1. Record Nr. UNINA9910830869603321 Autore Almalawi Abdulmohsen Titolo SCADA security: machine learning concepts for intrusion detection and prevention / / Abdulmohsen Almalawi [and three others] Hoboken, New Jersey:,: John Wiley & Sons, Incorporated,, [2021] Pubbl/distr/stampa ©2021 **ISBN** 1-119-60635-7 1-5231-3709-6 1-119-60638-1 1-119-60607-1 Descrizione fisica 1 online resource (219 pages): illustrations Disciplina 629.895583 Soggetti Supervisory control systems Automatic control - Security measures Intrusion detection systems (Computer security) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di bibliografia Includes bibliographical references and index. Sommario/riassunto "This book provides insights into issues of SCADA security. Chapter 1 discusses how potential attacks against traditional IT can also be possible against SCADA systems. Chapter 2 gives background information on SCADA systems, their architectures, and main components. In Chapter 3, the authors describe SCADAVT, a framework for a SCADA security testbed based on virtualization technology. Chapter 4 introduces an approach called kNNVWC to find the k-nearest neighbours in large and high dimensional data. Chapter 5 describes an approach called SDAD to extract proximity-based detection rules, from unlabelled SCADA data, based on a clustering-based technique. In Chapter 6, the authors explore an approach called GATUD which finds a global and efficient anomaly threshold. The book concludes with a summary of the contributions made by this book to the extant body of

research, and suggests possible directions for future research"--