

**AUS Faculty Workshop on Renewable Energy Education and Research:
Addressing the Need of Industry
FW-REER'18
November 7-8, 2018**

WORKSHOP PROGRAM

❖ Wednesday, November 07, 2018	
08:00 – 09:15	Registration
09:15 – 09:45	Welcoming Remarks Dr. Richard Schoephoerster, Dean, College of Engineering, American University of Sharjah Dr. Wei Zhao, Chief Research Officer, American University of Sharjah Dr. Rached Dhaouadi, Petrofac Research Chair in Renewable Energy, College of Engineering, American University of Sharjah
09:45 – 10:45	Keynote Address I – Hall B Session Chair: Dr. Rached Dhaouadi <i>Research and Reinventing Electric Power Curriculum with Sustainability Focus</i> Prof. Ned Mohan, University of Minnesota, USA
10:45 – 11:00	Coffee Break
11:00 – 13:00	Session I: Teaching Integrated Curriculum: Energy Systems Hall B Session Chair: Dr. Mostafa Shaaban ➤ <i>Teaching Power Electronics with an Emphasis on Renewable Energy Integration</i> Prof. Prasad Enjeti, Associate Dean, TAMU, USA ➤ <i>A new course in design of smart power grids with emphasis on solar PV and microgrids at NTNU</i> Dr. Steve Völler, Department of Electric Power Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
13:00 – 14:15	Lunch Break
14:15 – 15:15	Keynote Address II – Hall B Session Chair: Dr. Rached Dhaouadi Wind Energy, onshore, offshore and floating offshore. State of the art: System Overview, Generators and Grid Integration Prof. Tore Undeland, Norwegian University of Science and Technology, Norway
15:15 – 16:00	Student Poster Evaluation
16:00 – 17:30	Session II: The Students and Academics versus the Industrial Perception of the Future Energy Industry Needs. Hall B Session Chair: Dr. Habib Ur Rehman ➤ <i>Integration of Renewables at Regional Transmission Organization (RTO): Midcontinent ISO experience</i> Rao Konidena, Principal Advisor, Midcontinent Independent System Operator (MISO), USA ➤ <i>“Energy as a Service (EaaS) Business Model and Technology Drivers”</i> Dr. Zaher Daboussi, CTO GLOTEC LTD, Abu Dhabi
17:30 – 18:00	Posters Awards
20:00	Gala Dinner

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❖ Thursday, November 08, 2018

09:00 – 11:00 **Session III: Hardware and Software Laboratory to Enhance the Application of Energy Education to meet the Industrial requirements**
Hall B | Session Chair: Dr. Ahmed Osman

- *Hardware Demo: Extremely low-cost embedded controller using a model-based simulation platform (developed through ONR funding)*
Dr. Siddharth Raju and Prof. Ned Mohan, University of Minnesota, USA
- *The NTNU Smart grid laboratory – designed to support education, R&D, demonstration and innovation of next generation smart and sustainable power systems*
Prof. Kjell Sand, Project Manager, IE Faculty Administration, Department of Electric Power Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway

11:00 – 11:15 **Coffee Break**

11:15 – 12:45 **Session IV: Renewable Energy Education & Research I**
Hall B | Session Chair: Dr. Imran Zualkernan

- *Triple Helix Partnerships in Renewable Energy: University of Sharjah Renewable Energy Education and Research Programs*
Dr. Chaouki Ghenai, Sustainable and Renewable Energy Engineering Department, College of Engineering, University of Sharjah, UAE
- *Student Training Module for Renewable Energy Conversion and Storage Systems*
Prof. Khaled Nigim, Lambton College, Canada
- *A Graduate Curriculum for Educating Modern Power Systems Engineers*
Dr. Siddharth Suryanarayanan, Colorado State University, USA

12:45 – 14:15 **Lunch Break**

14:15 – 16:15 **Session V: Research and Development in the Energy Sector**
Hall B | Session Chair: Dr. Shayok Mukhopadhyay

- *Norwegian policy for electric cars / plan for reduction of CO2 emissions in transport*
Prof. Tore Undeland, Norwegian University of Science and Technology, Norway
- *Innovative hybrid and battery powered ships*
Prof. Roy Nilsen, Department of Electric Power Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway

16:15 – 16:30 **Coffee Break**

16:30 – 18:00 **Session VI: Renewable Energy Education & Research II**
Hall B | Session Chair: Dr. Amani Al-Othman

- *Hydrogen and Fuel Cell Developments*
Prof. Abdul Ghani Olabi, Sustainable and Renewable Energy Engineering Department, College of Engineering, University of Sharjah, UAE
- *Transition to Smart Grid and the Challenges of Power Electronics Devices Integration*
Prof. Kouzou Abdellah, University of Djelfa, Algeria
- *Towards Efficient House Consumption Scheduling Algorithm for DSM*
Dr. Amjad Gawanmeh, Khalifa University, Abu Dhabi

18:00 – 18:30 Final Summary and Recommendations