

**Seminar on Sustainable heating and cooling achieved by carbon dioxide (CO<sub>2</sub>)**  
**on 14 August 2012**

The Department of Building Services Engineering (BSE) of The Hong Kong Polytechnic University (PolyU) organized a CPD Seminar on 14 August 2012. Professor Zhang Xin-Rong, Ron from Peking University was invited to be the speaker and share his valuable insights on "Sustainable Heating and Cooling Achieved by Carbon Dioxide (CO<sub>2</sub>)". The seminar attracted around 200 participants.



**Welcome and introducing Prof. Zhang**



**Presentation by Prof. Zhang**

After welcomed and introduced by Professor W.K. Chow, Professor Zhang emphasized how CFC and HCFC working fluids could bring serious environmental problems of global warming and ozone layer depletion. Professor Zhang continued by explaining how CO<sub>2</sub> could be one of the most promising fluids to replace the existing "problematic" refrigerants. Fundamental engineering related topics were presented to illustrate how CO<sub>2</sub> could be a sustainable heating and cooling solution for human society. To facilitate understanding, Professor Zhang further discussed the environmental friendliness of CO<sub>2</sub> and how CO<sub>2</sub> could be utilized to create high efficiency energy conversion systems.

Before the seminar came to an end, there was a Q&A session with active involvement. Some inspiring questions were raised by the participants.



**Participants in the seminar listening to Prof. Zhang's sharing**



**Presenting souvenir**

Professor Zhang is a professor at College of Engineering, Peking University. He has also been an adjunct professor at Doshisha University, Japan, since 2008. Before he joined Peking University in 2007, he worked as a lecturer at Institute of Fluid Science, Tohoku University of Japan, from April 2002 to March 2004; as a Senior Scientist and Team Leader at Energy Conversion Research Center, Doshisha University of Japan, from April 2004 to March 2008. He is a member of several Journal Editorial Boards, such as International Journal of Energy Research. He is also the Chairman of both International Workshop on Energy Conversion; China-Canada Clean Energy Research and Training Partnership and Annual Conference. He published more than 90 Journal Papers, 120 Conference Papers, 3 books and 26 patents.

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