1. Record Nr. UNINA9910253988003321 Autore Kezunovic Mladen Titolo Design, Modeling and Evaluation of Protective Relays for Power Systems // by Mladen Kezunovic, Jinfeng Ren, Saeed Lotfifard Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-20919-1 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (316 p.) Disciplina 621.042 Soggetti **Energy systems** Power electronics **Energy Systems** Power Electronics, Electrical Machines and Networks 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 at the end of each chapters. Nota di contenuto Introduction -- Power system fault analysis and short circuit computations -- Basics of protective relaying and design principles --Modeling of digital relay and power system signals -- Design and implementation of relay communication schemes and trip logic --Design and implementation of overcurrent, pilot, and distance protection -- Testing of digital protective relays. Provides hands-on experience designing relays and evaluating Sommario/riassunto performance · Explains in-depth the theory needed to understand how the relays operate . Offers practical insights on how relays can be used and how to optimize performance This book is a practical guide to digital protective relays in power systems. It explains the theory of how protective relays work in power systems, provides the engineering knowledge and tools to successfully design them, and offers expert advice on how they behave in practical circumstances. This book helps readers gain technical mastery of how the relays function, how they are designed, and how they perform. This text not only features in-depth coverage of the theory and principles behind

protective relays, but also includes a manual supplemented with

software that offers numerous hands-on examples in MATLAB. A great resource for protective relaying labs and self-learners, it provides lab

experiments unavailable elsewhere. The book is suitable for advanced courses in Digital Relays and Power Systems Fault Analysis and Protection, and will prove to be a valuable resource for practitioners in the utility industry.