CITATION REPORT List of articles citing

Towards smart factory for industry 4.0: a self-organized multi-agent system with big data based feedback and coordination

DOI: 10.1016/j.comnet.2015.12.017 Computer Networks, 2016, 101, 158-168.

Source: https://exaly.com/paper-pdf/65664262/citation-report.pdf

Version: 2024-04-09

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper II	F	Citations
897	Vibration-Based Adaptive Novelty Detection Method for Monitoring Faults in a Kinematic Chain. 2016 , 2016, 1-12		4
896	From Embedded Systems (ES) to Cyber-Physical Systems (CPS): An Analysis of Transitory Stage of Automotive Manufacturing in the Industry 4.0 Scenario. 2016 ,		2
895	. 2016 , 4, 3246-3256		97
894	Cloud robotics: Current status and open issues. 2016 , 1-1		70
893	Review of wireless big data in 5G: From physical layer to application layer. 2016 ,		
892	Potential of data-driven simulation-based optimization for adaptive scheduling and control of dynamic manufacturing systems. 2016 ,		20
891	Communication scheduling scheme based on big-data regression analysis and genetic algorithm for cyber-physical factory automation. 2016 ,		2
890	Localizing operators in the smart factory: A review of existing techniques and systems. 2016,		6
889	Software-Defined Industrial Internet of Things in the Context of Industry 4.0. 2016 , 1-1		259
888	Industrial Time Series Modelling by Means of the Neo-Fuzzy Neuron. 2016 , 4, 6151-6160		13
887	Cloud Robotics: Insight and Outlook. 2016 , 94-103		2
886	Electronic Commerce Platform of Manufacturing Industry Under Industrial Internet of Things. 2016 , 137-	143	O
885	Data Acquisition and Analysis from Equipment to Mobile Terminal in Industrial Internet of Things. 2016 , 24-35		2
884	Industrial IoT Technologies and Applications. 2016,		1
883	Mobile Services for Customization Manufacturing Systems: An Example of Industry 4.0. 2016 , 4, 8977-898	86	97
882	Health Monitoring and Management for Manufacturing Workers in Adverse Working Conditions. 2016 , 40, 222		15
881	Enhanced Industrial Machinery Condition Monitoring Methodology Based on Novelty Detection and Multi-Modal Analysis. 2016 , 4, 7594-7604		15

880	A Model-Based Service-Oriented Integration Strategy for Industrial CPS. 2016 , 222-230	2
879	A smart factory solution to hybrid production of multi-type products with reduced intelligence. 2016 ,	4
878	A Big Data Centric Integrated Framework and Typical System Configurations for Smart Factory. 2016 , 12-23	4
877	A Delay-Aware Wireless Sensor Network Routing Protocol for Industrial Applications. 2016 , 21, 879-889	10
876	Industrial technologies and applications for the Internet of Things. <i>Computer Networks</i> , 2016 , 101, 1-4 5.4	29
875	FMRQ-A Multiagent Reinforcement Learning Algorithm for Fully Cooperative Tasks. 2017 , 47, 1367-1379	42
874	. 2017 , 13, 2039-2047	238
873	A Highly Flexible, Distributed Data Analysis Framework for Industry 4.0 Manufacturing Systems. 2017 , 373-381	8
872	Data Mining of Energy Consumption in Manufacturing Environment. 2017, 157-166	
871	A novel relocation method for simultaneous localization and mapping based on deep learning algorithm. 2017 , 63, 79-90	6
870	An Access Control Model for Resource Sharing Based on the Role-Based Access Control Intended for Multi-Domain Manufacturing Internet of Things. 2017 , 5, 7001-7011	40
869	A big data enabled load-balancing control for smart manufacturing of Industry 4.0. 2017 , 20, 1855-1864	39
868	An overview of internet-enabled cloud-based cyber manufacturing. 2017 , 39, 388-397	11
867	Industry 4.0: A survey on technologies, applications and open research issues. 2017 , 6, 1-10	1133
866	Literature review on the âBmart Factoryâlconcept using bibliometric tools. 2017 , 55, 6572-6591	209
865	Fog of Everything: Energy-Efficient Networked Computing Architectures, Research Challenges, and a Case Study. 2017 , 5, 9882-9910	213
864	A Lightweight Intelligent Manufacturing System Based on Cloud Computing for Plate Production. 2017 , 22, 1170-1181	11
863	Leveraging heterogeneous device connectivity in a converged 5G-loT ecosystem. <i>Computer Networks</i> , 2017 , 128, 123-132	13

862	Frequency-Tracking Clock Servo for Time Synchronization in Networked Motion Control Systems. 2017 , 5, 11606-11614	6
861	A cloud-assisted handover optimization strategy for mobile nodes in industrial wireless networks. **Computer Networks**, 2017 , 128, 133-141 5-4	8
860	Overview of technologies for improving energy efficiency from energy intensive industries derived from the Italian national experience in IPPC permit licensing. 2017 , 168, 1547-1558	6
859	Cloud-assisted interaction and negotiation of industrial robots for the smart factory. 2017 , 63, 66-78	29
858	A Multi-Perspective Method for Analysis of Cooperative Behaviors Among Industrial Devices of Smart Factory. 2017 , 5, 10882-10891	9
857	In-door location-based smart factory cloud platform supporting device-to-device self-collaboration. 2017 ,	1
856	Process Planning in Industry 4.0 Environment. 2017 , 11, 1744-1750	57
855	Smart manufacturing with the Internet of makers. 2017 , 40, 585-592	9
854	A novel green software evaluation model for cloud robotics. 2017 , 63, 139-156	13
853	Industrial Big Data Analysis in Smart Factory: Current Status and Research Strategies. 2017 , 5, 17543-17551	(-
33	industrial big bata Ariatysis in Smart Factory. Current Status and Nesearch Strategies. 2017, 3, 17343-17331	65
852	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017 , 3-17	0
852	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017 , 3-17	0
8 ₅₂	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017 , 3-17 Experimental Dynamic Analysis of a Breathing Cracked Rotor. 2017 , 30, 1177-1183	9
8 ₅₂ 8 ₅₁ 8 ₅₀	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017, 3-17 Experimental Dynamic Analysis of a Breathing Cracked Rotor. 2017, 30, 1177-1183 Conceptual Model of Complex Multi-agent System Smart City 4.0. 2017, 215-226	9
8 ₅₂ 8 ₅₁ 8 ₅₀	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017, 3-17 Experimental Dynamic Analysis of a Breathing Cracked Rotor. 2017, 30, 1177-1183 Conceptual Model of Complex Multi-agent System Smart City 4.0. 2017, 215-226 Industrial Big Data for Fault Diagnosis: Taxonomy, Review, and Applications. 2017, 5, 17368-17380	o 9 4 95
8 ₅₂ 8 ₅₁ 8 ₅₀ 8 ₄₉ 8 ₄₈	SustainaBLE: A Power-Aware Algorithm for Greener Industrial IoT Networks. 2017, 3-17 Experimental Dynamic Analysis of a Breathing Cracked Rotor. 2017, 30, 1177-1183 Conceptual Model of Complex Multi-agent System Smart City 4.0. 2017, 215-226 Industrial Big Data for Fault Diagnosis: Taxonomy, Review, and Applications. 2017, 5, 17368-17380 Secure Vibration Control of Flexible Arms Based on OperatorsâlBehaviors. 2017, 420-431 Development of an industrial Internet of things suite for smart factory towards re-industrialization.	o 9 4 95 3

844	Geometrical and topological approaches to Big Data. 2017 , 67, 286-296	27
843	Data quality management for service-oriented manufacturing cyber-physical systems. 2017 , 64, 34-44	27
842	Implementing industry 4.0 âlʿA technological readiness perspective. 2017 ,	16
841	A Digital Twin-Based Approach for Designing and Multi-Objective Optimization of Hollow Glass Production Line. 2017 , 5, 26901-26911	201
840	An Integrated Industrial Ethernet Solution for the Implementation of Smart Factory. 2017 , 5, 25455-25462	28
839	Flexible Spectrum Management in a Smart City Within Licensed Shared Access Framework. 2017 , 5, 22252-22	2614
838	A Block Recognition System Constructed by Using a Novel Projection Algorithm and Convolution Neural Networks. 2017 , 5, 23891-23900	5
837	Simulation-based dynamic shop floor scheduling for a flexible manufacturing system in the industry 4.0 environment. 2017 ,	7
836	Self-Organizing Manufacturing: Current Status and Prospect for Industry 4.0. 2017 ,	15
835	Graph Analysis of Fog Computing Systems for Industry 4.0. 2017 ,	5
834	Enabling wireless technologies for industry 4.0: State of the art. 2017,	18
833	. 2017,	52
832	Research on the industrial network architecture of northbound interface. 2017,	2
831	Metrics definition for the product-service system complexity within mass customization and industry 4.0 environment. 2017 ,	4
830	Towards In-Transit Analytics for Industry 4.0. 2017 ,	12
829	Development of intelligent building management system evaluation and selection for smart factory: An integrated MCDM approach. 2017 ,	Ο
828	Development of an Internet of Things enabled manufacturing system for tool wear characterization. 2017 ,	3

826	Research on the Technical Architecture for Building CPS and Its Application on a Mobile Phone Factory. 2017 ,	2
825	Production process stability âltore assumption of INDUSTRY 4.0 concept. 2017 , 215, 012024	3
824	AMBER: Advanced Mother Board for Embedded systems pRototyping. 2017, 2017,	2
823	A Method for Construction of Software Protection Technology Application Sequence Based on Petri Net With Inhibitor Arcs. 2018 , 6, 11988-12000	3
822	Blade Coating Aligned, High-Performance, Semiconducting-Polymer Transistors. 2018 , 30, 1924-1936	43
821	Flexible Job Shop Scheduling With Operators in Aeronautical Manufacturing: A Case Study. 2018 , 6, 224-233	13
820	A Multirobot Cooperation Framework for Sewing Personalized Stent Grafts. 2018 , 14, 1776-1785	17
819	Analyzing Industry 4.0 Models with Focus on Lean Production Aspects. 2018 , 114-130	5
818	The Collaborative System Workflow Management of Industrial Design Based on Hierarchical Colored Petri-Net. 2018 , 6, 27383-27391	9
817	Task Placement Across Multiple Public Clouds With Deadline Constraints for Smart Factory. 2018 , 6, 1560-156	54 8
816	Industrial Big Data Analytics for Prediction of Remaining Useful Life Based on Deep Learning. 2018 , 6, 17190-17197	58
815	USA: Faster update for SDN-based internet of things sensory environments. 2018 , 120, 80-92	6
814	How does Industry 4.0 contribute to operations management?. 2018 , 35, 255-268	87
813	Machine health management in smart factory: A review. 2018 , 32, 987-1009	49
812	Product-service system (PSS) complexity metrics within mass customization and Industry 4.0 environment. 2018 , 97, 91-103	46
811	Smart Factory of Industry 4.0: Key Technologies, Application Case, and Challenges. 2018 , 6, 6505-6519	460
810	Adaptive Transmission Optimization in SDN-Based Industrial Internet of Things With Edge Computing. 2018 , 5, 1351-1360	135
809	Supervisory Control-Based Navigation Architecture: A New Framework for Autonomous Robots in Industry 4.0 Environments. 2018 , 14, 1732-1743	46

808	Automatic assembly planning based on digital product descriptions. 2018, 97, 34-46	49
807	Digital Workplace Learning. 2018 ,	12
806	Digitalisation of Work: Between Affordances and Constraints for Learning at Work. 2018 , 227-249	9
805	Model continuity in cyber-physical systems: A control-centered methodology based on agents. 2018 , 83, 93-107	18
804	A comprehensive survey of ubiquitous manufacturing research. 2018 , 56, 604-628	57
803	A systematic review of technologies involving eco-innovation for enterprises moving towards sustainability. 2018 , 192, 207-220	60
802	Innovation and Supply Chain Management. 2018,	6
801	Industrial Internet of Things based cycle time control of assembly lines. 2018,	8
800	Smart manufacturing technology, market maturity analysis and technology roadmap in the computer and electronic product manufacturing industry. 2018 , 133, 85-94	76
799	An Ontology-Based Resource Reconfiguration Method for Manufacturing Cyber-Physical Systems. 2018 , 23, 2537-2546	45
798	Defining a Collaborative Platform to Report Machine State. 2018 , 267-279	
797	Fog Computing for Energy-Aware Load Balancing and Scheduling in Smart Factory. 2018 , 14, 4548-4556	136
796	Cloud-based smart manufacturing for personalized candy packing application. 2018, 74, 4339-4357	36
795	Big data analytics in supply chain management: A state-of-the-art literature review. 2018 , 98, 254-264	204
794	The Revolutionary Internet of Things. 2018 , 3-16	
793	Industry 4.0 framework for management and operations: a review. 2018 , 9, 789-801	123
79 ²	Context-Aware Cloud Robotics for Material Handling in Cognitive Industrial Internet of Things. 2018 , 5, 2272-2281	73
791	Design and application of Internet of things-based warehouse management system for smart logistics. 2018 , 56, 2753-2768	145

