

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910728950103321 |
| Autore | Zimmermann Alfred |
| Titolo | Human Centred Intelligent Systems : Proceedings of KES-HCIS 2023 Conference // edited by Alfred Zimmermann, R.J. Howlett, Lakhmi C. Jain |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023 |
| ISBN | 9789819934249 9819934249 |
| Edizione | [1st ed. 2023.] |
| Descrizione fisica | 1 online resource (182 pages) |
| Collana | Smart Innovation, Systems and Technologies, , 2190-3026 ; ; 359 |
| Altri autori (Persone) | HowlettR. J JainL. C |
| Disciplina | 004.019 |
| Soggetti | Computational intelligence Artificial intelligence User interfaces (Computer systems) Human-computer interaction Cooperating objects (Computer systems) Internet of things Computational Intelligence Artificial Intelligence User Interfaces and Human Computer Interaction Cyber-Physical Systems Internet of Things |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Intro -- Preface -- Organization -- Contents -- About the Editors -- Human-Centred Intelligent Systems -- Leveraging Open Innovation Practices Through a Novel ICT Platform -- 1 Introduction -- 2 ICT-Based Open Innovation Platforms -- 3 The Proposed Solution -- 3.1 Argumentation-Based Collaboration -- 3.2 Discourse Analysis -- 3.3 Position Summarization -- 4 Preliminary Evaluation -- 5 Conclusions -- References -- Advanced Analytics for Smart Farming in a Big Data Architecture Secured by Blockchain and pBFT -- 1 Introduction -- 2 Blockchain from Data Processing Perspective -- 2.1 Blockchain Data |

Structure and Transactions -- 2.2 Private and Public Blockchain -- 2.3 Practical Byzantine Fault Tolerance -- 3 Smart Farming and Smart City Data Analytics -- 3.1 Business Analysis for Smart Farming -- 4 Smart Systems Oriented Big Data Architecture (SSOBDA) -- 5 Architectural Requirements to Combine Big Data Architecture with Blockchain -- 5.1 Theoretical Physical Architecture -- 5.2 Deployed Physical Architecture -- 5.3 Functional Architecture -- 6 Conclusion and Perspective -- References -- Ultrasound-Coupled Electrocoagulation Based Azo Dye Fading Rate Prediction Using Deep Neural Networks -- 1 Introduction -- 2 Materials and Methods -- 2.1 Electrocoagulation -- 2.2 Ultrasound -- 2.3 Ultrasound-Coupled with Electrocoagulation -- 3 Data Analytics -- 3.1 Data Set Overview -- 3.2 Data Set Descriptive Statistics -- 3.3 Pearson Correlation -- 3.4 Deep Neural Network -- 4 Conclusion -- References -- Digital Strategy and Architecture for Human-Centered Intelligent Systems -- 1 Introduction -- 2 Smart Digitalization -- 3 Human-Centered Intelligent Systems -- 4 Digital Strategy -- 5 Intelligent Service Architecture -- 6 Conclusion -- References -- Smart Energy Management System: Methodology for Open-Pit Mine Power Grid Monitoring Applications -- 1 Introduction.

2 Related Works -- 2.1 The Design of an Internet of Things-Based Energy Monitoring System -- 2.2 The Role of Strategic Energy Management in the Environment of Industry 4.0 -- 3 Methodology and Metrics for Measuring Energy Efficiency -- 3.1 ISO 50001: Energy Management System -- 3.2 Plan, Do, Check, Act (PDCA) -- 3.3 Adoption of a Standard Operating Procedure for the Energy Management System -- 3.4 Metrics for Measuring Energy Efficiency -- 4 Material and Proposed Solution -- 4.1 System Structure -- 4.2 Sepam S40 -- 4.3 Application -- 5 Results and Discussions -- 6 Conclusion and Perspectives -- References -- Intelligent Transport Systems -- Communication Trends, Research Challenges in Autonomous Driving and Different Paradigms of Object Detection -- 1 Introduction -- 2 Connected Autonomous Vehicle Architecture -- 2.1 Computing Technologies -- 2.2 AI and Deep Learning Application in Autonomous Vehicle -- 3 Object Detection in Autonomous Environment -- 4 Challenges in Future Autonomous Vehicle Technology -- 5 Conclusion and Perspective -- References -- Investigation in Automotive Technologies Transitions -- 1 Introduction -- 2 Autonomous and Electric Vehicles Overview -- 3 Research Methodology -- 4 Results -- 5 Discussion -- 6 Conclusion -- References -- An Investigation in Autonomous Vehicles Acceptance -- 1 Introduction -- 1.1 Levels of Autonomy in Driving -- 2 Technology Acceptance Framework -- 3 Survey Data Analysis -- 4 Conclusion -- References -- Edge Computing Technologies for Mobile Computing and Internet of Things (3rd Edition) -- Can Business Be Sustainable: A Case Study of the Information Technology Sector -- 1 Introduction -- 2 Sustainable Development -- 2.1 Climate -- 2.2 Resource Use -- 2.3 Toxic Substances -- 2.4 Freshwater -- 2.5 Ecosystem Pressure -- 3 Business Sustainability -- 3.1 New Vision of Business Drivers. 3.2 Conceptual Frameworks -- 3.3 Benefits of Incorporating Sustainability in Businesses -- 4 Technological Business Sustainability -- 4.1 How Technology Contributes to Unsustainable Development -- 4.2 Solutions to Alleviate the Impacts of Technology on the Climate -- 5 How Artificial Intelligence Can Help Businesses Achieve Sustainability -- 5.1 Using AI to Reduce Waste -- 5.2 Using AI to Improve Quality Control -- 5.3 Using Artificial Intelligence to Improve Digital Twin Technology -- 5.4 Using Artificial Intelligence to Improve Product Maintenance -- 6 Conclusion -- References -- Smart University: Project

