

Short Course on **SMART GRID**

SMART GRID PERSPECTIVES, TECHNOLOGIES AND APPLICATIONS

Palm Garden Hotel Putrajaya, 4 - 5 November 2014 (2 Days)

There is a worldwide trend of introducing renewable energy sources into the generation mix to counteract the depleting conventional fuel sources and to combat climate change. Governments are setting ambitious targets to source increasing amounts of their future energy needs from clean renewable energy sources. Smart grid is the paradigm that facilitates the integration of the renewable energy sources into existing grid systems. The Malaysian government renewable energy policy targets doubling the share of the renewable energy sources up to 10% of total generation capacity by 2020. To further set the stage, the government has legislated the renewable energy act in 2011 to provide for the feed-in-tariff (FiT) system as a catalyst to renewable energy sources development. With a time frame of less than six years, it is increasingly involuntary to embark on using smart grid technologies to achieve the proclaimed targets. This intensive two-day short course will build upon the skills and experiences from two professionals, Prof Z. Y. Dong and Mr. Eric Pozorski, who have accumulated a first-hand experience of the Smart Grid City project in New South Wales, Australia. This is Australia's first fully integrated, commercial scale smart grid demonstration project and is worth a total of AU\$ 600 M. Besides delivering the fundamentals of the smart grid technologies, the course will also share some insights on the relevant policy drivers, economic viability, business prospects and the integration of telecommunications and power engineering. More importantly, it allows the audience to participate in a one hour open forum—focusing on the lessons learnt from the Smart Grid City initiative. The course also highlights smart grid implementation strategies by TNB, including an automated metering infrastructure (AMI) deployment pilot project in Malacca. This part of the course will be delivered by Ir. Dr. Syed Ahmad Fuad from TNB.

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BEM Approved CPD Hours (11.5) Ref. no: IEM14/SB/330/C

Course Content

- Smart grid overview
- Smart meter infrastructure
- Load modelling
- Electric vehicles
- Smart grid business case development
- Customer, community, and industry engagement
- Customer feedback technologies
- Developing the smart grid: TNB perspective

Who should Attend

- Academicians who would like to gain broader knowledge on smart grid
- Policy makers interested in developing smart grid policies in Malaysia
- Smart grid technology developers who want to seek practical experience from experts in smart grid
- Engineers new to the smart grid industry
- Professionals in the renewable energy industry who seeks experience in smart grid technologies
- Certified Energy Managers
- Professionals from energy-related industry
- Smart meter vendors interested in developing smart meter technologies.

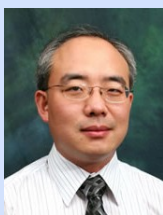


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About the Speakers

Professor Z.Y. Dong is the Professor and Head of School of Electrical and Information Engineering, the University of Sydney. He provides consultancy and research services to Ausgrid (previously EnergyAustralia). His immediate role is Ausgrid Chair and Director of Centre for Intelligent Electricity Networks (CIEN), the University of Newcastle, Australia. After obtaining Ph.D. from the University of Sydney in 1999, he worked as system planning manager with Transend Networks, Australia. In 2001, he became a contractor with Electric Power Research Institute (EPRI). During his service with EPRI, he has successfully carried out over 9 EPRI projects and many industrial R&D and consulting projects in power system planning, stability, smart grid, electricity market analysis and load modeling areas. He is the Deputy Chair for Smart Grid Australia and leads its research domain on cyber physical systems. He is also member representing Smart Grid Australia at International Federation of Smart Grid. His research interest includes smart grid, power system planning and stability, load modelling, renewable energy, electricity market, and computational methods. He is an editor of IEEE TRANSACTIONS ON SMART GRID, IEEE PES LETTERS, Elsevier/State Grid Journal of Modern Power Systems and Clean Energy. He is an international Advisor for the lead Chinese journal of Automation of Electric Power Systems. He also serves as guest editor for International Journal of Systems Science. Prof Dong has published around 400 technical papers, and received over \$8million research and industrial consulting grants. He has over 4300 citations and an H-index of 33.



