Jingshan Li

List of Publications by Year
in descending order

148 papers	2,953 citations	186265 28 h-index	233421 45 g-index
152 all docs	152 docs citations	152 times ranked	1476 citing authors

#	Article	IF	Citations
1	Throughput analysis of production systems: recent advances and future topics. International Journal of Production Research, 2009, 47, 3823-3851.	7.5	298
2	Production Systems Engineering. , 2009, , .		278
3	A Hierarchical structure of key performance indicators for operation management and continuous improvement in production systems. International Journal of Production Research, 2016, 54, 6333-6350.	7.5	101
4	Overlapping Decomposition: A System-Theoretic Method for Modeling and Analysis of Complex Manufacturing Systems. IEEE Transactions on Automation Science and Engineering, 2005, 2, 40-53.	5.2	96
5	Split and merge production systems: performance analysis and structural properties. IIE Transactions, 2010, 42, 422-434.	2.1	94
6	On the coefficients of variation of uptime and downtime in manufacturing equipment. Mathematical Problems in Engineering, 2005, 2005, 1-6.	1.1	73
7	Performance analysis of production systems with rework loops. IIE Transactions, 2004, 36, 755-765.	2.1	69
8	Survey of recent advances on the interface between production system design and quality. IIE Transactions, 2013, 45, 557-574.	2.1	65
9	Reducing Length of Stay in Emergency Department: A Simulation Study at a Community Hospital. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2012, 42, 1314-1322.	2.9	60
10	Throughput Analysis in Automotive Paint Shops: A Case Study. IEEE Transactions on Automation Science and Engineering, 2004, 1, 90-98.	5.2	52
11	Modelling and analysis of a multiple product manufacturing system with split and merge. International Journal of Production Research, 2005, 43, 4049-4066.	7.5	52
12	Transient Analysis of Serial Production Lines With Perishable Products: Bernoulli Reliability Model. IEEE Transactions on Automatic Control, 2017, 62, 694-707.	5.7	52
13	Health Care 4.0: A vision for smart and connected health care. IISE Transactions on Healthcare Systems Engineering, 2021, 11, 1-10.	1.7	50
14	Bottlenecks in Bernoulli Serial Lines With Rework. IEEE Transactions on Automation Science and Engineering, 2010, 7, 208-217.	5.2	48
15	Reducing energy consumption in serial production lines with Bernoulli reliability machines. International Journal of Production Research, 2017, 55, 7356-7379.	7.5	41
16	Continuous improvement at Toyota manufacturing plant: applications of production systems engineering methods. International Journal of Production Research, 2013, 51, 7235-7249.	7.5	40
17	Modeling and Analysis of Manufacturing Systems With Parallel Lines. IEEE Transactions on Automatic Control, 2004, 49, 1824-1829.	5.7	39
18	Performance Evaluation of Modularized Global Equalization System for Lithium-Ion Battery Packs. IEEE Transactions on Automation Science and Engineering, 2016, 13, 986-996.	5.2	39

