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580th Conference

Scientific Program

World Congress and Exhibition on

Wind & Renewable Energy

July 28-30, 2016 Berlin, Germany



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Scientific Program

Day 1 July 28, 2016

08:30-09:00 Registrations

Experience I + II

conferenceseries.com **09:00-09:30 Opening Ceremony**

Keynote Forum

09:30-10:00 **Title: Advances in morphing wind turbine blade for wind energy conversion**
Asfaw Beyene, San Diego State University, USA

10:00-10:30 **Title: An Innovative Solution for Large Unit Capacity Wind Energy Converters Offshore**
Peter Jamieson, University of Strathclyde, UK

Coffee Break @ Main Lobby 10:30-10:45

10:45-11:15 **Title: Feasibility study on a fabric-covered wind turbine blade**
Jae-Sung Bae, Korea Aerospace University, Korea

Sessions:
Wind Power Technology | Wind Turbines Instrumentation | Wind Safety Measures |Hydro Power Technology
Renewable & Sustainable Energy

Session Introduction

Session Chair: Asfaw Beyene, San Diego State University, USA
Session Co-Chair: Modour Zgoul, American University of Madaba, Jordan

11:15-11:40 **Title: Condition Based Maintenance of Offshore Wind Turbines - Identification of critical operation conditions & determination of the next oil exchange by 24/7 Monitoring of Oil Quality, Oil Aging and Additive Consumption**
Manfred Mauntz, cmc Instruments GmbH, Germany

11:40-12:05 **Title: A software package for maintenance management of wind turbines**
Yashwant Sinha, Robert Gordon University, United Kingdom

12:05-12:30 **Title: Domestication of Wind Energy Through Integration of House-hold Fan**
Bijon Kumar Sil, The Awesome Place (TAP), Singapore

12:30-12:55 **Title: Capabilities of wind turbine ground test facilities – Benefits from standardizing test methods of blade and nacelle test centre around the world**
Dennis Bosse, RWTH Aachen University, Germany

12:55-13:20 **Title: Thermo graphic rotor blade inspection from larger distances – A promising tool for the maintenance of wind turbines**
Rainer Krankenhagen, Federal Institute for Materials Research and Testing, Germany

Group Photo

Lunch @ Element I+II Restaurant 13:20-14:00

14:00-16:00 **Work shop on An Innovative Solution for Large Unit Capacity Wind Energy Converters Offshore**
Peter Jamieson, University of Strathclyde, UK

Coffee Break @ Main Lobby 16:00-16:15

Young Researchers Forum

16:15-16:30 **Title: Development and Structural Numerical Analysis of Light Shell with Frame Diffusor**
Tomasz Szafranski, Military University of Technology, Poland

16:30-16:45 **Title: One and Double Sided Coupling Methods for Structural Analysis of Wind Power Blades**
Michał Tomaszewski, Military University of Technology, Poland

16:45-17:00 **Title: The effect of grid resolution on large - eddy - simulations for the atmospheric boundary layer**
Ioannis Bouras, University of Sheffield, UK

Sessions:

17:00-17:25 **Title:The impact of the yaw error on the performance of a horizontal axis wind turbine**
Daniele Vitali, Marche Polytechnic University, Italy

17:25-17:50 **Title: Optimization Wind Power Production in Cold Climate and Icing in Canada**
Mohammad Sadegh Eslamipour, Mapna Generator, Iran

17:50-18:15 **Title: Design, Construction, Simulation and Performance Evaluation of a Guadua Angustifolia Solar-Electric Vehicle**
Jose Alejandro Posada, Pascual Bravo University Institute, Colombia

Panel Discussion

Day 2 July 29, 2016

Experience I + II

Keynote Forum

08:30-09:00 **Title: Technological Advances in Grid Code Compliance, High Penetration and Drive Train Diagnostics of Wind Energy Conversion Systems**
Syed Islam, Curtin University, Australia