Eric Pozorski is currently leading a team of industry experts in Smart Grid Smart City as Program Manager Project Delivery at Ausgrid (Australia's largest electricity distributor). This is Australia's first fully integrated, commercial scale Smart Grid demonstration project and is worth in total AU\$600M, including a AU\$100M Australian Government grant. The focus is on developing a nationally relevant business case for smart grids, which will help customers integrate with existing initiatives on energy efficiency and smart metering and to develop a transferrable community 'blueprint' to encourage energy efficiency. The approach is to validate the potential for financial benefits of up to AU\$5 billion per year to flow across the energy value chain, create the opportunity to improve national reliability and produce an estimated 39,200 'smart green' jobs through implementation across Australia. Eric has carried out a key role in formulating and delivering Ausgrid's (previously EnergyAustralia's) strategy for Operational Technology and Innovation. He led EnergyAustralia's Advanced Metering Infrastructure Programme to deliver a risk based approach to verify the business case and optimise the technology specification and led the Distribution Monitoring & Control Project that was a first transitional scenario towards a smarter grid.



Dr Ir Syed Ahmad Fuad is currently Senior Manager of Innovation: Technology & Business in Corporate Planning and Sustainability Department, Regulatory Economics and Planning Division, TNB Malaysia. His specialization lies in Project Management, Smart Grid, Asset Management, System, System Performance, Geographical Information System and Information Management System. He obtained his PhD in Management Information System from Lancaster University, Lancaster, UK in 2009. He is also a holder of MSc in Engineering Business Management (Warwick UK - 1999), MSc in Information Management (UiTM, 2001), Post Graduate Diploma In System Analysis (UiTM - 1994) and BSc in Electrical Engineering (University of Texas at Arlington, USA - 1989). He is a member of TNB Smart Grid Steering Committee. He was also a member of ASEAN Utilities Workgroup responsible to develop Guidelines in Implementing Asset Management System in Distribution System.



Program Schedule

DAY 1	
Registration	08:00am
General Overview/Officiate	09:00am
Session 1: Smart Grid Overview	09:15am
Morning Coffee Break	10:30am
Session 2: Smart Meter Infrastructure	11:00am
Lunch Break	12:30pm
Session 3: Energy Resource Management, Impact of Distribution Generation on the Network, Active Volt-VAr Control	02:00pm
Session 4: Load Modeling and Electric Vehicles	03:30pm
Break	05:00pm
DAY 2	
Session 5: Smart Grid Business Case Development, Insights and Lessons Learnt	09:00am
Morning Coffee Break	10:30am
Session 6: Customer, Community and Industry Engagement, Customer Feedback Technologies	11:00am
Lunch Break	12:30pm
Session 7: Developing the Smart Grid: TNB Perspective (Local speaker's presentation)	02:00pm
Panel session/dialogue	03:30pm
Closing	04:30pm
Break	05:00pm

FEES: RM 1950

Fees are inclusive of course materials, lunch and refreshments

HRDF
CLAIMABLE

Discount RM150/person for Group Registration (minimum FOUR) or IEM / IEEE-PES members

FULL PAYMENT must be settled before commencement of the event, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails to attend the course, the fee is to be settled in full. Please note that the venue, speakers and topics are confirmed at time of publishing. We reserve the right to carry out changes of the venue, speakers, topics and/or any of the details published.

CANCELLATION POLICY
Registration is transferable upon written notice. No refunds once payment made. Registration is confirmed upon receipt of payment, unless otherwise notified.

This short course is organized by
Centre of Electrical Energy Systems (CEES)
Universiti Teknologi Malaysia
 in collaboration with
The Institution of Engineers, Malaysia (IEM)
Southern Branch
 supported by
IEEE-Power & Energy Society
Malaysia Chapter

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Name(s)	IEM Membership Number (if applicable)	IEEE-PES Membership Number (if applicable)	Fees
TOTAL			

REGISTRATION FORM

Enclosed herewith a cheque No. : _____ for the sum of RM _____
 issued in favour of “**Bendahari, Universiti Teknologi Malaysia**” and crossed ‘*A/C Payee Only*’.
 If I/we fail to attend the course, the fee paid would not be refunded.

Contact Person :

Designation :

Name of Organization:

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Tel (O) : Tel (R) :

Fax : Mobile :

E-mail :

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 Signature

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 Date

All payment must be received within **14 working days** before the event date. Kindly fill up the registration form and make a crossed cheque in local currency payable to: “**Bendahari, Universiti Teknologi Malaysia**”.

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