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| Nota di contenuto | A New Frequency Control Strategy in Egyptian Power System: Considering Wind Energy -- Digital Coordination of Frequency Stability and Protection in an Islanded Microgrid -- Microgrids Dynamic Security Using a New Coordination of Virtual Inertia Control and Digital Frequency Relay -- Renewable Power Systems Dynamic Security Based on a New Coordination of Virtual Synchronous Generator and Digital Frequency Relay -- Digital Decentralized LFC in Egyptian Power System Based on Tustin’s Technique -- Conclusions and Future Work. |
| Sommario/riassunto | This book presents innovative techniques and approaches to maintaining dynamic security of modern power systems that have a |

high penetration of renewable energy sources (RESs). The authors propose a number of frequency control strategies and schemes to address and evade stability problems in system frequency and voltage that can lead to power interruption and power failure/blackout. The book includes case studies aimed at validating the effectiveness of the techniques and strategies presented, and will be a valuable resource for researchers working in electrical power engineering, power system stability, dynamics and control, and microgrids. Presents methods and tools for maintaining dynamic security of modern power systems Focuses on cutting-edge approaches and advances Contextualizes technical aspects of dynamic security of modern power systems for developing countries.