



Miniconference on

Monitoring and Control of Power System
Dynamics using Phasor Measurement
Technology

November 16th,
Corporate Research ABB Switzerland

The REAL-SMART project is funded by the EC Marie Curie FP7 IAPP (Industry Academic Pathways and Partnerships) scheme. It started in September 2010.

REAL-SMART addresses measurement-based monitoring and management of high voltage transmission grids. It involves transmission system operators (Fingrid, National Grid and Statnett), companies that supply technologies (ABB R&D in Norway, Poland and Switzerland, GE Research in Munich), and universities (Aalto University, Imperial College London, Graz University of Technology). The consortium is interdisciplinary with experts in electrical power systems, modelling, instrumentation, signal analysis and condition monitoring, and automation of oil & gas and chemical processes.

A special focus is given to phasor measurement and Wide-Area Monitoring, Control and Protection (WAMCP) technology. This represents a major improvement in the automation and control infrastructure in comparison to the traditional network supervision systems (SCADA/EMS). This improvement makes active monitoring and management of fast dynamics in power systems possible.

The objective of the miniconference is to provide a forum for people interested in wide-area monitoring and control technology and its applications to meet and discuss. Industry and university experts will share their experiences in the conference presentation session and the latest research results from the REAL-SMART project will be reported in a poster session. The poster session is also open for any participant who wants to present a poster in a relevant area.

The speaker list includes industry specialists from power utilities as well as vendors and universities. Topics include:

- Utility experience with WAMCP technology
- Cybersecurity challenges in networked control and monitoring systems
- Challenges related to power system dynamics that utilities see today and foresee for the future
- New developments in algorithms and methodologies for monitoring and controlling power system dynamics using WAMCP

Welcome !

Mats Larsson
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Corporate Research
ABB Switzerland



Imperial College
London



imagination at work

nationalgrid

Statnett ABB

TU
Graz



A?
Aalto University
Research Center
for Intelligent
Energy Technology

Miniconference Program

8.40-9.00	Coffee
9.00-9.10	Welcome and Practical Information Mats Larsson
9.10-9.30	WAMS and PSGuard – an ABB Perspective Luis-Fabiano Santos, PSGuard Product Manager, ABB Switzerland.
9.30-10.15	WACS – Global measurements and WAPOD on SVC in the Norwegian grid. Vemund Aarstrand, Statnett AG, Norway
10.15-10.30	Real-Smart Project Overview Nina Thornhill, Imperial College London, UK
10.30-11.00	Coffee break combined with poster session
11.00-11.45	Stability monitoring, reporting and system analysis based on WAMS measurements in the middle of the European power system. Walter Sattinger, Swissgrid, Switzerland
11.45-12.30	WAMS in APG Michael Weixelbraun, APG, Austria
12.30-13.30	Lunch break
13.30-14.15	Cybersecurity in Networked Automation and Control System Ragnar Schierholz, ABB Group, Switzerland
14.15-15.00	Applications of phasor measurement units and WAMS in Finland Antti-Juhani Nikkilä, Fingrid, Finland
15.00-15.30	Wide-area Monitoring and Control - University and Industry Collaborations. Bikash Pal, Imperial College London, UK
15.30-17.00	Coffee break combined with poster session
17.00	Closure

Practical Information and Travel Directions

The miniconference will take place in Baden-Dättwil at ABB Corporate Research, ABB Switzerland in the room *von Neumann*. Attendance is free of charge but we do require registration latest by November 12, 2012, by email to: Adamantios.Marinakis@ch.abb.com. *Please also indicate if you intend to present a poster during the poster session so we can make sure enough boards are available.*

For flights, the destination airport is Zürich, ZRH. There is a direct airport train once an hour to Baden and several connections with change at Zurich main station in between.

The ABB Corporate Research Center in Baden-Dättwil is located 5 km from Baden city center. From Baden Bus station, Bus No. 7 with direction “Birmensdorf” will bring you directly to our offices – your stop is “Segelhof”. The bus trip from Baden takes approximately 15 minutes. If you take a taxi from Baden city center, expect to pay around 30 CHF.

Useful links for travel planning:

Hotel Linde, Baden - <http://www.linde-baden.ch/>

Hotel Atrium Blume, Baden - <http://www.blume-baden.ch/>

Hotel Best Western Du Park - <http://www.welcomegroup.ch/de/duparc/>

Blue City Hotel AG - <http://www.bluecityhotel.ch/18-0-startseite.html>

Zürich Airport: <http://www.flughafen-zuerich.ch>

Timetable Swiss Railways: <http://www.sbb.ch>

City of Baden: <http://www.baden.ch>

Corporate Research Daettwil: <http://www.abb.com/chcrc>

Interactive map of Switzerland: <http://map.search.ch/index.en.html>