IEEE SPOT 2011 Student Conference

http://www.ieee-spot.et.aau.dk/

15th of December 2011

Fibigerstræde 16 Room 1-101 and Room 1-108, Aalborg University (AAU), Denmark

8:15: Start	
8:00-8:30: Registration: name tags,	
Electrical sessions Fib 16(1-101: lecture theater-auditorium)	**Thermal and Miscellaneous sessions** 1-108(seminar room)
8:30-8:50: Opening session	**8:30-8:50: Opening session**
Welcome by <u>Krisztina Leban</u>**:** AAU- IET, IEEE Student Branch; **Key note speaker:** <u>Birgitte Bak-Jensen</u>**:** AAU-IET 'Energy Systems of the Future'	**Welcome by** <u>Benoit Bidoggia</u>**:** AAU- IET **Key note speaker: Lasse Rosendahl** AAU-IET; Energy Sponsor Program
Session Chair: Lorand Bede **9:00- 10:10 Presentation set E. 1 (4 presentations)** **P1(9:00-9:15):** *Integration of Alternative Motor Current Measurement Technologies* - Egoitz Toledo Irazu, Ander Biguri, Jorge Cortés Gonzalez **P2(9:15-9:30):** *Operational Control of Power Systems under Emergency Situations* - Artjoms Timofejevs **P3(9:30-9:45):** *Design of Telephone Control System of Intelligent Household Appliances* - Zheyuan Hu **P4(9:45-10:00):** *A Case Study of Issues with Pico-hydro Control in Nepal* - Rakesh Sinha *Time buffer 10:00-10:10*	**Session Chair: Shaojun Huang** **9:00- 10:10 Presentation set TM. 1(4 presentations)** **P1(9:00-9:15):** *Calculation model for heat recovery in grain dryers based on energy analysis* - Michael Skou, Ersan Gürler **P2(9:15-9:30):** *A drilling fluid: the mud* - Céline Lelandais, Carole Berthet **P3(9:30-9:45):** *Study of the alternative fuels instead of the traditional* - Eider Usar Recarte **P4(9:45-10:00):** *Topological model of graphene sheets* - Ionela Grigoras *Time buffer 10:00-10:10*
10:10-10:30 Coffee Break	
Session Chair: Rakesh Sinha **10:30- 12:00 Presentation set E. 2 (5 presentations)** **P1(10:30-10:45):** *Several Practices of Microgrid in China* - Shaojun Huang **P2(10:45-11:00):** *Hybrid Energy System Sizing and a Simple Prediction of Battery System Charge Level* - Dernektsis Triantafylos **P3(11:00-11:15):** *Comparison of the Impact of New Technology Switching Devices on the Efficiency of PV Inverters* - Ovidiu Nicolae Faur, Bogdan Ioan Incău	**Session Chair: Daniel Gamboa** **10:30- 12:00 Presentation set TM. 2 (n presentations)** **P1(10:30-10:45):** *Waste Heat Recovery in Brake Pad using a Thermoelectric Generator* - René Haller Schultz, Thomas Helmer Pedersen, Troels Bartholin Bertelsen **P2(10:45-11:00):** *Project Optimal Steam Turbine setup for CSP Tower* - Romain Lhomer, Jérôme Corso **P3(11:00-11:15):** *Investigation on how to obtain reliable experimental data in a biological waste water process*

P4(11:15-11:30): *Issues concerning the connection of unstable power sources to the low voltage grid* - Broczkowski Michal, Chmielewski Artur, Radecki Przemyslaw, Szczesny Ireneusz **P5(11:30-11:45):** *Control of a Wind Turbine with Grid Support Functions* - Remus Beres, Catalin Ciontea *Time buffer 11:45-12:00*	*tank* - Morten Aalbæk Kristensen **P4(11:15-11:30):** *Supervisor Control of 4 WD Vehicles* - Daniel Giardiná, Filippo Zaniboni, Yasmina Kerrouzi **P5(11:30-11:45):** *Testing of Etronit IS dielectric material* - Alberto Palomar Lozano, Bjarni Helgi Thorsteinsson *Time buffer 11:45-12:00*

12:00-13:00 Lunch Break

Session Chair: Zheyuan Hu **13:00- 13:30 Presentation set E. 3 (3 presentations)** **P1(13:00-13:15):** *Control and Reliability of 10 MW Multilevel Wind Power Converter* - Andrea Isidori, Fabio Mario Rossi **P2(13:15-13:30):** *Study of the performance of the embedded processors on NIOS FPGA platforms* - Lucille Senn	**Session Chair: Artjoms Timofejevs** **13:00- 14:00 Presentation set TM. 3 (n presentations)** **P1(13:00-13:15):** *Current Correction Temperature Control for Indirect Methanol Fuel Cell Systems* - Kristian Kjær Justesen, Mikkel Præstholm Ehmsen, John Andersen **P2(13:15-13:30):** *Injection of Biogas into the Natural Gas Grid in Netherland* - Pablo Herrero Solsona, Hugo Stoeffler

13:30-14:00 Coffee Break

14:00-16:15 Poster session

1. *Laminar flow around a circular cylinder* - Group 700

2. *Closed Loop Brake-Sequence Control For Wind Turbine Applications* - Group 720

3. *Trajectory Control of a Hydraulic Planar Elbow Servo Robot* - Group 721

4. *Nonlinear Modeling of Synchronous Generator for Wind Turbines* - Group 730

5. *Experimental Evaluation of an Integrated Charger for EV's using PMSM Windings as Boost Inductors* - Group 740

6. *Influence of PV generation on voltage levels in distribution grids* - Emanuel-Petre Eni, Viorel Gradea

7. *Modeling of a Micro-Grid with Windpower where a Gas turbine is used for frequency* control – Jorge Escribano Jiménez, Sandra Iren Haug, Karl Eide Pollestand

8. *Implementing of MS15 DC Motor Control Module by Using PLC S7-300* - Mustafa Erkec, Arsalan Zaidi

9. *Alive vacuum cleaner* - Iratxe Ortega

10. *Solar Panels Controller for Heated Pool* - Eloy Rodríguez Moldes

11. *Control of a two-wheeled inverted pendulum like robot* - CsabaKopacz, Lóránd Bede

12. *Application of inertial sensors in control of inverted pendulum-like systems* - CsabaKopacz, Lóránd Bede

13. *Modelling and Simulation of a Squirrel Cage Induction Generator Wind Turbine* - Daniel Gamboa

14. *Modelling and Simulation of a Solar Cell using Matlab/Simulink* – Dumitru-Traian-Cosmin Angheluș, Judit Baños Garcia, Laura Nicola

15. *Scalar control and synchronous machine simulation based on graphical design on Simulink* – Gheorghiu Csaba

16:15-16:30 Prizes : Fib 16(1-101: lecture theater-auditorium) (sponsors: **Energy Sponsor Program and IEEE**)

16:30: Closing
Krisztina Leban