1. Record Nr. UNINA9910782879903321 Autore Padiyar K. R Titolo FACTS controllers in power transmission and distributio [[electronic resource] /] / K.R. Padiyar New Delhi,: New Age International (P) Ltd., Publishers, c2007 Pubbl/distr/stampa **ISBN** 1-282-07399-0 9786612073991 81-224-2541-0 Descrizione fisica 1 online resource (549 p.) Disciplina 621.31912 Soggetti Flexible AC transmission systems Electric power transmission - Alternating current Electric power distribution - Alternating current 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 Cover; Preface; Contents; Chapter 1: Introduction; Chapter 2: AC Transmission Line and Reactive Power Compensation; Chapter 3: Static Var Compensator; Chapter 4: Thyristor and GTO Controlled Series Capacitor: Chapter 5: Static Phase Shifting Transformer: Chapter 6: Static Synchronous Compensator (STATCOM); Chapter 7: Static Synchronous Series Compensator; Chapter 8: Unified Power Flow Controller and other Multi-Converter Devices; Chapter 9: Interphase Power Controller and other FACTS Devices; Chapter 10: Power Oscillation Damping: Chapter 11: Improvement of Transient Stability Chapter 12: Power Quality and Introduction to Custom Power Devices Chapter 13: Load Compensation and Distribution STATCOM: Chapter 14: Dynamic Voltage Restorer and Unified Power Quality Conditioner: Appendix A: Modelling of Synchronous Generator; Appendix B: Pulse Width Modulation for Voltage Source Converters; Appendix C: Per Unit System for STATCOM; Appendix D: Abbreviations; Index Sommario/riassunto About the Book: The emerging technology of Flexible AC Transmission System (FACTS) enables planning and operation of power systems at minimum costs, without compromising security. This is based on

modern high power electronic systems that provide fast controllability

to ensure 'flexible' operation under changing system conditions. This book presents a comprehensive treatment of the subject by discussing the operating principles, mathematical models, control design and issues that affect the applications. The concepts are explained often with illustrative examples and case studies. In particular