

1. Record Nr.	UNISA996499855103316
Titolo	Digital twins : basics and applications / Zhihan Lv, Elena Fersman, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2022] ©2022
ISBN	3-031-11401-9
Descrizione fisica	1 online resource (102 pages)
Disciplina	003.3
Soggetti	Digital twins (Computer simulation)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	<p>Intro -- Contents -- Digital Twins Architecture -- 1 Why to Talk About Digital Twins? -- 2 The Main Digital Twin's Components -- 2.1 Physical System (PS) -- 2.2 Virtual System (VS) -- 2.3 Systems Data (SD) -- 2.4 Communication Interface (CI) -- 3 Is This a Digital Twin? -- 4 Practical Case Studies -- 4.1 Case Study I -- 4.2 Case Study II -- References --</p> <p>Digital Twins for Physical Asset Lifecycle Management -- 1 Introduction -- 2 Digital Twin Asset Lifecycle Management (DTALM) -- 3 Digital Twin Essence -- 4 Digital Twin Systems -- 4.1 Physical Domain -- 4.2 Digital Domain -- 4.3 Physics-Based Generative Models for Digital Twins -- 4.4 Advances in Parameter Identifiability -- 5 Data-Driven Digital Twins -- 5.1 Statistical Learning Models -- 5.2 Machine Learning Models -- 5.3 Deep Learning Models -- 5.4 Industrial Digital Twin Applications for PALM -- References -- Digital Twins and Additive Manufacturing -- 1 Additive Manufacturing -- 2 Digital Twins -- 3 DTs for AM Needs and Challenges -- 3.1 Real Time Monitoring -- 3.2 Database and Models -- 3.3 Machine Learning -- 3.4 Internet of Things -- 4 Conclusions and Outlook -- References -- Agricultural Digital Twins -- 1 The Digital Twins of Agriculture -- 2 Digital Twins Build Smart Farms -- 2.1 Artificial Intelligence Predicts Plant Growth -- 2.2 Virtual Reality Simulation of 3D Digital Farm -- 2.3 Blockchain Technology Realizes Supply Chain Management -- 2.4 Problems that Still Exist in the Application of Digital Twins in the Agricultural Field -- 3 Conclusion -- References -- The Application of Digital Twins</p>

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