



## Orgaizers



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

## Co-Orgaizers



# Technical Talks on “Hydrogen - The Future Fuel”

2 August 2014 (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 Talks on “Hydrogen – The Future Fuel”** on 2 August 2014 (Saturday) for their members. Others interested in the event are also welcome.

### About the Event

Using fossil fuels as the primary energy source has led to serious energy crisis as well as environmental pollution. They also emit greenhouse gas and cause global warming and climate change. In order to mitigate the above problems, it is of paramount importance to develop clean, renewable energy sources, especially solar energy and wind power at competitive costs resulting from the fast technological development. The limitations of solar and wind power are site-specific, intermittent and, thus, not reliable for instantaneous supply. To better harness renewable energy, hydrogen has been identified as a potential alternative fuel as well as an energy carrier for the future energy supply. Hydrogen is clean and, in practice, it can be produced from water, which is abundant. Hydrogen is also renewable when it is produced from renewable energy sources. When it is converted into useful energy in the form of electricity via a fuel cell, the by-product is harmless water vapor. As a result, hydrogen energy is indeed an ideal energy carrier in the future. In these technical talks, various aspects of hydrogen fuel, from production, applications to safety operation will be discussed.

### Moderator

- **Ir Colin Chung**, Immediate Past President, Hong Kong Association of Energy Engineers / Past Chairman, Energy Institute Hong Kong

### Speakers

- **Prof Vladimir Molkov<sup>#</sup>**, Professor of Fire Safety Science, Built Environment Research Institute
- **Ir Dr HF Chan**, Honorary Advisor, Energy Institute Hong Kong
- **Ir Dr Michael Leung**, Past Chairman, Energy Institute Hong Kong / Associate Professor and Associate Dean, School of Energy and Environment, City University of Hong Kong

<b>Time &amp; Date:</b> 0910 - 1230; 2 August 2014 (Saturday)	<b>Venue:</b> LT-17 (Academic 1), City University of Hong Kong, Tat Chee Avenue, Kowloon Tong
<b>Fee:</b> Free of charge	<b>CPD:</b> e-CPD attendance certificates will be issued to attendees
<b>Language:</b> English	

**Registration:** Please register on-line through <http://goo.gl/OeA5zD> (copy this link and paste on the browser should it cannot be linked directly) on or before 25 July 2014.



### **Tentative Rundown:**

0910 - 0930	Registration
0930 - 0935	<b>Welcoming Notes</b> - Ir Gary Chiang, Chairman, Energy Institute Hong Kong
0935- 0940	<b>Souvenir Presentation</b>
Moderator: Ir Colin Chung, Immediate Past President, Hong Kong Association of Energy Engineers / Past Chairman, Energy Institute Hong Kong	
0940 - 1030	<b>Hydrogen Safety Engineering: State of the Art and Future Tasks</b> - Prof Vladimir Molkov, Professor of Fire Safety Science, Built Environment Research Institute
1030 - 1105	<b>Hydrogen Production and Storage - the Current Trends</b> - Ir Dr HF Chan, Honorary Advisor, Energy Institute Hong Kong
1105 - 1125	<i>Tea Break</i>
1125 - 1200	<b>Fuel Cell for Sustainable Energy Supply</b> - Ir Dr Michael Leung, Past Chairman, Energy Institute Hong Kong / Associate Professor and Associate Dean, School of Energy and Environment, City University of Hong Kong
1200 - 1230	<i>Q&amp;A</i>
1230	<i>End of Event</i>

# **Prof Vladimir Molkov** is a physicist graduate from Moscow Institute of Physics and Technology in 1977. He has PhD degree in Chemical Physics, including Physics of Combustion and Explosion, and DSc degree in Fire and Explosion Safety. Head the Department of Fire Safety in Buildings and Fire Modelling at All-Russian Research Institute for Fire Protection until 1999. Since 1999 he is Professor of Fire Safety Science at the University of Ulster. Since 2004 he is specializing in hydrogen safety. In 2007 he initiated the establishment of the World's first MSc course in Hydrogen Safety Engineering at Ulster. In 2008 he established and leads the HySAFER (Hydrogen Safety Engineering and Research) Centre at the University of Ulster with internationally recognised research and education activities. The thrust in research is on modelling and large eddy simulations of hydrogen releases and dispersion, including high pressure under-expanded jets, spontaneous ignition of sudden releases, jet fires, deflagrations and detonations at large scales, innovative hydrogen mitigation technologies and strategies. Prof Molkov has coordinated and participated in major European projects related to hydrogen safety. He is a Visiting Professor at Karlsruhe Institute of Technology (Germany). Since 2013 he represents UK as an expert in ISO TC/197 "Hydrogen technologies".