1. Record Nr. UNINA990005265340403321

Autore Rose, Herbert J.

Titolo Primitive culture in Italy / by Herbert J. Rose

Pubbl/distr/stampa New York : Libraries Press, 1971

ISBN 0-8369-5948-5

Edizione [Repr. ed. 1926]

Descrizione fisica 253 p.; 22 cm

Disciplina 937.01

Locazione FLFBC

Collocazione 937.01 ROS 1

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Record Nr. UNISALENTO991002969149707536

Autore D'Amore, Bruno

Titolo Probabilità e statistica / Bruno D'Amore

Pubbl/distr/stampa Milano : F. Angeli, 1993

ISBN 8820426773

Edizione [[4. ed.]]

Descrizione fisica 138 p.; 21 cm

Collana La Scuola Se. Progetto Ma.S.E.; 3

Disciplina 519.2

Soggetti Probabilità - Teoria - Manuali

Inferenza statistica - Manuali

Lingua di pubblicazione Italiano

Formato Materiale a stampa

Livello bibliografico Monografia

Record Nr. UNINA9910760293103321 Autore Fottner Johannes Titolo Construction Logistics, Equipment, and Robotics: Proceedings of the CLEaR Conference 2023 Cham:,: Springer International Publishing AG,, 2023 Pubbl/distr/stampa ©2024 **ISBN** 9783031440212 3031440218 Edizione [1st ed.] Descrizione fisica 1 online resource (222 pages) Lecture Notes in Civil Engineering Series; v.390 Collana Altri autori (Persone) NubelKonrad MattDominik T Soggetti Construction industry Logistics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Intro -- Preface -- Conference Organization -- Contents --Nota di contenuto Construction Logistics -- Construction Logistics - An Underrated Topic and an Educational Gap in University Teaching -- 1 Introduction -- 1.1 Construction Logistics - What is It? -- 1.2 The Practical Relevance of Construction Logistics -- 1.3 Construction Logistics in Science and Teaching -- 2 Exemplary Lecture at TUM -- 2.1 Basic Structure --2.2 Real-World Examination Project for Advanced Understanding -- 3 Conclusion -- 3.1 Needs to Teach Construction Logistics for Real-World Projects -- 3.2 Limitations of the Lecture Concept -- Appendix -- References -- A Journey to High Efficiency Construction (with Smart Logistics) -- 1 Introduction -- 2 Research and Methodology -- 3

Dysfunctional Systems in Construction -- 3.1 Living in a Silo (What is a Silo?) -- 3.2 Everything is a Perspective (What is Tangible and What is Intangible?) -- 3.3 Part-Whole Paradigm (What is a Network?) -- 4 End-to-End Supply Chain for Construction Sites -- 4.1 Macro Lens - Smart City, Urbanisation, Megacities -- 4.2 Micro Lens - Time, Quality, Cost Problems on Site -- 5 Networking of the Systems -- 5.1 Dimensions of Construction Logistics - Urbanising Building -- 5.2 Dimension of Space - Linking Transport to the Site -- 5.3 Dimension of Time -

