

# The Energy Sponsor Programme

## The Annual Energy Seminar 2012

December 11 2012, 10.00 am – 17.00 pm

Plenum – Research Trends  
Fibigerstræde 16, room 1.108

10.00 - 10.10	Welcome by Professor Lasse Rosendahl, Dept. of Energy Technology, AAU
10.10 - 10.50	Energy Technology – Danish Challenges in a Global Context Klaus Rosenfeldt Jakobsen, DSF Sekretariatet, Styrelsen for Forskning og Innovation
10.50 - 11.30	Modelling renewable energy systems – Professor Martin Greiner, Århus Universitet
11.30 - 12.10	Implementing renewable energy models in society – Assoc. Professor Brian Vad Mathiesen, PLAN-AAU
12.10 - 13.00	Lunch

Parallel 1 – Research Activities at the Dept. of Energy Technology  
Fibigerstræde 16, room 1.108

13.00 – 13.20	Design of a Magnetic Lead Screw for Wave Energy Conversion v/Nick Ilsø Berg
13.20 – 13.40	Low-cost, low-power, high-performance electrical machine drive systems v/Kaiyuan Lu
13.40 – 14.00	Multiterminal HVDC grids and Supergrids of the future v/ Filipe Faria da Silva
14.00 – 14.20	Distributed Control of MicroGrids v/Josep Maria Guerrero Zapata
14.20 – 14.40	SEEMS Project: loads' and generators' models for enhanced operation of LV feeders v/ Iker Diaz de Zerio Mendaza and Pietro Raboni
14.40 – 15.00	Break
15.00 – 15.20	Energy Optimisation of Solar Panels using Intelligent Control v/Tamas Karekes
15.20 – 15.40	Photovoltaic Solar Power System Integrated with Thermoelectric Device v/ Alireza Rezaei Kolaei
15.40 – 16.00	Thermal Behaviors and Improvements in Wind Power Converter v/Ke Ma
16.00 – 16.20	Design Preliminaries for Direct Drive under Water Wind Turbine Generator v/Ewen Ritchie and Krisztina Leban
16.20 – 17.00	Reception and networking in the hall outside the lecture rooms

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Parallel 2 – Research Activities at the Dept. of Energy Technology  
Fibigerstræde 16, room 1.101

13.00 – 13.20	Performance and durability of reformed methanol fuelled HTPEM fuel cells v/ Samuel Simon Araya
13.20 – 13.40	Advanced control of a 350W methanol fuelled HTPEM fuel cell system v/ Kristian Kjær Justesen
13.40 – 14.00	Hybrid HTPEM methanol fuel cell system and Lithium-ion battery for motion power v/ Søren Juhl Andreasen
14.00 – 14.20	Flow and heat transfer limitations in methane and biogas steam reforming v/Haftor Örn Sigurdsson
14.20 – 14.40	Development of an Automated Motion Control Design and Commissioning System v/ Lasse Schmidt
14.40 – 15.00	Break
15.00 – 15.20	Optimization of Renewable Energy Systems for residential NetZEBs v/ Christian Milan
15.20 – 15.40	Combustion properties of biomass particles for suspension firing, experimental characterization and modeling v/Mariam Momeni
15.40 – 16.00	Direct conversion of algae for advanced biofuels v/ Ehiازه Augustine Ehimem
16.00 – 16.20	Wet biomass is the new black – drop-in biofuels based on low value waste v/Thomas Helmer Pedersen
16.20 – 17.00	Reception and networking in the hall outside the lecture rooms