1. Record Nr.   UNINA9910830493303321

   Autore   Das Swagata

   Titolo   Fault location on transmission and distribution systems : principles and
                       applications / / Swagata Das, Surya Santoso, Sundaravaradan N.
                       Ananthan

   Pubbl/distr/stampa Hoboken, New Jersey ; ; Chichester, England : , : Wiley, , [2022]
                       ©2022

   ISBN   1-119-12149-3
                       1-119-12147-7
                       1-119-12148-5

   Descrizione fisica 1 online resource (291 pages)

   Collana   IEEE Press

   Disciplina   621.3192

   Soggetti   Electric fault location
                       Power transmission

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Nota di bibliografia Includes bibliographical references and index.

   Nota di contenuto   Cover -- Title Page -- Copyright -- Contents -- Preface -- About the
                       Companion Website -- Chapter 1 Introduction -- 1.1 Power System
                       Faults -- 1.2 What Causes Shunt Faults? -- 1.3 Aim and Importance of
                       Fault Location -- 1.4 Types of FaultLocating Algorithms -- 1.5 How
                       are FaultLocating Algorithms Implemented? -- 1.6 Evaluation of Fault
                       Locating Algorithms -- 1.7 The Best FaultLocating Algorithm -- 1.8
                       Summary -- Chapter 2 Symmetrical Components -- 2.1 Phasors -- 2.2
                       Theory of Symmetrical Components -- 2.3 Interconnecting Sequence
                       Networks -- 2.4 Sequence Impedances of ThreePhase Lines -- 2.5
                       Exercise Problems -- 2.6 Summary -- Chapter 3 Fault Location on
                       Transmission Lines -- 3.1 OneEnded ImpedanceBased Fault Location
                       Algorithms -- 3.1.1 Simple Reactance Method -- 3.1.2 Takagi Method
                       -- 3.1.3 Modified Takagi Method -- 3.1.4 Current Distribution Factor
                       Method -- 3.2 TwoEnded ImpedanceBased Fault Location Algorithms
                       -- 3.2.1 Synchronized Method -- 3.2.2 Unsynchronized Method --
                       3.2.3 Unsynchronized NegativeSequence Method -- 3.2.4
                       Synchronized Line Current Differential Method -- 3.3 ThreeEnded
                       ImpedanceBased Fault Location Algorithms -- 3.3.1 Synchronized

Sommario/riassunto	"This book provides readers with up-to-date coverage of fault location algorithms in transmission and distribution networks. The algorithms will help readers track down the exact location of a fault in the shortest possible time. Furthermore, voltage and current waveforms recorded by digital relays, digital fault recorders, and other intelligent electronic devices contain a wealth of information. Knowledge gained from analysing the fault data can help system operators understand what happened, why it happened and how it can be prevented from happening again. The book will help readers convert such raw data into useful information and improve power system performance and reliability."--