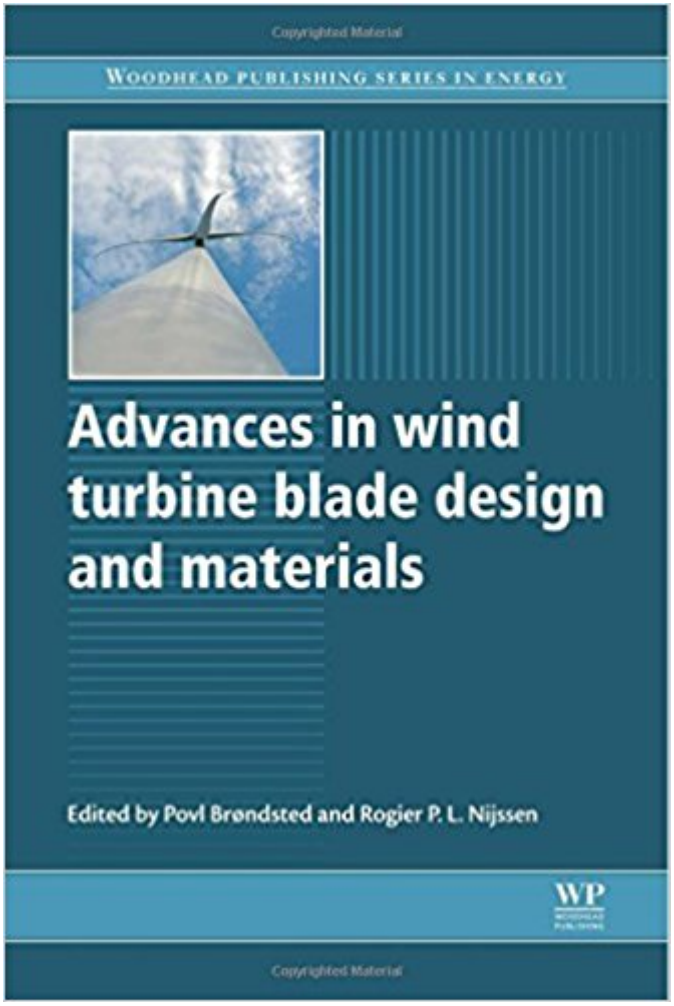
Ebook Directory
the best source of ebook

The book was found

Advances In Wind Turbine Blade Design And Materials (Woodhead Publishing Series In Energy)



PDF
Adobe
DOWNLOAD EBOOK

Synopsis

Wind energy is gaining critical ground in the area of renewable energy, with wind energy being predicted to provide up to 8% of the worldÃ¢â ¬â„¢s consumption of electricity by 2021. Advances in wind turbine blade design and materials reviews the design and functionality of wind turbine rotor blades as well as the requirements and challenges for composite materials used in both current and future designs of wind turbine blades.Part one outlines the challenges and developments in wind turbine blade design, including aerodynamic and aeroelastic design features, fatigue loads on wind turbine blades, and characteristics of wind turbine blade airfoils. Part two discusses the fatigue behavior of composite wind turbine blades, including the micromechanical modelling and fatigue life prediction of wind turbine blade composite materials, and the effects of resin and reinforcement variations on the fatigue resistance of wind turbine blades. The final part of the book describes advances in wind turbine blade materials, development and testing, including biobased composites, surface protection and coatings, structural performance testing and the design, manufacture and testing of small wind turbine blades.Advances in wind turbine blade design and materials offers a comprehensive review of the recent advances and challenges encountered in wind turbine blade materials and design, and will provide an invaluable reference for researchers and innovators in the field of wind energy production, including materials scientists and engineers, wind turbine blade manufacturers and maintenance technicians, scientists, researchers and academics.Reviews the design and functionality of wind turbine rotor bladesExamines the requirements and challenges for composite materials used in both current and future designs of wind turbine bladesProvides an invaluable reference for researchers and innovators in the field of wind energy production

Book Information

Series: Woodhead Publishing Series in Energy

Hardcover: 464 pages

Publisher: Woodhead Publishing; 1 edition (November 14, 2013)

