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| Soggetti | Electric power distribution Power electronics Virtual reality Augmented reality Internet of things Artificial intelligence Cooperating objects (Computer systems) Energy Grids and Networks Power Electronics Virtual and Augmented Reality Internet of Things Artificial Intelligence Cyber-Physical Systems |
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| Nota di contenuto | Digital Twin Overview -- Digital Twin in Industry -- Digital Twin Solutions for Smart Grid Applications -- Industrial Experience -- Conclusion. |
| Sommario/riassunto | The traditional power grid has been revolutionized in recent years, and its different domains are improving to form a new smart grid. To better understand smart electricity grid and recommend how its domains function best, a comprehensive look at the power system in parallel with digitalization revolution is required. Recent digital twin (DT) technology promises to enhance industries, including smart grids, and this book studies DT architecture and its applications and benefits. |

Coverage includes DT solutions for smart grid domains and subsystems and describes advantages of employing DT in the smart grid. The book's concept is based on merging DT technology with smart grid applications. Its structure follows an understanding of DT concepts and applications in smart grid domains. Digital Twin Technology for Smart Power Grid will be a valuable reference for power industry practitioners, researchers, and students. It explains the new digital twin technology and how it can enhance the current electricity system toward a smarter power grid. Explains digital twin technology; Includes a view of digital twin pros and cons for industry; Explores and describes digital twin solutions for smart power grid applications.
