Winterwind 2016 program

MONDAY 8 FEBRUARY - OUTSIDE SESSION ROOMS

8 FEB

11.00–20.00

Site visit to Mullberget
Hosted by: Mullbergs Windfarm and Siemens

19.00–21.00

Registration
Stand & poster set up

TUESDAY 9 FEBRUARY

9 FEB

08.00–10.00

Registration

10.00–11.30 SESSION 1

ARENA
Inauguration and keynote presentations
Chairs: Jeanette Lindblad and Göran Ronsten

- **North Asia driving the wind industry**
  Sebastian Meyer, Azure International, CN, (28)

- **The European Commission's "WinterPackage" and the latest developments regarding cooperation and market integration of renewable energy**
  Dörte Fouquet, BBH, EREF, DE, (31)

- **Moving forward in a frosty market**
  Daniel Gustafsson, Vattenfall Wind Power, SE, (54)

11.30–13.00 LUNCH & EXHIBITION

12.30–12.55 POSTER PRESENTATIONS

01. **Reliable ice detection for rotor blades to increase availability and yield of wind turbines** — Bernd Wölfel, Wölfel Wind Systems, DE, (3)
02. **In Situ Instrument AB - your overall partner when it comes to measuring wind in any environment** — Emil Lindblom, In Situ Instrument, SE, (33)
03. **Airborne de-icing solution for wind turbines** — Hans Gedda, Alpine Helicopter, SE, (20)

13.00–14.30 SESSION 2

ARENA	**SOLSKOG**	**SNÖJUS**
Forecasting, cloud physics, aerodynamics	**HSE (Health, Safety and Environment)**	**Inspection and repair**
Chairs: Anna Coulson Sjöblom and Hans Bergström	Chairs: Ylva Odemark and Dag Haaheim	Chairs: Helena Wickman and Sven-Erik Thor
• **Benchmark study of icing forecasts. Do they really add a value?** Ben Martinez, Vattenfall R&D, SE, (11)	• **Integrated approach to safety and asset performance in cold climates** Arve Sandve, Lloyd's Register Consulting, NO, (32)	• **Assessing the likelihood of hail impact Damage on Wind Turbine Blades** Hamish Macdonald, University of Strathclyde, GB, (26)

- **Ice detection methods and measurements**
  Matthew Wadham-Gagnon,
  TechnoCentreéolien, CA, (34)

- **Towards validation of microphysics schemes in numerical weather prediction models for icing applications**
  Magnus Baltscheffsky,
  WeatherTech Scandinavia, SE, (23)

- **On-site measurement from cold Climate - possibilities and applications towards validation of CFD model**
  Marie Cecilie Pedersen,
  Vattenfall Vindkraft, SE, (24)

- **Uncertainty quantification for wind power forecasts in cold climates**
  Esbjörn Olsson, SMHI, SE, (49)

- **IceRisk forecast system for operational wind farms**
  Rolv Erlend Bredesen,
  Kjeller Vindteknikk, NO, (48)

- **Blade heat system repair, part II**
  Greger Nilsson, Blade Solutions, SE, (18)

- **Quantifying the impact of ice accretion on turbine life for typical Scandinavian sites using numerical modelling**
  Ricard Buils Urbano,
  DNV GL - Energy Advisory, GB, (42)

14.30–15.30 BREAK – POSTER PRESENTATIONS & EXHIBITION

04. **Optimizing wind and icing** — Case Finland, Simo Rissanen, VTT, FI, (58)
05. **Cost effective system for ice throw detection** — Najeem Lawal, Mid Sweden University, SE, (36)
06. **A study of maintenance performance indicators for the European offshore wind farms in cold climate regions**
— Mahmood Shafiee, Cranfield University, GB, (1)

15.30–17.00 SESSION 3

ARENA
Resource assessment, measurements and models
Chairs: Katja Hynynen and Ben Martinez

- **An experimental study on the use of nanosecond-pulsed dielectric barrier discharge plasma actuators for de-icing of aerospace structures**
  Jakob Van den Broecke, Delft University of Technology, NL, (19)

- **Frozen anemometers and bias in the wind resource**
  Lasse Johansson, Sweco, SE, (27)

- **Mast measurements in cold climate challenges and recommendations**
  Sónia Liléo, Sweco, SE, (47)

- **New advances in icing measurements and icing predictions,**
  Øyvind Byrkjedal,
  Kjeller Vindteknikk, NO, (51)

SOLSKOG
De-/anti-icing including ice detection &control
Chairs: Marie Cecilie Pedersen and Till Beckford

- **Wet-snow production and snowing wind tunnel test for snow accretion and prevention**
  Kengo Satoh, Snow and Ice Research Center,National Reserch Institute for Earth Science and Disaster Prevention, JP, (15)

- **Prediction of production losses in cold climates and ice protection system design by computational fluid dynamics**
  Massimo Galbiati, EnginSoft, IT, (7)

- **Assessment of de-icing and anti-icing technologies in ice wind tunnel**
  Nadine Rehfeld, Fraunhofer IFAM, DE, (2)

SNÖJUS
IEA TASK 19 & PANEL DISCUSSION
Chairs: Carla Ribeiro and Sebastian Meyer

- **Overview of IEA wind Task 19 results from 2013-2015**
  Ville Lehtomäki, VTT, FI, (38)

- **IEA Task 19, standardised methodology for the elaboration of the ice throw risk assessments**
  Andreas Krenn, Energiewerkstatt, AT, (9)

- **Validation of the IEA Task 19 ice site classification**
  René Cattin, Meteotest, CH, (37)

- **Classification based approach for Icing detection**
  Zouhair Khadiri-Yazami,
  Fraunhofer IWES, DE, (17)

