Record Nr. UNINA9910141515003321 Electrical distribution networks [[electronic resource] /] / edited by **Titolo** Nouredine Hadisaid, Jean-Claude Sabonnadiere Pubbl/distr/stampa London, : ISTE Hoboken, N.J., : Wiley, 2011 **ISBN** 1-118-60128-9 1-299-13994-9 1-118-60126-2 1-118-60121-1 Descrizione fisica 1 online resource (512 p.) Collana **ISTE** Altri autori (Persone) HadjsaidNouredine SabonnadiereJean-Claude Disciplina 333.793/2 Soggetti Electric power distribution Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto The electrical distribution network: from heritage to innovation --Characteristics of distribution systems -- Overview of decentralized means of production -- Connection to the decentralized production network: regulatory and economica aspects -- Impacts of the decentralized production on the electrical network -- Photovoltaic systems connected to the network -- Voltage adjustment in distribution systems in the presence of decentralized production --Integration to the networks of the wind systems and their participation to the services system -- Security of operation of the distribution networks in presence of decentralized production -- Protections. detection, and localization of the faults in HVA networks in the presence of decentralized production -- Loads control in the management of the distribution systems -- Power electronics in the distribution electrical networks of the future -- Virtual power stations for active networks -- Towards smart grids. This book describes the fundamental aspects of the new generation of Sommario/riassunto electrical distribution grids, taking as its starting point the

opportunities that exist for restructuring existing infrastructure. It

emphasizes the incorporation of renewable energy sources into the distribution grid and the need for a technological evolution towards the implementation of smart grids. The book is organized into two parts: the first part analyzes the integration of distributed energy sources into the distribution grid and the impact of these sources on grid operation. After a general description of the