1. Record Nr. UNINA9911015868303321

Autore	Borangiu Theodor
Titolo	Service Oriented, Holonic and Multi-agent Manufacturing Systems for Industry of the Future : Proceedings of SOHOMA 2024 / / edited by Theodor Borangiu, Damien Trentesaux, Paulo Leitão, Christoph Legat
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-85316-4
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (569 pages)
Collana	Studies in Computational Intelligence, , 1860-9503 ; ; 1197
Altri autori (Persone)	TrentesauxDamien LeitãoPaulo LegatChristoph
Disciplina	006.3
Soggetti	Computational intelligence Industrial engineering Production engineering Multiagent systems Computational Intelligence Industrial and Production Engineering Multiagent Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This book centres on methods and tools for data sharing in a secure way and on value-adding application of artificial intelligence (AI) in industrial production and logistics for the transformation to data-driven industry of the future. The scientific theme of the book is “Industrial Artificial Intelligence in the Data-driven Industry of the Future: Models, Architectures, and Applications” which is focused on exploring the intricacies of cross-enterprise data sharing and the strategic use of AI within manufacturing systems. An important analysis is offered to reveal the interconnections between research, regulation and standardization of artificial intelligence and digital twins in Industry 4.0 from an European perspective. The novelty of this approach consists in analysing the ethical risks associated with the use

of generative AI techniques in industrial systems and their short-, medium- and long-term impact on performance and human well-being protection. The general scope of the book is to foster innovation in smart and sustainable manufacturing and logistics systems and in this context to promote concepts, methods and solutions for the digital transformation of manufacturing through service orientation in holonic and agent-based control with distributed intelligence. The book's readership is comprised by researchers and engineers working in the value chain of products and processes including material sourcing, production, consumption and disposal/recycling processes, who develop digital control solutions in the "Industry of the Future" vision. The book also addresses to master and Ph.D. students enrolled in engineering sciences programs.