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Nota di contenuto	Intellectualization (Digitalization) – The Main Direction of Reforming the Electrical Power Engineering -- Stakeholder Motives and Participation in the Digital Transition -- The Smart Electric Grid -- Testing and Monitoring Systems for the Electrical Grid -- Digital Substations as a Key Element of Smart Grids -- Digitalization of Electric Power Grid within IEC 61850 Standard -- IEC 61850 Requirements for Digital Substation Design.
Sommario/riassunto	This book aims to provide readers with practical knowledge of the fundamentals of the “digital transition” concept, tools for designing and managing the operation of smart grids and substations, and critical

issues in modernizing the energy sector. The inevitable transformation of the electric power industry is moving toward digitalization, which has taken the form of the concept of "Intelligent (smart) grids" (sometimes called "Digital Transition"). This has required coordinated work not only from the energy industry, but also from other stakeholders (government agencies, private firms, utilities, scientific and educational institutions, etc.) to solve numerous problems that arise during the transition to this advanced technology. It is obvious that the development of new components of energy systems, such as smart meters, monitoring and geolocation equipment, new disaster recovery systems, and energy storage systems, should be supplemented by the creation of the necessary communication infrastructure, modernization of existing network components, implementation of relevant regulations, training of highly qualified personnel. The book covers all the main tasks and ways to solve them for the implementation of this technology. It summarizes materials from numerous monographs, scientific articles, and conference reports discussing these issues.