79°	What drives the evolution of Corporate Social Responsibility strategies? An institutional logics perspective. 2018 , 171, 345-355	46
789	Advances in Robotics in the Era of Industry 4.0. 2018 , 187-200	11
788	Latest Advancement in CPS and IoT Applications. 2018, 33-61	11
787	Coloured Petri net-based active sensing system of real-time and multi-source manufacturing information for smart factory. 2018 , 94, 3427-3439	15
786	Applying Non-destructive Testing and Machine Learning to Ceramic Tile Quality Control. 2018,	2
7 ⁸ 5	Big Data, Cloud and IoT: An Assimilation. 2018,	
784	Reliability and Service Integration. 2018 , 439-480	
783	Ensemble Machine Learning Systems for the Estimation of Steel Quality Control. 2018,	7
782	Solving the Job-Shop Scheduling Problem in the Industry 4.0 Era. 2018 , 6, 107	48
781	How Industry 4.0 concepts are applied in the Portuguese clothing industry: some evidences. 2018 , 459, 012044	1
780	Creating Self-Aware Low-Voltage Electromagnetic Coils for Incipient Insulation Degradation Monitoring for Smart Manufacturing. 2018 , 6, 69860-69868	4
779	A Comparison of Centralised and Decentralised Scheduling Methods Using a Simple Benchmark System. 2018 , 51, 1287-1292	1
778	A Framework of Integrating Knowledge of Human Factors to Facilitate HMI and Collaboration in Intelligent Manufacturing. 2018 , 72, 135-140	7
777	A Collaborative Manufacturing Approach supporting adoption of IoT Principles in Micro Devices Assembly. 2018 , 26, 1265-1277	3
776	Potential of a Multi-Agent System Approach for Production Control in Smart Factories. 2018, 51, 1459-1464	20
775	. 2018,	6
774	Short review: Application Areas of Industry 4.0 Technologies in Food Processing Sector. 2018,	8
773	Blockchain Based Protocol for Economical Communication in Industry 4.0. 2018 ,	10

(2018-2018)

772	A service-oriented middleware framework for manufacturing industry 4.0. 2018 , 15, 29-36	18
771	Data-Driven Process Reengineering and Optimization Using a Simulation and Verification Technique. 2018 , 2, 42	6
770	A System Dynamic Model for Implementation of Industry 4.0. 2018 ,	5
769	Novel Approach of an Intelligent and Flexible Manufacturing System: A Contribution to the Concept and Development of Smart Factory. 2018 ,	4
768	. 2018,	1
767	Blockchain technology âla new approach in business environment. 2018 , 184, 04016	3
766	Robonomics Based on Blockchain as a Principle of Creating Smart Factories. 2018,	3
765	Complexity optimization based on the order of coalition formation in cooperative spectrum sensing in cognitive radio networks. 2018 , 35, 421-431	1
764	A Framework of Production Planning and Control with Carbon Tax under Industry 4.0. 2018 , 10, 3221	28
763	Performance Analysis of DF/AF Cooperative MISO Wireless Sensor Networks With NOMA and SWIPT Over Nakagami- \$m\$ Fading. 2018 , 6, 56142-56161	19
762	The Role and Impact of Industry 4.0 and the Internet of Things on the Business Strategy of the Value ChainâThe Case of Hungary. 2018 , 10, 3491	191
761	Exploring the Research Trend of Smart Factory with Topic Modeling. 2018, 10, 2779	7
760	Opportunities for applications using 5G networks. 2018 ,	13
759	Towards an open-standards based framework for achieving condition-based predictive maintenance. 2018 ,	7
75 ⁸	. 2018,	7
757	Enabling Technologies for Operator 4.0: A Survey. 2018 , 8, 1650	82
756	Edge Computing in IoT-Based Manufacturing. 2018 , 56, 103-109	123
755	Defining and assessing industry 4.0 maturity levels âltase of the defence sector. 2018 , 29, 1030-1043	127

754	Green Production Planning and Control for the Textile Industry by Using Mathematical Programming and Industry 4.0 Techniques. 2018 , 11, 2072	31
753	Defect Detection on Randomly Textured Surfaces by Convolutional Neural Networks. 2018,	5
752	Analysis of Cybersecurity Threats in Industry 4.0: The Case of Intrusion Detection. 2018, 119-130	10
751	Smart grid communication and information technologies in the perspective of Industry 4.0: Opportunities and challenges. 2018 , 30, 1-30	134
750	Sustainable Industry 4.0 framework: A systematic literature review identifying the current trends and future perspectives. 2018 , 117, 408-425	474
749	The future of manufacturing industry: a strategic roadmap toward Industry 4.0. 2018 , 29, 910-936	492
748	Digital India. 2018,	1
747	Bubbles of Trust: A decentralized blockchain-based authentication system for IoT. 2018 , 78, 126-142	292
746	Proactive caching for edge computing-enabled industrial mobile wireless networks. 2018, 89, 89-97	18
745	Self-organized innovation networks from the perspective of complex systems. 2018 , 31, 962-983	9
744	Requirements of the Smart Factory System: A Survey and Perspective. 2018 , 6, 23	106
743	Knowledge Reasoning with Semantic Data for Real-Time Data Processing in Smart Factory. 2018 , 18,	26
742	Industrial Internet of Things: A Systematic Literature Review and Insights. 2018 , 5, 4515-4525	79
741	Agent-Based Decision-Information System Supporting Effective Resource Management of Companies. 2018 , 309-318	1
740	Fog computing for the integration of agents and web services in an autonomic reflexive middleware. 2018 , 12, 333-347	8
739	Implementation of Cyber-Physical Production Systems for Quality Prediction and Operation Control in Metal Casting. 2018 , 18,	65
738	Assessing challenges for implementing Industry 4.0: Implications for process safety and environmental protection. 2018 , 117, 730-741	150
737	IIOT-Based Intelligent Control and Management System for Motorcycle Endurance Test. 2018 , 6, 30567-3057	6 8

736	Computational Methods for Application in Industry 4.0. 2019 ,	4
735	Reconfigurable Smart Factory for Drug Packing in Healthcare Industry 4.0. 2019 , 15, 507-516	59
734	An integrated architecture for implementing extended producer responsibility in the context of Industry 4.0. 2019 , 57, 1458-1477	44
733	Management Approach for Resource-Productive Operations. 2019,	1
732	Assembly systems in Industry 4.0 era: a road map to understand Assembly 4.0. 2019 , 105, 4037-4054	65
731	A Survey of the Use of Software Agents in Digital Factories. 2019 ,	2
730	Industrial Applications of Holonic and Multi-Agent Systems. 2019,	5
729	The Direction of Industry: A Literature Review on Industry 4.0. 2019 , 1, 2129-2138	15
728	Distributed Communicating Neural Network Architecture for Smart Environments. 2019,	O
727	5G network slicing strategies for a smart factory. 2019 , 111, 108-120	18
726	Realization of a Small IIoT Node : A Greenfield Approach. 2019,	1
725	Challenges and Future Direction of Time-Sensitive Software-Defined Networking (TSSDN) in Automation Industry. 2019 , 309-324	1
724	Role of real-time information-sharing through SaaS: An industry 4.0 perspective. 2019 , 49, 301-315	11
723	Cloud-based dynamic distributed optimisation of integrated process planning and scheduling in smart factories. 2019 ,	6
722	. 2019,	
721	Makerchain: A blockchain with chemical signature for self-organizing process in social manufacturing. 2019 , 234, 767-778	90
720	Identifying Data Dependencies as First Step to Obtain a Proactive Historian: Test Scenario in the Water Industry 4.0. 2019 , 11, 1144	8
719	Can smart factories bring environmental benefits to their products?: A case study of household refrigerators. 2019 , 23, 1381-1395	13

718	Modeling, planning, and scheduling of shop-floor assembly process with dynamic cyber-physical interactions: a case study for CPS-based smart industrial robot production. 2019 , 105, 3979-3989	13
717	Current cyber-defense trends in industrial control systems. 2019 , 87, 101561	33
716	Multi-agent Environment for Decision-Support in Production Systems Using Machine Learning Methods. 2019 , 517-529	2
715	Degradation Monitoring Systems for a BIM Maintenance Approach. 2019,	1
714	A Perceptive Interface for Intelligent Cyber Enterprises. 2019 , 19,	5
713	Mini-MES: A Microservices-Based Apps System for Data Interconnecting and Production Controlling in Decentralized Manufacturing. 2019 , 9, 3675	5
712	Adoption of digital technologies of smart manufacturing in SMEs. 2019 , 16, 100107	53
711	Simulation on Cooperative Changeover of Production Team Using Hybrid Modeling Method. 2019 , 12, 204	Ο
710	(Self-)adaptiveness for manufacturing systems: challenges and approaches. 2019 , 34, 191-200	4
709	Concept of remotely controlled digital pneumatic system in accordance with Industry 4.0 approach. 2019 ,	
708	. 2019,	4
707	Thermodynamic performance analysis of supercritical pressure CO2 in tubes. 2019 , 146, 106102	11
706	Research & Innovation Forum 2019. 2019 ,	2
705	PREMISES, a Scalable Data-Driven Service to Predict Alarms in Slowly-Degrading Multi-Cycle Industrial Processes. 2019 ,	9
704	Integration of Data-Driven Process Re-Engineering and Process Interdependency for Manufacturing Optimization Supported by Smart Structured Data. 2019 , 3, 44	3
703	Middleware for Real-Time Event Detection andPredictive Analytics in Smart Manufacturing. 2019,	6
702	A Review of the Literature on Smart Factory Implementation. 2019,	4
701	. 2019 , 7, 97052-97093	49

(2019-2019)

700	. 2019 , 21, 3467-3501	107
699	Dynamic Resource Task Negotiation to Enable Product Agent Exploration in Multi-Agent Manufacturing Systems. 2019 , 4, 2854-2861	13
698	Development of an Intelligent Tool Condition Monitoring System to Identify Manufacturing Tradeoffs and Optimal Machining Conditions. 2019 , 33, 256-263	16
697	An Adaptive Trust Model for Achieving Emergent Cooperation in Ad Hoc Networks. 2019 , 85-100	2
696	Digital Twin-Driven Cyber-Physical System for Autonomously Controlling of Micro Punching System. 2019 , 7, 9459-9469	32
695	Using recurrent neural networks with attention for detecting problematic slab shapes in steel rolling. 2019 , 70, 365-377	11
694	A systematic literature review of cloud computing use in supply chain integration. 2019 , 129, 296-314	60
693	Modelling and quantification of industry 4.0 manufacturing complexity based on information theory: a robotics case study. 2019 , 57, 6908-6921	38
692	Revolution 4.0: Industry vs. Agriculture in a Future Development for SMEs. 2019 , 7, 36	118
691	Current Trends in Semantic Web Technologies: Theory and Practice. 2019,	3
690	Assessing Industry 4.0 readiness in manufacturing: Evidence for the European Union. 2019, 107, 22-32	154
689	An event-driven integrative framework enabling information notification among manufacturing resources. 2019 , 32, 241-252	16
688	Factors Introducing Industry 4.0 to SMES. 2019 , 8, 130	32
687	Simulation for Industry 4.0. 2019 ,	17
686	Economic, Social Impacts and Operation of Smart Factories in Industry 4.0 Focusing on Simulation and Artificial Intelligence of Collaborating Robots. 2019 , 8, 143	30
685	AN-Aided Secure Beamforming in Power-Splitting-Enabled SWIPT MIMO Heterogeneous Wireless Sensor Networks. 2019 , 8, 459	2
684	Industry 4.0, Digitisation in Manufacturing, and Simulation: A Review of the Literature. 2019 , 19-37	5
683	Developing a conceptual framework of smart work packaging for constraints management in prefabrication housing production. 2019 , 42, 100938	16

682	Multi-agent system architectures for collaborative prognostics. 2019 , 30, 2999-3013	14
681	Flexible job-shop scheduling with learning and forgetting effect by Multi-Agent System. 2019 , 521-534	3
680	Secure Information Interaction Within a Group of Unmanned Aerial Vehicles Based on Economic Approach. 2019 , 59-72	O
679	Framework to Develop a Business Synergy through Enterprise Architecture. 2019 ,	1
678	Learning about risk: Machine learning for risk assessment. 2019 , 118, 475-486	78
677	Big data analytics âlenabled cyber-physical system: model and applications. 2019 , 119, 1072-1088	5
676	The Influence of Critical Factors on Business Model at a Smart Factory: A Case Study. 2019 , 10, 42-52	11
675	Digital Twins and Cyberâ P hysical Systems toward Smart Manufacturing and Industry 4.0: Correlation and Comparison. 2019 , 5, 653-661	267
674	Smart Combat Simulations in Terms of Industry 4.0. 2019 , 247-273	О
673	Energy-efficient optimal task offloading in cloud networked multi-robot systems. <i>Computer</i> Networks, 2019 , 160, 11-32 5-4	9
673 672		9
	Networks, 2019 , 160, 11-32	
672	Networks, 2019, 160, 11-32 ESDRA: An Efficient and Secure Distributed Remote Attestation Scheme for IoT Swarms. 2019, 6, 8372-8383	34
672 671	Networks, 2019, 160, 11-32 ESDRA: An Efficient and Secure Distributed Remote Attestation Scheme for IoT Swarms. 2019, 6, 8372-8383 Bibliometric Analysis of Published Literature on Industry 4.0. 2019, Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. 2019	7
672 671 670	ESDRA: An Efficient and Secure Distributed Remote Attestation Scheme for IoT Swarms. 2019, 6, 8372-8383 Bibliometric Analysis of Published Literature on Industry 4.0. 2019, Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. 2019, 8, 154 Industry 4.0: Emerging themes and future research avenues using a text mining approach. 2019,	34798
672 671 670	ESDRA: An Efficient and Secure Distributed Remote Attestation Scheme for IoT Swarms. 2019, 6, 8372-8383 Bibliometric Analysis of Published Literature on Industry 4.0. 2019, Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. 2019, 8, 154 Industry 4.0: Emerging themes and future research avenues using a text mining approach. 2019, 109, 100-113	3479890
672 671 670 669	ESDRA: An Efficient and Secure Distributed Remote Attestation Scheme for IoT Swarms. 2019, 6, 8372-8383 Bibliometric Analysis of Published Literature on Industry 4.0. 2019, Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. 2019, 8, 154 Industry 4.0: Emerging themes and future research avenues using a text mining approach. 2019, 109, 100-113 An agent-based method for trust graph calculation in resource constrained environments. 2019, 27, 37-56	34798904