Linking Construction Schedules to Material Flow -- 5.4 Dimension of Stakeholders - Linking the Production Value Chain -- 6 Facing the Dilemma with Constant Change -- 6.1 Our Playground - Putting Ourselves into the Heart of the Process -- References -- A First Approach to a Semantic Process Model for Enabling an Information Flow for Reuse of Building Materials -- 1 Introduction -- 2 Background and Related Works -- 2.1 Robotic Deconstruction Process -- 2.2 Ontologies in Construction -- 3 Methodology -- 3.1 Scope and Competency Questions -- 3.2 Reuse of Existing Concepts. 4 Outlook -- 4.1 Robotic Implementation -- References -- Applicability of a Serious Game Framework for Construction Logistics -- 1 Introduction -- 2 Literature Background -- 3 Description of the Elaborated Framework -- 4 Application of the Framework via an Example -- 5 Summary and Further Research -- References --Smart Contract-Enabled Construction Claim Management in BIM and CDE-Enhanced Data Environment -- 1 Introduction -- 2 Related Work -- 2.1 ICT-Enabled Construction Claims Management -- 2.2 Blockchain and Smart Contract for Data Integrity and Process Tracing -- 3 Methodology -- 4 Case Study -- 5 Conclusion -- References --Automated Productivity Evaluation of Concreting Works: The Example of Concrete Pillar Production -- 1 Introduction -- 2 Background -- 2.1 Construction Monitoring -- 2.2 Vision-Based Al Methods in Construction -- 3 Productivity in Construction -- 4 Proposed Solution -- 5 Conclusion -- References -- Adaptive BIM/CIM for Digital Twining of Automated Shotcreting Process -- 1 Introduction -- 2 State of the Art -- 2.1 BIM in Digital Twins -- 2.2 Shotcrete Digitalization --3 Proposed Shotcrete Automation -- 4 Adaptive BIM/CIM Models -- 4.1 Requirements -- 4.2 Adaptive Modeling and Interoperability Considerations -- 5 Conclusion -- References -- Using Digital Models to Decarbonize a Production Site: A Case Study of Connecting the Building Model, Production Model and Energy Model -- 1 Introduction -- 2 From Digital Models to Digital Twins -- 2.1 Building Model -- 2.2 Production Model -- 2.3 Energy Model -- 3 Methodology -- 3.1 Case Study -- 4 Results and Discussions -- 5 Conclusions --References -- Construction Equipment -- Evaluation of Different IIoT Transmission Technologies for Connecting Light Construction Equipment in Outdoor Areas -- 1 Introduction -- 1.1 Initial Situation --2 State of Science. 2.1 Theoretical Background and Definitions -- 3 Method and Evaluation -- 4 Results: Applying the Technology to the Use Case -- 4.1 Multiple Operation Scenarios: LoRaWAN -- 4.2 Cellular Transmission -- 4.3 Bluetooth Low Energy -- 5 Discussion and Conclusion -- References --Investigation of Data Transmission Between Construction Machines and Attachment Tools via OPC UA Technology -- 1 Introduction -- 2 Related Works -- 3 Concept for Inter-communication of Mobile Construction Machines and Their Attachment Tools Using OPC UA -- 4 Timing and Data Loss Experiments -- 4.1 Experimental Design -- 4.2

Timing and Data Loss Experiments -- 4.1 Experimental Design -- 4.2 Measurement Results -- 5 Results Discussion -- 6 Conclusion -- References -- Activity Recognition for Attachments of Construction Machinery Using Decision Trees -- 1 Introduction -- 1.1 Motivation -- 1.2 Related Work -- 1.3 Relevance and Objective -- 2 Methodology -- 2.1 Class Definition -- 2.2 Data Collection -- 2.3 Data Preparation -- 2.4 Classification Model -- 3 Results -- 3.1 Model Accuracy -- 3.2 Comparison Among Attachment Classes -- 3.3 Comparison to Other Machine Learning Algorithms -- 4 Discussion and Conclusion -- 4.1 Conclusion -- 4.2 Limitation -- 4.3 Outlook -- References -- How is the Profession of Excavator Operator Changing? The Demands of Digitalization and Automation of Construction Machinery