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19	Modeling and analysis of work flow and staffing level in a computed tomography division of University of Wisconsin Medical Foundation. Health Care Management Science, 2012, 15, 108-120.	2.6	38
20	Analysis and Improvement of Multiproduct Bernoulli Serial Lines: Theory and Application. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2015, 45, 1218-1230.	9.3	38
21	Modeling and Analysis of Care Delivery Services Within Patient Rooms: A System-Theoretic Approach. IEEE Transactions on Automation Science and Engineering, 2014, 11, 379-393.	5.2	37
22	A Quality Flow Model in Battery Manufacturing Systems for Electric Vehicles. IEEE Transactions on Automation Science and Engineering, 2014, 11, 230-244.	5.2	36
23	Manufacturing System Design to Improve Quality Buy Rate: An Automotive Paint Shop Application Study. IEEE Transactions on Automation Science and Engineering, 2007, 4, 75-79.	5.2	35
24	Production system design to achieve energy savings in an automotive paint shop. International Journal of Production Research, 2011, 49, 6769-6785.	7.5	34
25	Resilient Control for Serial Manufacturing Networks With Advance Notice of Disruptions. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 98-114.	9.3	34
26	Efficient Algorithms for Analysis and Improvement of Flexible Manufacturing Systems. IEEE Transactions on Automation Science and Engineering, 2016, 13, 105-121.	5.2	32
27	Review of structures and control of battery-supercapacitor hybrid energy storage system for electric vehicles. , 2014, , .		31
28	The robustness of scheduling policies in multi-product manufacturing systems with sequence-dependent setup times and finite buffers. Computers and Industrial Engineering, 2012, 63, 1145-1153.	6.3	29
29	Improving energy efficiency in Bernoulli serial lines: an integrated model. International Journal of Production Research, 2016, 54, 3414-3428.	7.5	29
30	Simulation study of a bottleneck-based dispatching policy for a maintenance workforce. International Journal of Production Research, 2010, 48, 1745-1763.	7.5	28
31	Analysis and improvement of multi-product assembly systems: an application study at a furniture manufacturing plant. International Journal of Production Research, 2014, 52, 6399-6413.	7.5	28
32	A System-Theoretic Approach to Modeling and Analysis of Mammography Testing Process. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2016, 46, 126-138.	9.3	28
33	Scheduling policies in multi-product manufacturing systems with sequence-dependent setup times and finite buffers. International Journal of Production Research, 2012, 50, 7479-7492.	7.5	27
34	Modeling, analysis, and improvement of integrated productivity and quality system in battery manufacturing. IIE Transactions, 2015, 47, 1313-1328.	2.1	27
35	Approximate Analysis of Reentrant Lines With Bernoulli Reliability Model. IEEE Transactions on Automation Science and Engineering, 2010, 7, 708-715.	5.2	26
36	Indicators for quality improvability and bottleneck sequence in flexible manufacturing systems with batch production. International Journal of Production Research, 2012, 50, 6388-6402.	7.5	26

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37	Product Sequencing With Respect to Quality in Flexible Manufacturing Systems With Batch Operations. IEEE Transactions on Automation Science and Engineering, 2010, 7, 776-790.	5.2	25
38	Quality bottleneck transitions in flexible manufacturing systems with batch productions. IIE Transactions, 2013, 45, 190-205.	2.1	25
39	Virtual Battery: A Battery Simulation Framework for Electric Vehicles. IEEE Transactions on Automation Science and Engineering, 2013, 10, 5-15.	5.2	24
40	Electronic Visits in Primary Care: Modeling, Analysis, and Scheduling Policies. IEEE Transactions on Automation Science and Engineering, 2017, 14, 1451-1466.	5.2	24
41	Selective Assembly System With Unreliable Bernoulli Machines and Finite Buffers. IEEE Transactions on Automation Science and Engineering, 2017, 14, 171-184.	5.2	23
42	Modeling and Analysis of Rapid Response Process to Improve Patient Safety in Acute Care. IEEE Transactions on Automation Science and Engineering, 2012, 9, 215-225.	5.2	22
43	From production systems to health care delivery systems: a retrospective look on similarities, difficulties and opportunities. International Journal of Production Research, 2017, 55, 4212-4227.	7.5	22
44	Modelling and analysis of split and merge production systems with Bernoulli reliability machines. International Journal of Production Research, 2009, 47, 4373-4397.	7.5	21
45	Quality flow model in automotive paint shops. International Journal of Production Research, 2013, 51, 6470-6483.	7.5	21
46	The impact of e-visits on patient access to primary care. Health Care Management Science, 2018, 21, 475-491.	2.6	21
47	Quality Analysis in Flexible Manufacturing Systems With Batch Productions: Performance Evaluation and Nonmonotonic Properties. IEEE Transactions on Automation Science and Engineering, 2010, 7, 671-676.	5.2	20
48	Analysis of Multiproduct Manufacturing Systems With Homogeneous Exponential Machines. IEEE Transactions on Automation Science and Engineering, 2014, 11, 828-838.	5.2	20
49	Production Control to Reduce Starvation in a Partially Flexible Production-Inventory System. IEEE Transactions on Automatic Control, 2018, 63, 477-491.	5.7	20
50	Machine Learning in Manufacturing Ergonomics: Recent Advances, Challenges, and Opportunities. IEEE Robotics and Automation Letters, 2021, 6, 5745-5752.	5.1	18
51	Towards modeling of resilience dynamics in manufacturing enterprises: Literature review and problem formulation. , 2008, , .		17
52	Production systems engineering: main results and recommendations for management. International Journal of Production Research, 2013, 51, 7209-7234.	7.5	17
53	Bottleneck Analysis to Reduce Surgical Flow Disruptions: Theory and Application. IEEE Transactions on Automation Science and Engineering, 2015, 12, 127-139.	5.2	17
54	Flexible Serial Lines With Setups: Analysis, Improvement, and Application. IEEE Robotics and Automation Letters, 2017, 2, 120-127.	5.1	17