664	Industry 4.0. 2019 ,	14
663	An Efficient Web Authentication Mechanism Preventing Man-In-The-Middle Attacks in Industry 4.0 Supply Chain. 2019 , 7, 58981-58989	10
662	A Cloud-Based Process Planning System in Industry 4.0 Framework. 2019 , 202-211	0
661	A survey of data fusion in smart city applications. 2019 , 52, 357-374	114
660	Enterprise Interoperability VIII. 2019 ,	Ο
659	Implementation of R&D Results and Industry 4.0 Influenced by Selected Macroeconomic Indicators. 2019 , 9, 1846	6
658	An Approach to Supporting the Selection of Maintenance Experts in the Context of Industry 4.0. 2019 , 9, 1848	5
657	Intelligent Manufacturing. 2019 , 1-17	
656	Industry 4.0 and Engineering for a Sustainable Future. 2019 ,	8
655	New Product Development in the Context of Industry 4.0: Insights from the Automotive Components Industry. 2019 , 83-94	2
654	Industry 4.0 applications in medical field: A brief review. 2019 , 9, 102-109	104
653	Improvement of Temperature Control Performance of Thermoelectric Dehumidifier Used Industry 4.0 by the SF-PI Controller. 2019 , 7, 98	10
652	A data-driven scheduling approach to smart manufacturing. 2019 , 15, 69-79	42
651	Proceedings of the 4th International Conference on the Industry 4.0 Model for Advanced Manufacturing. 2019 ,	1
650	Industrial Engineering and Operations Management II. 2019,	
649	Security Challenges in the Industry 4.0 Era. 2019 , 117-136	7
648	A Unified Architecture for Proactive Maintenance in Manufacturing Enterprises. 2019, 307-317	3
647	The role of big data analytics in industrial Internet of Things. 2019 , 99, 247-259	133

646	Contextual Impacts on Industrial Processes Brought by the Digital Transformation of Manufacturing: A Systematic Review. 2019 , 11, 891	63
645	Business model innovation in small- and medium-sized enterprises. 2019 , 30, 1127-1142	85
644	Activity-Based Standard Costing Product-Mix Decision in the Future Digital Era: Green Recycling Steel-Scrap Material for Steel Industry. 2019 , 11, 899	10
643	A Comprehensive Technological Survey on the Dependable Self-Management CPS: From Self-Adaptive Architecture to Self-Management Strategies. 2019 , 19,	5
642	An Industry 4.0 Solution for the Detection of Dangerous Situations in Civil Work Scenarios. 2019 , 494-504	1
641	Social factory as a production node of social manufacturing. 2019 , 233, 5144-5160	4
640	Next Generation Data Infrastructures: Towards an Extendable Model of the Asset Management Data Infrastructure as Complex Adaptive System. 2019 , 2019, 1-17	3
639	Total laboratory automation has the potential to be the field of application of artificial intelligence: the cyber-physical system and "Automation 4.0". 2019 , 57, e279-e281	1
638	The model-based product agent: A control oriented architecture for intelligent products in multi-agent manufacturing systems. 2019 , 86, 105-117	32
637	Data-driven smart production line and its common factors. 2019 , 103, 1211-1223	15
636	Real-Time Early Warning System for Sustainable and Intelligent Plastic Film Manufacturing. 2019 , 11, 1490	5
635	The Role of a Digital Industry 4.0 in a Renewable Energy System. 2019 , 43, 3891-3904	25
634	Digital Twin Shop-Floor. 2019 , 85-110	0
633	Autonomous Cycles of Collaborative Processes for Integration Based on Industry 4.0. 2019 , 177-186	3
632	Effects of data breaches from user-generated content: A corporate reputation analysis. 2019 , 37, 492-504	18
631	Research on the Development of Intelligent Industrial Control. 2019 , 88-94	
630	Enhancement of a Lightweight Attribute-Based Encryption Scheme for the Internet of Things. 2019 , 6, 6384-6395	31
629	. 2019,	8

628	Industry 4.0: Preparation of Slovak Companies, the Comparative Study. 2019, 103-114	3
627	Flexible job-shop scheduling with tolerated time interval and limited starting time interval based on hybrid discrete PSO-SA: An application from a casting workshop. 2019 , 78, 176-194	25
626	Challenges of handling assembly information in global manufacturing companies. 2019, 31, 955-976	8
625	Industrie 4.0 process transformation: findings from a case study in automotive logistics. 2019 , 31, 935-953	10
624	Industry 4.0: key findings and analysis from the literature arena. 2019 , 26, 2514-2542	31
623	The interplay between smart manufacturing technologies and work organization. 2019 , 39, 913-934	29
622	The impacts of Industry 4.0: a descriptive survey in the Italian manufacturing sector. 2019 , 31, 1085-1115	25
621	Industry 4.0 in New Zealand dairy industry. 2019 , 12, 180	4
620	An autonomic mechanism based on ant colony pattern for detecting the source of incidents in complex enterprise systems. 2019 , 10, 497	13
619	Impact of IoT on social innovation in Japan. 2019 , 13, 341-353	5
618	Industry 4.0 and Lean Manufacturing. 2019 , 32, 543-569	63
617	Design of High-Efficiency Refrigerator Test System for Industrial Internet of Things. 2019 , 692, 012053	
616	Multi - Agent Task Allocation to Minimize Costs of Energy Consumption in the Presence of a Price-Based Demand Response Program. 2019 ,	
615	Integrating Capacity and Logistics of Large Additive Manufacturing Networks. 2019 , 39, 1421-1427	2
614	The way toward autonomy in industry - taxonomy, process framework, enablers, and implications. 2019 ,	2
613	Digital Transformation Design of Banbury Mixing Unit in Tire Manufacturing. 2019,	1
612	Parallel context-aware multi-agent tourism recommender system. 2019 , 20, 536	4
611	Interoperability and machine-to-machine translation model with mappings to machine learning tasks. 2019 ,	3

610	Towards Industry 4.0? Digital Maturity of the Manufacturing Industry in a Swedish Region. 2019,	6
609	. 2019,	2
608	Fault Diagnosis of a Rotor and Ball-Bearing System Using DWT Integrated with SVM, GRNN, and Visual Dot Patterns. 2019 , 19,	8
607	Hierarchy of Smart Awareness in Assembly 4.0 Systems. 2019 , 52, 1508-1512	2
606	Task allocation based on shared resource constraint for multi-robot systems in manufacturing industry. 2019 , 52, 2020-2025	2
605	Robust Neuro-adaptive Asymptotic Consensus for a Class of Uncertain Multi-agent Systems: An Edge-based Paradigm. 2019 ,	
604	Intrusion Detection System for Internet of Things based on a Machine Learning approach. 2019,	14
603	Investigation of Uninterrupted Service Live Migration Using Software-Defined Networking. 2019,	
602	Innovation landscape and challenges of smart technologies and systems âlà European perspective. 2019 , 7, 503-528	10
601	Indoor Position Method of Industrial Robot Based on Wifi Fingerprint Position Technology. 2019,	1
600	Sensorial Network Framework Embedded in Ubiquitous Mobile Devices. 2019 , 11, 215	0
599	Knowledge-based power monitoring and fault prediction system for smart factories. 2019 , 1	2
598	Ultra-Reliable Low Latency Communication for Consensus Control in Multi-Agent Systems. 2019,	
597	Next generation smart manufacturing and service systems using big data analytics. 2019 , 128, 905-910	34
596	Warranty and maintenance analysis of sensor embedded products using internet of things in industry 4.0. 2019 , 208, 483-499	53
595	Sustainable production process: An application of reliability, availability, and maintainability methodologies in automotive manufacturing. 2019 , 233, 682-697	7
594	Industry 4.0: A bibliometric analysis and detailed overview. 2019 , 78, 218-235	200
593	An Extended Agent Communication Framework for Rapid Reconfiguration of Distributed Manufacturing Systems. 2019 , 15, 3845-3855	8

(2020-2019)

592	A review of Internet of Things (IoT) embedded sustainable supply chain for industry 4.0 requirements. 2019 , 127, 925-953	300
591	An integrated algorithm for multi-agent fault-tolerant scheduling based on MOEA. 2019 , 94, 51-61	7
590	Technological innovations and social development in Asia. 2019 , 12, 1-14	20
589	Defining a Digital Twin-based Cyber-Physical Production System for autonomous manufacturing in smart shop floors. 2019 , 57, 6315-6334	178
588	Industry 4.0 technologies: Implementation patterns in manufacturing companies. 2019, 210, 15-26	728
587	Innovative airport 4.0 condition-based maintenance system for baggage handling DCV systems. 2019 , 68, 561-577	13
586	Smart CPS: vertical integration overview and user story with a cobot. 2019 , 32, 504-521	12
585	Intelligent sustainable supplier selection using multi-agent technology: Theory and application for Industry 4.0 supply chains. 2019 , 127, 588-600	84
584	Design challenges for CPS-based service systems in industrial production and logistics. 2019 , 32, 329-339	7
583	Industry 4.0 Technologies Impacts in the Manufacturing and Supply Chain Landscape: An Overview. 2019 , 109-120	11
582	Organizational Systems Convergence with the Industry 4.0 Challenge. 2019 , 411-431	
581	NPV approach to material requirements planning theory âlà 50-year review of these research achievements. 2019 , 57, 5137-5153	13
580	Big data for cyber physical systems in industry 4.0: a survey. 2019 , 13, 148-169	266
579	An Advanced Cyber Physical Framework for Micro Devices Assembly. 2019 , 49, 92-106	13
578	A Review of the Principles of Designing Smart Cyber-Physical Systems for Run-Time Adaptation: Learned Lessons and Open Issues. 2019 , 49, 145-158	32
577	Visual computing technologies to support the Operator 4.0. 2020 , 139, 105550	51
576	Outage Performance Analysis of Energy Harvesting Wireless Sensor Networks for NOMA Transmissions. 2020 , 25, 23-41	10
575	Estimation of missing prices in real-estate market agent-based simulations with machine learning and dimensionality reduction methods. 2020 , 32, 2665-2682	4

574	Determinants of information and digital technology implementation for smart manufacturing. 2020 , 58, 2384-2405	75
573	Developing distributed manufacturing strategies from the perspective of a product-process matrix. 2020 , 219, 1-17	20
572	Industry 4.0 and lean manufacturing practices for sustainable organisational performance in Indian manufacturing companies. 2020 , 58, 1319-1337	172
571	Big data in lean six sigma: a review and further research directions. 2020 , 58, 947-969	70
57°	A modular factory testbed for the rapid reconfiguration of manufacturing systems. 2020 , 31, 661-680	21
569	Agent-Based Simulation for Indoor Manufacturing Environmentsâ E valuating the Effects of Spatialization. 2020 , 309-324	2
568	Geospatial Technologies for Local and Regional Development. 2020,	1
567	A plug âBâlplay approach for dynamic data acquisition from heterogeneous IoT medical devices of unknown nature. 2020 , 11, 269-289	2
566	Contextual self-organizing of manufacturing process for mass individualization: a cyber-physical-social system approach. 2020 , 14, 1124-1149	23
565	Literature review of Industry 4.0 and related technologies. 2020 , 31, 127-182	539
565 564	Literature review of Industry 4.0 and related technologies. 2020, 31, 127-182 Agent-based Internet of Things: State-of-the-art and research challenges. 2020, 102, 1038-1053	539 92
564	Agent-based Internet of Things: State-of-the-art and research challenges. 2020 , 102, 1038-1053	92
564	Agent-based Internet of Things: State-of-the-art and research challenges. 2020 , 102, 1038-1053 Application of Industry 4.0 to enhance sustainable manufacturing. 2020 , 39, 13360	92
564563562	Agent-based Internet of Things: State-of-the-art and research challenges. 2020, 102, 1038-1053 Application of Industry 4.0 to enhance sustainable manufacturing. 2020, 39, 13360 Service Oriented, Holonic and Multi-agent Manufacturing Systems for Industry of the Future. 2020,	92 38 3
564563562561	Agent-based Internet of Things: State-of-the-art and research challenges. 2020, 102, 1038-1053 Application of Industry 4.0 to enhance sustainable manufacturing. 2020, 39, 13360 Service Oriented, Holonic and Multi-agent Manufacturing Systems for Industry of the Future. 2020, A proactive material handling method for CPS enabled shop-floor. 2020, 61, 101849	92 38 3 48
564563562561560	Agent-based Internet of Things: State-of-the-art and research challenges. 2020, 102, 1038-1053 Application of Industry 4.0 to enhance sustainable manufacturing. 2020, 39, 13360 Service Oriented, Holonic and Multi-agent Manufacturing Systems for Industry of the Future. 2020, A proactive material handling method for CPS enabled shop-floor. 2020, 61, 101849 Agents and Multi-agent Systems: Technologies and Applications 2019. 2020,	92 38 3 48 4

(2020-2020)

556	The Convergence of Digital Twin, IoT, and Machine Learning: Transforming Data into Action. 2020 , 3-17	49
555	The relevance of Industry 4.0 and its relationship with moving manufacturing out, back and staying at home. 2020 , 58, 2953-2973	35
554	The smart factory as a key construct of industry 4.0: A systematic literature review. 2020 , 221, 107476	133
553	Federated Tensor Mining for Secure Industrial Internet of Things. 2020 , 16, 2144-2153	20
552	Scalable distributed evolutionary algorithm orchestration using Docker containers. 2020, 40, 101069	6
551	Using ICT indicators to measure readiness of countries to implement Industry 4.0 and the SDGs. 2020 , 22, 315-337	18
550	Industry 4.0, digitization, and opportunities for sustainability. 2020 , 252, 119869	312
549	Digital twin-driven rapid reconfiguration of the automated manufacturing system via an open architecture model. 2020 , 63, 101895	108
548	Artificial Moral Agents: A Survey of the Current Status. 2020 , 26, 501-532	30
547	Fourth International Congress on Information and Communication Technology. 2020,	1
546	Industry 4.0 strategies and technological developments. An exploratory research from Italian manufacturing companies. 2020 , 31, 1385-1398	70
545	Industry 4.0 and Supply Chain Management. 2020 , 7, 1-23	9
544	Integrated yet distributed operations planning approach: A next generation manufacturing planning system. 2020 , 54, 103-122	14
543	Green wireless power transfer system for a drone fleet managed by reinforcement learning in smart industry. 2020 , 259, 114204	14
542	Enhancing technology transfer through entrepreneurial development: practices from innovation spaces. 2020 , 45, 1655-1689	12
54 ¹	The framework design of smart factory in discrete manufacturing industry based on cyber-physical system. 2020 , 33, 79-101	46
540	. 2020 , 14, 18-32	29
539	Simulation of Smart Factory Processes Applying Multi-Agent-Systemsâl Knowledge Management Perspective. 2020 , 4, 89	4

