1. Record Nr. UNINA9910520099003321 Autore Wang Jing <1974 April 21-> Titolo Data-Driven Fault Detection and Reasoning for Industrial Monitoring Pubbl/distr/stampa Springer Nature, 2022 Singapore: ,: Springer Singapore Pte. Limited, , 2022 ©2022 **ISBN** 981-16-8044-2 Descrizione fisica 1 online resource (277 pages) Intelligent Control and Learning Systems;; v.3 Collana Classificazione TEC009000TEC037000 Altri autori (Persone) ZhouJinglin ChenXiaolu Soggetti Robotics Artificial intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto This open access book assesses the potential of data-driven methods in industrial process monitoring engineering. The process modeling. fault detection, classification, isolation, and reasoning are studied in detail. These methods can be used to improve the safety and reliability of industrial processes. Fault diagnosis, including fault detection and reasoning, has attracted engineers and scientists from various fields such as control, machinery, mathematics, and automation engineering. Combining the diagnosis algorithms and application cases, this book establishes a basic framework for this topic and implements various statistical analysis methods for process monitoring. This book is intended for senior undergraduate and graduate students who are interested in fault diagnosis technology, researchers investigating

> automation and industrial security, professional practitioners and engineers working on engineering modeling and data processing

applications. This is an open access book.