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Nota di contenuto	Intro -- Preface -- Contents -- Contributors -- Acronyms -- Methodologies and Enabling Technologies -- Industrial Digitisation and Maintenance: Present and Future -- 1 Introduction -- 2 Literature Review -- 2.1 Maintenance Approaches -- 2.2 Data Management Architectures -- 2.3 Data-Driven Analytics: Methodologies and Algorithms -- 2.4 Integrated Solutions -- 3 Key Challenges Identified -- 4 Outlook -- 4.1 The SERENA Vision -- References -- A Hybrid Cloud-to-Edge Predictive Maintenance Platform -- 1 Introduction -- 2 Related Works -- 2.1 Predictive Maintenance in Industry 4.0 -- 2.2 Cloud and Edge Computing -- 2.3 Predictive Maintenance Technologies -- 3 SERENA Design -- 3.1 Intermodal Collaboration -- 3.2 Data Management -- 3.3 Service Orchestration -- 3.4 Security -- 4 SERENA Architecture -- 4.1 Core Services -- 4.2 Peripheral Services -- 4.3 Provisioning and Deployment -- 5 Conclusions -- References -- Data-Driven Predictive Maintenance: A Methodology Primer -- 1 Introduction -- 2 Predictive Maintenance: Main Concepts and Key Standards -- 2.1 The European Standard CEN-EN 13306 -- 2.2 Guidelines and Requirements for Automated Maintenance Software -- 2.3 Guidelines for Automated Condition Monitoring System and Diagnostics -- 2.4 Guidelines for Prognosis -- 3 Data-Driven Methodologies -- 3.1 Data-Driven Modelling and Physics-Based Modelling -- 3.2 Predictive and Descriptive Data Analytics -- 3.3 Model Building, Deployment, and

Updating -- 3.4 RUL Estimation: Key Concepts -- 4 The SERENA Data-Driven Pipeline -- 4.1 Data Preparation -- 4.2 Semi-supervised Data Labelling -- 4.3 Predictive Analytics -- 4.4 Self Assessment of Model Drift -- 4.5 RUL Estimation -- 5 Data Formats and Models -- 5.1 A Linked Data Approach -- 5.2 MIMOSA -- 6 Data Analytics Architecture -- 6.1 Technologies and Tools for Analytics Services -- 6.2 Edge Analytics Applications.
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