INTRODUCTION

The theme of the 5th Smart Grid Workshop of UWA is Global Energy Internet, Modern Power Supply and Smart Grid Techniques. Many interesting topics such as the concept of global energy internet, low-carbon technology, energy storage, wide-area and control and advances in state estimation will be presented by international, national and local experts. Organised by the School of Electrical, Electronic and Computer Engineering, The University of Western Australia, the workshop will be held in Billings Room on Thursday, 20 August 2015. The aims of the workshop are to disseminate ideas and techniques for the development of modern electricity supply systems and to provide a forum for discussions and experience sharing with national and overseas experts. The previous workshops held in the last three years were well participated by participants from industry and academia.

This workshop is supported by UWA, Faculty of ECM and School of EECE, Western Power Corporation, Horizon Power, The University of Sydney, Curtin University, State Grid Energy Research Institute, Beijing, China, Tsinghua University, Beijing, China, Macau University of Science and Technology, IEEE Section WA, IEEE Power and Energy Engineering and Power Electronics Chapter WA, IEEE Systems, Man, and Cybernetics (SMC) Society Technical Committee on Intelligent Power and Energy Systems and IEEE SMC Chapter WA. Participation in the workshop is free. Interested engineers, academics, research students and IEEE members are welcome.

REGISTRATION

Registration: by Wednesday 13th August 2015 (first come, first serve until vacancy filled)
Email: admin-eece@uwa.edu.au

Enquiries: Administration Office, School of Electrical, Electronic and Computer Engineering
PH: 08 6488 3106 Email: admin-eece@uwa.edu.au
PROGRAMME (subject to changes)

Workshop Chairperson   Professor Kit Po Wong

Morning Sessions

9:30 am - 9:35 am:  Welcome
Professor Farid Boussaid
Head of School of Electrical, Electronic and Computer Engineering,
UWA

9:35 am - 9:45 am:  Open Speech
Professor Yinong Liu
Deputy Dean, Faculty of Engineering, Mathematics and Computing, UWA

9:45 am - 10:30 am:  Vision, Mission and Values of Global Energy Internet
Professor Loi Lei Lai
Director of Energy Strategy, Planning, Policy Support,
Research and Development Centre
State Grid Energy Research Institute
Beijing
China

10:30 am - 11:15 am:  Enhancing network supply availability for non-firm or radially connected customers
Peter Martino
Principal Engineer Transmission - Network Operations
Western Power Corporation
Western Australia

11:15 am - 11:30 am:  Networking Break

11:30 am - 12:15 pm:  From Smart Grid to Energy Internet
Professor Zhaoyang Dong
Head, School of Electrical and Information Engineering,
Director, Clean Intelligent Energy Networks Research Group
The University of Sydney
Australia

12:15pm - 1:00 pm:  Development of low-carbon technologies in power systems
Professor Chongqing Kang
Professor and Vice Dean, Department of Electrical Engineering
Director of Joint Research Centre for Low Carbon Electricity Technology Centre
Tsinghua University
Beijing
China
1:00 pm - 2:00 pm: Interval

Afternoon Sessions

2:00 pm - 2:45 pm: Increasing Renewable Energy in Horizon Power Systems

David Stephens
Manager Capacity Management Services
Horizon Power
Western Australia

2:45 pm - 3:30 pm: Community detection and determination in complex networks, with applications to power systems

Professor Ah Chung Tsoi
Dean of Faculty of IT
Macau University of Science and Technology
Macau

3:30 pm - 3:45 pm: Networking Break

3:45 pm - 4:30 pm: Wide Area Transient Control

Professor Gerard Ledwich
Electrical Engineering and Computer Science
Queensland University of Technology
Queensland, Australia

4:30 pm - 5:15 pm: Dispatch Planning for Large-scale Wind Power - Pumped Hydroelectric Energy Storage Scheme

Professor San Shing Choi
Former Head of School of Electrical & Electronic Engineering
Nanyang Technological University, Singapore
Adjunct Professor, University of Western Australia
Adjunct Professor, Curtin University
Western Australia

5:15 pm - 6:00 pm: Advanced Techniques for Dynamic State Estimation

Professor Tyrone Fernando
School of Electrical, Electronic and Computer Engineering
University of Western Australia
Western Australia

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