538	Simulation in industry 4.0: A state-of-the-art review. 2020 , 149, 106868	42
537	The impact of Industry 4.0 on the reconciliation of dynamic capabilities: evidence from the European manufacturing industries. 2020 , 1-24	32
536	Inventory Tracking for Unstructured Environments via Probabilistic Reasoning. 2020, 4, 16	1
535	Autonomic computing in manufacturing process coordination in industry 4.0 context. 2020 , 19, 100159	23
534	Relationships between industry 4.0, sustainable manufacturing and circular economy: proposal of a research framework. 2020 , ahead-of-print,	81
533	Learning method design for engineering students to be prepared for Industry 4.0: a Kaizen approach. 2020 , 11, 182-198	3
532	Digitalization in the Luxury Fashion Industry. 2020,	4
531	Intrusion Detection System for the Internet of Things Based on Blockchain and Multi-Agent Systems. 2020 , 9, 1120	31
530	Cloud computing based Drug Delivery System in the Manufacturing of Drugs and Online Purchase. 2020 ,	O
529	Pros and cons of implementing Industry 4.0 for the organizations: a review and synthesis of evidence. 2020 , 8, 244-272	27
528	Lighthouse Localization of Wireless Sensor Networks for Latency-Bounded, High-Reliability Industrial Automation Tasks. 2020 ,	3
527	A paradigm of safety management in Industry 4.0. 2020 , 37, 632-645	21
526	Multi-agent system and reinforcement learning approach for distributed intelligence in a flexible smart manufacturing system. 2020 , 57, 440-450	19
525	Managing the business processes under the influence of Industry 4.0: case study of loan application. 2020 , 34, 312	
524	The emergence of intelligent transportation systems from a continental and technological perspective. 2020 , 9, 199	1
523	Expert assessment systems to support decision-making for sustainable development of complex technological and socio-economic facilities. 2020 , 166, 11002	4
522	Smart production systems drivers for business process management improvement. 2020 , 26, 1075-1092	27
521	Towards the proposition of a Lean Automation framework. 2020 , 32, 593-620	27

(2020-2020)

520	Relay node placement for building wireless sensor networks with reconfigurability provision. 2020 , 107, 102263	1
519	Disruptive Maintenance Engineering 4.0. 2020 , 37, 853-871	11
518	A Dijkstra-Inspired Algorithm for Optimized Real-Time Tasking with Minimal Energy Consumption. 2020 ,	
517	Blockchain in operations management and manufacturing: Potential and barriers. 2020 , 149, 106789	54
516	Integration of continuous improvement strategies with Industry 4.0: a systematic review and agenda for further research. 2020 , 33, 441-472	23
515	Implementing industry 4.0 real-time performance management systems: the case of Schneider Electric. 2020 , 1-17	17
5 ¹ 4	Unmanned aerial vehicles and wind generation serving isolated areas. 2020,	
513	Digital Twins in Pharmaceutical and Biopharmaceutical Manufacturing: A Literature Review. 2020 , 8, 1088	38
512	Investigation on industrial dataspace for advanced machining workshops: enabling machining operations control with domain knowledge and application case studies. 2020 , 1	6
511	Data Analysis and Optimization for Engineering and Computing Problems. 2020,	
510	Automated Production Line Monitoring Base on Wireless Mesh Sensor Network. 2020,	1
509	Intelligent Rework Process Management System under Smart Factory Environment. 2020 , 12, 9883	2
508	Decision support model for implementing assistive technologies in assembly activities: a case study. 2020 , 1-27	6
507	Prioritising smart factory investments âlʿA project portfolio selection approach. 2020 , 1-17	4
506	Smart design engineering: leveraging product design and development to exploit the benefits from the 4th industrial revolution. 2020 , 6,	1
505	Redefining Industry 4.0 and Its Enabling Technologies. 2020 , 1569, 032025	3
504	Intelligent NPP Operators Support Systems:Flexible Modeling Software Package and Digital Twins. 2020 ,	0
503	Synergic Sustainability Implications of Additive Manufacturing in Automotive Spare Parts: A Case Analysis. 2020 , 12, 8461	6

502	A novel heuristic simulation-optimization method for critical infrastructure in smart transportation systems. 2020 , 33, e4397	12
501	Autonomous negotiation for resource allocation of multiple sectors in the TFT-LCD manufacturing industry. 2020 , 54, 294-304	3
500	Agent-based, hybrid control architecture for optimized and flexible production scheduling and control in remanufacturing. 2020 , 1	О
499	Design and Development of IoT based Robotic Arm by using Arduino. 2020,	2
498	Leadership in the Digital Realm: What Are the Main Challenges?. 2020,	1
497	Smart retrofitting of machine tools in the context of industry 4.0. 2020 , 88, 369-374	12
496	The Service Metrics and Performance Analysis of Internet Time Service. 2020,	
495	Knowledge Management and Industry 4.0. 2020 ,	7
494	Pattern recognition method of fault diagnostics based on a new health indicator for smart manufacturing. 2020 , 142, 106680	18
493	Industry 4.0: How it is defined from a sociotechnical perspective and how much sustainability it includes â[A literature review. 2020 , 259, 120856	131
493 492		131
	includes âlʿA literature review. 2020 , 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During	
492	includes âlʿA literature review. 2020, 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During Operational and Maintenance Processes. 2020, 20,	1
49 ² 49 ¹	includes âlʿA literature review. 2020, 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During Operational and Maintenance Processes. 2020, 20, Exponential Disruptive Technologies and the Required Skills of Industry 4.0. 2020, 2020, 1-17 Central Heating Cost Optimization for Smart-Homes with Fuzzy Logic and a Multi-Agent	1 36
49 ² 49 ¹ 49 ⁰	includes âl'A literature review. 2020, 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During Operational and Maintenance Processes. 2020, 20, Exponential Disruptive Technologies and the Required Skills of Industry 4.0. 2020, 2020, 1-17 Central Heating Cost Optimization for Smart-Homes with Fuzzy Logic and a Multi-Agent Architecture. 2020, 10, 4057	1 36 1
49 ² 49 ¹ 49 ⁰ 489	includes âlʿA literature review. 2020, 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During Operational and Maintenance Processes. 2020, 20, Exponential Disruptive Technologies and the Required Skills of Industry 4.0. 2020, 2020, 1-17 Central Heating Cost Optimization for Smart-Homes with Fuzzy Logic and a Multi-Agent Architecture. 2020, 10, 4057 The Implementation of Industry 4.0 âlʿA Systematic Literature Review of the Key Factors. 2020, 37, 557-578	1 36 1 19
492 491 490 489 488	includes âl'A literature review. 2020, 259, 120856 Low-Cost Piezoelectric Sensors for Time Domain Load Monitoring of Metallic Structures During Operational and Maintenance Processes. 2020, 20, Exponential Disruptive Technologies and the Required Skills of Industry 4.0. 2020, 2020, 1-17 Central Heating Cost Optimization for Smart-Homes with Fuzzy Logic and a Multi-Agent Architecture. 2020, 10, 4057 The Implementation of Industry 4.0 âl'A Systematic Literature Review of the Key Factors. 2020, 37, 557-578 Taxonomy of Industry 4.0 research: Mapping scholarship and industry insights. 2020, 37, 535-556 Sortation Control Using Multi-Agent Deep Reinforcement Learning in -Grid Sortation System. 2020,	1 36 1 19

(2021-2020)

484	Agile product development process transformation to support advanced one-of-a-kind manufacturing. 2020 , 33, 590-608	6
483	A Taxonomy of Industry 4.0 and Related Technologies. 2020 ,	6
482	Intelligent vision-based online inspection system of screw-fastening operations in light-gauge steel frame manufacturing. 2020 , 109, 645-657	10
481	Smart design engineering: a literature review of the impact of the 4th industrial revolution on product design and development. 2020 , 31, 175-195	28
480	Increasing flexibility and productivity in Industry 4.0 production networks with autonomous mobile robots and smart intralogistics. 2020 , 1	90
479	. 2020 , 1-14	5
478	A Markovian jump system approach to consensus of heterogeneous multiagent systems with partially unknown and uncertain attack strategies. 2020 , 30, 3039-3053	50
477	Non-verbal Communication and Touchless Activation of a Radio-Controlled Car via Facial Activity Recognition. 2020 , 21, 1035-1046	1
476	Web-based digital twin modeling and remote control of cyber-physical production systems. 2020 , 64, 101956	54
475	A framework to overcome sustainable supply chain challenges through solution measures of industry 4.0 and circular economy: An automotive case. 2020 , 254, 120112	152
475 474		152 4
	industry 4.0 and circular economy: An automotive case. 2020 , 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions.	
474	industry 4.0 and circular economy: An automotive case. 2020 , 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions. 2020 , 15, 1-11 Shop floor simulation optimization using machine learning to improve parallel metaheuristics. 2020	4
474 473	industry 4.0 and circular economy: An automotive case. 2020 , 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions. 2020 , 15, 1-11 Shop floor simulation optimization using machine learning to improve parallel metaheuristics. 2020 , 150, 113272	4
474 473 472	industry 4.0 and circular economy: An automotive case. 2020 , 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions. 2020 , 15, 1-11 Shop floor simulation optimization using machine learning to improve parallel metaheuristics. 2020 , 150, 113272 Security analytics for real-time forecasting of cyberattacks. 2020 , Industry 4.0 integration with socio-technical systems theory: A systematic review and proposed	4 6 1
474 473 472 471	industry 4.0 and circular economy: An automotive case. 2020, 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions. 2020, 15, 1-11 Shop floor simulation optimization using machine learning to improve parallel metaheuristics. 2020, 150, 113272 Security analytics for real-time forecasting of cyberattacks. 2020, Industry 4.0 integration with socio-technical systems theory: A systematic review and proposed theoretical model. 2020, 61, 101248 The influence of intelligent manufacturing on financial performance and innovation performance:	4 6 1 79
474 473 472 471 470	Industry 4.0 and circular economy: An automotive case. 2020, 254, 120112 Towards a next-generation production system for industrial robots: A CPS-based hybrid architecture for smart assembly shop floors with closed-loop dynamic cyber physical interactions. 2020, 15, 1-11 Shop floor simulation optimization using machine learning to improve parallel metaheuristics. 2020, 150, 113272 Security analytics for real-time forecasting of cyberattacks. 2020, Industry 4.0 integration with socio-technical systems theory: A systematic review and proposed theoretical model. 2020, 61, 101248 The influence of intelligent manufacturing on financial performance and innovation performance: the case of China. 2020, 14, 812-832	4 6 1 79

466	A conceptual model of entrepreneurial competencies needed to utilise technologies of Industry 4.0. 2021 , 22, 56-67	4
465	Methodological-Technological Framework for Construction 4.0. 2021 , 28, 689-711	28
464	Evaluation of supply chain coordination index in context to Industry 4.0 environment. 2021, 28, 1622-1637	18
463	Big data, industry 4.0 and cyber-physical systems integration: A smart industry context. 2021 , 46, 157-162	8
462	Industry 4.0: defining the research agenda. 2021 , 28, 1858-1882	28
461	Managing supply chains for sustainable operations in the era of industry 4.0 and circular economy: Analysis of barriers. 2021 , 164, 105215	71
460	The applications of Industry 4.0 technologies in manufacturing context: a systematic literature review. 2021 , 59, 1922-1954	86
459	Industry 4.0 adoption for sustainability in multi-tier manufacturing supply chain in emerging economies. 2021 , 281, 125013	48
458	Hybrid reality development - can social responsibility concepts provide guidance?. 2021 , 50, 676-693	10
457	A reactive decentralized coordination algorithm for event-driven production planning and control: A cyber-physical production system prototype case study. 2021 , 58, 143-158	10
456	The current sustainability scenario of Industry 4.0 enabling technologies in Indian manufacturing industries. 2021 , 70, 1017-1048	18
455	Role of institutional pressures and resources in the adoption of big data analytics powered artificial intelligence, sustainable manufacturing practices and circular economy capabilities. 2021 , 163, 120420	98
454	Industry 4.0 in the product development process: benefits, difficulties and its impact in marketing strategies and operations. 2021 , 36, 522-534	7
453	An ISA-95 based Middle Data Layer for Data Standardizationâ E nhancing Systems Interoperability for Factory Automation. 2021 , 187-194	1
452	Modelling and Simulation in Industry 4.0. 2021 , 57-72	2
451	Recent Developments Towards Industry 4.0 Oriented Predictive Maintenance in Induction Motors. 2021 , 180, 943-949	4
450	Introducing the Concept of â D igital-Agent SignaturesâllHow SSI Can Be Expanded for the Needs of Industry 4.0 2021 , 213-233	3
449	Hybrid tool design for a bending machine. 2021 , 99, 370-374	1

(2021-2021)

