1. Record Nr. UNINA9910800185003321 Autore Pascual Diego Galar Titolo Artificial intelligence tools: decision support systems in condition monitoring and diagnosis / / Diego Galar Pascual Pubbl/distr/stampa Boca Raton, Florida:,: CRC Press,, [2015] ©2015 **ISBN** 1-4987-6019-8 0-429-10232-1 1-4665-8406-8 Descrizione fisica 1 online resource (528 p.) Disciplina 658.2020285 Soggetti Industrial equipment - Maintenance and repair - Data processing Machinery - Monitoring Artificial intelligence - Industrial applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters. Nota di bibliografia Nota di contenuto Front Cover; Contents; Preface; Acknowledgments; Author; Chapter 1: Massive Field Data Collection: Issues and Challenges; Chapter 2: Condition Monitoring: Available Techniques; Chapter 3: Challenges of Condition Monitoring Using Al Techniques: Chapter 4: Input and Output Data; Chapter 5: Two-Stage Response Surface Approaches to Modeling Drug Interaction; Chapter 6: Nearest Neighbor-Based Techniques; Chapter 7: Cluster-Based Techniques: Chapter 8: Statistical Techniques; Chapter 9: Information Theory-Based Techniques; Chapter 10: Uncertainty Management; Back Cover Artificial Intelligence Tools: Decision Support Systems in Condition Sommario/riassunto Monitoring and Diagnosis discusses various white- and black-box approaches to fault diagnosis in condition monitoring (CM). This indispensable resource: Addresses nearest-neighbor-based, clusteringbased, statistical, and information theory-based techniquesConsiders the merits of each technique as well as the issues associated with reallife applicationCovers classification methods, from neural networks to Bayesian and support vector machines Proposes fuzzy logic to explain the uncertainties associated with diagnostic processes