1. Record Nr. UNINA9910734885403321

Autore	Singh S. N
Titolo	Optimal Planning and Operation of Distributed Energy Resources / / edited by S. N. Singh, Naveen Jain, Umesh Agarwal, Manoj Kumawat
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9928-00-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (265 pages)
Collana	Energy Systems in Electrical Engineering, , 2199-8590
Altri autori (Persone)	JainNaveen AgarwalUmesh KumawatManoj
Disciplina	333.7932
Soggetti	Electric power production Renewable energy sources Energy policy Electrical Power Engineering Renewable Energy Mechanical Power Engineering Energy Policy, Economics and Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Fundamentals of Power System -- Distributed Energy Sources -- Integration of Distributed Energy Resources (DER) in Distribution System -- Basics of Optimization Methods -- Optimal sitting and sizing of Renewable Energy Sources in Distribution System -- Integration of Electric Vehicles in Energy Pool -- Charging and Safety issues of Solar/Wind/Diesel/Batterystorage Energy Systems.
Sommario/riassunto	The book deals with integrated distributed energy resources in existing power systems optimally to mitigate power quality issues in power systems. The book is designed for research using modern optimization techniques and a thorough analysis of renewable energy. The book provides an in-depth study of recent trends of research scope around the globe and also includes modern heuristic approaches, hands-on data, and case studies of all important dimensions of distributed energy resources. It addresses key issues such as the integration of

DERs and electric vehicles, optimization algorithms, management of DERs with electric vehicles, energy pool management mechanisms, protection, and reliability in the restructured power system. This book will be useful for students, research scholars, practitioners, and academicians.