09:00-09:30 **Title: DBD Plasma Flow Control on Wind Turbine Blades**
David Greenblatt, Technion - Israel Institute of Technology, Israel

Sessions:
Wind Farms Construction | Solar Power Technology | Global trends in Renewable Energy Commercialization & Investment
Third Generation Wind Power | Ocean Energy

Session Introduction

Session Chair: Dennis Bosse, RWTH Aachen University, Germany
Session Co-Chair: A D Thirumoorthy, Chief Technical Advisor, Indian Wind Power Producers Association (IWPA)

09:30-09:55 **Title: The effect of the upstream wind conditions on the performance of a vertical axis wind turbine**
Ioannis Bouras, University of Sheffield, UK

09:55-10:20 **Title: Improving power forecasting in wind turbines using neural networks**
Bartolomé Manobel Ponce, Universidad de La Serena, Chile

10:20-10:45 **Title: Wind derivatives pricing issues**
Yeny E. Rodríguez, ICESI University, Colombia

10:45-11:10 **Title: Advanced Control for Wind Turbine Grid Connection Requirements**
Nicolò Gionfra, Laboratoire des Signaux et Systèmes, France

Coffee Break @ Main Lobby 11:10-11:25

11:25-11:50 **Title: Computational Aerodynamics Optimization of Wind Turbine's Blade Twist Angle**
Moudar Zgoul, American University of Madaba, Jordan

11:50-12:15 **Title: Assesment of Sub-Synchronous Resonance in Series Compensated Type 3 Wind Power Plant**
V.B.Virulkar, Govt. College of Engineering Amaravati (MS), India

12:15-12:40 **Title: Large Scale Integration of Renewable Energy in the Grid,Tamilnadu State's Experience**
P.R. Muralidharan, Superintending Engineer, Renewable Energy Management Centre, Tantrnasco

12:40-13:05 **Title: Case study of Power Quality Survey in Wind Farms**
A.D.Thirumoorthy, Chief Technical Advisor, Indian Wind Power Producers Association (IWPA), India

13:05-13:30 **Title:Transient and Steady-State Stability Analysis of SMIB Power System Embraced with Highly Penetrated PV Generator**
Mohammad S. Widyan, The Hashemite University, Jordan

Lunch @ Element I+II Restaurant 13:30-14:10

14:10-16:10 **Work shop on Domestication of Wind Energy Through Integration of House-hold Fan**
Bijon Kumar Sil, The Awesome Place (TAP), Singapore

Coffee Break @ Main Lobby 16:10-16:25

16:25-16:50 **Title: Combining offshore energy production in multi-use combinations: Lessons learned from Europe**
Stuiver Marian, Senior researcher at Wageningen University and Research Centre, Netherlands

Poster Presentations 16:50-17:30

WRE 01 **Title: Study on Characteristic Analysis of Generator System according to Parameter Variations of Wind Turbine**
Gap-Jin Han, Dong-A University, KOREA

WRE 02 **Title: Change in surface wind speed and its implication for wind energy over Taiwan simulated by WRF nested with ECHAM5/MPIOM**
Chuan-Yao Lin, Academia Sinica, Taiwan

WRE 03 **Title: Development of Small Wind Turbine Adopting Folded-Plate Blades and testing the performance of blades with one and two straight folded lines**
Churchill Saoke, Jomo Kenyatta University of Agricuture and technology, Kenya

WRE 04 **Title: Structural modeling of a horizontal axis wind turbine.**
Mohammad Sheibani, Ferdowsi Univeristy of Mashhad, IRAN

17:30-17:55 **Energy and the climate change: One counter-face**
Mohi El Din Kuku Bakheet, Alzaiem Alazhari University, Sudan

17:55-18:20 **Title: Seawind 6- The complete offshore wind energy system to lower the CoE**
Martin Jackubowski, Seawind Ocean Technology B.V., The Netherlands

Panel Discussion & Certificate Distribution

Day 3 July 30, 2016

Extended Networking Session & Lunch