



Special Session on

CONDITION MONITORING AND HEALTH ASSESSMENT OF WIND TURBINES

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Call for Papers

Electrical power generation in the world has experienced a rapid increase in harvesting of wind energy which is well known as a clean and economical source of energy over last decades. The total installed wind power capacity in the world reached 487GW at the end of 2016 which represents more than 314,000 installed wind turbines (WTs) and accounts for more than half of total world renewable energy capacities not including hydropower according to the renewable energy policy network (REN21) and the global wind energy council (GWEC) reports. WTs either being on-shore or off-shore are power plants hardly accessible and commonly subjected to harsh weather and continuous load fluctuation conditions which results in high mechanical stresses and increase of failures. Moreover, the failure rates of medium and high power WTs are much more than small power ones and hence medium and high power WTs require frequent inspections and maintenance operations. In this regard, it is essential to improve the reliability and the availability of WTs in order to reduce the unscheduled downtime and to minimize the maintenance costs. This special session is dedicated to research works which highlight the condition monitoring of wind turbines using vibration and electrical signature analysis. The scope includes but is not limited to the following topics:

- Signal processing techniques for mechanical and electrical faults diagnosis;
- Model based techniques for sensor fault identification;
- Fault detection in non-stationary working conditions;
- Real-time fault detection and decision making process.

Deadlines:

Submission of the full paper: October 15th, 2017

Notice of acceptance: November 11th, 2017

Submission of final papers: December 12th, 2017

All the instructions for digests are included in the conference website: <http://icit2018.org/en>