1. **Record Nr.** UNINA9910557722403321

Autore Vaccaro Alfredo

Titolo Data Mining in Smart Grids

Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020

Descrizione fisica 1 online resource (116 p.)

Soggetti Information technology industries

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto Effective smart grid operation requires rapid decisions in a data-rich, but information-limited, environment. In this context, grid sensor data-streaming cannot provide the system operators with the necessary information to act on in the time frames necessary to minimize the impact of the disturbances. Even if there are fast models that can convert the data into information, the smart grid operator must deal with the challenge of not having a full understanding of the context of the information, and, therefore, the information content cannot be used with any high degree of confidence. To address this issue, data mining has been recognized as the most promising enabling technology for improving decision-making processes, providing the right information at the right moment to the right decision-maker. This Special Issue is focused on emerging methodologies for data mining in smart grids. In this area, it addresses many relevant topics, ranging from methods for uncertainty management, to advanced dispatching. This Special Issue not only focuses on methodological breakthroughs and roadmaps in implementing the methodology, but also presents the much-needed sharing of the best practices. Topics include, but are not limited to, the following: Fuzziness in smart grids computing Emerging techniques for renewable energy forecasting Robust and proactive solution of optimal smart grids operation Fuzzy-based smart grids monitoring and control frameworks Granular computing for