

## **Wind Energy Systems Operation & Maintenance (Including recent results from the AWESOME project)**

### **Convener:**

Julio J. Melero (CIRCE, Spain, [melero@fcirce.es](mailto:melero@fcirce.es))

### **Description:**

Wind Energy Systems Operation & Maintenance is a multidisciplinary area with raising attention in the last years. The Advanced Wind Energy Systems Operation and Maintenance Expertise (AWESOME) project was born from necessity of experts in this field arisen by the TPWind Platform. The project seeks to shape a critical mass of new expertise with the fundamental skills required to power the scientific and technological challenges of wind farm O&M, including electricity, electronics, mechanics, communication technologies, meteorology, statistics, economics & finances, logistics, managerial aspects, etc. During this session, the early stage researchers from the project will present their results/achievements so far. Their presentations will give an insight into recent advances in O&M of wind turbines.

Since this symposium aims at bringing researchers to share knowledge on wind farm operation and maintenance, researchers from outside of the AWESOME consortium are also invited to submit their work.

The topics of interest include but are not limited to:

- Performance and condition monitoring
- Structural health monitoring
- Fault detection systems
- Reliability and Uncertainty Modelling
- Wind & Power forecasting
- Wind farm operation and control
- Maintenance modelling and optimization
- End-of-life issues: Repowering & Lifetime extension