



# Wind Energy Science Conference 2023

23 – 26 May 2023  
Glasgow, United Kingdom



**2.4a Mini Symposia: Wind Farm Flow Control research organized by IEA Wind Task 44**  
🕒 WHEN 8:30am - 10:15am  
📍 TRACK **Room 04 - Conference Room 2 (Level 3)**



Coffee & Registration

Opening Ceremony

Morning Coffee Break

7.7 Mini Symposium: Atmospheric drivers of blade leading edge erosion

11.1 Mini Symposium: Atmospheric drivers of blade leading edge erosion

10.1 Mini Symposium: Machine learning and big data applications in wind energy

9.2 Theme 9: Economics, Health & Safety and Environmental Impact

3.1 Mini Symposium: Current state of the art and new developments in wind turbine generativity

8.1 Morning

7.6 Mini Symposium: Drivetrain and electro-mechanical interactions

2.6 Blockage and Cluster Wakes

6.1 Mini Symposium: Recent progress on offshore extension, decommissioning, Repowering and Repurposing of onshore and offshore wind turbines

4.1 Mini Symposium: Environmental design and operation of wind turbines

5.1 Mini Symposium: Structural and mechanical sub-systems of multi-MW turbines: Recent advances and innovations in design, load modelling and dynamic modelling

2.5a Engineering, RANS and dynamic wake models

Lunch

9.2 Mini Symposium: German research wind farm (WIND) – innovative instrumentation, and advanced testing to enable a digital twin wind farm

2.7a Wind Farm Control

3.12a Wind turbine wakes

10.14 Sensing and measurement technologies for offshore wind

1.3 Mini Symposium: Bringing together offshore wind resource assessment and meteorological technical aspects

2.5b Engineering, RANS and dynamic wake models

Afternoon Coffee Break

7.1 Mini Symposium: WorldFirst project – H2020 MISCA-ITN programme Wind farm grid interactions – exploration and development

10.8a Mini Symposium: Vertical axis wind turbines and wind farms, including multi-rotor systems

3.5a Addons, tips and flaps

1.10a Lidar / Measurements

8.1 Mini Symposium: Offshore Wind Modeling Tool Validation (OGG)

2.5b Engineering, RANS and dynamic wake models

Afternoon Coffee Break

7.1 Mini Symposium: WorldFirst project – H2020 MISCA-ITN programme Wind farm grid interactions – exploration and development

10.8a Mini Symposium: Vertical axis wind turbines and wind farms, including multi-rotor systems

2.7b Wind Farm Control

3.12b Wind turbine wakes

5.6 Novel structural testing and validation methods

10.10 Mini Symposium: Emerging floating technologies for offshore wind

6.11 Life Counter

10.8b Mini Symposium: Vertical axis wind turbines and wind farms, including multi-rotor systems

3.5b Addons, tips and flaps

1.10b Lidar / Measurements

2.11 Atmosphere and Energy Yield

3.10 Stability analysis

Welcome Reception

Greening Our Charters

Coffee & Registration

3.12 Vertical axis and other non-standard configurations

1.2 Mini Symposium: Atmospheric icing on Wind Turbines

10.10 Mini Symposium: Small wind turbines: the next ten years

2.1 Mini Symposium: OWA Global: Building Industry Consensus on the Global Blockage Effect in Offshore Wind

1.4a Mini Symposium: Large-Scale Wind Farm Modelling

4.4 Noise and Turbine Control

6.3a Mini Symposium: Digital twins for lifetime assessment of structures

10.7a Mini Symposium: WINDTOR Offshore Wind Turbine Concept, EU H2020 WINDTOR Project Update

5.3a Mini Symposium: Structural design, modeling and simulation of wind turbine rotor blades

2.3 Mini Symposium: Open Source Wind Farm Flow Model Libraries

2.8 Power Performance and Turbine Modelling

Morning Coffee Break

4.3 Noise

8.1 Mini Symposium: Social, economic and environmental aspects in offshore wind

7.8 Mini Symposium: Hybrid Renewable Plants

6.4 Aero-Hydro-Servo-Elastic Coupled Dynamics



7.12 InnoPress project – Innovative tools for offshore energy systems

Lunch

3.2a Mini Symposium: COE-WIND-Cost Efficient Floating Wind

7.2 Dynamic stability of wind power systems

10.18 Modelling and analysis of offshore wind turbines

1.4b Mini Symposium: Large-Scale Wind Farm Effects – There is an upper limit for installations?

3.2a Mini Symposium: Active Flow Control at Blade Scale

1.5b Mini Symposium: Digital twins for lifetime assessment of structures

10.7a Mini Symposium: WINDTOR Offshore Wind Turbine Concept, EU H2020 WINDTOR Project Update

5.3b Mini Symposium: Structural design, modeling and simulation of wind turbine rotor blades

6.4b Aero-Hydro-Servo-Elastic Coupled Dynamics

6.12 Mini Symposium: Wakes of floating wind turbines

3.2b Mini Symposium: Active Flow Control at Blade Scale

Advances in numerical simulation techniques

6.4 Mini Symposium: Structural Monitoring as a Tool for Managing Wind Farms Operation

5.3c Mini Symposium: Structural design, modeling and simulation of wind turbine rotor blades

