

International Symposium on

MATERIALS FOR WIND ENERGY APPLICATIONS

Development, Modelling and Future Directions

September 17-19, 2012, Beijing, P.R. China



Overview and Objectives

In order to reduce the fossil fuel dependency, many countries seek to expand the wind energy sector. The efficiency and practical usability of wind energy technology depend on the reliability and lifetime of wind turbines. Generally, a life span of a wind turbine is expected to be at least 20-25 years without repair and with minimum maintenance. Yet, up to 20% of wind turbine blades fail within first three years of functioning. In order to ensure the reliable work of future wind turbines and necessary expansion of the wind energy sector, strong and resistant wind turbine materials with improved properties are necessary. This will be the subject of the Symposium.

The Symposium will bring together specialists in the area of composites and materials for wind energy application from different countries, to discuss the development of the wind turbine materials, their modelling, service properties, case studies and promising directions of future development.

The Symposium is organized in the framework of Sino-Danish collaborative project “High reliability of large wind turbines via computational based enhancement of materials“ supported by Danish Council for Strategic Research and the Program of International S & T Cooperation “Experimental and computational studies on mechanics of advanced materials for large-scale wind turbine blades” supported by Ministry of Science and Technology, China

Symposium Topics

The Symposium will cover the following main themes:

- Materials for wind blades: composites, sandwich structures, processing, testing and modelling and service properties of wind blade materials,
- Reliability and strength of wind turbine blade materials, degradation processes, fracture and fatigue and computational modelling.
- Large and extra-large wind blades: specific requirements and development of materials for large wind turbines,
- Materials for small wind turbines and small scale wind energy in developing and developed countries,
- Future directions in the development of materials for wind turbines

General Information

Contact:

Dr. habil. Leon Mishnaevsky Jr.,
Senior Scientist, Symposium Chairman
Risø Campus, Technical University of
Denmark, DK-4000 Roskilde, Denmark
Email: lemi@risoe.dtu.dk

Professor Zhou Hongwei, Symposium
Chairman, School of Mechanics and Civil
Engineering, China University of Mining
and Technology (Beijing), Beijing 100083,
P. R. China
E-mail: zhw@cumtb.edu.cn

Location

The Symposium will take place in the Beijing, China. Please note that September is high season for tourism in China. The prices for flight ticket will increase very quickly at the beginning of summer. **Early reservations of both the hotel and flight tickets are strongly recommended!**

Abstract Submission

Please submit an abstract (200-300 words, in MS Word format) by e-mail to lemi@risoe.dtu.dk no later than March 15, 2012. Authors will be notified of the Organizing Committee's decisions shortly thereafter.

Registration

All participants are requested to register before March 30, 2012. The registration fee is 400 EURO for participants from developed countries, and 100 EURO for participants from developing countries. For Chinese participants, the registration fee is 2000 RMB. After March 31, 2012, the registration fee increases to 520 EURO (developed countries), 180 EURO (developing countries) and 2700 RMB (P.R.C.), respectively. The payment of the registration fee should be made either by credit card, or by bank transfer. Finally, after June 15, 2012, we take additionally late-registration fee of 130 EURO, 70 EURO and 800 RMB, for developed, developing countries and Chinese participants, respectively. The registration includes the access to the sessions, and coffee/refreshment.

Webpage: [here](http://www.risoe.dtu.dk/Research/sustainable_energy/wind_energy/projects/AFM_reliab/Symposium-2012.aspx) or http://www.risoe.dtu.dk/Research/sustainable_energy/wind_energy/projects/AFM_reliab/Symposium-2012.aspx