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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XIV, 113 p. 26 illus., 25 illus. in color.)
Disciplina	621.382
Soggetti	Electrical engineering Power electronics Computer security Computational intelligence Application software Communications Engineering, Networks Power Electronics, Electrical Machines and Networks Systems and Data Security Computational Intelligence Information Systems Applications (incl. Internet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Overview of the Security and Privacy Issues in Smart Grids -- I Physical Network Security -- Reliability in Smart Grids -- Error Detection of DC Power Flow using State Estimation -- Bad Data Detection -- II Information Network Security -- Cloud Network Data Security -- III Privacy Preservation -- End-User Data Privacy -- Mobile User Data Privacy.
Sommario/riassunto	This book provides a thorough treatment of privacy and security issues for researchers in the fields of smart grids, engineering, and computer science. It presents comprehensive insight to understanding the big picture of privacy and security challenges in both physical and information aspects of smart grids. The authors utilize an advanced interdisciplinary approach to address the existing security and privacy

issues and propose legitimate countermeasures for each of them in the standpoint of both computing and electrical engineering. The proposed methods are theoretically proofed by mathematical tools and illustrated by real-world examples. Provides the theoretical means for maintaining the privacy and security of smart grids Provides comprehensive location privacy preserving mechanisms for end-users and mobile users in the context of smart grids Evaluates the privacy and security concerns of both physical and information layers Presents the state-of-the-art method for economic dispatch in the future power systems using oblivious routing network design.
