

Table of contents

- **Contributors**
- **Abbreviations**
- **Notation**
- **Units**
- **1 Introduction**
- **Part A Theoretical Background and Technical Regulations**
- **2 Historical Development and Current Status of Wind Power**
- **3 Wind Power in Power Systems: An Introduction**
- **4 Generators and Power Electronics for Wind Turbines**
- **5 Power Quality Standards for Wind Turbines**
- **6 Power Quality Measurements**
- **7 Technical Regulations for the Interconnection of Wind Farms to the Power System**
- **8 Power System Requirements for Wind Power**
- **9 The Value of Wind Power**
- **Part B Power System Integration Experience**
- **10 Wind Power in the Danish Power System**
- **11 Wind Power in the German Power System: Current Status and Future Challenges of Maintaining Quality of Supply**
- **12 Wind Power on Weak Grids in California and US Midwest**
- **13 Wind Power on the Swedish Island of Gotland**
- **14 Isolated Systems with Wind Power**
- **15 Wind Farms in Weak Power Networks in India**
- **16 Practical Experience with Power Quality and Wind Power**
- **17 Wind Power Forecast for the German and Danish Networks**
- **18 Economic Aspects of Wind Power in Power Systems**
- **Part C Future Concepts**
- **19 Wind Power and Voltage Control**
- **20 Wind Power in Areas with Limited Transmission Capacity**
- **21 Benefits of Active Management of Distribution Systems**
- **22 Transmission Systems for Offshore Wind Farms**
- **23 Hydrogen as a Means of Transporting and Balancing Wind Power Production**
- **Part D Dynamic Modelling of wind Turbines for Power System Studies**
- **24 Introduction to the Modelling of Wind Turbines**
- **25 Reduced-Order Modelling of Wind Turbines**
- **26 High-Order Models of Doubly-Fed Induction Generators**
- **27 Full-scale Verification of Dynamic Wind Turbine Models**
- **28 Impacts of Wind Power on Power System Dynamics**
- **29 Aggregated Modelling and Short-term Voltage Stability of Large Wind Farms**
- **Index**