- **Panel discussion:** What should IEA Task 19 take into account when working with the new draft standard IEC 61400-15 "Site energy yield assessment" in 2016-17?
  Ville Lehtomäki, VTT, FI, (57)

17.00–19.00 MINGLE IN EXHIBITION HALL

19.00– DINNER AND ENTERTAINMENT NOTE. WALLMAN SHOW STARTS AT 7PM

WEDNESDAY 10 FEB

08.30–10.00   **SESSION 4**

ARENA
Strategier EM/Vattenfall/Canada
Chairs: Ville Lehtomäki and Jos Beurskens

- **A Look at wind turbine performance in Canadian icing climate**
  Dominic Bolduc, TechnoCentre éolien, CA, (35)

- **The Swedish Energy Agency strategy within wind energy,**
  Pierre-Jean Rigole, Swedish Energy Agency, SE, (56)

- **An overview of Vattenfall's research within turbine icing – Yesterday, today and tomorrow**
  Ylva Odemark, Vattenfal, SE, (44)

SOLSKOG
De-/anti-icing including ice detection & control
Chairs: Nadine Rehfeld and Matthew WadhamGagnon

- **An approach in using guided waves for ice detection on wind turbines**
  Siavash Shoja, Chalmers University of Technology, SE, (50)

- **Combined effect of the heating and the superhydrophobic coating on the deicing capability of the ultrasonic wind sensor**
  Tomofumi Saito, Kanagawa institute of technology, JP, (12)

- **Performance of two nacelle-mounted ice detectors: a case study**
  Katja Hynynen, Lappeenranta university of technology (LUT), FI, (30)

- **Wind turbine ice detection systems testing**
  David Futter, Uniper Technologies Ltd, UK, (6)
  Real-World icing distribution analysis based on data from surface sensors
  Michael Moser, eologix sensor technology, AT, (53)

10.00–10.30   **BREAK - POSTER PRESENTATIONS & EXHIBITION**

07. **Ice detection via advanced infrared image analysis** — Mikko Tiihonen, VTT, FI, (43)
08. **Monitoring systems for harsh climate** — Patrik Jonsson, Combitech, SE, (25)
09. **Recent development on blade mounted and nacelle mounted ice detectors,** — Tatu Muukkonen, Labkotec, FI, (46)

10.30–12.00   **SESSION 5**

ARENA
Production experience, losses
Chairs: Rebecka Klintström and Jakob Van den Broecke

- **Update of DNV GL's empirical icing map of Sweden and methodology of estimating icing losses using further Nordic wind farm data**
  Till Beckford, DNV GL, GB, (14)

- **Methods for estimation of occurred icing losses in operational wind farms, measurements and modelling**
  Johan Hansson, Kjeller Vindteknikk, SE, (16)

- **A roadmap for understanding the performance of numerical weather prediction based models for predicting long-term wind farm production losses due to ice accretion on blades**
  Daran Rife, DNV GL, US, (22)

SOLSKOG
DOM (Deployment, Operations and Maintenance)
Chairs: Sónia Liléo and Andreas Krenn

- **Swedish Wind Energy Association's view on wind energy in cold climates**
  Bengt Göransson, Dag Haaheim, Pöyry Sweden AB, SE / Statkraft Sverige AB, SE, (55)

- **Forecasting wind turbine icing: the value of icing forecasts trading on the day-head energy market**
  Jon Collins, DNV GL, GB, (5)

- **Applications of iced wind turbine noise simulations**
  Richard Hann, Richard Hann Consulting, DE, (21)

SNÖJUS
Standards and Offshore
Chairs: Anne Mette Nodeland and René Cattin

- **Validation of icing atlases based on SCADA data**
  Timo Karlsson, VTT, FI, (13)

- **Pre-certification of cold climate instruments and coatings**
  Tuomas Jokela, VTT, FI, (29)

- **Simulations of drifting sea ice loads on offshore wind turbine support structures**
  Simo Rissanen, VTT, FI, (45)

10
FEB

12.00–13.30   LUNCH & EXHIBITION

13.00–13.25   POSTER PRESENTATIONS

10. **Decommissioning of wind farms – ensuring low environmental impact** — Liselotte Aldén, Uppsala University, SE, (8)

11. **Doing a meso-scale re-analysis using the WRFmodel – does it matter for the resulting icing climatology which version of WRF you use?** — Hans Bergström, Uppsala University, SE, (4)

12. **Determination of the actual ice mass on wind turbine blades; Measurements and methods for avoiding excessive icing loads and threads** — Daniel Brenner, Bosch Rexroth Monitoring Systems (BRMS), Dresden,DE, (52)

13.30–15.00   SESSION 6

ARENA – PANEL DISCUSSION AND SUMMARY
Safe and reliable operation in cold climate conditions – today and in the future
Chairs: Åsa Elmqvist and Anders Järvelä

Five short presentations prior to panel discussion

- **ENERCON. Experiences with wind energy turbines in icing conditions**
  Anne Mette Nodeland, ENERCON, DE, (10)

- **Vestas cold climate offerings to cope with icing conditions**
  Brian Daugbjerg Nielsen, Vestas, DK, (39)

- **Siemens. Improving output in harsh conditions**
  Annike Skovgaard Sørensen, Siemens Wind Power, DK, (40)

- **Nordex anti-icing system on N131 wind turbines – development and validation**
  Andreas Beyer, Nordex Energy, DE, (41)

- **Dongfang experience in low temperature wind turbine de-icing**
  Honghua Zhong, Dongfang Electric Corporation, CN, (61)

- **Summary (assisted by Jos Beurskens and Sven-Erik Thor)**
  Daniel Gustafsson, Dörte Fouquet, Vattenfall, SE/BBH EREF, DE, (60)