448	Unbounded and Efficient Revocable Attribute-based Encryption with Adaptive Security for Cloud-Assisted Internet of Things. 2021 , 1-1	7
447	Characteristics of Adaptable Control of Production Systems and the Role of Self-organization Towards Smart Manufacturing. 2021 , 39-50	O
446	Sustainability and reliability ensurance models for automated technological systems in chemical industry: systemic ergonomic approach. 2021 , 280, 02005	
445	A Conceptual Approximation Toward Occupational Safety and Health Within the Servitized Industry 4.0. 2021 , 37-48	
444	A Fast Edge-Based Synchronizer for Tasks in Real-Time Artificial Intelligence Applications. 2021 , 1-1	0
443	Resource Allocation and Service Provisioning in Multi-Agent Cloud Robotics: A Comprehensive Survey. 2021 , 23, 842-870	15
442	Design and development of IIoT-based system for behavior profiling of nonlinear dynamic production systems based on energy flow theory. 2021 , 228-228	
441	Industry 4.0 and Supply Chain Management. 2021 , 192-217	1
440	A new framework of complex system reliability with imperfect maintenance policy. 1	3
439	NDE 4.0: New Paradigm for the NDE Inspection Personnel. 2021 , 1-31	3
438	Social Production System: A Three-Layer Smart Framework for Implementing Autonomous Human-Machine Collaborations in a Shop Floor. 2021 , 9, 26696-26711	1
437	Research on Machine Learning Method for Equipment Health Management in Industrial Internet of Things. 2021 , 251-262	
436	Estimating Remaining Useful Life: A Data-Driven Methodology for the White Goods Industry. 2021 , 149-164	Ο
435	Internet of Nonthermal Food Processing Technologies (IoNTP): Food Industry 4.0 and Sustainability. 2021 , 11, 686	20
434	Decentralized Multi-Agent Production Control through Economic Model Bidding for Matrix Production Systems. 2021 , 96, 3-8	8
433	Industry 4.0 as the Last Industrial Revolution and Its Opportunities for Developing Countries. 2021 , 1113-112	8
432	Industry 4.0 and the Internet of Things (IoT). 2021 , 152-170	
431	New Generation of Productive Workers. 2021 , 1632-1646	

The Influence of Industry 4.0 on Product Design and Development: Conceptual Foundations and Literature Review. **2021**, 757-768

429	Digital Twin-Driven Intelligent Construction: Features and Trends. 2021 , 15, 183-206	O
428	Industry 4.0: Why Machine Learning Matters?. 2021 , 397-404	3
427	Industrial Internet of Things (IIoT) Applications of Edge and Fog Computing: A Review and Future Directions. 2021 , 293-325	11
426	A Íbliometric Analysis of Intelligent Agent Researches During 2010â2020 Based on VOS Viewer. 2021 , 208-219	
425	Like a Cog in a Machine. 2021 , 1-20	5
424	Industry 4.0 Privacy and Security Protocol Issues in Internet of Things. 2021 , 1853-1876	
423	Industry 4.0 and the circular economy: A literature review and recommendations for future research. 2021 , 30, 2038-2060	70
422	Industry 4.0, a revolution that requires technology and national strategies. 2021 , 7, 1311-1325	34
421	Fault Diagnosis of Industrial Internet of Things Equipment Based on Edge Intelligent Drive. 2021 , 658-665	
420	Evaluation of Influence of Principles Involved in Industry 4.0 Over Coal Industries Using TISM. 2021 , 926-940	
419	Motivations, barriers and readiness factors for Quality 4.0 implementation: an exploratory study. 2021 , ahead-of-print,	7
418	Production in the loop althe interoperability of digital twins of the product and the production system. 2021 , 99, 561-566	O
4 ¹ 7	Platform-based servitization and business model adaptation by established manufacturers. 2021 , 102222	15
416	Technological Development of Automation Solutions for the Energy Industry. 2021, 64,	
4 ¹ 5	Industry 4.0 Technologies for Improving Functional Machinery Safety Management from the Interoperability Point of View in the Automotive Industry. 2021 , 475-487	
414	Metrisable assessment of the course of stream-systemic processes in vector form in industry 4.0. 1	3
413	The smart SME technology readiness assessment methodology in the context of industry 4.0. 2021 , 32, 1037-1065	12

412	Determinants of digital technology adoption in supply chain. An exploratory analysis. 2021 , 22, 100-114	10
411	Evaluating Industry 4.0 Technology Application in SMEs: Using a Hybrid MCDM Approach. 2021 , 9, 414	6
410	Predictive Maintenance and Intelligent Sensors in Smart Factory: Review. 2021 , 21,	49
409	Machine learning: Best way to sustain the supply chain in the era of industry 4.0. 2021 ,	8
408	The challenges, approaches, and used techniques of CPS for manufacturing in Industry 4.0: a literature review. 2021 , 113, 2395-2412	22
407	Mapping Industry 4.0 Enabling Technologies into United Nations Sustainability Development Goals. 2021 , 13, 2560	21
406	Exploring the interplay between Smart Manufacturing and KIBS firms in configuring product-service innovation performance. 2021 , 102258	9
405	Significant Applications of Big Data in Industry 4.0. 1-19	15
404	Cyber Physical System vs Learning Factory: Perspective of industry 4.0-based curriculum development. 2021 , 1098, 032004	0
403	A Polishing Robot Force Control System Based on Time Series Data in Industrial Internet of Things. 2021 , 21, 1-22	1
402	Towards trustworthy Cyber-physical Production Systems: A dynamic agent accountability approach. 2021 , 13, 157-180	1
401	Support of Advanced Technologies in Supply Chain Processes and Sustainability Impact. 2021 , 11, 3026	3
400	Research on flexible job-shop scheduling problem in green sustainable manufacturing based on learning effect. 1	4
399	CPEH: A Clustering Protocol for the Energy Harvesting Wireless Sensor Networks. 2021 , 2021, 1-14	2
398	ENDBTRI4.0 SRECINDE RETIM MALIFETLERINDE MEYDANA GELMESIBEKLENEN ETKILER IZERINE BR INCELEME. 2021 , 14, 837-872	
397	Enhanced agents in shared factory: Enabling high-efficiency self-organization and sustainability of the shared manufacturing resources. 2021 , 292, 126020	9
396	Multi-agent deep reinforcement learning: a survey. 1	28
395	Smart Manufacturing Plant Implementation Using Industrial IoT. 1-13	1

394	Smart Manufacturing and Industry 4.0: A Preliminary Approach in Structuring a Conceptual Framework. 2021 , 18, 27-36	1
393	Hybrid solution of challenges future problems in the new generation of the artificial intelligence industry used operations research industrial processes. 2021 ,	1
392	Artificial-Intelligence-Driven Customized Manufacturing Factory: Key Technologies, Applications, and Challenges. 2021 , 109, 377-398	27
391	Research Trends and Performance of IIoT Communication Network-Architectural Layers of Petrochemical Industry 4.0 for Coping with Circular Economy. 2021 , 2021, 1-32	1
390	Industry 4.0 smart reconfigurable manufacturing machines. 2021 , 59, 481-506	47
389	LQR-Based Sparsification Algorithms of Consensus Networks. 2021 , 10, 1082	
388	Review of Lean Manufacturing with IR4.0 in Automotive Industry. 2021 , 1874, 012050	
387	Job Adjustment Strategy for Predictive Maintenance in Semi-Fully Flexible Systems Based on Machine Health Status. 2021 , 13, 5295	1
386	Semantic Web and Knowledge Graphs for Industry 4.0. 2021 , 11, 5110	14
385	Building a virtual factory: an integrated design approach to building smart factories. 2021 , ahead-of-print,	2
384	Effect of Biomedical Materials in the Implementation of a Long and Healthy Life Policy. 2021, 9, 865	9
383	Virtual Approach to the Comparative Analysis of Biomaterials Used in Endodontic Treatment. 2021 , 9, 926	6
382	The impact of digital technologies on business models. Insights from the space industry. 2021 , ahead-of-print,	2
381	Modeling barriers of digital manufacturing in a circular economy for enhancing sustainability. 2021 , ahead-of-print,	4
380	Environmental dynamism, industry 4.0 and performance: Mediating role of organizational and technological factors. 2021 , 95, 54-64	15
379	Design and implementation of smart pressure sensor for automotive applications. 2021 , 176, 109184	5
378	Combining lean and agile manufacturing competitive advantages through Industry 4.0 technologies: an integrative approach. 1-17	9
377	What Do Practitioners Discuss about IoT and Industry 4.0 Related Technologies? Characterization and Identification of IoT and Industry 4.0 Categories in Stack Overflow Discussions. 2021 , 14, 100364	8

(2021-2021)

376	Transformation from human-readable documents and archives in arc welding domain to machine-interpretable data. 2021 , 128, 103439	1
375	Simulation Frameworks and Potential Research Challenges for Internet-of-Vehicles Networks. 281-310	
374	Dynamical systems as a level of cognitive analysis of multi-agent learning: Algorithmic foundations of temporal-difference learning dynamics 2022 , 34, 1653-1671	2
373	AOSR 2.0: A Novel Approach and Thorough Validation of an Agent-Oriented Storage and Retrieval WMS Planner for SMEs, under Industry 4.0. 2021 , 13, 155	2
372	Industry 4.0 and its Implementation: a Review. 1	12
371	The interplay between the Internet of things and supply chain management: challenges and opportunities based on a systematic literature review. 2021 , ahead-of-print,	4
370	An effective adaptive customization framework for small manufacturing plants using extreme gradient boosting-XGBoost and random forest ensemble learning algorithms in an Industry 4.0 environment. 2021 , 4, 100024	9
369	The partial mediating role of supply chain integration between Industry 4.0 and supply chain performance. 2021 , ahead-of-print,	5
368	Financing manufacturers for investing in Industry 4.0 technologies: internal financing vs. External financing. 1-17	5
367	Readiness of Polish Industrial Enterprises for the Industry 4.0 Revolution. 2021 , 10, 214	2
366	A Cloud Computing-Based Approach for Efficient Processing of Massive Machine Tool Diagnosis Data. 2150297	2
365	Spectral efficient designs of MIMO-based CR-NOMA for Internet of Things Networks. 2021 , 34, e4888	1
364	A review of industrial big data for decision making in intelligent manufacturing. 2021 , 29, 101021-101021	5
363	Smart manufacturing control system based on deep reinforcement learning. 2021 , 1155, 012061	Ο
362	Yapay Zeklve EndEtri 4.0 likisinin Siber Glienlik Perspektifinden Analizi.	
361	Security and Machine Learning Adoption in IoT: A Preliminary Study of IoT Developer Discussions. 2021 ,	1
360	On the Definition of Intelligible IIoT Architectures. 2021 ,	
359	Significance of Sensors for Industry 4.0: Roles, Capabilities, and Applications. 2021 , 2, 100110	18

358	Intelligent manufacturing in the context of industry 4.0: A case study of siemens industry. 2021 , 1969, 012019	1
357	A digital-twin visualized architecture for Flexible Manufacturing System. 2021 , 60, 176-201	22
356	Assessing the level of digitalization and robotization in the enterprises of the European Union Member States. 2021 , 16, e0254993	5
355	A case study of intelligent manufacturing for key components of vehicles. 2021 , 1983, 012100	
354	Entropic boundary conditions towards safe artificial superintelligence. 1-33	
353	Domain-Aware Multiagent Reinforcement Learning in Navigation. 2021,	
352	Development of innovation ecosystem framework for successful adoption of industry 4.0 enabling technologies in Indian manufacturing industries. 2021 , ahead-of-print,	1
351	VR-ORCA: Variable Responsibility Optimal Reciprocal Collision Avoidance. 2021 , 6, 4520-4527	8
350	Predictive maintenance system for production lines in manufacturing: A machine learning approach using IoT data in real-time. 2021 , 173, 114598	51
349	Data Analytics in Industry 4.0: A Survey. 2021 , 1-17	4
348	Implementing Industry 4.0 principles. 2021 , 158, 107379	18
347	Industry 4.0: Latent Dirichlet Allocation and clustering based theme identification of bibliography. 2021 , 103, 104280	4
346	Integration and Optimization of Ancient Literature Information Resources Based on Big Data Technology. 2021 , 2021, 1-8	1
345	Addressing Consumer Demands: A Manufacturing Collaboration Process Using Blockchain for Knowledge Representation. 2022 , 375-390	
344	Power Allocation in Massive MIMO-HWSN Based on the Water-Filling Algorithm. 2021, 2021, 1-11	3
343	Conceptualizing Smart Manufacturing Readiness-Maturity Model for Small and Medium Enterprise (SME) in Malaysia. 2021 , 13, 9793	1
342	Is Gutta-Percha Still the âtcold Standardâtamong Filling Materials in Endodontic Treatment?. 2021 , 9, 1467	3
341	Industry 4.0 implementation and Triple Bottom Line sustainability: An empirical study on small and medium manufacturing firms. 2021 , 7, e07753	16

340	An empirical study of IoT topics in IoT developer discussions on Stack Overflow. 2021, 26, 1	3
339	Development of a Smart Manufacturing Execution System Architecture for SMEs: A Czech Case Study. 2021 , 13, 10181	2
338	Do repetitive and non-repetitive companies equally benefit from Lean 4.0?. 2021, ahead-of-print,	0
337	The impact of Industry 4.0 on organizational performance: the case of Pakistan's retail industry. 2021 , ahead-of-print,	2
336	Advanced Composites with Aluminum Alloys Matrix and Their Fabrication Processes.	
335	Smart factory: security issues, challenges, and solutions. 1	О
334	Decentralized Enterprise Risk Management Issues under Rapidly Changing Environments. 2021 , 9, 165	3
333	A meta-analysis of industry 4.0 design principles applied in the health sector. 2021 , 104, 104377	3
332	A Dijkstra-Inspired Graph Algorithm for Fully Autonomous Tasking in Industrial Applications. 2021 , 57, 5448-5460	2
331	Modeling of critical success factors for adoption of smart manufacturing system in Indian SMEs: an integrated approach. 1	O
330	Study about Law Multi-Issue Automatic Negotiation Method Based on Artificial Intelligence and Multiagent Evolutionary Algorithm. 2021 , 2021, 1-10	
329	Towards Self-X cognitive manufacturing network: An industrial knowledge graph-based multi-agent reinforcement learning approach. 2021 , 61, 16-26	21
328	â∐ean 4.0â⊡How can digital technologies support lean practices?. 2021 , 241, 108258	7
327	Enhancing manufacturing intelligence through an unsupervised data-driven methodology for cyclic industrial processes. 2021 , 182, 115269	2
326	An empirical examination of benefits, challenges, and critical success factors of industry 4.0 in manufacturing and service sector. 2021 , 67, 101754	14
325	Design choices for next-generation IIoT-connected MES/MOM: An empirical study on smart factories. 2022 , 73, 102225	7
324	MCUBO. A Sustainability and Industry 4.0 Project. 2021 , 213-220	1
323	Multi-Agent Reinforcement Learning: A Selective Overview of Theories and Algorithms. 2021 , 321-384	52

