

# ISO 13379-2:2015-04 (E)

## Condition monitoring and diagnostics of machines - Data interpretation and diagnostics techniques - Part 2: Data-driven applications

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	2
4	Procedure to implement data-driven monitoring .....	2
4.1	Principle of data-driven monitoring methods .....	2
4.2	Asset critical failures and process parameters selection .....	3
4.3	Data cleaning and resampling .....	3
4.3.1	General .....	3
4.3.2	Interpolation errors .....	3
4.3.3	Data quality issues .....	3
4.3.4	Data resampling .....	4
4.4	Model development .....	4
4.4.1	General .....	4
4.4.2	Definition of models and selection of relevant inputs .....	4
4.4.3	Selection of relevant operating conditions and data .....	4
4.4.4	Preparation of the model tests .....	5
4.5	Model performance evaluation .....	5
4.6	Alarm setting .....	5
5	Procedure to implement data-driven diagnosis .....	6
5.1	General .....	6
5.2	Automated pattern classification approach .....	6
5.3	Simplified automated signature classification approach .....	7
6	General recommendations to implement data-driven monitoring methods .....	8
Annex A (informative)	Example of data-driven monitoring application .....	9
Annex B (informative)	Example of data-driven diagnostic application .....	11
Bibliography .....		12