

Seminar: Recent Development of Adsorption Refrigeration System and other Cooling Strategies for Green Buildings & Recent Development of High Performance Thermal Management

Speaker

Prof. Christopher Chao is a Chair Professor and Head of Mechanical and Aerospace Engineering at The Hong Kong University of Science and Technology (HKUST). He has over 25 years of research and project coordination experience in numerous areas of energy and environmental engineering. Prof. Chao is Fellow of Five professional societies including the American Society of Mechanical Engineers, the Institution of Mechanical Engineers, HKIE, etc. He has published more than 120+ journal articles and book chapters, and was granted more than 10 patents. He received his BSc(Eng) degree (first class honors) from the University of Hong Kong, MS and PhD from the University of California at Berkeley, all in Mechanical Engineering.



Prof. Huihe Qiu is Professor and Associate Head of Mechanical and Aerospace Engineering at The Hong Kong University of Science & Technology (HKUST). Prof. Qiu received his Ph.D. from Institute of Fluid Mechanics, at the University of Erlangen, Germany. His researches are in fluid dynamics and heat transfer. He is Fellow of HKIE and elected member of MMNC committee. Prof. Qiu is Editor/Associate Editor of four international journals. He has been invited to give 20 plenary/keynote speeches in International Conferences.



Programme Highlights

Seminar 1 by Prof. Christopher Chao : In Hong Kong, building sector contributes to about 60% of the total energy consumption and is ranked number one among all followed by transportation. Cooling is a major portion of energy usage in buildings in Hong Kong. Alternative cooling systems such as Adsorption cooling system (ACS) may replace traditional cooling system in certain occasions when there is solar energy or waste heat source. Our work explores the feasibility of using an advanced adsorbate and utilization of a novel composite adsorbent in the ACS. Besides, the talk will also discuss some new directions such as the development of passive radiative coolers and smart windows in enhancing further cooling effect in energy efficient and low carbon emission sustainable buildings.

Seminar 2 by Prof. Huihe Qiu : In electronics and power generation industries, many devices, such as CPUs, GPUs, power LEDs, electric vehicles and reactors of nuclear power plants generate a significant amount of heat. To prolong their lifecycle and increase safety, thermal management utilizing novel phase change cooling technique is crucial to meet the requirements of high critical heat flux, high heat transfer coefficient, low noise and small scale. In the seminar, the speaker will introduce some new thermal management techniques utilizing micro/nanofabricated surfaces.

Date:	April 8, 2017 (Saturday)
Registration:	09:00 am
Seminar 1:	09:30 am – 10:30 am
Seminar 2:	11:00 am – 12:00 nn
Venue:	Lecture Theater G (LT-G), The Hong Kong University of Science and Technology



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