HAUS DER TECHNIK
Außeninstitut der RWTH Aachen
Kooperationspartner der Universitäten Duisburg-Essen
Münster - Bonn - Braunschweig

2010 – Year of the Windenergy

www.my-windenergy.com

Seminare und Tagungen in deutscher Sprache
Alle Informationen unter: www.windenergie-info.de

FB010/23175

Seminars and Conferences 2010
All about Wind-Energy at Haus der Technik

Haus der Technik (HDT) is on the right track with wind energy and has suceeded in turning Essen into a meeting place for the industry.
The range of conferences and specialised events offered on wind energy is continually being extended and has developed into an important mainstay for the success of the more than 80 years old institution. To date, more than a thousand participants and delegates have attended HDT seminars and conferences in the field of wind energy. The comprehensive nature of HDT's offer is underlined by a quick glance at its current themes: Drivelines in Wind Power Installations, Towers and Foundations of Wind Energy Converters, Dynamic Load & Stress and Design of Wind Turbines, Wind Farm Development, Rotor Blades, Wind-Turbine Based Electrical System, and Technical Operation of Wind Farms.
Increasingly in the future, events will be increasingly offered with simultaneous translation or held completely in English: www.my-windenergy.com

For detailed information on all the seminars and conferences visit our website www.my-windenergy.com
In case of a query, please do not hesitate to contact us:
Phone +49 201 18031
We will be every pleased to assist you.

Current Event-Highlights


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Towers and Foundations for Wind Energy Converters
in co-operation with Leibniz University Hanover
23-24 February 2010, Essen, Germany
W-H010-02-231-0

Wind energy has developed into one of Germany's largest renewable energy sources. 20,303 wind energy converters (WEC), with a total generating capacity of more than 23,903 MW, were installed in 2007. These have helped reduce the annual CO_2 emission by approximately 35 million tons. However, structural engineers are faced with new challenges concerning the substructure designs of ever larger WECs.

The objective of this technical conference is to convey in-depth knowledge to the participants with reference to the substructure design and assessment methods of wind energy converters (WEC). Special topics deal with shell buckling, fatigue design and constructive details at connections. Conference attendees will gain the essential design basics of onshore-WEC design including steel tubular towers, lattice towers or prestressed concrete towers as well as their foundations.

The event is to be held in English and German. Simultaneous translation will be available.

Drivelines in Wind Energy Converters

Demands put on gears, couplings and bearings
9-10 March 2010, Essen, Germany, W-H010-03-358-0

The rapid developments in wind turbines should not mislead us to overlook the fact that often in turbines, particularly of high performance categories, technical faults and even damages occur in various elements of the drivelines (gears, couplings and bearings), which in drivelines of comparable size in other industries or branches of industry (e.g. heavy rolling mill drives) have so far been unknown. The main reason for this, on the one hand, lies in the fact that the basic support structure of a wind turbine consisting of tower and nacelle are very elastic and in combination with the rotor presents an extremely occilation-susceptible system. On the other hand, the quick growth of the industry in the past few years has certainly also brought forth problems, as neither an extensive operational experience with varying-sized turbines nor enough expertise, especially in the area of turbine drive trains, with the use today of large-sized components could be gathered. Servicing and repairs of wind turbines are as a consequence of the difficult accessibility expensive and time consuming. A reliable but nonetheless economic interpretation requires an exact knowledge of the operating loads and a safe protection from overloads. With the planned offshore turbines, reliability will gain a still further importance.


The event is to be held in English and German.
Simultaneous translation will be available.

International Conference on Wind Turbine Rotor Blades

With Supporting Exhibition
15-16 June 2010, Essen, Germany, W-H010-06-302-0

Rotor blades are the core of wind turbines. They determine the maximum harvest of wind energy. Their full functionality and security against fatigue and degradation has to be designed and assured for a service life of at least twenty years. Meanwhile, keeping pace with the rapid development of the market, rotor blade size is steadily increasing particularly for off-shore operations. In order to meet the requirements within the framework of design, development and construction of rotor blades, a comprehensive knowledge of the specific essentials, e.g. of the outer and inner stresses and strains, computing and evaluation methods, and material capability and performance characteristics is necessary. Durable construction and optimised production technologies, therefore, are necessary prerequisites for long service intervals, just as new and yet to be developed structural health monitoring systems (SHM) are. Experience shows that quite a lot of damage can still occur to existing rotor blades and that a lot of problems in this area are not solved yet. Also, the solution to the problem of disposal is still in its infancy.


The event is to be held in English and German.
Simultaneous translation will be available.

Further Highlights:

Introduction to Wind Energy Utilisation
3 February 2010, Berlin, Germany

The basics of wind energy utilisation, i.e. the physical transformation of wind into energy, will be explained in stages. How are the wind conditions evaluated at site? What has to be considered in planning a wind farm? Which technology is in use currently? What are the technical and safety requirements for feeding electricity into the grid? What has to be done to ensure the long-term and efficient operation of the wind farm? What are the trends and expected future developments in the wind energy market?

W-H010-02-238-0

Technical Operation of Wind Farms
4 February 2010, Berlin, Germany

Besides management, the operator of a wind farm is in charge of the technical aspects to ensure safe and efficient operation. The aim is the long-term protection of the investment and the optimal energy yield. Furthermore, the operator has to consider the requisite requirements of the highest possible potential of the wind farm available especially for the strong wind periods during the year. The owners of the wind farms, most of the time, are not able to deal with all technical tasks. That is why the operators or service companies are in charge of the technical tasks. The requirements of the technical operations are increasing with the size and complexity of the wind energy converters. The operator is the link between the service and repair company of the manufacturer, other service suppliers, insurance companies as well as grid operators. The operator also has to report to the investors. With a modern concept of technical operation it is possible to increase the efficiency or the reaction times even of a well-run wind energy converter.

W-H010-02-239-0

Wind Farm Development and Technical Due Diligance - Technical, Legal and Economic Criteria for Project Assessment
11-12 March 2010, Essen, Germany

The fundamental framework of conditions for the total operational duration of generally 20 years are put in place during the development phase of a wind farm project. Even risks, which might affect the project profitability in the medium or long term often originate in the early project phases. To identify and minimize these project risks, as far as possible, should be the goals of a durable successful project development. The seminar participants will be provided a general overview of the basic principles and practical aspects of wind farm development, i.e. different criteria of site selection and assessment, environmental issues, and the acquisition as well as completion of all required permits and contracts.Therefore, technical, financial and (general aspects of) legal criteria and principles of the development process as well as the potential impact on the overall project risk especially with respect to project cash flow will be addressed. Beyond the general overview two international markets will be presented in some more details by the co-speakers.

W-H010-03-370-0

Wind Turbine Based Electrical System - Basics, Generators, Power Electronics, Auxiliary Components and Grid Connection
26-27 April 2010, Essen, Germany

The course is designed to equip the participants with a practical understanding of the function of wind turbines and particularly of the feeding of wind energy into the supply network. The required knowledge and understanding of basic electrical engineering as well as specialised know-how in the field of electrical machines, power electronics and electrical networks will be provided in this course. The course participants´ existing knowledge will be developed to encompass an overall understanding of the wind turbine based electrical system.

W-H010-04-184-0

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☐ Registration
☐ Request for more information

Fax-Reply to: +49 201 18 03 263

Please use this form for your registration as well as for requesting further information about the conferences and seminars. All details are available in the internet: www.my-windenergy.com

First Delegate

Event Title: _____

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Organisation / Company: _____

Department: _____

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