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55	Improving productivity of a multi-product machining line at a motorcycle manufacturing plant. International Journal of Production Research, 2019, 57, 470-487.	7.5	17
56	Re-entrant lines with unreliable asynchronous machines and finite buffers: performance approximation and bottleneck identification. International Journal of Production Research, 2012, 50, 977-990.	7.5	16
57	Design and analysis of gastroenterology (GI) clinic in Digestive Health Center of University of Wisconsin Health. Flexible Services and Manufacturing Journal, 2016, 28, 90-119.	3.4	16
58	Continuous improvement in manufacturing and service systems. International Journal of Production Research, 2016, 54, 6281-6284.	7.5	15
59	Analysis of closed-loop production lines with Bernoulli reliability machines: Theory and application. IISE Transactions, 2018, 50, 143-160.	2.4	15
60	Efficient Simulation Method for General Assembly Systems With Material Handling Based on Aggregated Event-Scheduling. IEEE Transactions on Automation Science and Engineering, 2010, 7, 762-775.	5.2	14
61	Analysis of multi-product manufacturing systems with arbitrary processing times. International Journal of Production Research, 2015, 53, 983-1001.	7.5	14
62	Pragmatic trial of a multidisciplinary lung cancer care model in a community healthcare setting: study design, implementation evaluation, and baseline clinical results. Translational Lung Cancer Research, 2018, 7, 88-102.	2.8	14
63	Scheduling policies in flexible Bernoulli lines with dedicated finite buffers. Journal of Manufacturing Systems, 2018, 48, 33-48.	13.9	14
64	From Manual Operation to Collaborative Robot Assembly: An Integrated Model of Productivity and Ergonomic Performance. IEEE Robotics and Automation Letters, 2021, 6, 895-902.	5.1	14
65	Formulation and a Simulation-Based Algorithm for Line-Side Buffer Assignment Problem in Systems of General Assembly Line With Material Handling. IEEE Transactions on Automation Science and Engineering, 2010, 7, 902-920.	5.2	13
66	A prediction and interpretation framework of acute kidney injury in critical care. Journal of Biomedical Informatics, 2021, 113, 103653.	4.3	13
67	Modeling and Analysis of Ward Patient Rescue Process on the Hospital Floor. IEEE Transactions on Automation Science and Engineering, 2016, 13, 514-528.	5.2	12
68	Optimal Planning of Plant Flexibility: Problem Formulation and Performance Analysis. IEEE Transactions on Automation Science and Engineering, 2017, 14, 718-731.	5.2	11
69	A System-Theoretic Method for Modeling, Analysis, and Improvement of Lung Cancer Diagnosis-to-Surgery Process. IEEE Transactions on Automation Science and Engineering, 2018, 15, 531-544.	5.2	11
70	Reducing COPD readmissions through predictive modeling and incentive-based interventions. Health Care Management Science, 2019, 22, 121-139.	2.6	11
71	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
72	Hybrid/electric vehicle battery manufacturing: The state-of-the-art. , 2010, , .		10

