Cathal Heavey

List of Publications by Year
in descending order

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79	2,350	257450	223800
papers	citations	24 h-index	46 g-index

81	81	81	1885
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Queueing theory in manufacturing systems analysis and design: A classification of models for production and transfer lines. European Journal of Operational Research, 1996, 92, 1-27.	5.7	248
2	A multi-agent systems approach for sustainable supplier selection and order allocation in a partnership supply chain. European Journal of Operational Research, 2018, 269, 286-301.	5.7	159
3	The impact of information sharing and forecasting in capacitated industrial supply chains: A case study. International Journal of Production Economics, 2006, 103, 420-437.	8.9	136
4	Intelligent sustainable supplier selection using multi-agent technology: Theory and application for Industry 4.0 supply chains. Computers and Industrial Engineering, 2019, 127, 588-600.	6.3	133
5	Supply chain collaboration and firmâ€™s performance. Journal of Enterprise Information Management, 2018, 31, 358-379.	7.5	125
6	A review of Web-based simulation and supporting tools. Simulation Modelling Practice and Theory, 2010, 18, 253-276.	3.8	121
7	A comparison of genetic programming and artificial neural networks in metamodeling of discrete-event simulation models. Computers and Operations Research, 2012, 39, 424-436.	4.0	85
8	Sustainable Supplier Selection in Medical Device Industry: Toward Sustainable Manufacturing. Procedia CIRP, 2014, 15, 165-170.	1.9	79
9	A review on the buyerâ€“supplier dyad relationships in sustainable procurement context: past, present and future. International Journal of Production Research, 2016, 54, 1443-1462.	7.5	73
10	Process modeling for simulation. Computers in Industry, 2006, 57, 437-450.	9.9	72
11	The throughput rate of multistation unreliable production lines. European Journal of Operational Research, 1993, 68, 69-89.	5.7	68
12	A comparison of Hybrid Push/Pull and CONWIP/Pull production inventory control policies. International Journal of Production Economics, 2004, 91, 75-90.	8.9	64
13	Sustainable supplier performance scoring using audition check-list based fuzzy inference system: A case application in automotive spare part industry. Computers and Industrial Engineering, 2017, 105, 12-27.	6.3	59
14	Comparison of experimental designs for simulation-based symbolic regression of manufacturing systems. Computers and Industrial Engineering, 2011, 61, 447-462.	6.3	57
15	A review and comparison of hybrid and pull-type production control strategies. OR Spectrum, 2005, 27, 435-457.	3.4	49
16	A framework for Collaborative Planning, Forecasting and Replenishment (CPFR). Journal of Enterprise Information Management, 2015, 28, 838-871.	7.5	47
17	A review of open source discrete event simulation software for operations research. Journal of Simulation, 2016, 10, 193-206.	1.5	45
18	ISM analysis of CPFR implementation barriers. International Journal of Production Research, 2014, 52, 5255-5272.	7.5	43

