Wednesday 22 January

09.00	Registration & coffee	
	Opening session – Frontiers of Science and Technology Chairs: John Olav Tande, SINTEF/NOWITECH and Trond Kvamsdal, NTNU/NOWITECH	
09.30	Opening and welcome by chair	
09.40	*Progress of offshore wind through R&D in FP7 and H2020,* Matthijs Soede, European Commission	
10.10	*Innovations in offshore wind through R&D,* John Olav Tande, SINTEF/NOWITECH	
10.35	*Highlights from NORCOWE*, Kristin Guldbrandsen Frøysa, CMR/NORCOWE	
11.00	*EERA Design Tool for Offshore wind farm Clusters - DTOC*, Charlotte Bay Hasager, DTU Wind Energy	
11.30	*Innovative wind conversion systems for offshore applications – INNWIND.EU.*, Peter Hjuler Jensen, DTU Wind Energy	
11.55	Closing by chair	
12.00	Lunch	
	Parallel sessions	
	A1) New turbine and generator technology Chairs: Karl Merz, SINTEF Prof Gerard van Bussel, TU Delft	**C1) Met-ocean conditions** Chairs: Prof J Reuder, Uni of Bergen Erik Berge, Kjeller Vindteknikk
13.00	Introduction by Chair	Introduction by Chair
13.05	*New generator technology for offshore wind turbines*, prof Robert Nilssen, NTNU	*Using the NORSEWInD lidar array for observing hub-height winds in the North Sea*, Charlotte Bay Hasager, DTU Wind Energy
13.30	*Necessity is the mother of invention: nacelle mounted lidar for measurement of turbine performance,* Matt Smith, Zephir Lidar Ltd.	*Results and conclusions of a floating Lidar offshore test*, Julia Gottschall, Fraunhofer IWES
13.50	*New rotor concepts for future offshore wind farms,* O. Ceyhan ECN	*Metocean analysis of a low-level coastal jet off the Norwegian coast*, Konstantinos Christakos, Polytec R&D
14.10	*Multi Rotor Systems of 20 MW or more for deep water applications,* Peter Jamieson, Strathclyde University	*Air-Sea Interaction Influenced by Swell Waves*, Mostafa Bakhoday Paskyabi, Geophysical Institute, University of Bergen
14.30	Closing by Chair	Closing by Chair
14.35	Refreshments	
	A2) New turbine and generator technology (cont.)	**C2) Met-ocean conditions (cont.)**
15.05	Introduction by Chair	Introduction by Chair
15.10	*DeepWind-from idea to 5 MW concept*, Uwe Scmidt Paulsen, Technical University of Denmark	*Wave refraction analyses at the western coast of Norway for offshore applications*, Ole Henrik Segtnan, Polytec R&D Institute
15.30	*Dynamic analysis of a floating vertical axis wind turbine during emergency shutdown through mechanical brake and hydrodynamic brake*, Kai Wang, NTNU	*Improving Gap Flow Simulations near Coastal Areas of Continental Portugal,* Paulo Costa, LNEG
15.50	*Concept design verification of a semi-submersible floating wind turbine using coupled simulations*, Fons Huijs, GustoMSC	*Wave driven wind and the effect on offshore wind turbine performance,* Siri Kalvig, StormGeo/University of Stavanger
16.10	Closing by Chair	Closing by Chair
16.15	Refreshments	
17.00	**Laboratory visits** a) Smart Grids Lab b) Ocean Basin Lab c) Wind tunnel	
19.00	Conference reception	