322	Smart Contracts Based on Multi-agent Negotiation. 2021 , 104-114	1
321	Key Enablers of Industry 4.0 Development at Firm Level: Findings From an Emerging Economy. 2021 , 1-17	8
320	Strategies for Flexibility in Production Systems in Industry 4.0: A Framework for Characterization. 2021 , 330-341	
319	Machine Learning: An Expert Thinking System. 2021 , 1-20	
318	Cockpit: A Portal for Symbiotic Humanâ R obot Collaborative Assembly. 2021 , 211-231	
317	Analysis of Challenges Responsible for the Slow Pace of Industry 4.0 Diffusion. 2021 , 1737-1766	
316	Sustainable Circular Manufacturing in the Digital Era: Analysis of Enablers. 2021 , 541-554	1
315	The Role of Big Data Analytics and AI in Smart Manufacturing: An Overview. 2021 , 911-921	2
314	Engineering Multi-agent Systems Anno 2025. 2019 , 3-16	3
313	Education + Industry 4.0: Developing a Web Platform for the Management and Inference of Information Based on Machine Learning for a Hydrogen Production Biorefinery. 2019 , 603-613	1
312	Digitalization in Logistics Operations and Industry 4.0: Understanding the Linkages with Buzzwords. 2020 , 177-199	4
311	Towards a Blockchain Based Traceability Process: A Case Study from Pharma Industry. 2019 , 451-457	1
310	Barriers of Creating Competitive Advantage in the Age of Industry 4.0: Conclusions from International Experience. 2020 , 3-42	6
309	A Survey on RFID in Industry 4.0. 2020 , 1-16	11
308	Empowering SMEs with Cyber-Physical Production Systems: From Modelling a Polishing Process of Cutlery Production to CPPS Experimentation. 2020 , 139-177	2
307	Knowledge and Digital Strategies in Manufacturing Firms: The Experience of Top Performers. 2020 , 85-111	2
306	A General Overview of the Industry 4.0 Concept for Production Management and Engineering. 2020 , 45-51	1
305	Technology Adoption in the Industry 4.0 Era: Empirical Evidence from Manufacturing Companies. 2020 , 115-122	1

304	Industry 4.0: Maturity of Automotive Companies in Brazil for the Digitization of Processes. 2020 , 131-138	1
303	On Increasing Adaptability of Holonic Systems. 2018 , 229-241	2
302	Does Supply Chain Innovation Pay Off?. 2018 , 237-256	3
301	Current Trends in Industry 4.0 and Implications in Container Supply Chain Management: A Key Toward Make in India. 2018 , 209-224	3
300	Cloud Enabled CPS and Big Data in Manufacturing. 2018 , 265-292	4
299	Industry 4.0 (I40) Connectivity: Smart Factory Communications. 2018 , 211-220	1
298	Security and interference management in the cognitive-inspired Internet of Medical Things. 2020 , 131-149	3
297	Enabling predictive analytics for smart manufacturing through an IIoT platform. 2020 , 53, 179-184	3
296	A review on the characteristics of cyber-physical systems for the future smart factories. 2020 , 54, 305-335	72
295	A mixed activity-based costing and resource constraint optimal decision model for IoT-oriented intelligent building management system portfolios. 2020 , 60, 102142	7
294	Conceptual Framework of the Use of Robots, Artificial Intelligence and Service Automation in Travel, Tourism, and Hospitality Companies. 2019 , 7-37	11
293	Lean Manufacturing and Industry 4.0: A Holistic Integration Perspective in the Industrial Context. 2020 ,	4
292	An Integrative Machine Learning Method to Improve Fault Detection and Productivity Performance in a Cyber-Physical System. 2020 , 20,	12
291	The Internet of Things (IoT) for a smartphone-enabled optical spectrometer and their use on-site and (potentially) for Industry 4.0. 2018 ,	4
290	Experimental Evaluation of Suitability of Selected Multi-Criteria Decision-Making Methods for Large-Scale Agent-Based Simulations. 2016 , 11, e0165171	4
289	Digital factory in the University of Pannonia Nagykanizsa Campus - the Factory Subsystem. 2019 , 13, 21-27	2
288	Why Are Carbon-Based Materials Important in Civilization Progress and Especially in the Industry 4.0 Stage of the Industrial Revolution. 2019 , 8, 20190145	14
287	Applications of Laser Processing of Materials in Surface Engineering in the Industry 4.0 Stage of the Industrial Revolution. 2019 , 8, 20190203	11

286	Approach to the Design and Manufacturing of Prosthetic Dental Restorations According to the Rules of Industry 4.0. 2020 , 9, 20200020	10
285	Towards Industry 4.0: a SWOT-based analysis for companies located in the Sorocaba Metropolitan Region (SB Paulo State, Brazil). 2020 , 27,	2
284	Efficient Performative Actions for E-Commerce Agents. 2020 , 25, 19-32	2
283	Fourth industrial revolution: a way forward to attain better performance in the textile industry. 2019 , 11, 52-69	12
282	The MillennialsâŒffect: How Can Their Personal Values Shape the Future Business Environment of Industry 4.0?. 2019 , 65, 57-65	9
281	The Impact of Industry 4.0 on Export Market Orientation, Market Diversification, and Export Performance. 2020 , 53, 227-244	3
280	Eine strategische und operative Perspektive zur Anwendung von Big Data in der Industrie. 2017 , 112, 79-85	1
279	A review on control systems hardware and software for robots of various scale and purpose. Part 1. Industrial robotics. 2019 , 7, 30-46	4
278	Dentistry 4.0 Concept in the Design and Manufacturing of Prosthetic Dental Restorations. 2020 , 8, 525	23
277	DID III IDUOMENINAUDOJIMAS KLIENTUI PAINTI / MODEL OF THE BIG DATA USE FOR CUSTOMER COGNITION. 2018 , 10, 1-10	3
276	Industry 4.0 as the Last Industrial Revolution and Its Opportunities for Developing Countries. 2018 , 65-80	4
275	Strategies and Tools for Knowledge Management in Innovation and the Future Industry. 2019 , 179-202	3
274	Internet of Everything. 2019 , 1-30	5
273	Evaluation of Influence of Principles Involved in Industry 4.0 Over Coal Industries Using TISM. 2019 , 244-262	1
272	Reflection of Digital Transformation on Corporate Sustainability and a Theoratical Perspective. 2020 , 231-258	2
271	A Holistic Framework for AI Systems in Industrial Applications. 2021 , 78-93	4
270	A Module for Industrial Safety Inspection Planning Based on Self-organization. 2021, 365-379	
269	Environment for Education on Industry 4.0. 2021 , 9, 144395-144405	4

268	A Cost-effective Framework for Running Industrial Big Data Analysis Applications in Public Clouds. 2021 , 1-1	
267	Possibilities of Industrial Trends and Business Benefits with Industry 4.0 Technology: A Survey. 2021 , 1-18	О
266	Industry and Research: New Collaborative Perspectives in the Industry 4.0 Era. 2021 , 14, 18-22	
265	Multi-Agent Formation Adjustment under Flocking Control Algorithms with Expected Topological Matrices. 2021 ,	
264	AGV dispatching algorithm based on deep Q-network in CNC machines environment. 1-16	
263	Industry 4.0 Technologies and Their Impact in Contemporary Logistics: A Systematic Literature Review. 2021 , 13, 11643	6
262	Industry 4.0 and Industry 5.0âlhception, conception and perception. 2021 , 61, 530-535	95
261	Integrating Industry 4.0 and circular economy: a review. 2021 , ahead-of-print,	2
260	A flexible and open environment for discrete event simulations and smart manufacturing. 2021 , 15, 509	О
259	Achieving cognitive mass personalization via the self-X cognitive manufacturing network: An industrial-knowledge-graph- and graph-embedding-enabled pathway. 2021 ,	7
258	How does performance vary between early and late adopters of Industry 4.0? A qualitative viewpoint. 2021 , ahead-of-print,	3
257	An SDN-Enabled Architecture for IT/OT Converged Networks: A Proposal and Qualitative Analysis under DDoS Attacks. 2021 , 13, 258	O
256	Designing an Intelligent Agents for E-Bookstore System Web-Based System. 2022 , 321-330	
255	Dynamic Integration of Mould Industry Analytics and Design Forecasting. 2017 , 649-657	3
254	Chancen und Herausforderungen der Organisations- und Personalentwicklung im Zeitalter der Industrie 4.0 âlBestandsaufnahme und Ausblick. 2018 , 191-209	О
253	THE EVOLUTION OF 3D PRINTING AND INDUSTRY 4.0. 2018 , 14, 1	1
252	Industry 4.0 and smart factories. 1-1	3
251	General Aspects of the Application of Computational Methods in Industry 4.0. 2019 , 1-10	

250	The Influence of Industry 4.0 on the Enterprise Competitiveness. 2018 , 1, 641-648	2
249	TRANSFORMATION OF THE MACHINES FROM LEARNER TO DECISION MAKER: INDUSTRY 4.0 AND BIG DATA. 219-223	
248	Time-Sensitive-Aware Scheduling Traffic (TSA-ST) Algorithm in Software-Defined Networking. 2019 , 248-259	1
247	Multi-Criteria Decision Making in Manufacturing Systems. 2019 , 80-107	
246	The Link Between Innovation and Prosperity. 2019 , 200-217	
245	Doing More With Less. 2019, 1-17	
244	Modelling and Analysis of Multi-agent Approach for an IoT-Enabled Autonomous Manufacturing System. 2019 , 643-653	
243	An ANP Approach for Prioritizing the Agile Project Management Criteria in Industry 4.0 Transition. 2019 , 165-187	О
242	Exploring the Impact of Industry 4.0 Concepts on Energy and Environmental Management Systems: Evidence from Serbian Manufacturing Companies. 2019 , 355-362	1
241	Semantic-Driven Architecture for Autonomic Management of Cyber-Physical Systems (CPS) for Industry 4.0. 2019 , 5-17	
240	Towards a Software Engineering Framework for the Design, Construction and Deployment of Machine Learning-Based Solutions in Digitalization Processes. 2019 , 343-349	2
239	Agent-Based Approach for Decentralized Data Analysis in Industrial Cyber-Physical Systems. 2019 , 130-144	2
238	Self-adjusting Learning Strategies of Preservice TeachersâlCross-disciplinary Teaching Professionalization: Adjusting 107 Curriculum Reform and Industry 4.0. 2019 , 9, 530-534	
237	Performance of an automated process model discovery âlthe logistics process of a manufacturing company. 2019 , 11, 106-118	2
236	An Agent-Based Industrial Cyber-Physical System Deployed in an Automobile Multi-stage Production System. 2020 , 379-391	2
235	A Indstria 4.0: Uma anlise comparativa entre as experiñcias da: Alemanha, EUA, China, Corîa do Sul e Japö.	
234	10 Industria 4.0: diffusione, applicazioni e rischi nel settore auto. 2019 ,	
233	The Impact of Industry 4.0 Connectivity on the Collaboration Along Brazilian Automotive Supply Chain. 2020 , 381-388	

(2022-2020)

232	Advanced Ground Truth Multimodal Imaging Using Time Reversal (TR) Based Nonlinear Elastic Wave Spectroscopy (NEWS): Medical Imaging Trends Versus Non-destructive Testing Applications. 2020 , 55-87	0
231	Industry 4.0 in Emerging Economies. 2020 , 31-48	1
230	ENDSTR[4.0â[N FARKINDALIK ANALZ[7-25	O
229	Primer on the Cluster Impact on Internationalisation in the Form of FDI in the Time of Industry 4.0. 2020 , 27, 195-220	
228	Intelligent Automatic Guided Vehicle for Smart Manufacturing Industry. 2021 , 337-343	О
227	What Are the Chances of Resilon to Dominate the Market Filling Materials for Endodontics?. 2021 , 11, 1744	3
226	Managing quality control systems in intelligence production and manufacturing in contemporary time. 1-11	0
225	Changeability and agility enablers in one-of-a-kind product development and design processes. 1	3
224	Developing Real-Time Smart Industrial Analytics for Industry 4.0 Applications. 2020 , 193-215	1
223	Enterprise Architecture Requirements for Digital Transformation Projects in an Automotive Industry. 2020 , 293-301	
222	Decentralized Multi-agent Reinforcement Learning with Multi-time Scale of Decision Epochs. 2020 ,	О
221	The Perspectives of Integration Between Lean Manufacturing and Industry 4.0. 2021 , 459-467	1
220	The Benefits of a Hybrid Simulation Hub to Deal with Pandemics. 2020 ,	o
219	EndStri 4.0 Berine Yfitem ve Literatfi Blfhas÷Tfkiyeâfleki LisansStfTez Blfhalar÷ 2020 , 293-324	0
218	Rancangan Sistem Informasi Berbasis Web Untuk Mengatasi Perbaikan Mesin Menggunakan Group Tecnologhy. 2020 , 1, 53-61	
217	CSR: A Moral Obligation or a Strategic Behavior?.	1
216	Information State Embedding in Partially Observable Cooperative Multi-Agent Reinforcement Learning. 2020 ,	1
215	RDF Query Path Optimization Using Hybrid Genetic Algorithms. 2022 , 12, 1-16	О