6.7a Availability

2.12 Mini Symposium: Full scale offshore wind turbine validation

Afternoon Coffee Break

3.2b Mini Symposium: COE-WIND-Cost Efficient Floating Wind

8.4 Central

10.11 Mini Symposium: Ocean-REFuel: next generation Renewable Ocean Energy

1.11 Forecast

8.8 Structural design and optimization tools

10.2 Mini Symposium: Wind and Renewable Hydrogen

3.11 Unsteady aerodynamics

8.4 Central

10.11 Mini Symposium: Ocean-REFuel: next generation Renewable Ocean Energy

7.10 Mini Symposium: Wind Turbine Drive Train: Trends and Technologies

1.15 Mini Symposium: Dual Doppler Wind Radar for Wind Energy Applications

European Academy of Wind Energy (EAWE) 20th Anniversary Panel

Coffee & Registration

3.2 Mini Symposium: Multidisciplinary Design of Wind Turbines

5.2a Mini Symposium: Structural integrity assessment and life cycle management of wind farms

1.8a Mini Symposium: Understanding the physics and aerodynamics of atmospheric flow for predicting wind power production and evasting loads

2.4a Mini Symposium: Wind Farm Flow Control research organized by IEA Wind Task 44

1.6a Mini Symposium: Large wind farm wakes

7.3 Electrical generators for wind turbines

4.5 Wind Farms, Offshore, and More

2.10 Turbulence

6.10 Digital Twins

10.12 Mini Symposium: Running (Inter)national wind energy training networks and how to harness those for future capacity

8.11 Mini Symposium: Experiments about floating wind turbines

Morning Coffee Break

6.9 Measurements/Monitoring

5.2b Mini Symposium: Structural integrity assessment and life cycle management of wind farms

1.8b Mini Symposium: Understanding the physics and aerodynamics of atmospheric flow for predicting wind power production and modelling blades

2.4b Mini Symposium: Wind Farm Flow Control research organized by IEA Wind Task 44

1.6b Mini Symposium: Large wind farm wakes

10.17 Techno-economic assessment of wind systems

5.2b Reliability

8.10 Mini Symposium: Floating wind system design and lifecycle performance analysis

4.6 Mini Symposium: IEA Wind Task 52: Lidar-Assisted Control, Turbulence Estimation, and Digitalization

1.13a Mesoscale to microscale modeling

7.9 Mini Symposium: Multidisciplinary optimization of wind power plants



10.15 Offshore winds to Hydrogen opportunities

7.4 Grid oriented wind turbine/plant control

2.8a High-Fidelity Modeling

3.3a Mini Symposium: Floating Wind Farm Design and IEA Wind Task 49

6.8a Mini Symposium: Prognostics and Health Management

1.8b Mini Symposium: Wind fields – highly resolved measurements, models and uncertainties

1.13b Mesoscale to microscale modeling

3.8a Loads, availability and controls

3.8 Advances in Blade Element Momentum (BEM) and Actuator Line Model (ALM) methods

2.4c Mini Symposium: Wind Farm Flow Control research organized by IEA Wind Task 44 (CHANGE TO SESSION ROOM)

Afternoon Coffee Break

10.9b Mini Symposium: Airborne Wind Energy

6.4 Lightweight, sustainable material science and manufacturing

1.5 Mini Symposium: IEA Wind Task 52: Replacing net masts and Accelerating offshore wind deployment

2.8b High-Fidelity Modeling

6.3a Mini Symposium: Floating Wind Farm Design and IEA Wind Task 49

6.5b Mini Symposium: Prognostics and Health Management

1.8b Mini Symposium: Wind fields – highly resolved measurements, models and uncertainties

10.8 Mini Symposium: Uncertainty in analysis, design and operations

3.8b Loads, availability and controls

4.2 Mini Symposium: Smart operation control technologies for offshore wind farms

2.6d Mini Symposium: Wind Farm Flow Control research organized by IEA Wind Task 44 (CHANGE TO SESSION ROOM)

Confidence Dinner

Coffee & Registration

10.9a Mini Symposium: Airborne Wind Energy

2.3 Mini Symposium: AWAKEN – The American Wake Experiment

1.7 Mini Symposium: Wind Resource Variability and Climate Change Impacts

3.4a Mini Symposium: Wind Turbine Blade Aerodynamic Measurements

1.12a ML

8.6 Design, Analysis, and Optimization

1.7 Circular economy and recyclability of materials Panel

1.14a Offshore

10.9 Mini Symposium: Towards an Ecosystem of Full Data and Open-Source Tools

3.8a Airfoils and blade aerodynamics

Morning Coffee Break

1.14b Offshore

7.11a Mini Symposium: Value-centred design and operation of wind turbines and wind farms

8.9 Novel modelling techniques

3.4b Mini Symposium: Wind Turbine Blade Aerodynamic Measurements

6.12b ML

7.5 System Integration of Wind Power

8.9 New and Emerging Concepts and Approaches

1.14b Offshore

7.11a Mini Symposium: Value-centred design and operation of wind turbines and wind farms

3.8b Airfoils and blade aerodynamics

3.8a Airfoils and blade aerodynamics

Lunch

10.9a Mini Symposium: Airborne Wind Energy

7.6 Wind turbine drive train

10.3 Mini Symposium: Multirotor wind turbine systems

8.7 Hydrodynamics

1.10 Extreme

6.8 Mini Symposium: Monitoring the Performance of Operational Wind Turbines

5.10 Mini Symposium: Advanced design of support structures: load assessment, structural reliability, and computer-aided optimization

1.14c Offshore

7.11b Mini Symposium: Value-centred design and operation of wind turbines and wind farms

10.13 Advancement in data-driven approach for offshore wind turbines

Afternoon Coffee Break

Closing Ceremony



セッション数: 約140件  
 発表件数: 約740件  
 参加者: 1000人以上