Thursday 23 January

	Parallel sessions	
	B1) Grid connection Chairs: Prof Kjetil Uhlen, NTNU Prof Olimpo Anaya-Lara, Strathclyde University	**E1) Installation and sub-structures** Chairs: Prof Hans Gerd Busmann, Fraunhofer IWES Jørgen Krokstad, Statkraft
09.00	Introduction by Chair	Introduction by Chair
09.05	*Power system integration of offshore wind farms,* Tobias Hennig, Fraunhofer IWES	*Experimental Studies and numerical Modelling of structural Behavior of a Scaled Modular TLP Structure for Offshore Wind turbines*, Frank Adam, GICON
09.30	*The Impact of Active Power Losses on the Wind Energy Exploitation of the North Sea*, Hossein Farahmand, SINTEF Energi AS	*Tension-Leg-Buoy Platforms for Offshore Wind Turbines,* Tor Anders Nygaard, IFE
09.50	*Dynamic Series Compensation for the Reinforcement of Network Connections with High Wind Penetration*, Juan Nambo-Martinez, Strathclyde University	*A preliminary comparison on the dynamics of a floating vertical axis wind turbine on three different floating support structures,* Michael Borg, Cranfield University
10.10	*Transient interaction between wind turbine transformer and the collection grid of offshore wind farms,* Andrzej Holdyk, SINTEF Energy Research	*Modelling challenges in simulating the coupled motion of a semi-submersible floating vertical axis wind turbine,* R. Antonutti, EDF R&D – IDCORE
10.30	Refreshments	
	B2) Grid connection (cont.)	**E2) Installation and sub-structures (cont.)**
11.00	*Experimental verification of a voltage droop control for grid integration of offshore wind farms using multi-terminal HVDC,* Raymundo E. Torres-Olguin, SINTEF Energi AS	*Offshore wind R&D at NREL,* Senu Sirnivas, NREL
11.20	*Ancillary Services Analysis of an Offshore Wind Farm Cluster - Technical Integration Steps of an Simulation Tool;* Tobias Hennig, Fraunhofer IWES	*Ringing and impulsive excitation of offshore wind turbines from steep and breaking waves on intermediate depth. Results from the Wave Loads project,* Henrik Bredmose, DTU Wind Energy
11.40	*Sub-sea cable technology*; Hallvard Faremo, SINTEF Energy Research	*Damping of wind turbine tower vibrations by means of stroke amplifying brace concepts,* Mark Brodersen, DTU
12.00	Closing by Chair	Closing by Chair
12.05	Lunch	
	B3) Power system integration Chairs: Prof Kjetil Uhlen, NTNU Prof Olimpo Anaya-Lara, Strathclyde University	**G1) Experimental Testing and Validation** Chairs: Tor Anders Nygaard, IFE Ole David Økland, MARINTEK
13.05	Introduction by Chair	Introduction by Chair
13.10	*Active damping of DC voltage oscillations in multiterminal HVDC systems*; Salvatore D'Arco, SINTEF Energy Research	*Joint test field research – selected results from the RAVE initiative*, Michael Durstewitz, Fraunhofer IWES
13.35	*Analysis and Design of a LCL DC/DC converter for Offshore Wind Turbines*; Rene A. Barrera, PhD Student NTNU	*Testing of towing and installation of Reinertsen self-installing concept*, Marit Reiso, Reinertsen AS
13.55	*Fault Ride Through Enhancement of Multi Technology Offshore Wind Farms*; Arshad, Ali, University of Strathclyde	*Wind turbine wake blind test;* Prof Per-Åge Krogstad, NTNU
14.15	*Reliability of power electronic converters for offshore wind turbines;* Magnar Hernes, SINTEF Energy Research	*Wind Turbine Wake Experiment - Wieringermeer (WINTWEX-W),* Valerie-Marie Kumer, UiB
14.35	Refreshments	
	B4) Power system integration (cont.)	**G2) Experimental Testing and Validation (cont.)**
15.05	*Design and Optimisation of Offshore Grids in Baltic Sea for Scenario Year 2030*, Vin Cent Tai, NTNU	*Design of a 6-DoF Robotic Platform for Wind Tunnel Tests of Floating Wind Turbines,* Marco Belloli, Politecnico di Milano
15.25	*Operation of power electronic converters in offshore wind farms as virtual synchronous machines*; Jon Are Suul, SINTEF Energy Research	*Experimental study on wake development of floating wind turbine models,* Stanislav Rockel, ForWind, Univ Oldenburg
15.45	*The Future of HVDC*; Yiannis Antoniou, University of Strathclyde	*Floating Wind Turbines*, Prof Paul Sclavounos, MIT
16.05	*North-Sea Offshore Network – NSON;* Magnus Korpås, SINTEF Energy Research	*Numerical CFD comparison of Lillgrund employing RANS*, Nikolaos Simisiroglou, WindSim AS
16.25	Closing by Chair	Closing by Chair
16.30	Refreshments	
17.00	Poster session	
19.00	Conference dinner	

