

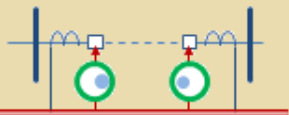
# 2<sup>nd</sup> Nordic Workshop on Power System

## Protection and Control

**NTNU, Trondheim May 23, 2017**

**Hosted by KPN-project ProSmart**

**Scope:** Meeting place for Nordic PhD/Master students and research groups within power system protection and control. Academia meets industry meets utilities. Enable collaboration and new research initiatives.



ProSmart, KPN-project ENERGIX



# Program part I



09.00 Registration and coffee

10.00 Welcome (Erling Ildstad, Dept. chair NTNU)

- Status update (KTH, Chalmers, Aalborg, Vaasa, Delft, MTU, NTNU)
- Master student status
- Protection outlook – challenges and opportunities (Murari Saha, NTNU)

12.00 Lunch

13.00 Presentations from industry. Outlook and challenges

- ABB; Jianping Wang "Modern Power System Protection-Trends and Demands"
- Siemens; Jörg Blumschein "Adaptive reclosing in transmission systems"
- Jacobsen Elektro; Leif Bottolfs "Influence of dispersed generation on distribution system protection"
- Statnett; Eivind Norum; "Digital sub-station"

15:00 Coffee break

# Program part II - Technical presentations



- 15:30 Marjan Popov; Delft: «Dynamic testing of distance protection according to IEC 60255-121 standard»
- 15:45 Raymundo Torres/Murari Saha; NTNU: «Inter-system faults (DC-AC)»
- 16:00 Claus L. Bak; UAA: "Inter-circuit faults (AC-AC)»
- 16:15 Jaya Yellajosula; MTU: «Synchro-phasor applications in wide-area protection»
- 16:30 Fabian Hohn; KTH: «Centralized substation protection and control architecture based on distributed signal processing units (DSPUs)»
- 16:40 Break
- 17:10 Md Zakaria Habib; KTH: «Earth-fault location in resonant-earthed networks.»
- 17:20 Aushiq Memon; Vaasa: «Microgrid protection utilizing IEC61850 based communication»
- 17:35 Charles Adrah, NTNU: «Communication in protection. Emulation with Click.»
- 17:45 Zhou Liu, NTNU: «Hardware in loop relay testing in digital substation environment»
- 17:50 Dinh Thuc Duong, NTNU: «Earth fault detection in resonance earthed systems using synchrophasor measurements»
- 18:05 Summary
- 19:00 Dinner

# Group photo of first Workshop in 2016

