

## Contents

1. The Need for Condition Monitoring & Maintenance Management in Industry .....	1
2. Condition Monitoring – The Way Forward .....	37
3. Vibration Monitoring .....	49
4. Gearbox Diagnostic Technology .....	81
5. Condition Monitoring of Ball/Roller Bearings .....	97
6. Consideration for the Most Effective Vibration-related Machinery Improvement Program .....	115
7. Cost Effective Benefits of Condition Monitoring .....	123
8. Condition Monitoring in Manufacturing and Engineering Industries .....	155
9. Condition Monitoring of Machine Tools .....	171
10. Condition Monitoring of Hydraulic Systems .....	209
11. Diagnostics of Electro-pneumatic Systems .....	253
12. A Review of Condition Based Maintenance for Electrical Machines .....	267
13. Condition Monitoring of Power Plants .....	285
14. Oil Debris Monitoring .....	325
15. Artificial Neural Networks in Condition Monitoring .....	341
16. Temperature Monitoring .....	349
17. Knowledge Based Systems for Maintenance Management .....	377
18. Corrosion Monitoring .....	395
19. The Application and Benefits of Cost Effective Maintenance .....	419
20. The Benefits of Reliability-Centred Maintenance .....	441
21. Total Productive Maintenance – A Pillar of World Class Performance .....	459
22. Modern Maintenance Management Systems .....	475
23. Patents Relevant to Condition Monitoring and Maintenance Management ..	509
24. Selected Bibliographies .....	545
Advertiser’s Buyers Guide .....	581
Editorial Index .....	589