# The Wind Power Research Centre of Shanghai Jiao Tong University

collaboration with

Dept. of Electric Power Engineering,



### Scope of the cooperation



R & D Exchange of students

**Collaboration in** 

**Education** 

Hold workshops, seminars



## **Findings**



#### • Similar focus:

- Electrical part of the wind energy (Generator- converter
  - transformation transportation integration)
- Similar technology (VSC, DFIG, Full converters, energy storage (battery, pumped water))
- fault-ride-through challenge of wind integration
- The same tools used for modeling and studies (Matlab, FPGA)
- Several PhDs on the similar topics and at same stage
- Smartgrid/Microgrid





## Collaboration in research and development / exchange PhD



- PhD-students paired: 2 X 2
- PhD-student Jing Lyu presently in Trondheim for 2.5 months
  - Excellent match professionally
  - Work progressing very well
  - Writing joint publication for IEEE Conference in Japan
- Another visit planned from mid-march duration
  2.5 months
- Possibly a 3rd later this year (depend on funding)
- NTNU-student will go to SJTU early next year



## Collaboration in research and development



- Participation in relevant FME-applications:
  - Smart energy systems
    - New initiative
  - Offshore Wind
    - Continued
    - •
- Use opportunities in Horizon2020
- Search for mobility grants incoming and outgoing





#### **Publications**



- Two individual invited papers papers on one session in Hiroshima – May 2014
  - Both available on IEEE Xplore
  - Invited for re-submission to journals within IEEE
  - Review process extremely slow
- Some conference papers will be considered upgraded for submission to journals / international conferences
  - Joint papers
  - Timeline March 2015





## Conferences



- Power Electronics & HVDC conference organized by SJTU – October 2015
  - NTNU co-organizer
- NTNU will organize IEEE COMPEL in 2016
  - SJTU invited to participate
- Participate in Technical Program committees





## **Education**



- Investigating to possibility for expanding the existing program
- An alterative is to join in an on-going initiative for Erasmus Mundus programme:
  - EU-partners: Milano, Lille, Madrid, NTNU
  - MSc-thesis at universities outside Europe:
    USA, Canada, China?, .....







