials, Minerals and Mining (IOM3) in recognition of his work that 'has exceptional practical significance in chemical engineering, applied materials science, energy efficiency or a related field', Prof Xuan is a Chartered Engineer and a Fellow of the Institution of Mechanical Engineers.

ALL INTERESTED ARE WELCOME

For further information, please contact Prof. D.Y.C. Leung at 3917 7911.

Research area: Natural & Built Environment