Thursday 23 January

17.00	**Poster Session with refreshments** 1. *Numerical simulation of a wind turbine with hydraulic transmission system, Zhiyu Jiang, NTNU* 2. *A DC-OPF Computation for Transmission Network Incorporating HVDC Transmission Systems, Phen Chiak See, NTNU* 3. *Cross-Border Transfer of Electric Power under Uncertainty: A Game of Incomplete Information, Phen Chiak See, NTNU* 4. *FSI-WT: A comprehensive design methodology for Offshore Wind Turbines, Espen Åkervik, FFI* 5. *First verification test and wake measurement results using a Ship-Lidar System, G Wolken-Möhlmann, Fraunhofer IWES* 6. *Buoy-mounted lidar provides accurate wind measurement for offshore wind farm developments*, Jan-Petter Mathisen, Fugro OCEANOR 7. *Characterization of the SUMO turbulence measurement system for wind turbine wake assessment, Line Båserud, UiB* 8. *Field Measurements of Wave Breaking Statistics Using Video Camera for Offshore Wind Application, Mostafa Bakhoday Paskyabi, UiB* 9. *Stochastic Particle Trajectories in the Wake of Large Wind Farm, Mostafa Bakhoday Paskyabi, UiB* 10. *LiDAR Measurement Campaign Sola (LIMECS), Valerie-Marie Kumer, UiB* 11. *Fatigue Reliability-Based Inspection and Maintenance Planning of Gearbox Components in Wind Turbine Drivetrains, Amir Nejad, NTNU* 12. *Engineering Critical Assessment (ECA) of Electron Beam (EB) welded flange connection of wind turbine towers, P. Noury, Luleå University of Technology* 13. *A Multiscale Wind and Power forecast system for wind farms, Adil Rasheed, SINTEF ICT* 14. *NOWITECH Reference Wind Farm, Henrik Kirkeby, SINTEF Energi AS* 15. *Actuator disk wake model in RaNS, Vitor M. M. G. Costa Gomes, Faculdade de Engenharia da Universidade do Porto* 16. *Model reduction based on CFD for wind farm layout assessment, Chad Jarvis, Christian Michelsen Research AS* 17. *Energy yield prediction of offshore wind farm clusters at the EERA-DTOC European project, E. Cantero, CENER* 18. *Sizing of Offshore Wind Localized Energy Storage, Franz LaZerte, NTNU* 19. *Unsteady aerodynamics of attached flow for a floating wind turbine, Lene Eliassen, UiS* 20. *FloVAWT: development of a coupled dynamics design tool for floating vertical axis wind turbines, Michael Borg, Cranfield University* 21. *Use of an industrial strength aeroelastic software tool educating wind turbine technology engineers, Paul E. Thomassen, Simis as* 22. *Offshore ramp forecasting using offsite data, Pål Preede Revheim, UiA* 23. *Significance of unsteady aerodynamics in floating wind turbine design, Roberts Proskovics, Univ of Strathclyde* 24. *Synergy and disadvantage: Offshore wind farm integration with aquaculture farm, W. He, Statoil* 25. *Multiphysics optimization of ironless permanent magnet generator with super computers*, S.M. Muyeen, The Petroleum Institute 26. *Wind Tunnel Testing of a Floating Wind Turbine Moving in Surge and Pitch,* Jan Bartl, NTNU 27. *Sub-sea Energy Storage for Deep-sea Wind Farms*, Ole Christian Spro, SINTEF Energi AS 28. *How can more advanced failure modelling contribute to improving life-cycle cost analyses of offshore wind farms*?, Kari-Marie Høyvik Holmstrøm, University of East London 29. *Will 10 MW wind turbines bring down the operation and maintenance cost of offshore wind farms?,* Matthias Hofmann/Iver Sperstad Bakken, SINTEF Energi AS *30. Modelling of Lillgrund wind farm: Effect of wind direction,* Balram Panjwani, SINTEF *31. Lab-scale implementation of a multi-terminal HVDC grid connecting offshore wind farms, Raymundo Torres-Olguin, SINTEF Energi AS*
19.00	Dinner

Friday 24 January

	Parallel sessions	
	D) Operations & maintenance Chairs: Thomas Welte, SINTEF Energi AS Michael Durstewitz, Fraunhofer IWES	**F) Wind farm optimization** Chairs: Prof Trond Kvamsdal, NTNU Thomas Buhl, DTU Wind Energy
09.00	Introduction by Chair	Introduction by Chair
09.05	*Operational experience with offshore wind farms,* Per Christian Kittilsen, Statkraft	*EERA-DTOC: How aerodynamic and electrical aspects come together in wind farm design*, Gerard Schepers, Energy Research Center of the Netherlands
09.25	*Fatigue Reliability-Based Inspection and Maintenance Planning of Gearbox Components in Wind Turbine Drivetrains,* Amir Nejad, NTNU	*Benchmarking of Lillgrund offshore wind farm scale wake models in the EERA-DTOC project,* K.S. Hansen, DTU
09.45	*Cost-Benefit Evaluation of Remote Inspection of Offshore Wind Farms by Simulating the Operation and Maintenance Phase,* Øyvind Netland, NTNU	*Variable Frequency Operation for Future Offshore Wind Farm Design: A Comparison with Conventional Wind Turbines*, Ronan Meere, University College Dublin
10.05	*The effects of using multi-parameter wave criteria for accessing wind turbines in strategic maintenance and logistics models for offshore wind farms*, Iver Bakken Sperstad, SINTEF Energi AS	*Estimation of Possible Power in Offshore Wind Farms during Downregulation, PossPOW Project*, Tuhfe Göçmen Bozkurt, DTU
10.25	Closing by Chair	Closing by Chair
10.30	Refreshments	
	Closing session – Strategic Outlook Chairs: John Olav Tande, SINTEF/NOWITECH and Trond Kvamsdal, NTNU/NOWITECH	
11.00	Introduction by Chair	
11.05	*Floating wind technology – future development;* Johan Slätte, DNV	
11.35	*Results from the Offshore Wind Accelerator Programme*; Jan Matthiesen, Carbon Trust	
12.05	*Offshore wind developments,* Prof Leonard Bohmann, Michigan Tech	
12.35	Poster award and closing	
13.00	Lunch	