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Autore	Mobley R. Keith <1943->
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Nota di contenuto	Front Cover; AN INTRODUCTION TO PREDICTIVE MAINTENANCE; Copyright Page; Contents; Chapter 1. Impact of Maintenance; 1.1 Maintenance Management Methods; 1.2 Optimizing Predictive Maintenance; Chapter 2. Financial Implications and Cost Justification; 2.1 Assessing the Need for Condition Monitoring; 2.2 Cost Justification; 2.3 Justifying Predictive Maintenance; 2.4 Economics of Preventive Maintenance; Chapter 3. Role of Maintenance Organization; 3.1 Maintenance Mission; 3.2 Evaluation of the Maintenance Organization; 3.3 Designing a Predictive Maintenance Program Chapter 4. Benefits of Predictive Maintenance 4.1 Primary Uses of Predictive Maintenance; Chapter 5. Machine-Train Monitoring Parameters; 5.1 Drivers; 5.2 Intermediate Drives; 5.3 Driven Components; Chapter 6. Predictive Maintenance Techniques; 6.1 Vibration Monitoring; 6.2 Thermography; 6.3 Tribology; 6.4 Visual Inspections; 6.5 Ultrasonics; 6.6 Other Techniques; Chapter 7. Vibration Monitoring and Analysis; 7.1 Vibration Analysis Applications; 7.2 Vibration Analysis Overview; 7.3 Vibration Sources; 7.4 Vibration Theory; 7.5 Machine Dynamics; 7.6 Vibration Data Types and Formats 7.7 Data Acquisition 7.8 Vibration Analyses Techniques; Appendix 7.1 Abbreviations; Appendix 7.2 Glossary; Appendix 7.3 References; Chapter 8. Thermography; 8.1 Infrared Basics; 8.2 Types of Infrared Instruments; 8.3 Training; 8.4 Basic Infrared Theory; 8.5 Infrared Equipment; 8.6 Infrared Thermography Safety; 8.7 Infrared Scanning

Procedures; 8.8 Types of Infrared Problems; Appendix 8.1 Abbreviations; Appendix 8.2 Glossary; Appendix 8.3 Electrical Terminology; Appendix 8.4 Materials List; Chapter 9. Tribology; 9.1 Lubricating Oil Analysis; 9.2 Setting Up an Effective Program Chapter 10. Process Parameters 10.1 Pumps; 10.2 Fans, Blowers, and Fluidizers; 10.3 Conveyors; 10.4 Compressors; 10.5 Mixers and Agitators; 10.6 Dust Collectors; 10.7 Process Rolls; 10.8 Gearboxes/Reducers; 10.9 Steam Traps; 10.10 Inverters; 10.11 Control Valves; 10.12 Seals and Packing; Chapter 11. Ultrasonics; 11.1 Ultrasonic Applications; 11.2 Types of Ultrasonic Systems; 11.3 Limitations; Chapter 12. Visual Inspection; 12.1 Visual Inspection Methods; 12.2 Thresholds; Chapter 13. Operating Dynamics Analysis; 13.1 It's Not Predictive Maintenance; Chapter 14. Failure-Mode Analysis 14.1 Common General Failure Modes 14.2 Failure Modes by Machine-Train Component; Chapter 15. Establishing a Predictive Maintenance Program; 15.1 Goals, Objectives, and Benefits; 15.2 Functional Requirements; 15.3 Selling Predictive Maintenance Programs; 15.4 Selecting a Predictive Maintenance System; 15.5 Database Development; 15.6 Getting Started; Chapter 16. A Total-Plant Predictive Maintenance Program; 16.1 The Optimum Predictive Maintenance Program; 16.2 Predictive Is Not Enough; 16.3 Conclusion; Chapter 17. Maintaining the Program; 17.1 Trending Techniques; 17.2 Analysis Techniques 17.3 Additional Training

Sommario/riassunto

This second edition of An Introduction to Predictive Maintenance helps plant, process, maintenance and reliability managers and engineers to develop and implement a comprehensive maintenance management program, providing proven strategies for regularly monitoring critical process equipment and systems, predicting machine failures, and scheduling maintenance accordingly. Since the publication of the first edition in 1990, there have been many changes in both technology and methodology, including financial implications, the role of a maintenance organization, predictive maintenance
