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Titolo	Soft Computing in Condition Monitoring and Diagnostics of Electrical and Mechanical Systems : Novel Methods for Condition Monitoring and Diagnostics / / edited by Hasmat Malik, Atif Iqbal, Amit Kumar Yadav
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Descrizione fisica	1 online resource (499 p.)
Collana	Advances in Intelligent Systems and Computing, , 2194-5365 ; ; 1096
Disciplina	006.3
Soggetti	Computational intelligence Machine learning Machinery Control engineering Robotics Automation Computational Intelligence Machine Learning Machinery and Machine Elements Control, Robotics, Automation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Fault Tolerant Control of Single and Multiple Mobile Robots -- Faults and Fault Detection Methods in Electric Drives -- Introduction to Condition Monitoring of Wide Area Monitoring (WAM) System -- Introduction to Condition Monitoring of Electrical Systems -- Condition Monitoring and Fault Detection and Diagnostics of Wind Energy Conversion System (WECS) -- Introduction to Condition Monitoring of PV system -- Novel Application of Artificial Neural Network techniques for Prediction of Air Pollutants using Stochastic Variables for Health Monitoring: A review -- Performance Enhancement and Extension of DGA Based Transformer Fault Diagnosis Methods Using Soft-computing Techniques -- Maximum Power Extraction and Monitoring from Wind Power Generation System Using Intelligent Controllers -- Data Driven

	Intelligent Model for Sales Prices Prediction and Monitoring of a Building -- Experimental Study of Sideband Harmonics in Vibration Spectrum of two Stage Planetary Gear Box for Condition Monitoring.
Sommario/riassunto	This book addresses a range of complex issues associated with condition monitoring (CM), fault diagnosis and detection (FDD) in smart buildings, wide area monitoring (WAM), wind energy conversion systems (WECSs), photovoltaic (PV) systems, structures, electrical systems, mechanical systems, smart grids, etc. The book’s goal is to develop and combine all advanced nonintrusive CMFD approaches on a common platform. To do so, it explores the main components of various systems used for CMFD purposes. The content is divided into three main parts, the first of which provides a brief introduction, before focusing on the state of the art and major research gaps in the area of CMFD. The second part covers the step-by-step implementation of novel soft computing applications in CMFD for electrical and mechanical systems. In the third and final part, the simulation codes for each chapter are included in an extensive appendix to support newcomers to the field. .