Language: English

ISBN-10: 0857094262

ISBN-13: 978-0857094261

Product Dimensions: 6.1 x 1.1 x 9.2 inches

Shipping Weight: 1.9 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #2,649,090 in Books (See Top 100 in Books) #100 inÃ Â Books > Engineering

& Transportation > Engineering > Energy Production & Extraction > Alternative & Renewable > Wind #1647 inÃ Â Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems > Manufacturing #2801 inÃ Â Books > Engineering & Transportation > Engineering > Materials & Material Science > Materials Science

Customer Reviews

"Mechanical and chemical engineers describe developments in the engineering of rotor blades for a wind turbine, evaluate the challenges in rotor blade design, and discuss the requirements and challenges for the composite material to be used in the wind turbine blades of the future. Their topics include the aerodynamic design of wind turbine rotors, aerodynamic characteristics of the blade airfoils, effects of resin and reinforcement variations on fatigue resistanceÃ¢â ¬Â|"--ProtoView.com, February 2014 "Edited by two academic leaders in this field, this eagerly awaited collection of papers offers an authoritative, highly technical overview of developments in wind turbine blade design and the various materials used in their construction."--Real Power, Autumn 2013

Prof. Povl BrÃƒÂ¸ndsted leads a research program on composites and material mechanics at the Materials Research Department in the National Laboratory for Sustainable Energy at the Technical University of Denmark.Dr Rogier Nijssen is a research scientist at the Knowledge Centre Wind Turbine Materials and Constructions, The Netherlands. Their research has been both in research contracts and in public projects. BrÃƒÂ¸ndsted and Nijssen have worked together in material research consortia such as the European Optimat and Upwind projects.

Download to continue reading...

Advances in Wind Turbine Blade Design and Materials (Woodhead Publishing Series in Energy) How To Build a Solar Wind Turbine: Solar Powered Wind Turbine Plans Advances in Concentrating Solar Thermal Research and Technology (Woodhead Publishing Series in Energy) Off-Grid Living: How To Build Wind Turbine, Solar Panels And Micro Hydroelectric Generator To Power Up Your House: (Wind Power, Hydropower, Solar Energy, Power Generation) Wind Turbine Control Systems: Principles, Modelling and Gain Scheduling Design (Advances in Industrial Control) Coal Power Plant Materials and Life Assessment: Developments and Applications (Woodhead Publishing Series in Energy) Handbook of Organic Materials for Optical and (Opto)Electronic Devices: Properties and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Materials for Ultra-Supercritical and Advanced Ultra-Supercritical Power Plants (Woodhead

Publishing Series in Energy) Ultra-Supercritical Coal Power Plants: Materials, Technologies and Optimisation (Woodhead Publishing Series in Energy) Advances in Wrought Magnesium Alloys: Fundamentals of Processing, Properties and Applications (Woodhead Publishing Series in Metals and Surface Engineering) Perspectives in Total Hip Arthroplasty: Advances in Biomaterials and their Tribological Interactions (Woodhead Publishing Series in Biomaterials) Wind Power Workshop: Building Your Own Wind Turbine Principles and Applications of Organic Light Emitting Diodes (OLEDs) (Woodhead Publishing Series in Electronic and Optical Materials) Quantum Information Processing with Diamond: Principles and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Lasers for Medical Applications: Diagnostics, Therapy and Surgery (Woodhead Publishing Series in Electronic and Optical Materials) The Coal Handbook: Towards Cleaner Production: Volume 2: Coal Utilisation (Woodhead Publishing Series in Energy) The Coal Handbook: Towards Cleaner Production: Volume 1: Coal Production (Woodhead Publishing Series in Energy) Cash in the Wind: How to Build a Wind Farm Using Skystream and 442SR Wind Turbines for Home Power Energy Net-Metering and Sell Electricity Back to the Grid Cash In The Wind: How to Build a Wind Farm with Skystream and 442SR Wind Turbines for Home Power Energy Net Metering and Sell Electricity Back to the Grid Wind Power Basics: The Ultimate Guide to Wind Energy Systems and Wind Generators for Homes

Contact Us

DMCA

Privacy

FAQ & Help