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19	Throughput rate of multistation reliable production lines with inter station buffers. Computers in Industry, 1989, 13, 229-244.	9.9	40
20	Automation of input data to discrete event simulation for manufacturing: A review. International Journal of Modeling, Simulation, and Scientific Computing, 2016, 07, 1630001.	1.4	38
21	Approximate analysis of serial flow lines with multiple parallel-machine stations. IIE Transactions, 2007, 39, 361-375.	2.1	35
22	Evolutionary Learning Based Simulation Optimization for Stochastic Job Shop Scheduling Problems. Applied Soft Computing Journal, 2021, 106, 107309.	7.2	31
23	Making sustainable sourcing decisions: practical evidence from the automotive industry. International Journal of Logistics Research and Applications, 2017, 20, 297-321.	8.8	30
24	A hybrid approach to the study of CPFR implementation enablers. Production Planning and Control, 2015, 26, 1090-1109.	8.8	29
25	Throughput rate of multistation reliable production lines with inter station buffers (II) Erlang case. Computers in Industry, 1990, 13, 317-335.	9.9	28
26	An Integrated Approach for Sustainable Supplier Selection Using Fuzzy Logic and Fuzzy AHP. Applied Mechanics and Materials, 0, 315, 206-210.	0.2	27
27	Contract costing in outsourcing enterprises: Exploring the benefits of discrete-event simulation. International Journal of Production Economics, 2007, 110, 97-114.	8.9	25
28	A survey of open source data science tools. International Journal of Intelligent Computing and Cybernetics, 2015, 8, 232-261.	2.7	23
29	On the workload and â€˜phaseloadâ€™ allocation problems of short reliable production lines with finite buffers. Computers and Industrial Engineering, 2005, 48, 825-837.	6.3	22
30	A simulation based supply partner selection decision support tool for service provision in Dell. Computers and Industrial Engineering, 2013, 64, 1033-1044.	6.3	19
31	Optimizing capacity allocation in semiconductor manufacturing photolithography area â€“ Case study: Robert Bosch. Journal of Manufacturing Systems, 2020, 54, 123-137.	13.9	18
32	Building an agent-based techno-economic assessment coupled with life cycle assessment of biomass to methanol supply chains. Applied Energy, 2022, 309, 118449.	10.1	18
33	Discrete-event simulation for evaluating virtual organizations. International Journal of Production Research, 2008, 46, 1335-1356.	7.5	17
34	Sustainable supply chain design: capturing dynamic input factors. Journal of Simulation, 2010, 4, 213-221.	1.5	17
35	A comparative study of genetic algorithm components in simulation-based optimisation. , 2008, , .		15
36	Investigation of rolling horizon flexibility contracts in a supply chain under highly variable stochastic demand. IMA Journal of Management Mathematics, 2008, 19, 117-135.	1.6	14

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37	Embedding optimization with deterministic discrete event simulation for assignment of cross-trained operators: An assembly line case study. Computers and Operations Research, 2019, 111, 99-115.	4.0	14
38	Developing simulation as a desktop resource. International Journal of Computer Integrated Manufacturing, 2004, 17, 435-450.	4.6	13
39	Developing retailer selection factors for collaborative planning, forecasting and replenishment. Industrial Management and Data Systems, 2015, 115, 1292-1324.	3.7	13
40	Quantitative analysis of semiconductor supply chain contracts with order flexibility under demand uncertainty: A case study. Computers and Industrial Engineering, 2015, 87, 394-406.	6.3	13
41	A review and comparison of hybrid and pull-type production control strategies. , 2006, , 307-329.		13
42	Performance evaluation of flow lines with non-identical and unreliable parallel machines and finite buffers. International Journal of Production Research, 2020, 58, 3881-3904.	7.5	11
43	Modeling supply contracts in semiconductor supply chains. , 2011, , .		10
44	A demonstration of machine learning for explicit functions for cycle time prediction using MES data. , 2016, , .		10
45	An investigation of the influence of coefficient of variation in the demand distribution on the performance of several lean production control strategies. International Journal of Manufacturing Technology and Management, 2010, 20, 94.	0.1	9
46	ManPy: An Open-Source Layer of DES Manufacturing Objects Implemented in SimPy. , 2013, , .		9
47	MATHEMATICAL MODELLING OF PRODUCTS ALLOCATION TO CUSTOMERS FOR SEMICONDUCTOR SUPPLY CHAIN. Procedia Manufacturing, 2019, 38, 1042-1049.	1.9	8
48	A Survey of Model-Based System Engineering Methods to Analyse Complex Supply Chains: A Case Study in Semiconductor Supply Chain. IFAC-PapersOnLine, 2019, 52, 1254-1259.	0.9	8
49	Impact of Recipe Restrictions on Photolithography Toolsets in an ASIC Fabrication Environment. IEEE Transactions on Semiconductor Manufacturing, 2013, 26, 53-68.	1.7	7
50	A simulation based continuous improvement approach for manufacturing based field repair service contracting. International Journal of Production Research, 2016, 54, 6458-6477.	7.5	7
51	A model management systems approach to manufacturing systems design. Flexible Services and Manufacturing Journal, 1996, 8, 103-130.	0.4	6
52	Process Modelling Support for the Conceptual Modelling Phase of a Simulation Project. , 2006, , .		6
53	Development of a process modelling tool for simulation. Journal of Simulation, 2007, 1, 203-213.	1.5	6
54	A Study on CPFR Implementation Critical Factors for the Automotive Spare Part Industry. , 2013, , .		6

