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Autore	Goodman Douglas (Industrial engineer)
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Descrizione fisica	1 online resource (385 pages)
Disciplina	621.816
Soggetti	Machinery - Reliability Equipment health monitoring Machinery - Maintenance and repair - Planning Structural failures - Mathematical models
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Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	A comprehensive guide to the application and processing of condition-based data to produce prognostic estimates of functional health and life. Prognostics and Health Management provides an authoritative guide for an understanding of the rationale and methodologies of a practical approach for improving system reliability using conditioned-based data (CBD) to the monitoring and management of health of systems. This proven approach uses electronic signatures extracted from conditioned-based electrical signals, including those representing physical components, and employs processing methods that include data fusion and transformation, domain transformation, and normalization, canonicalization and signal-level translation to support the determination of predictive diagnostics and prognostics. Written by noted experts in the field, Prognostics and Health Management clearly describes how to extract signatures from conditioned-based data using

conditioning methods such as data fusion and transformation, domain transformation, data type transformation and indirect and differential comparison. This important resource: Integrates data collecting, mathematical modelling and reliability prediction in one volume  
Contains numerical examples and problems with solutions that help with an understanding of the algorithmic elements and processes  
Presents information from a panel of experts on the topic Follows prognostics based on statistical modelling, reliability modelling and usage modelling methods Written for system engineers working in critical process industries and automotive and aerospace designers, Prognostics and Health Management offers a guide to the application of condition-based data to produce signatures for input to predictive algorithms to produce prognostic estimates of functional health and life.

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