

Presidents Night

Wednesday, 1st November 2023

Tassos Karayiannis, the Society President

The UK is committed to achieving net zero emissions by 2050, while also setting a target of at least 68% by 2030 compared to 1990 levels. The need to reduce emissions by ~8% each year between 2020 and 2030 was also clearly indicated in the 2019 UN Emissions Report. This requires substantive improvements in system efficiency and further technological innovation to reduce fossil-fuel reliance and increase the energy share generated from renewable sources. Nuclear energy is certainly part of the required solution, mix along with energy from waste, solar, geothermal and wind. Heat transfer in current nuclear fission and in the future fusion energy plants constitutes a major challenge and in certain cases a limiting factor.

During these presentations, keynote speakers will present current and future work in the above area.

Welcome to Imperial: Christos Markides Introduction of the programme and Chair: Tassos Karayiannis

The role of nuclear power in meeting UK net-zero targets: cost, time and fear ~ Michael J Bluck.

Dr Bluck is the Director of the Centre for Nuclear Engineering at Imperial College London and the Director of the Rolls Royce Nuclear University Technology Centre supporting the nuclear propulsion systems in the UK submarine fleet. His own research areas include nuclear thermal hydraulics in fission and fusion reactors.

A new heat flux frontier, who has the walls for it? E. Yildirim, J. Taylor, V. Lee, R. Kamenicky

Dr Kamenicky has a PhD in quenching from the University of Strathclyde. He has worked for EUROFusion on the design of the tokamak EU DEMO and participated in commissioning the High Heat Flux facility HELCZA under F4E. He is now the Plasma-Facing Components Cooling Systems Section Leader at Tokamak Energy. His work focuses on research and development of cooling technologies for tokamaks' walls in proximity to plasma.

The talks start at 6.30pm with a light buffet from 6pm.

Venue is Imperial College.

Roderic Hill Building (top floor), Imperial College, Exhibition Road, South Kensington, London SW7 2BX (see map).

Nearest tube station: South Kensington (District & Circle Lines).

RSVP: <u>HERE</u>

Future events

- 27th October 2023, Philip A. Henry, The Equity Engineering Group, Inc. "Managing Tube Rupture Failure Risks in Pressure Relief Systems" – Webinar
- 22nd March 2023, 58th HTS Annual Dinner Grand Connaught Rooms, 61-65 Great Queen St, London WC2B 5DA.

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