Management of Information Infrastructure Based on Internet of Things (IoT) Technologies -- 1 Introduction and Literature Review -- 1.1

Managing the Development of IoT Technology as the Main Element of the Digital Smart Infrastructure -- 1.2 Analysis of the IoT Ecosystem and Features of IoT Projects for Smart Universities -- 1.3 The Problem, Goals and Objectives of the Study -- 2 The Concept of Forming a Criteria System for Evaluating the Features of IoT Projects and Their Implementation for the Information Infrastructure Development of a Smart University -- 3 Development of an Adaptive Flexible Approach Model to IoT Project Management -- 4 Conclusion and Next Steps -- References -- Smart Manufacturing: Intelligent Infrastructure Based on Industry 4.0 Technologies -- 1 Introduction and Literature Review -- 1.1 Analysis of the Pandemic Problems and Consequences for the Industry and Its Digitalization Processes -- 1.2 Digital Analytics and the Introduction of a Cybernetic Approach to the Industrial Enterprise Management -- 1.3 The Problem, Goals and Objectives of the Study -- 2 Levels of Digital Maturity of an Industrial Enterprise -- 3 Designing the Digital Infrastructure of Smart Manufacturing -- 4 Conclusion and Next Steps -- References.

Towards an Optical IoT-Based Power Transformer's Insulating Paper Monitoring -- 1 Introduction -- 2 Experimental -- 2.1 Thermal Aging -- 2.2 Degree of Polymerization (DP) -- 2.3 The Reflectance Measurement Setup -- 3 Results and Discussion -- 4 Conclusion -- References -- Digital Enterprise Architecture for Human-Centric Intelligent Systems in Manufacturing, Financial, and Others -- ChatGPT, How to Wire Age 5.0 Mindsets: Industry, Society, Healthcare and Education? -- 1 Introduction -- 2 ChatGPT What is Industry 4.0? -- 3 Society 5.0 -- 4 ChatGPT What is Healthcare 5.0? -- 4.1 Healthcare 5.0 -- 5 Education 5.0 -- 6 Conclusion -- References -- Designing Performance Indicator in Human-Centered Agile Development -- 1 Introduction -- 2 Related Research -- 2.1 Performance Evaluation -- 2.2 Quality Management System -- 2.3 Adaptive Integrated Digital Architecture Framework -- 2.4 Design Thinking Approach -- 2.5 Agile Development Approach -- 3 Proposal of Strategic Performance Indicator Deriving Framework for Design Thinking Approach -- 3.1 Concept Phase: Performance of Prototype for User -- 3.2 Design Phase: Performance of Business Model/Business Process -- 3.3 Development Phase: Performance of Prototypes for Business/Society -- 3.4 Operation Phase: Performance of Actual Operation -- 4 Discussion -- 4.1 Performance Indicators in Human-Centered Agile Development -- 4.2 Dynamic Management of Performance Indicators in the Process of Digital Transformation -- 4.3 Future Research -- 5 Conclusion -- References -- Human-Centred Design Thinking Using the Intelligence Amplification Design Canvas and the Adaptive Integrated Digital Architecture Framework -- 1 Introduction -- 2 Related and Earlier Work -- 2.1 ISO 9241-210:2019 for HCD -- 2.2 Earlier Work -- 3 Methodology -- 3.1 Application of the ISO 9241-210:2019 for HCD -- 3.2 Exploratory Research.

4 HCDT Approach with the AIDAF and IA Design Canvas -- 4.1 Positioning HCD and DT as Part of the AIDAF -- 4.2 AIDAF for DT Approach with the IA Design Canvas -- 4.3 Testable Propositions for DT and Prototyping -- 4.4 Testable Propositions for Enterprise System Development -- 5 Conclusion -- References -- Applying AIDAF for Digital Transformation Toward Ecosystem in Global Enterprise -- 1 Introduction -- 2 Related Works -- 2.1 Digital IT and EA for Digital Healthcare, Manufacturing, Smart Energy -- 2.2 Industry 4.0 and Society 5.0 -- 2.3 AIDAF Framework -- 3 Digital Transformation Process of Adaptive Enterprise Architecture - FSAO Approach -- 4

Cases of Digital Transformation in Enterprise and Ecosystem -- 4.1
GHE Case in Enterprise to Healthcare Ecosystem (Big Data) -- 4.2 GMC
Case (Digital Products) from Enterprise to Ecosystems -- 4.3 Americas
Hospital Case from Enterprise to Ecosystem (Digital Platform) -- 4.4
Smart City Case Directly to Ecosystem -- 5 Discussion and Challenges
-- 6 Conclusion and Next Research -- References -- Author Index.

Sommario/riassunto

The volume includes papers presented at the International KES Conference on Human Centred Intelligent Systems 2023 (KES HCIS 2023), held in Rome, Italy on June 14–16, 2023. This book highlights new trends and challenges in intelligent systems, which play an important part in the digital transformation of many areas of science and practice. It includes papers offering a deeper understanding of the human-centred perspective on artificial intelligence, of intelligent value co-creation, ethics, value-oriented digital models, transparency, and intelligent digital architectures and engineering to support digital services and intelligent systems, the transformation of structures in digital businesses and intelligent systems based on human practices, as well as the study of interaction and the co-adaptation of humans and systems.