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55	Implementing ManPy, a Semantic-free Open-source Discrete Event Simulation Package, in a Job Shop. Procedia CIRP, 2014, 25, 253-260.	1.9	6
56	KE tool: An open source software for automated input data in Discrete Event Simulation projects. , 2016, , .		6
57	Development of a process model simulator. Simulation Modelling Practice and Theory, 2002, 10, 13-33.	3.8	5
58	A Review of Applications of Agent-Based Modelling and Simulation in Supplier Selection Problem. , 2013, , .		5
59	ManPy: an open-source software tool for building discrete event simulation models of manufacturing systems. Software - Practice and Experience, 2016, 46, 955-981.	3.6	5
60	An Evaluation of SysML to Support Simulation Modeling. , 2010, , 279-307.		5
61	Sequential metamodelling with genetic programming and particle swarms. , 2009, , .		4
62	Development of an open-source Discrete Event Simulation cloud enabled platform. , 2014, , .		4
63	Use of Model-Based System Engineering methodology and tools for disruption analysis of supply chains: A case in semiconductor manufacturing. Journal of Industrial Information Integration, 2022, 28, 100335.	6.4	4
64	An analysis of tool capabilities in the photolithography area of an asic fab. , 2007, , .		3
65	Analysis of multiple process flows in an ASIC fab with a detailed photolithography area model. , 2008, , .		3
66	Performance improvement for a wet bench tool. , 2010, , .		3
67	Test Implementation and Initialisation of a Simulation Model Using CMSD. Procedia CIRP, 2014, 25, 276-282.	1.9	3
68	A REVIEW OF SIMULATION-OPTIMIZATION METHODS WITH APPLICATIONS TO SEMICONDUCTOR OPERATIONAL PROBLEMS. , 2018, , .		3
69	An evaluation of simulation to support contract costing. Computers and Operations Research, 2007, 34, 3652-3665.	4.0	2
70	Proposed visual wiki system for gathering knowledge about discrete event systems. , 2010, , .		2
71	Generating operating curves in complex systems using machine learning. , 2014, , .		2
72	Contributions to stochastic models of manufacturing and service operations. IISE Transactions, 2018, 50, 141-142.	2.4	2

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73	IMPLEMENTING A NEW GENETIC ALGORITHM TO SOLVE THE CAPACITY ALLOCATION PROBLEM IN THE PHOTOLITHOGRAPHY AREA. , 2018, , .		2
74	Capacity modelling of a wet bench cluster tool with material handling robot. International Journal of Computer Integrated Manufacturing, 2012, 25, 1029-1046.	4.6	1
75	MASOS: A multi-agent system simulation framework for sustainable supplier evaluation and order allocation. , 2014, , .		1
76	An Evaluation of Strategies for Job Mix Selection in Job Shop Production Environments - Case: A Photolithography Workstation. , 2021, , .		1
77	Single toolset modeling approaches in semiconductor manufacturing. , 2012, , .		0
78	Simulation Based Decision Support Systems: An Industrial End-user Based Requirement Gathering Process. Procedia CIRP, 2014, 25, 238-245.	1.9	0
79	Product-service systems in Egypt: a multicase evaluation of field repair. International Journal of Emerging Markets, 2020, ahead-of-print, .	2.2	0