Analysis of Industrial Engineering Education and Industry 4.0 Relationship with ESOGU Industrial Engineering Students' Perspective. 236-250

213	New Generation of Productive Workers. 2020 , 261-275	O
212	How to Design IIoT-Platforms Your Partners are Eager to Join: Learnings from an Emerging Ecosystem. 2021 , 489-504	3
211	Transforming Indian Engineering Industries through Industry 4.0: An Integrative Conceptual Analysis.	5
2 10	Industry 4.0 and the Internet of Things (IoT). 2020 , 1-24	
209	ENDSTR[4.0 SRECNDE ELECTREE YNTEM[[]E ENERJ[]TESS YER SEMNN	O
208	Additive Manufacturing and Smart Textiles. 2020 , 133-171	1
207	Resource-Based Logistics (RBL) and Competitive Advantage. 2020 , 181-194	O
206	Prospective Analysis of Blockchain Applications Within the Occupational Health and Safety Management and Wearable-Related Ergonomics in Manufacturing Industry. 2020 , 733-741	0
205	Literature Review: Evaluation of the Feasibility of Implementing Industry 4.0 Technologies in the Intralogistic Processes of the Logistics Operators of the Department of the Atlantic, a Look Towards the Continuous Improvement of Organizational Efficiency. 2020 , 125-141	O
204	Industry 4.0 Privacy and Security Protocol Issues in Internet of Things. 2020 , 193-217	
203	Efficient GAN - Based Unsupervised Anomaly Sound Detection for Refrigeration Units. 2021,	О
202	The Current Status and Developing Trends of Industry 4.0: a Review. 1	5
201	Which Factors Determine the Adoption of the Internet of Things? Impacts and Benefits. 2021,	
200	AAU Open Source MES Architecture for Smart Factories âlExploiting ISA 95. 2020 ,	2
199	A Low-latency and Interoperable Industrial Internet of Things Architecture for Manufacturing Systems. 2020 ,	1
198	Applications of Computational Intelligence Methods for Control and Diagnostics. 2021, 671-698	
197	State-of-the-art on Product-Service Systems and Digital Technologies. 2021 , 71-88	

Towards a robust digital production and logistics network by implementing flexibility measures. 1 2021, 104, 1310-1315 194 Prioritization of Smart Factory Transition Strategies for Manufacturing Plants with an Integrated Fuzzy Decision-Making Approach: The Case of Turkey. 2021, 193 An Enhanced Clustering Algorithm for Agricultural Data Using FAO Heuristics. 2021, 194 Smart Working in Industry 4.0: How digital technologies enhance manufacturing workers' activities. 195 2021, 163, 107804 196 Direction of businesses operating in Slovakia to develop key managerial competencies. 2021, 27, 291-295 197 The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274 189 Risks and critical success factors in the internationalization of born global startups of industry 4.0: 188 Smart Production Planning and Control Model. 2022, 253-267 189 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical 180 Approaches. 2021, 9, 2014 181 Peconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, 180 Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 181 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36 183 Digital Technologies and Industrial Transformations. 2021, 7-38	196	Hyperconnected Architecture for High Cognitive Production Plants. 2021, 104, 1692-1697	О
Fuzzy Decision-Making Approach: The Case of Turkey. 2021, An Enhanced Clustering Algorithm for Agricultural Data Using FAO Heuristics. 2021, Smart Working in Industry 4.0: How digital technologies enhance manufacturing workers' activities. 2021, 163, 107804 191 Direction of businesses operating in Slovakia to develop key managerial competencies. 2021, 27, 291-295 190 The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274 189 Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. 2021, 121346 188 Smart Production Planning and Control Model. 2022, 253-267 189 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 180 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, 180 Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 181 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	195		1
Smart Working in Industry 4.0: How digital technologies enhance manufacturing workers' activities. 2021, 163, 107804 191 Direction of businesses operating in Slovakia to develop key managerial competencies. 2021, 27, 291-295 190 The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274 189 Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. 2021, 121346 188 Smart Production Planning and Control Model. 2022, 253-267 187 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 188 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, 2 189 Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	194		
2021, 163, 107804 191 Direction of businesses operating in Slovakia to develop key managerial competencies. 2021, 27, 291-295 190 The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274 189 Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. 2021, 121346 188 Smart Production Planning and Control Model. 2022, 253-267 187 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 188 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, 189 Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 180 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	193	An Enhanced Clustering Algorithm for Agricultural Data Using FAO Heuristics. 2021,	
The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274 Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. 2021, 121346 Smart Production Planning and Control Model. 2022, 253-267 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	192		13
Risks and critical success factors in the internationalization of born global startups of industry 4.0: A social, environmental, economic, and institutional analysis. 2021, 121346 Smart Production Planning and Control Model. 2022, 253-267 Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	191	Direction of businesses operating in Slovakia to develop key managerial competencies. 2021 , 27, 291-295	О
A social, environmental, economic, and institutional analysis. 2021, 121346 Smart Production Planning and Control Model. 2022, 253-267 O Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	190	The Problem of Employment and Growth in the Fourth Industrial Revolution. 2022, 251-274	
Development Strategy of Endodontic Filling Materials Based on Engineering and Medical Approaches. 2021, 9, 2014 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	189		1
Approaches. 2021, 9, 2014 Reconfigurable manufacturing system: a systematic bibliometric analysis and future research agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	188	Smart Production Planning and Control Model. 2022 , 253-267	О
agenda. 2021, ahead-of-print, Digitalization of healthcare sector as a tool for implementation of competition policy. 2021, 8, 25-34 The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021, 1-36	187		1
The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2021 , 1-36	186		2
Improvement Tools. 2021 , 1-36	185	Digitalization of healthcare sector as a tool for implementation of competition policy. 2021 , 8, 25-34	
183 Digital Technologies and Industrial Transformations. 2021 , 7-38	184		
	183	Digital Technologies and Industrial Transformations. 2021 , 7-38	
182 Hypergraphical Real-time Multi-Robot Task Allocation in a Smart Factory. 2021 , 1-1	182	Hypergraphical Real-time Multi-Robot Task Allocation in a Smart Factory. 2021, 1-1	1
$_{f 1}8f 1$ Digital Manufacturing and the Transformation of the Automotive Industry. 2021 , 55-126	181	Digital Manufacturing and the Transformation of the Automotive Industry. 2021 , 55-126	
Measuring adoption of industry 4.0 technologies via international trade data: insights from European countries. 2022 , 49, 51	180		0
179 Adopting Industry 4.0 by leveraging organisational factors. 2022 , 176, 121439	179	Adopting Industry 4.0 by leveraging organisational factors. 2022 , 176, 121439	7

178	Practical Lessons for Engineers to adapt towards Industry 4.0 in Indian Engineering Industries. 86-97	4
177	Advanced Excitation Symmetry Analysis Method (ESAM) for improved automated ultrasonic testing within NDT4.0. 2020 ,	
176	Models and Information Technology for Reliable Design of the Functioning Processes of Flexible Production Systems as Complex Human-Machine Systems.	0
175	Smart Contract-based Protocol for Efficient Project Scheduling in Industrial Internet. 2020,	
174	Formal Modeling and Validation of Micro Smart Grids Based on ReDy Architecture. 2020,	
173	Task Allocation of Multiagent Groups in Social Network ed Systems. 2021 , 1-1	1
172	SOON: Social Network of Machines to Optimize Task Scheduling in Smart Manufacturing. 2021,	1
171	IT Availability Risks in Smart Factory Networks âlʿAnalyzing the Effects of IT Threats on Production Processes Using Petri Nets. 1	
170	Preparing Academic Libraries for Service Delivery in the Fourth Industrial Revolution (4IR) Era. 2022 , 232-249	
169	Technological Convergence Assessment of the Smart Factory Using Patent Data and Network Analysis. 2022 , 14, 1668	2
168	A Real-time Robotic System for Sewing Personalized Stent Grafts. 2022 , 1-22	
167	The Borderless Integration of Financial Management Innovation Using Big Data Analysis of Social Media. 2022 , 2022, 1-10	
166	A Conceptual Definition and Future Directions of Urban Smart Factory for Sustainable Manufacturing. 2022 , 14, 1221	3
165	Research on ThailandâʿʿB Digital Marketing Strategy in the Age of Industry 4.0â Based on the Perspective of Consumer Behavior. 2022 , 12, 9-18	
164	Introduction to Federated Learning. 2022 , 1-17	1
163	The New Generation of ERP in the Era of Artificial Intelligence and Industry 4.0. 2022 , 1086-1094	
162	NDE 4.0: New Paradigm for the NDE Inspection Personnel. 2022 , 239-269	
161	Strategies for risk management in adopting Industry 4.0 concept in manufacturing industries. 2022 , ahead-of-print,	O

160	Applications of Blockchain in Industry 4.0: a Review.	7
159	Cooperative Product Agents to Improve Manufacturing System Flexibility: A Model-Based Decision Framework. 2022 , 1-18	2
158	Factors Affecting Successful Implementation of Smart Manufacturing System. 2022, 10, 0-0	
157	Internet of wearable things. 2022 , 295-310	1
156	Systematic Literature Review on Industry Revolution 4.0 to Enhance Supply Chain Operation Performance. 2022 ,	1
155	Production flow of customized products in a digital factory. 2022 , 200, 1201-1208	
154	Evolution of Industry and Blockchain Era: Monitoring Price Hike and Corruption using BIoT for Smart Government and Industry 4.0. 2022 , 1-1	7
153	The Impact of Industry 4.0 Technologies on Manufacturing Strategies: Proposition of Technology-Integrated Selection. 2022 , 10, 21574-21583	4
152	Industry 4.0 and Its Implications: Concept, Opportunities, and Future Directions.	0
151	Developing IoT Artifacts in a MAS Platform. 2022 , 11, 655	2
150	Supply Chain Management Reshaped with Industry 4.0: A Review. 2022, 108A, 69-93	
149	Application of Multiagent Technology in Intelligent Distributed Sports Training Simulation System. 2022 , 2022, 1-12	
148	Classification of Industry 4.0 for Total Quality Management: A Review. 2022 , 14, 3329	1
147	Reinforcement learning for online optimization of job-shop scheduling in a smart manufacturing factory. 2022 , 14, 168781322210861	2
146	Decision-making in smart manufacturing: A framework for performance measurement. 1-29	2
145	TRENDS IN THE DEVELOPMENT OF DIGITALIZATION OF MANUFACTURING INDUSTRY IN LITHUANIA: PROBLEMS AND PERSPECTIVES. 2022 , 14, 1-7	O
144	Testing an adoption model for Industry 4.0 and sustainability: A Malaysian scenario. 2022, 31, 313-330	6
143	Design and Implementation of Intelligent Acquisition Terminal for Aircraft Assembly Workshop Based on OPC_UA Protocol. 2021 ,	

142 The Structure Design of an Intelligent Pop Can Recycling Device. **2021**,

141	Sustainable competitive advantage through technology and innovation systems in the local government authorities. 2021 , 9,	
140	Production and operations management for intelligent manufacturing: a systematic literature review. 2022 , 60, 808-846	9
139	IoT Implementation-A Comparative study. 2021 ,	
138	Research on Parallel Support Vector Machine Based on Spark Big Data Platform. 2021 , 2021, 1-9	0
137	The New Era of Business Digitization through the Implementation of 5G Technology in Romania. 2021 , 13, 13401	6
136	Assessing Industry 4.0 readiness in manufacturing: a self-diagnostic framework and an illustrative case study. 2022 , 33, 468-488	2
135	Knowledge mapping of research on Industry 4.0: A visual analysis using CiteSpace. 2022 , 17, 125-143	
134	Barriers of new technology introduction and disadvantages of industry 4.0 for industrial enterprises. 2022 , 17, 197-206	
133	Adaptive Computing Optimization for Industrial IoT using SDN with Edge Computing. 2022,	2
132	Transformation towards Smart Working: Research proposal. 2022,	
131	Resource Recycling with the Aim of Achieving Zero-Waste Manufacturing. 2022 , 14, 4503	2
130	Clustering at the Disposal of Industry 4.0: Automatic Extraction of Plant Behaviors 2022, 22,	
129	MODBUS-TR: Advanced MODBUS-RTU Protocol for IoT with Auto-discovery and Triggers. 1	
128	Industry 4.0 Technologies Impact on Supply Chain Sustainability.	
127	Enhancing Industry 4.0 standards interoperability via knowledge graphs with natural language processing. 2022 , 140, 103676	1
126	Enabling flexible manufacturing system (FMS) through the applications of industry 4.0 technologies. 2022 ,	3
125	Self-adaptive systems: A systematic literature review across categories and domains. 2022 , 148, 106934	Ο

124	The Classification of Impact Signal of 6 DOF Cobot by Means of Machine Learning Model. 2022, 553-560	
123	Application of Service Robots for Logistics During the COVID-19 Pandemic Accelerates the Implementation of Industry 4.0. 2022 , 3-17	
122	Machine Learning for Zero- Touch Management in Heterogeneous Industrial Networks - A Review. 2022 ,	1
121	Fusion of Federated Learning and Industrial Internet of Things: A survey. <i>Computer Networks</i> , 2022 , 212, 109048	3
120	From Deindustrialization to Reindustrialization: A Repositioning of Vocational Education and Training for Improving Synergy and Connection Within the Social Structure in Hong Kong. 2022 , 517-539	
119	Conformity Assessment of Informative Labels in Car Engine Compartment with Deep Learning Models. 2022 , 2278, 012033	
118	Construction of an Smart Progress Production Unit Based on Paddle Boring. 2022, 2235, 012029	
117	Internet of Things Approaches for Monitoring and Control of Smart Greenhouses in Industry 4.0. 2022 , 15, 3834	2
116	Methods for improving the availability of spot instances: A survey. 2022 , 141, 103718	1
115	Machine Learning Applications in Composites: Manufacturing, Design, and Characterization. 65-85	
114	The rise of the digital service economy in European regions. 1-27	0
113	A Review: Machine Learning for Combinatorial Optimization Problems in Energy Areas. 2022 , 15, 205	1
112	MACP: Multifactor Authentication using Physical Unclonable Function and Fuzzy Extractor based Chebyshev Polynomial for Industrial Internet of Things devices.	1
111	Developing an Improved Software Architecture Framework for Smart Manufacturing. 2022 , 87-100	
110	A Deep Learning Approach for Automatic Counting of Bales and Product Boxes in Industrial Production Lines. 2022 , 619-633	
109	A Digital Twin Model of the Smart City Communication Infrastructure. 2022 , 13, 1-16	1
108	Research on Subtask Reorganization Scheme of Heavy Equipment Manufacturing Based on Spectral Clustering Algorithm. 2022 ,	
107	Agent-based Modelling of Manufacturing Systems in the Context of âIhdustry 4.0â□ 2022 , 2198, 012064	