from the Operator's Point of View -- 1 Introduction -- 2 State of the Art -- 3 Analysis of the Technological Transformation -- 3.1 Level 1 Past/Present -- 3.2 Level 2 Present -- 3.3 Level 3 Present/Future -- 3.4 Level 4 Future -- 3.5 Challenges Due to Digitalization -- 4 Summary -- References -- Introduction of an Assistant for Low-Code Programming of Hydraulic Components in Mobile Machines -- 1 Motivation and Introduction -- 2 State-of-the-Art in Analyzing and Assisting Low-Code Development -- 3 Concept of a Programming to Develop Low-Code. 4 Prototype of the Programming Assistant -- 5 Evaluation in User Study -- 6 Conclusion and Outlook -- References -- Decarbonizing Construction Material Supply Chains: An Innovative Approach to Intermodal Transportation -- 1 Introduction -- 2 Literature Review --2.1 Green Transportation in the Construction Material Supply Chain --2.2 Combined Transportation -- 2.3 A Novel Load Carrier Design -- 3 Methodology -- 3.1 Description of the Scenarios -- 3.2 GHG Emission Quantification -- 4 Results and Discussion -- 4.1 Results -- 4.2 Discussion -- 4.3 Limitations -- 5 Conclusion -- References --Embedding RFID Tags into Modular Textile Floor Coverings and Integration in BIM -- 1 Introduction -- 1.1 Background and Problem Statement -- 1.2 State of the Art -- 2 Methodology -- 2.1 Concept -- 2.2 Implementation -- 3 Embedding Passive RFID Tags into Modular Carpets -- 4 Conclusion and Outlook -- References --Construction Robotics -- Status Quo of Construction Robotics: Potentials, Applications and Challenges -- 1 Introduction -- 2 Analysis of Construction Processes -- 3 State of the Art in Construction Robotics -- 4 Regulatory Situation with Automated Construction Processes -- 5 Conclusion -- References -- Levels of Digitalization for Construction Machinery on the Connected and Automated Construction Site -- 1 Introduction -- 2 The Automation Pyramid -- 3 Levels of Digitalization -- 3.1 Level 0: Process Level -- 3.2 Level 1: Device Level -- 3.3 Level 2: Monitoring and Control Level -- 3.4 Level 3: Manufacturing Operations and Management -- 3.5 Level 4: Corporate Level -- 4 Using ISOBUS as a Process Control Communication in Construction Machinery -- 5 Using OPC-UA for a Site Execution System -- 6 Summary -- References -- Synthetic Data Generation for the Enrichment of Civil Engineering Machine Data -- 1 Motivation and Problem Statement. 2 Related Work and Contribution to Current Research -- 3 Concept for Machine Trajectory Data Generation -- 4 Evaluation and Discussion -- 4.1 Use Case: Diaphragm Wall Grab -- 4.2 Reference Trajectory --4.3 Deviating Trajectories -- 4.4 Discussion and Enrichment of Real Machine Data -- 5 Conclusion and Further Work -- References --Advancing Construction Efficiency Through Collaborative Robotics: A Scalable Multi-agent-Based Logistics Solution -- 1 Introduction -- 2 Literature -- 3 Method -- 4 Expected Results -- 5 Outlook --References -- Agent-Based Simulation Model for the Real-Time Evaluation of Tunnel Boring Machines Using Deep Learning -- 1 Introduction -- 2 Literature -- 3 Concept -- 3.1 Update Inputs of the Simulation Model with the Deep-Learning Prediction -- 4 Implementation -- 4.1 Deep-Learning Model -- 4.2 TBM Simulation Model -- 5 Case Study -- 6 Results -- 7 Conclusion -- References -- A BIM-Integrated Robotics Application for Color Spraying in Construction -- 1 Introduction -- 2 Proposed Approach -- 3 Application -- 4 Conclusion -- References -- A Digital Twin Model for Advancing Construction Safety -- 1 Introduction -- 2 Related Work -- 2.1 Current State of Construction Safety and Level of Information Technology -- 2.2 Digital Twins and Data Acquisition Under Typical Construction Project Constraints -- 3 The Digital Twin for Construction Safety -- 3.1

Construction Site -- 3.2 Digital Twin for Construction (DTC) -- 3.3 Digital Twin for Production Planning (DTPP) -- 3.4 Construction Site Interface (CSI) -- 3.5 Digital Twin for Construction Safety (DTCS) -- 4 Implementation Example -- 5 Conclusion -- References -- Author Index.

Sommario/riassunto

This book presents the proceedings of the CLEaR Conference 2023, focusing on construction logistics, equipment, and robotics. It addresses the challenges and innovations in these fields, emphasizing the need for efficient logistics management, advanced machinery, and the integration of robotics and automation in construction. The book aims to strengthen the research field and promote collaboration between universities and research institutions. It provides a comprehensive collection of papers reflecting the latest developments and technological advancements, exploring topics such as supply chain management, autonomous machinery, and human-robot collaboration. Intended for professionals and researchers in civil engineering, it offers insights into optimizing construction processes and enhancing sustainability and productivity.