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Nota di contenuto	Smart Factory -- Distributed Scheduling in Cellular Assembly for Mass Customization -- Smart Learning Factory - Network Approach for Learning and Transfer in a digital & physical set up -- Towards a machine learning failure prediction system applied to a smart manufacturing process -- A Method to Gaze Following Detection by Computer Vision Applied to Production Environments -- Towards a knowledge-based design framework for modular robotic system -- A Lean Quality Control Approach for Additive Manufacturing -- Integration of PLM, MES and ERP Systems to Optimize the Engineering, Production and Business -- Analyses and Study of Human Operator Monotonous Tasks in Small Enterprises in the Era of Industry 4.0 -- Digital Twins -- Digital Twin Representations of Concrete Modules in an Interdisciplinary Context of Construction and Manufacturing Industry -- Middle of Life Digital Twin: Implementation at a Learning Factory -- A complete digital chain to enable the digital twin of a shop floor -- Implementation of a Digital Twin Starting with a Simulator -- Digital Twin and Product Lifecycle Management: What is the Difference? -- Internet of Things (IoT, IIoT) -- Smart Dust in the Industrial Economic Sector -- On Application Cases in Product Lifecycle Management -- Smart Manufacturing Testbed for the Advancement of

Wireless Adoption in the Factory -- Analytics in the Order Fulfillment Process -- Free Text Customer Requests Analysis: Information Extraction Based on Fuzzy String Comparison -- Data relevance and sources for carbon footprint calculation in powertrain production -- FMECA-based risk assessment approach for proactive obsolescence management -- i-DATAQUEST : a proposal for a manufacturing data query system based on a graph -- Ontologies for Interoperability -- Supporting Linked Engineering Data Management of Smart Product Systems through Semantic Platform Services -- Ontology Matching for Product Lifecycle Management -- An Ontology-Based Concept to Support Information Exchange for Virtual Reality Design Reviews -- Initial Approach to an Industrial Resources Ontology in Aerospace Assembly Lines -- Tools to Support Early Design Phases -- 3D Sketching in VR Changing PDM Processes -- A Method to Formulate Problem in Initial Analysis of Inventive Design -- Using BSC and DEMATEL Method to Construct the Novel Product Concepts Evaluation System -- Knowledge Graph of Design Rules for a Context-Aware Cognitive Design Assistant -- New Product Development -- Conceptual Reference Model for the Product Development Process Oriented by Design for Six Sigma -- Implementing Secure Modular Design of Configurable Products, a case study -- Addressing Obsolescence from Day One in the Conceptual Phase of Complex Systems as a Design Constraint -- Business Models -- Methodology for Designing a Collaborative Business Model – Case Study Aerospace Cluster -- Rapid sales growth mechanisms and profitability for investment product manufacturing SMEs through pay-per-X business models -- An Analysis of Flexible Manufacturing on the Support of the Development of Smart Product-Service Systems -- Startup definition proposal using Product Lifecycle Management -- Circular Economy -- Exploring How Design Can Contribute to Circular Economy through Design for X Approaches -- An Innovative Methodology to Optimize Aerospace Eco-efficiency Assembly Processes -- A Disassembly Line Design Approach for Management of End-of-Life Product Quality -- Towards a data classification model for circular product life cycle management -- Maturity Implementation and Adoption -- Preliminary Analysis of the Behavioural Intention to use a Risk Analysis Dashboard through the Technology Acceptance Model -- Challenges of Integrating Social - Lifecycle Sustainability Assessment into Product Lifecycle Management- State of the Art -- A Comprehensive Maturity Model for Assessing the Product Lifecycle -- PLM Functionalities in the Fashion Industry. Preliminary Results of a Classification Framework -- Cross Industrial PLM Benchmarking Using Maturity Models -- A knowledge-based approach for PLM implementation using modular benefits dependency networks -- Enterprise Architecture Method for Continuous Improvement of PLM based on Process Mining -- Blockchains: A conceptual assessment from a product lifecycle implementation perspective -- Model Based Systems Engineering -- Analysis of MBSE/PLM Integration: From Conceptual Design to Detailed Design -- Issues on Introducing Model-Based Definition - Case of Manufacturing Ecosystem -- A new agile hybridization approach and a set of related guidelines for mechatronic product development -- A study of behavior and state representation methods in modern PLM systems -- Artificial Intelligence in Cax, MBE, and PLM -- Data Analytics & Application Challenges in the Childrenswear market- a case study in Greece -- Trusted Artificial Intelligence: On the Use of Private Data -- Real-time detection of eating activity in elderly people with dementia using face alignment and facial landmarks -- Participative Method to Identify Data-Driven Design Use Cases -- PLM migration in the era of Big Data

and IoT: analysis of information system and data topology -- Building Information Modelling -- A Quantitative Evaluation Framework for the Benefit of Building Information Modeling for Small and Medium Enterprises Leveraging Risk Management Concepts -- Cross-Pollination as a Comparative Analysis Approach to Comparing BIM and PLM: A Literature Review -- Enhancement of BIM Data Representation in Product-Process Modelling for Building Renovation -- Towards AR/VR maturity model adapted to the Building Information Modeling -- Developing BIM Thinking: Fundamental Objectives and Characteristics of BIM to Think Critically About in BIM Research and Implementation -- Industrial Technical Contributions -- Engineering IT Management on End-to-End PLM Structure in Automotive Sector -- Continuous Engineering through ALM-PLM Integration.

Sommario/riassunto

This book constitutes the refereed post-conference proceedings of the 17th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2020, held in Rapperswil, Switzerland, in July 2020. The conference was held virtually due to the COVID-19 crisis. The 60 revised full papers presented together with 2 technical industrial papers were carefully reviewed and selected from 80 submissions. The papers are organized in the following topical sections: smart factory; digital twins; Internet of Things (IoT, IIoT); analytics in the order fulfillment process; ontologies for interoperability; tools to support early design phases; new product development; business models; circular economy; maturity implementation and adoption; model based systems engineering; artificial intelligence in CAx, MBE, and PLM; building information modelling; and industrial technical contributions.
