Laszlo Monostori

List of Publications by Year
in descending order

85 papers	**4,626** citations

172457
29 h-index

98798
67 g-index

90 all docs	**90** docs citations
90 times ranked	**3071** citing authors

#	Article	IF	Citations
1	Cyber-physical Production Systems: Roots, Expectations and R&D Challenges. Procedia CIRP, 2014, 17, 9-13.	1.9	932
2	Agent-Based Systems for Manufacturing. CIRP Annals - Manufacturing Technology, 2006, 55, 697-720.	3.6	551
3	Complexity in engineering design and manufacturing. CIRP Annals - Manufacturing Technology, 2012, 61, 793-814.	3.6	450
4	Value creation and decision-making in sustainable society. CIRP Annals - Manufacturing Technology, 2009, 58, 681-700.	3.6	176
5	A survey of applications and requirements of unique identification systems and RFID techniques. Computers in Industry, 2011, 62, 227-252.	9.9	155
6	Hierarchy in distributed shop floor control. Computers in Industry, 2000, 43, 123-137.	9.9	152
7	AI and machine learning techniques for managing complexity, changes and uncertainties in manufacturing. Engineering Applications of Artificial Intelligence, 2003, 16, 277-291.	8.1	152
8	Biologicalisation: Biological transformation in manufacturing. CIRP Journal of Manufacturing Science and Technology, 2018, 21, 1-32.	4.5	130
9	Cooperative and responsive manufacturing enterprises. CIRP Annals - Manufacturing Technology, 2011, 60, 797-820.	3.6	125
10	A Step towards Intelligent Manufacturing: Modelling and Monitoring of Manufacturing Processes through Artificial Neural Networks. CIRP Annals - Manufacturing Technology, 1993, 42, 485-488.	3.6	112
11	A Market Approach to Holonic Manufacturing. CIRP Annals - Manufacturing Technology, 1996, 45, 433-436.	3.6	111
12	Evolution and future of manufacturing systems. CIRP Annals - Manufacturing Technology, 2021, 70, 635-658.	3.6	103
13	Lead time prediction using machine learning algorithms: A case study by a semiconductor manufacturer. Procedia CIRP, 2018, 72, 1051-1056.	1.9	87
14	Stability-oriented evaluation of rescheduling strategies, by using simulation. Computers in Industry, 2007, 58, 630-643.	9.9	76
15	From plant and logistics control to multi-enterprise collaboration. Annual Reviews in Control, 2006, 30, 55-68.	7.9	75
16	Cooperative control in production and logistics. Annual Reviews in Control, 2015, 39, 12-29.	7.9	65
17	A system for the detailed scheduling of wind farm maintenance. CIRP Annals - Manufacturing Technology, 2011, 60, 497-501.	3.6	60
18	Enhanced control of complex production structures by tight coupling of the digital and the physical worlds. CIRP Annals - Manufacturing Technology, 2010, 59, 437-440.	3.6	54

