Organizers

energy institute Hong Kong

CityU 香港城市大學 City University of Hong Kong
Ability R&D Energy Research Centre
School of Energy and Environment

Co-organizers

aee The Association of Energy Engineers Hong Kong Chapter

HKAEE 香港能源工程師學會 Hong Kong Association of Energy Engineers

Technical Talk on Energy Engineering

- Challenges and Opportunities

10 December 2016 (Saturday)

The Energy Institute Hong Kong, the Ability R&D Energy Research Centre of City University of Hong Kong, the Association of Energy Engineers (Hong Kong Chapter) and the Hong Kong Association of Energy Engineers jointly organize a half-day **Technical Talk on Energy Engineering - Challenges and Opportunities** on 10 December 2016 (Saturday) for their members. Others interested in the event are also welcome.

About the Event

With the Paris Agreement entering into force, setting bold national greenhouse gas emissions reduction targets is expected to fight climate change. Energy efficiency and renewable energy are among the most effective strategies to cut carbon emissions. In the energy engineering profession, there are new technologies, innovations and best practices developed for improving the sustainability in energy supply and demand. Our speakers will discuss the latest development and potential applications of promising energy technologies and strategies.

Existing Buildings Energy Saving

Retro-commissioning for existing buildings requires detailed analysis on the operating characteristics of the building. The HKGBC is implementing an " ACT Shop " programme where real buildings are used as living laboratories with an aim to come up with systematic and practical methods of doing retro-commissioning. The presentation will discuss on the outcomes of the programme and the way forward.

Food Waste to Biogas Technology

Hong Kong, like many places in the world, is facing serious headache of food waste disposal problem. With the support of the Innovative and Technology Fund (ITF), HKPC has developed an innovative "FTR

Food Waste Total Recycling System". The FTR system employs a 2-stage biological process to decompose food waste into three valuable resources, namely biogas, protein-rich solid residue for production of fish feed and oil for production of biodiesel. The developed technology is very suitable to be used as distributed system for food waste recycling. A 50 kg/day pilot system was successfully built in Sheung Shui to test and demonstrate the technology.

Climate-based Daylight Analysis for Energy Efficient Building Design

When characterizing the daylight quality for a space, Daylight Factor (DF) has been widely used and specified in various standards or regulations. Recently, some new measures based on Climate-Based Daylight Modeling (CBDM) have been developed, with a goal to better characterize daylight quality from an annual perspective. This talk will introduce some of these new CBDM-based measures, and illustrate how to use these to characterize daylight quality and to estimate the possible energy saving using a daylight responsive control system (i.e., photosensor control system).

Nanotechnology and Clean Energy

The recent advancement in nanotechnology has made significant contributions to the development of clean energy technologies. The speaker will introduce various promising novel technologies, such as photocatalysis, fuel cell and microfluidic reactor; and how nanomaterials effectively enhance their mechanisms for high performance.

Moderator

- TBC

Speakers

- **Ir Cary Chan**, Executive Director, HK Green Building Council
- **Ir Dr Anthony Ma**, Principal Consultant, Hong Kong Productivity Council
- **Dr Wei Minchen, Tommy**, The Hong Kong Polytechnic University
- **Ir Prof Michael KH Leung**, Associate Dean and Professor, School of Energy and Environment, City University of Hong Kong

Time & Date	0910 - 1230; 10 December 2016 (Sat)	***Venue***	Tin Ka Ping Lecture Theatre (Lecture Theater 1, LT-1), 4/F, Academic 1, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong
Fee	Free of charge	***CPD***	CPD attendance certificates will be issued to attendees (3 hours)
Language	English		

Registration

Please register on-line through

https://goo.gl/CW8Vog (copy this link and paste on the browser should it cannot be linked directly) on or before 21 November 2016.

Tentative Rundown

0910 - 0930	Registration
0930 - 0935	**Welcoming Notes** - **Ir Paul Kwong**, Chairman, Energy Institute Hong Kong
0935 - 0940	**Souvenir Presentation**
Moderator: TBC	
0940 - 1010	**Existing Buildings Energy Saving** - **Ir Cary Chan**, Executive Director, HK Green Building Council
1010 - 1040	**Food Waste to Biogas Technology** - **Ir Dr Anthony Ma**, Principal Consultant, Hong Kong Productivity Council
1040 - 1110	*Tea Break*
1110 – 1140	**Climate-based Daylight Analysis for Energy Efficient Building Design** - **Dr Wei Minchen, Tommy**, The Hong Kong Polytechnic University
1140 - 1210	**Nanotechnology and Clean Energy** - **Ir Prof Michael KH Leung**, Associate Dean and Professor, School of Energy and Environment, City University of Hong Kong
1210 - 1230	*Q&A*
1230	*End of Event*