

1. Record Nr.	UNINA9910299868503321
Autore	Qin Nan
Titolo	Voltage Control in the Future Power Transmission Systems [[electronic resource] /] / by Nan Qin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-69886-9
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XXIV, 240 p. 119 illus., 104 illus. in color.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	621.319
Soggetti	Power electronics Energy systems Control engineering Power Electronics, Electrical Machines and Networks Energy Systems Control and Systems Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Load Flow Calculation -- Numerical Optimization -- Danish AVC System.- Implementation -- Case Studies -- Fallback Scheme -- Conclusions.
Sommario/riassunto	This book reports on the formulation of a multi-stage optimization framework for the Danish power system, taking into account the real operational cost, the voltage constraints and the uncertainty associated to the forecasting errors of the wind power. It describes in detail the implementation of this framework into a simulation platform and its validation in real-world applications. The book especially focuses on automatic voltage control systems and on methods to handle uncertainty in them. All in all, it provides readers with a comprehensive overview of power system optimization and future trends in power system operation. .