







## Joint Institution Technical Seminar on The New Technology on Chiller design and application

Date: 11 November 2015 (Wednesday)

Time: 6:30pm for 7:00 - 9:00pm

Venue: Rm BC201, PolyU

## **Programme Highlight**

This technical seminar will cover both basic design principle on the water cooled chiller and its application, as well as the new technology on chiller.

Basic design introduction of chiller includes design principle of chiller compressor and its components. Introduction of new technologies include the full falling film technology, dual-stage compression plus vapor injection technology, pre-whirl guide vane technology, intelligent control system, free cooling technology and others. An innovative full falling-film evaporating technology: spraying technology makes the liquid refrigerant form and evaporate on the surface of evaporating tubes, which significantly boosts the heat-exchanging efficiency and reduces 40% refrigerant charge. Unique designed dual stage compression technology enhances the heat absorption capacity of refrigerant, and lowers the power consumption, which increases 6% of efficiency over the single stage compressor. Moreover, the compressor is equipped with airfoil shape pre-swirling guide vane, which will produce swirl under different load conditions, hence to extend the operation range and increase the part load efficiency. It is the ideal choice for urban building and makes a significant contribution to the city building energy saving.

## About the speaker



Mr. Frederic Byron Hamm is the Staff Engineer of Midea, Chongqing. Mr. Hamm received his Bachelor & Master of Science in Mechanical Engineering from Iowa University and attended Graduate Level Courses at University of Michigan. His expertise is in aerodynamic and mechanical design of turbo machinery. He has more than forty years experience with one of the largest Heating and Air Conditioning manufacturers in the world.

Organizers:









Department of Building Services Engineering The Hong Kong Polytechnic University

He is currently the project leader for development of high efficiency large tonnage chiller, his job duty includes development and evaluation of real gas aerodynamic design codes for application to 3rd generation centrifugal compressor design, both in-house and commercial, development and evaluation of real gas aerodynamic design codes for application to high speed direct drive centrifugal compressor design, both in-house and commercial.

## **Registration & Enquiry**

Please register ONLINE via the website of CIBSE Hong Kong Branch – http://www.cibse.org.hk
The talk is free of charge and application will be accepted on a first-come-first-served basis. The
maximum number of participants is 80. The deadline of application is 6 November 2015. The
successful applicant list will be posted on the institution website <a href="https://www.cibse.org.hk">www.cibse.org.hk</a>.

For enquiry, please contact Mr. John Chan at Tel. 2270 2953.