

EUROSIM 2019

LA RIOJA (SPAIN), JULY 1ST-5TH

10th Congress of the Federation of European Simulation Societies
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Approaching Floating Off-shore Wind Turbines (FOWT): modelling, optimization and control

Within the area of renewable energies, wind energy has arisen important expectations in terms of energy production and high efficiency, but also raising concerns about possible environmental impact. One possible solution to alleviate this problem is the installation of offshore wind turbines (OWT), more in particular, in deeper seabed areas, FOWT (Floating Offshore Wind Turbines). However, due to their location on the sea surface, with strong winds, waves and currents, they are subject to large loads and undesirable vibrations. Hence, reducing the impact of loads on the FOWT structures is extremely important as it would allow for increased reliability and possibly, improve the wind turbine energy extraction.

The aim of this session is to present results of research related to the modelling, identification, control and optimization of these floating devices, emphasizing the importance of reducing the vibration and oscillations they are subject to due to the marine loads. This session will provide an interesting opportunity to discuss the latest theoretical advances and real-world applications on floating wind turbines, including among others, the following topics:

- Modelling and identification of FOWT
- Wind turbines control and control problems to be addressed
- Wind and waves models for FOWT
- FOWT vibration control
- Energy efficiency and optimization of FOWT
- Tuning optimization of FOWT vibration control

Important dates:

Submission deadline	10th June 2019
Acceptance deadline	15th June 2019
Final submission deadline	20th June 2019
Conference	1-5 July 2019

Chairs:

- Matilde Santos, University Complutense of Madrid, msantos@ucm.es
- María Tomás-Rodríguez, The City, University of London, UK, María.Tomas-Rodriguez.1@city.ac.uk
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Paper Submission: <https://easychair.org/conferences/?conf=eurosim2019>

(When submitting a paper, mark the corresponding special session)