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19	Lead time prediction in a flow-shop environment with analytical and machine learning approaches. IFAC-PapersOnLine, 2018, 51, 1029-1034.	0.9	48
20	Advanced predictive-analysis-based decision support for collaborative logistics networks. Supply Chain Management, 2015, 20, 369-388.	6.4	47
21	Reinforcement learning in a distributed market-based production control system. Advanced Engineering Informatics, 2006, 20, 279-288.	8.0	45
22	Complexity-based modeling of reconfigurable collaborations in production industry. CIRP Annals - Manufacturing Technology, 2008, 57, 445-450.	3.6	45
23	Neural networksâ€"Their applications and perspectives in intelligent machining. Computers in Industry, 1991, 17, 101-119.	9.9	42
24	Solution Approaches to Real-time Control of Customized Mass Production. CIRP Annals - Manufacturing Technology, 2007, 56, 431-434.	3.6	38
25	Cyber-physical production systems: roots from manufacturing science and technology. Automatisierungstechnik, 2015, 63, 766-776.	0.8	37
26	Capacity management for assembly systems with dedicated and reconfigurable resources. CIRP Annals - Manufacturing Technology, 2014, 63, 457-460.	3.6	34
27	Manufacturing Lead Time Estimation with the Combination of Simulation and Statistical Learning Methods. Procedia CIRP, 2016, 41, 75-80.	1.9	34
28	Digital enterprise solution for integrated production planning and control. Computers in Industry, 2010, 61, 112-126.	9.9	31
29	Satisfying various requirements in different levels and stages of machining using one general ANN-based process model. Journal of Materials Processing Technology, 2000, 107, 228-235.	6.3	29
30	Robust production planning and control for multi-stage systems with flexible final assembly lines. International Journal of Production Research, 2017, 55, 3657-3673.	7.5	29
31	Learning procedures in machine tool monitoring. Computers in Industry, 1986, 7, 53-64.	9.9	27
32	A coordination mechanism for rolling horizon planning in supply networks. CIRP Annals - Manufacturing Technology, 2008, 57, 455-458.	3.6	25
33	Generating alternative process plans for complex parts. CIRP Annals - Manufacturing Technology, 2013, 62, 453-458.	3.6	25
34	Capacity management of modular assembly systems. Journal of Manufacturing Systems, 2017, 43, 88-99.	13.9	24
35	Towards joint optimization of product design, process planning and production planning in multi-product assembly. CIRP Annals - Manufacturing Technology, 2018, 67, 441-446.	3.6	24
36	Design and management of reconfigurable assembly lines in the automotive industry. CIRP Annals - Manufacturing Technology, 2016, 65, 441-446.	3.6	23

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37	Capacity Planning and Resource Allocation in Assembly Systems Consisting of Dedicated and Reconfigurable Lines. Procedia CIRP, 2014, 25, 185-191.	1.9	21
38	Supporting multi-level and robust production planning and execution. CIRP Annals - Manufacturing Technology, 2015, 64, 415-418.	3.6	20
39	Design and assessment of quality control loops for stable business processes. CIRP Annals - Manufacturing Technology, 2012, 61, 439-444.	3.6	19
40	Cyber-Physical Systems. , 2018, , 1-8.		19
41	Cyber-physical Manufacturing in the Light of Professor Kanji Ueda's Legacy. Procedia CIRP, 2017, 63, 631-638.	1.9	18
42	Scheduling the Maintenance of Wind Farms for Minimizing Production Loss. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 14802-14807.	0.4	16
43	An approach to Determine Simulation Model Complexity. Procedia CIRP, 2016, 52, 257-261.	1.9	16
44	Generic data structure and validation methodology for simulation of manufacturing systems. International Journal of Computer Integrated Manufacturing, 2016, 29, 1272-1286.	4.6	16
45	Increased transparency within and beyond organizational borders by novel identifier-based services for enterprises of different size. CIRP Annals - Manufacturing Technology, 2009, 58, 417-420.	3.6	15
46	Matching Demand and System Structure in Reconfigurable Assembly Systems. Procedia CIRP, 2012, 3, 579-584.	1.9	15
47	Simulation-based Production Planning and Execution Control for Reconfigurable Assembly Cells. Procedia CIRP, 2016, 57, 445-450.	1.9	15
48	Multiprocessor systems for connectionist diagnosis of technical processes. Computers in Industry, 1991, 17, 131-145.	9.9	14
49	Complementary Research and Education Opportunitiesâ€"A Comparison of Learning Factory Facilities and Methodologies at TU Wien and MTA SZTAKI. Procedia CIRP, 2016, 54, 47-52.	1.9	14
50	Design of complex adaptive systems: Introduction. Advanced Engineering Informatics, 2006, 20, 223-225.	8.0	13
51	Agentâ€based framework for preâ€contractual evaluation of participants in projectâ€delivery supplyâ€chains. Assembly Automation, 2009, 29, 137-153.	1.7	13
52	Towards living manufacturing systems. Procedia CIRP, 2020, 93, 323-328.	1.9	13
53	AI AND MACHINE LEARNING TECHNIQUES FOR MANAGING COMPLEXITY, CHANGES AND UNCERTAINTIES IN MANUFACTURING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 119-130.	0.4	12
54	A Solution for Information Management in Logistics Operations of Modern Manufacturing Chains. Procedia CIRP, 2014, 25, 337-344.	1.9	12

