You are cordially invited to a seminar on

A Regional Bioenergy System for Increasing Renewable Energy Utilization and Mitigating Climate Change

led by

Professor Jinyue YAN
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28 August 2008
10.30 am to 12.00 noon
Engineering Auditorium
NUS Faculty of Engineering
9 Engineering Drive 1, Singapore 117576

Synopsis:

Biomass is a locally available renewable energy source that can provide electricity and heat, as well as liquid, gas or solid-derived fuels. Bioenergy contributes to the substitution of imported fossil fuels and to the diversification of energy sources, and hence to the overall strengthening of national energy security. As a low carbon or carbon-neutral energy source, energy biofuel systems with low energy inputs into the production process are already significant contributors to climate change mitigation through replacement of fossil fuels, and through carbon sequestration in plants and soil biomass in perennial energy plantations. Further integration of bioenergy systems with CO_2 capture and storage, exploitation of currently untapped by-products and the establishment of energy plantations and use of energy crops have been especially interesting and are significant topics for R&D in bioenergy systems. This lecture provides an overview of R&D in bioenergy technologies, focussing on a regional energy system that has been successfully developed in Sweden. On-going research activities in developing a “fossil free region” in Stockholm will be presented.

Speaker:

Professor Yan is Chair Professor of Energy Engineering at the Royal Institute of Technology (KTH) and Mälardalen University, Sweden. He came to Sweden from China in 1989 and received his PhD at KTH in 1991. From 2001 to 2005, Professor Yan was Chair Professor and Head of Energy Engineering at Luleå University of Technology, Sweden. His research interests are simulation and optimisation of advanced energy systems, including advanced power generation; climate change mitigation technologies and related issues in environment and policy; the clean development mechanism (CDM); renewable energy, especially biomass energy; and fundamental engineering thermodynamics. Professor Yan has published over 150 papers including a paper in *Science* and a special feature article in *ASME Mechanical Engineering*.

Professor Yan is Editor-in-chief of the international journal, *Applied Energy* published by Elsevier. He is Conference Chairman of the 3rd International Green Energy Conference (IGEC-III) and Conference Co-Chair of IGEC-IV, Beijing and ICAE'09, Hong Kong. He is a member of the editorial boards of the *International Journal of Energy Research*, *International Journal of Green Energy*, *Scientific Review* (China), and *Frontiers of Energy and Power Engineering in China* (Springer). He also serves as an overseas assessor for the Chinese Academy of Sciences; a roster expert to the UNFCC CDM EB, and an advisory expert to the Asia Development Bank and other international organisations.

REPLY FORM

By Fax: 67751831

Ms Jan Lui
Energy Studies Institute
29 Heng Mui Keng Terrace
Block A #10-01
Singapore 119620

I will be able to attend the Seminar on **"A Regional Bioenergy System for Increasing Renewable Energy Utilization and Mitigating Climate Change"** held at the Engineering Auditorium.

Prof/Dr/Mr/Mrs/Ms: _____
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Please complete the Reply Form and return by fax to Energy Studies Institute or email : esilyyj@nus.edu.sg by **20 August 2008**.

Notes: **1. All registrations will be taken as confirmed unless otherwise notified.**

2. Parking is available at Car Park 2A (entry via NUS Entrance A along Clementi Road) and parking charge is $0.0214 per minute upon exit.