



Euroopa Liit
Euroopa Sotsiaalfond



Eesti tuleviku heaks

Doctoral school of energy and geotechnology II

in cooperation with

12th Biennial Baltic Electronics Conference (BEC2010)

WORKSHOP

OPTIMAL ENERGY CONVERSION AND CONTROL IN SMART AND MICROGRIDS

Tallinn University of Technology, Faculty of Power Engineering

Room: VII-430

DAY 1: Monday, 04.10.2010

CHAIRS: Prof. Tõnu Lehtla (TUT, Estonia)
Prof. Enrique-Romero Cadaval (UEX, Spain)

9:00 – 9:30	Formal opening. Smart Grid Technology: Research, Development and Applications	Prof. Tõnu Lehtla (TUT, Estonia)
9:30 – 10:00	Microgrid Implementation Problems in Estonia	M.Sc. Viktor Beldjajev (TUT, Estonia)
10:30 – 11:00	Intelligent Transformers and Their Role in Microgrids	Dr. Indrek Roasto (TUT, Estonia)
10:00 – 10:30	New Fuel Cell Power Conditioning System for Supplying Dedicated Loads	Dr. Tanel Jalakas (TUT, Estonia)
11:00 – 11:30	New Bi-Directional DC/DC Converter for Supercapacitor Interfacing in High-Power Applications	Dr. Janis Zakis (TUT, Estonia)
11:30 – 12:00	New Energy Management lab in TUT and Possibilities for Research and Development Work	Dr. Argo Rosin (TUT, Estonia)
12:00 – 12:30	Power Electronic Converters for Interfacing the PMSG Based Wind Turbines with Residential Loads: Possibilities and Challenges	M.Sc. Lauris Bisenieks (TUT, Estonia/RTU, Latvia)
12:30 – 13:00	Control Algorithm for a Diesel Generator and UPS Based Microgrid in Different Operation Modes	M.Sc. Andriy Palamar (TUT, Estonia)
13:00 – 13:15	Multiport DC/DC converters for interfacing of hydrogen buffer with wind turbine	M. Sc. Anna Andrijanovits (TUT, Estonia)

DAY 2: Wednesday, 06.10.2010

CHAIRS: Dr. Indrek Roasto (TUT, Estonia)
Prof. Ilya Galkin (RTU, Latvia)

9:00 – 10:00	Cooperative Converters in Power Electronic Systems	Prof. Enrique-Romero Cadaval (UEX, Spain)
10:00 – 10:30	Smart Lighting Grids – a Successful Example of Intellectualization of Energy Distribution Systems	Prof. Ilya Galkin (RTU, Latvia)
10:30 – 11:00	New Integrated Buck-Boost Inverters: Quasi Z-Source and T-Source Inverters for Renewable Energy Applications	Dr. Janis Zakis (TUT, Estonia)
11:00 – 11:30	Electric Vehicle as a Component of Microgrid	Ass. Prof. Elmo Pettai (TUT, Estonia)
11:30 – 12:00	Residential Area Electricity Consumption Analysis and Possibilities of Demand-Side Management	Dr. Argo Rosin (TUT, Estonia)
12:00 – 12:30	Linux Based Electricity Monitoring for Renewable Energy Applications	Dr. Madis Lehtla (TUT, Estonia)
12:30 – 13:00	Wireless Short-Range Devices for Wind Generators Operating in Smart Grids	Dr. Marek Adamowicz (GMU, Poland)

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