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55	Concept of a knowledge based diagnostic system for machine tools and manufacturing cells. Computers in Industry, 1990, 15, 95-102.	9.9	11
56	Stochastic Dynamic Production Control by Neurodynamic Programming. CIRP Annals - Manufacturing Technology, 2006, 55, 473-478.	3.6	11
57	Simulation as one of the core technologies for digital enterprises: assessment of hybrid rescheduling methods. International Journal of Computer Integrated Manufacturing, 2008, 21, 206-214.	4.6	11
58	A Holistic Approach for Quality Oriented Maintenance Planning Supported by Data Mining Methods. Procedia CIRP, 2016, 57, 259-264.	1.9	11
59	New trends in machine tool monitoring and diagnostics. Robotics and Computer-Integrated Manufacturing, 1988, 4, 457-464.	9.9	10
60	Lessons Learned from the COVID-19 Pandemic and Their Possible Consequences on Manufacturing. Smart and Sustainable Manufacturing Systems, 2020, 4, 20200063.	0.7	10
61	Scheduling and Operator Control in Reconfigurable Assembly Systems. Procedia CIRP, 2017, 63, 459-464.	1.9	9
62	Real-Life Scheduling Using Constraint Programming and Simulation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 233-238.	0.4	8
63	Real-time, cooperative enterprises for customised mass production. International Journal of Computer Integrated Manufacturing, 2009, 22, 55-68.	4.6	8
64	Bio-inspired control of automated stem cell production. Procedia CIRP, 2020, 88, 600-605.	1.9	8
65	Convergence behaviour of connectionist models in large scale diagnostic problems. , 1992, , 113-122.		6
66	Low-cost Extension of Information Transparency Throughout the Product Life-cycle via Optical Identification and Quality Indication. Procedia CIRP, 2014, 25, 106-113.	1.9	6
67	Cooperative Control in Production and Logistics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4246-4265.	0.4	6
68	Approaches to Increase the Performance of Agent-Based Production Systems. Lecture Notes in Computer Science, 2001, , 612-621.	1.3	6
69	Methodology and Data-structure for a Uniform System's Specification in Simulation Projects. Procedia CIRP, 2013, 7, 455-460.	1.9	5
70	Decision support solutions for factory and network logistics operations. International Journal of Computer Integrated Manufacturing, 2016, , 1-11.	4.6	5
71	A Complexity Model for Networks of Collaborating Enterprises. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 13833-13838.	0.4	4
72	Cyber-Physical Systems. , 2019, , 460-467.		4

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73	AI and ML techniques combined with simulation for designing and controlling manufacturing processes and systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 181-186.	0.4	3
74	Engineering education on supplyâ€chain management for students and for employees in industry. Computer Applications in Engineering Education, 2011, 19, 81-88.	3.4	3
75	Complex Adaptive Systems (CAS) Approach to Production Systems and Organisations. , 2008, , 19-24.		3
76	Constraint Programming Based Support for Production Networks Management. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 13-18.	0.4	2
77	Data type definition and handling for supporting interoperability across organizational borders. Journal of Intelligent Manufacturing, 2016, 27, 167-185.	7.3	2
78	Intelligent Techniques for Managing Complexity, Changes and Uncertainties in Manufacturing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 9-20.	0.4	1
79	PRODUCTION LOG DATA ANALYSIS FOR REJECT RATE PREDICTION AND WORKLOAD ESTIMATION. , 2018, , .		1
80	On the Application of Multistrategy Learning and Hybrid AI Approaches in Intelligent Manufacturing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 177-182.	0.4	0
81	Testing and Validation of Deterministic Schedules in a Simulated Stochastic Environment. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 449-454.	0.4	0
82	A low-cost perspective in identifier-based services of supply chains. , 2008, , .		0
83	From tracking operations to IOT-the small business perspective. , 2009, , .		0
84	Applying model-reconstruction by exploring MES and PLC data for simulation support of production systems. , 2012, , .		0
85	The role of OSCâ€based projects in meeting new challenges of educationâ€"concept and exemplification. Computer Applications in Engineering Education, 2013, 21, E141.	3.4	0