1. Record Nr. UNINA9910427676103321 Autore Li Beibei Titolo Detection of false data injection attacks in smart grid cyber-physical systems / / Beibei Li, Rongxing Lu, Gaoxi Xiao Pubbl/distr/stampa Cham, Switzerland: ,: Springer, , [2020] ©2020 **ISBN** 3-030-58672-3 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XVI, 157 p. 61 illus., 39 illus. in color.) Collana Wireless Networks. . 2366-1186 Disciplina 621.31028558 Soggetti Smart power grids - Security measures Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di contenuto Introduction -- Foundations and Related Literature -- SPNTA: Stochastic Petri-Net-Based Reliability Analysis under Topology Attacks -- DHCD: Distributed Host-Based Collaborative Detection for FDI Attacks -- DDOA: Dirichlet-Based Detection for Opportunistic Attacks -- PFDD: On Feasibility and Limitations of Detecting FDI Attacks Using DFACTS -- Conclusion. Sommario/riassunto This book discusses cybersecurity issues of smart grid cyber-physical systems, focusing on the detection techniques against false data injection attacks. The authors discuss passive and proactive techniques that combat and mitigate two categories of false data injection attacks, false measurement data injections and false command data injections in smart grid cyber-physical systems. These techniques are easy to follow for either professionals or beginners. With this book, readers can quickly get an overview of this topic and get ideas of new solutions for false data injections in smart grid cyber-physical systems. Readers include researchers, academics, students, and professionals. Presents a comprehensive summary for the detection techniques of false data

physical systems.

injection attacks in smart grid cyber-physical systems; Reviews false data injections for either measurement data or command data; Analyzes passive and proactive approaches to smart grid cyber-