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<b>Nota di contenuto</b>	Strategy & Standards -- A maintenance management improvement framework for asset management -- Case study critique of ISO 5500x-based auditing and certification -- Continuous quality improvement and business performance: The mediating role of physical asset management -- A strategic asset management framework for improving transport infrastructure: analysis for Belgian land transport modes -- Sustainability & Resilience -- A sensorless daylight harvesting approach using calibration to reduce energy consumption in buildings -- Resilience rating system for buildings against natural

hazards -- A framework for gamification to encourage environmentally friendly driving habits -- Assessing the economic and environmental effects of gravel recycling during gravel road maintenance -- Revisiting agricultural technologies in the 4IR era -- Speed of Innovation Diffusion in Green Hydrogen Technologies -- Servitization & Industry 4.0 -- Overview for Leasing or Buying Decisions in Industrial Asset Management -- Creating value and business benefits from joint offerings of asset performance management tools in the capital-intensive industries -- The Journey towards Successful Application of Maintenance 4.0 and Service Management 4.0 -- Risk, Reliability & Maintenance -- Methodology for optimizing preventive maintenance programs for equipment on an electrical distribution network -- Pragmatic performance management -- How to build an optimal long-term asset renewals and modernization plan driven by quantified cost/risk/performance value -- System for Early Detection of Insulation Failures of Electric Machinery -- Turnaround Maintenance in Process Industry: Challenges and Potential Solutions -- Modelling the effect of maintenance-induced failures from periodic testing of safety-critical equipment in the oil and gas industry -- Asset Information Systems -- Facilitating change towards predictive maintenance -- An Intangible Asset Management Proposal based on ISO 55001 and ISO 30401 for Knowledge Management -- The potential for digital twin applications in railway infrastructure management -- Digital twins in asset management: potential application use cases in rail and road infrastructures -- Asset Management Decisions -- Proposition of a generic decision framework for prescriptive maintenance decision-making: An application to the automotive sector -- Asset Information Management Systems: Critical Success Factors in the Brazilian Electricity Sector -- Benchmarking Asset Information Quality of a Utility Company in Brazil -- The Value of Business Process Management to Understand Complex Asset Management Processes -- Towards evidence-based decision making in asset management -- Probabilistic technico-economic analysis of hydroelectric power unit operation and maintenance including prognostic -- Condition Monitoring & Assessment -- Condition Assessment of Engineered Assets in era of Society 5.0 -- Model proposal for failure detection and classification of internal combustion engine operating condition -- Fault diagnosis and isolation for diesel engine combustion chambers based on Autoencoder and BP neural network -- Asset Management and Energy Efficiency Improvements in a Critical Environment - The Case of a University Bioterium -- Determination of Water Content in Heavy Fuel Oil Using a Relative Permittivity Meter -- Particulate matter monitoring in Joinville, Santa Catarina, Brazil -- Failure detection and isolation by LSTM autoencoder -- Condition-Based Inspection Grouping Policy for Boiler Heat Exchanger Tubes -- Developing a lubrication oil age prediction model -- Railway track geometry degradation modelling and prediction for maintenance decision support -- Efficient Implementation of Artificial Neural Networks for Sensor Data Analysis based on a Genetic Algorithm -- Application of Frequency Division Multiplexing and Neural Networks in the Operation and Diagnosis of the Stator Current and Shaft Position Sensors used in Electric/Hybrid Vehicles -- Machine learning based prediction of fatigue events in railway rails -- Online temperature estimation of permanent magnet synchronous machines (PMSM) using non-linear autoregressive neural networks with exogenous input (NARX).

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## Sommario/riassunto

This book gathers selected peer-reviewed papers from the 15th World Congress on Engineering Asset Management (WCEAM), which was hosted by The Federal University of Mato Grosso do Sul Campo Grande,

Brazil, from 15–18 August 2021. This book covers a wide range of topics in engineering asset management, including: strategy and standards; sustainability and resiliency; servitisation and Industry 4.0 business models; asset information systems; and asset management decision-making. The breadth and depth of these state-of-the-art, comprehensive proceedings make them an excellent resource for asset management practitioners, researchers, and academics, as well as undergraduate and postgraduate students.

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