



**Department of Mechanical Engineering** 

## Nuclear Safety and Technology Public Seminar

# Generation-IV Nuclear Technology – Development of Supercritical Water-cooled Reactor

## **Dr Laurence Leung**

Canadian Nuclear Laboratories, and Adjunct Professor at McMaster University in Canada and Xi'an Jiaotong University in China



Date: Tuesday 8 Jan 2019

**Time:** 7:00pm-8:15 pm

Venue: Lecture Theatre (LT-10), 4<sup>th</sup> Floor, Yeung Kin Man Academic Building, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong

**Registration:** On-line free registration is via,

ttps://www.hkarms.org/Registration/EventRegister.php?Event=90
on a first-come-first-served basis.

For enquiries, please contact Dr Louis Liu, info@hkns.hk

Abstract:

The global need of electricity continuously increases due to population and economic growth. On the other hand, the international community has raised the concern of global warming from the release of green-house gas to the atmosphere. Nuclear power, complemented with hydro and renewable energy (such as solar and wind), has been considered the clean option for electricity generation. The Generation-IV International Forum (GIF) has been established for international community to develop the next generation nuclear systems. It identifies key technology goals for these systems: enhanced economic, safety and reliability, sustainability, proliferation resistance and physical protection. The Super-Critical Water-cooled Reactor (SCWR) is one of six selected systems for joint development. A summary of the global electricity demand, SCWR concepts currently being developed within the international community and how the SCWRs meeting GIF technology goals is presented.

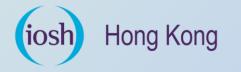
#### **Speaker's bios:**

Dr Laurence Leung joined Canadian Nuclear Laboratories (formerly Atomic Energy of Canada Limited) in 1987 and has been working on research topics related to critical heat flux, post-dryout heat transfer, pressure drop and supercritical fluid heat transfer in Generation-III and Generation-IV nuclear reactors. He obtained his Ph.D. degree in 1994 from the University of Ottawa in Canada. Laurence retired in 2018 as the Manager of the R&D Facility Operation but continue supporting the Gen-IV Supercritical water-cooled reactor program at CNL. He is currently adjunct professors at McMaster University in Canada and Xi'an Jiaotong University in China.

### **Attendance/CPD Certificate will be provided**

#### **Supporting Organisations:**







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