106	The Hitchhikerâ\ Guide to Fused Twins: A Review of Access to Digital Twins In Situ in Smart Cities. 2022 , 14, 3095	1
105	Management Control and Integration Technology of Intelligent Production Line for Multi-Variety and Complex Aerospace Ring Forgings: A Review. 2022 , 12, 1079	O
104	Supply Chain 4.0 performance measurement: A systematic literature review, framework development, and empirical evidence. 2022 , 164, 102725	2
103	Impact of Additive Manufacturing in SMEs. 2023 , 103-111	
102	Process management of ergonomic workplace based on augmented reality principles. 2022, 18, 66-91	O
101	A Survey of Deep Q-Networks used for Reinforcement Learning: State of the Art. 2023 , 393-402	
100	A deep learning-based approach for electrical equipment remaining useful life prediction. 2022 , 2,	1
99	Challenges facing by manufacturing industries towards implementation of industry 4.0: an empirical research.	
98	Evolving Requirements and Application of SDN and IoT in the Context of Industry 4.0, Blockchain and Artificial Intelligence. 2022 , 427-496	2
97	A Primer on the Factories of the Future. 2022 , 22, 5834	O
97 96	A Primer on the Factories of the Future. 2022 , 22, 5834 Business transformation through sustainability based on Industry 4.0. 2022 , 8, e10015	0
96	Business transformation through sustainability based on Industry 4.0. 2022 , 8, e10015	
96 95	Business transformation through sustainability based on Industry 4.0. 2022 , 8, e10015 South Africa in the era of Industry 4.0: An Insightful Investigation. Closed loop supply chains 4.0: From risks to benefits through advanced technologies. A literature	1
96 95 94	Business transformation through sustainability based on Industry 4.0. 2022, 8, e10015 South Africa in the era of Industry 4.0: An Insightful Investigation. Closed loop supply chains 4.0: From risks to benefits through advanced technologies. A literature review and research agenda. 2022, 253, 108582	1
96 95 94 93	Business transformation through sustainability based on Industry 4.0. 2022, 8, e10015 South Africa in the era of Industry 4.0: An Insightful Investigation. Closed loop supply chains 4.0: From risks to benefits through advanced technologies. A literature review and research agenda. 2022, 253, 108582 Elucidating the Semantic Web of Things for Making the Industry 4.0 Revolution a Success. 2022, 179-193	1 1 0
96 95 94 93 92	Business transformation through sustainability based on Industry 4.0. 2022, 8, e10015 South Africa in the era of Industry 4.0: An Insightful Investigation. Closed loop supply chains 4.0: From risks to benefits through advanced technologies. A literature review and research agenda. 2022, 253, 108582 Elucidating the Semantic Web of Things for Making the Industry 4.0 Revolution a Success. 2022, 179-193 A Real-Time Robotic System for Sewing Personalized Stent Grafts. 2022, 837-858	1 1 0

88	Digital Technologies for Lean Manufacturing. 2022 , 219-267	О
87	Involvement of smart technologies in an advanced supply chain management to solve unreliability under distribution robust approach. 2022 , 9, 461-492	2
86	Prospects of Robot Laser Cutting in the Era of Industry 4.0. 2022 , 10, 639-655	О
85	IoT Artifacts: Incorporating Artifacts into the SPADE Platform. 2022 , 69-79	O
84	Blockchain Technology Adoption in Outbound Logistics for the Fourth Industrial Revolution. 2022,	0
83	Big Data Analytics in Industrial IoT and Cybertwin. 2022 , 191-210	O
82	Big Data Analytics for Semiconductor Manufacturing. 2023, 1-19	О
81	Industry 4.0 Implementation Framework for the Composite Manufacturing Industry. 2022, 6, 258	Ο
80	Digital Conflicts in Procurement. 2022 , 85-106	О
79	Impact of total quality management on industry 4.0 readiness and practices: does firm size matter?. 1-23	O
78	Adoption of Industry 4.0 technologies by organizations: a maturity levels perspective.	0
77	Evolution of Knowledge Structure in an Emerging Field Based on a Triple Helix Model: the Case of Smart Factory.	O
76	Prioritizing the barriers of green smart manufacturing using AHP in implementing Industry 4.0: a case from Indian automotive industry.	О
75	Being digital and flexible to navigate the storm: How digital transformation enhances supply chain flexibility in turbulent environments. 2022 , 108668	1
74	Disruptive Innovation in Mining Industry 4.0. 2022 , 313-325	2
73	Towards a priority rule to integrate maintenance operations into production schedules. 2022 , 55, 430-435	Ο
72	Design and Features of Advanced Decision Support Systems. 2022 , 55, 1781-1786	Ο
71	Assessing interactions between Lean Six-Sigma, Circular Economy and industry 4.0: toward an integrated perspective. 2022 , 55, 3112-3117	O

70	Edge Computing Based Autonomous Robot for Secured Industrial IoT. 2022,	О
69	A Graph-based and Declarative Approach to a Secure Resource Management in Smart Factories. 2022 , 12, 1-11	O
68	Method for the development of Software-Defined Manufacturing equipment. 1-18	O
67	A Bibliometric Study of Industry 4.0 in Construction Industry Using Oesterreich and Teuteberg (2016) As A Key Marker. 2022 , 1067, 012056	O
66	Toward the use of bond graphs for manufacturing control: improving existing models. 2022, 44,	O
65	Realizing Smart Safety Management in the Era of Safety 4.0: A New Method towards Sustainable Safety. 2022 , 14, 13915	O
64	A review of cooperative multi-agent deep reinforcement learning.	1
63	Collective Intelligence in Self-Organized Industrial Cyber-Physical Systems. 2022 , 11, 3213	3
62	The role of intelligent manufacturing systems in the implementation of Industry 4.0 by small and medium enterprises in developing countries.	0
61	Manufacturing strategy 4.0: a framework to usher towards industry 4.0 implementation for digital transformation.	1
60	Adoption paths of digital transformation in manufacturing SME. 2023, 255, 108675	О
59	Reliable and Efficient Parallel Checkpointing Framework for Nonvolatile Processor With Concurrent Peripherals. 2022 , 1-13	O
58	A flexible framework for requirement management (FFRM) from software architecture toward distributed agile framework. 2022 , 12, 364-377	О
57	The Adoption of Industry 4.0 Technologies Through the Implementation of Continuous Improvement Tools. 2022 , 1185-1220	O
56	Machine Learning: An Expert Thinking System. 2022 , 1165-1184	О
55	Design and Build End-to-End Device as User Recommendations for Indoor Air Quality Monitoring. 2022 ,	O
54	Development of 3D Printed Bags Using Roll-Type Printing Method. 2022 , 24, 505-518	0
53	 	O

52	Implementing industry 4.0 for flexibility, quality, and productivity improvement: technology arrangements for different purposes. 1-26	O
51	Data-Driven Robust Multi-Agent Reinforcement Learning. 2022,	1
50	Self-organization of a highly flexible shop floor alfrom Muti-agent based interactions to an echolocation-inspired automation system. 2022 ,	0
49	Adoption of Industry 4.0 technologies: an analysis of small and medium-sized companies in the state of SB Paulo, Brazil. 29,	O
48	Knowledge management and Industry 4.0: a critical analysis and future agenda. 29,	2
47	Security of Multi-Agent Cyber-Physical Systems: A Survey. 2022 , 10, 121465-121479	O
46	Bibliometric-based visualization knowledge graph analysis of smart factory. 2022,	O
45	Refinery 4.0, a Review of the Main Challenges of the Industry 4.0 Paradigm in Oil & Samp; Gas Downstream. 2022 , 22, 9164	O
44	The evolution of operatorsalfole in production: how Lean Manufacturing and Industry 4.0 affect Job Enlargement and Job Enrichment. 1-19	0
43	A Fuzzy-Based Application for Marketing 4.0 Brand Perception in the COVID-19 Process. 2022 , 14, 16407	O
42	Reinforcement Learning-based Job Shop Scheduling for Remanufacturing Production. 2022,	0
41	Lean and Industry 4.0: A Bibliometric Analysis, Opportunities for Future Research Directions. 1-23	O
40	An Analysis of the Literature on Industry 4.0 and the Major Technologies. 2023, 19-39	O
39	Special Issue on Advanced Design and Manufacturing in Industry 4.0. 2023 , 13, 767	O
38	Environmental Supply Chain Risk Management for Industry 4.0: A Data Mining Framework and Research Agenda. 2023 , 11, 46	O
37	Assessment of Industry 4.0 Adoption for Sustainability in Small and Medium Enterprises: A Fermatean Approach. 2023 , 187-212	O
36	Adoption of information and digital technologies for sustainable smart manufacturing systems for industry 4.0 in small, medium, and micro enterprises (SMMEs). 2023 , 188, 122308	0
35	Intelligent Management of Enterprise Business Processes. 2023 , 11, 78	O

34	Self-Organization in Smart ManufacturingâlBackground, Systematic Review, Challenges and Outlook. 2023 , 11, 10107-10136	O
33	Supply chain 4.0. rewriting the rules. 2023 , 63-83	O
32	Relation Adaptation of the Grouped Multiagent Network in Task Allocation. 2023, 6125-6136	O
31	Big Data Analytics for Supply Chain Transformation: A Systematic Literature Review Using SCOR Framework. 2023 , 1-50	O
30	Smart Mobility in the Cloud: Enabling Real-Time Situational Awareness and Cyber-Physical Control Through a Digital Twin for Traffic. 2023 , 1-12	O
29	A Comprehensive Review on Big Data for Industries: Challenges and Opportunities. 2023 , 11, 744-769	O
28	Adopting an Ecosystem Approach to Digitalization-driven Organizational Change? Actionable Knowledge from a Collaborative Project.	O
27	Systematic analysis of artificial intelligence in the era of industry 4.0. 2023 , 10, 89-108	O
26	Innovative Concept of Severe Plastic Deformation Manufacturing System to Enhance Classic Equal Channel Angular Drawing Method: a Preliminary Study for Flexible Manufacturing System Looking to Industry 4.0.	0
25	Decentralized learning multi-agent system for online machine shop scheduling problem. 2023 , 67, 338-360	O
24	Assessing the level of digital maturity in the Three Seas Initiative countries. 2023, 190, 122462	O
23	Maintenance optimization in industry 4.0. 2023 , 234, 109204	O
22	When technologies become Industry 4.0 platforms: Defining the role of digital technologies through a boundary-spanning perspective. 2023 , 260, 108858	O
21	Artificial Intelligence Methods Applied to Catalytic Cracking Processes. 2023 , 6, 361-380	O
20	QDN: An Efficient Value Decomposition Method for Cooperative Multi-agent Deep Reinforcement Learning. 2022 ,	O
19	The Application of the Internet of Things in Managing Supply Chains. 2022 , 2298-2312	O
18	Workload Control in High-Mix-Low-Volume Factories Through the Use of a Multi-Agent System. 2022 ,	0
17	Multi-stakeholderå sustainable requirement analysis for smart manufacturing systems based on the stakeholder value network approach. 2023 , 177, 109043	O

CITATION REPORT

16	Design of a Smart Factory Based on Cyber-Physical Systems and Internet of Things towards Industry 4.0. 2023 , 13, 2156	4
15	Innovative concept of severe plastic deformation manufacturing system to enhance classic equal channel angular drawing method: a preliminary study for flexible manufacturing systems looking to Industry 4.0. 2023 , 45,	О
14	The titans sustainability and industry 4.0 working for the planet earth. 2023, 14, 1953-1965	O
13	A Hybrid Fuzzy Multi-Criteria Decision-Making Model for Evaluating the Influence of Industry 4.0 Technologies on Manufacturing Strategies. 2023 , 11, 310	1
12	An Efficient Framework for the Implementation of Sustainable Industry 4.0. 2023, 804-815	O
11	DIGITAL TRANSFORMATION IN OPERATIONS MANAGEMENT: A BIBLIOMETRIC-BASED SYSTEMATIC REVIEW.	О
10	Integration of Lean manufacturing and Industry 4.0: a bibliometric analysis.	O
9	Unveiling the relationship between sustainable development and Industry 4.0: A text mining literature analysis.	O
8	An Industry 4.0 readiness model for new technology exploitation.	О
7	Random forests based classification of tool wear using vibration signals and wear area estimation from tool image data.	О
6	Transformaß digital e desempenho de startups: interveniñcia da informaß gerencial e da criatividade empreendedora. 2023 , 25, 435-454	0
5	DIGITAL TRANSFORMATION AND INCREASING MOLDOVA INDUSTRY SWOT ANALYSIS. 2022 , 56-67	О
4	Multidimensional Scientometric Analysis for the Gig Economy.	O
3	Digital Twin and Manufacturing. 2023 , 175-194	О
2	Cybersecurity in Digital Transformation. 2023 , 1-70	0
1	Internet of things for smart factories in industry 4.0, a review. 2023 , 3, 192-204	О