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73	Health Care Systems Engineering. Flexible Services and Manufacturing Journal, 2016, 28, 1-4.	3.4	9
74	Workload balancing: staffing ratio analysis for primary care redesign. Flexible Services and Manufacturing Journal, 2018, 30, 6-29.	3.4	9
75	Transient Analysis of Multiproduct Bernoulli Serial Lines With Setups. IEEE Transactions on Automation Science and Engineering, 2021, 18, 135-150.	5.2	9
76	A Sub-Optimal Control Policy in a Two-Product Door Manufacturing Line With Geometric Reliability Machines. IEEE Robotics and Automation Letters, 2017, 2, 157-164.	5.1	8
77	Performance evaluation of operating room schedules in orthopedic surgery. Flexible Services and Manufacturing Journal, 2018, 30, 198-223.	3.4	8
78	Computer modeling of lung cancer diagnosis-to-treatment process. Translational Lung Cancer Research, 2015, 4, 404-14.	2.8	8
79	Analysis of assembly-time performance (ATP) in manufacturing operations with collaborative robots: a systems approach. International Journal of Production Research, 2022, 60, 277-296.	7.5	8
80	Discrete-Event Simulation for Primary Care Redesign: Review and a Case Study. , 2016, , 399-426.		7
81	Reducing COPD Readmissions: A Causal Bayesian Network Model. IEEE Robotics and Automation Letters, 2018, 3, 4046-4053.	5.1	7
82	Transients in flexible manufacturing systems with setups and batch operations: Modeling, analysis, and design. IISE Transactions, 2021, 53, 523-540.	2.4	7
83	Multi-product manufacturing systems with sequence-dependent setups: Performance evaluation and system properties. , 2011, , .		6
84	Modeling and Analysis of Postdischarge Intervention Process to Reduce COPD Readmissions. IEEE Transactions on Automation Science and Engineering, 2019, 16, 21-34.	5.2	6
85	A Markov chain model for analysis of physician workflow in primary care clinics. Health Care Management Science, 2021, 24, 72-91.	2.6	6
86	A modeling and aggregation approach for analyzing resilience of manufacturing enterprises. , 2009, , .		5
87	Analysis of key operation performance data in manufacturing systems. , 2015, , .		5
88	Joint visit in primary care clinics: Modeling, analysis, and an application study. IISE Transactions on Healthcare Systems Engineering, 2018, 8, 93-109.	1.7	5
89	Reducing Bottlenecks to Improve the Efficiency of the Lung Cancer Care Delivery Process: A Process Engineering Modeling Approach to Patient-Centered Care. Journal of Medical Systems, 2018, 42, 16.	3.6	5
90	Workforce Allocation in Motorcycle Transmission Assembly Lines: A Case Study on Modeling, Analysis, and Improvement. IEEE Robotics and Automation Letters, 2020, 5, 4164-4171.	5.1	5

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91	Approximate Analysis of Re-Entrant Lines with Bernoulli Reliability Models. , 2007, , .		4
92	Performance approximation of re-entrant lines with unreliable exponential machines and finite buffers. International Journal of Advanced Manufacturing Technology, 2010, 49, 1151-1159.	3.0	4
93	Closed-Loop Production Lines With Geometric Reliability Machines: Modeling, Analysis, and Application. IEEE Robotics and Automation Letters, 2018, 3, 704-711.	5.1	4
94	Bottleneck Analysis to Improve Multidisciplinary Rounding Process in Intensive Care Units at Mayo Clinic. IEEE Robotics and Automation Letters, 2018, 3, 2678-2685.	5.1	4
95	Improving Discharge Process at the University of Wisconsin Hospital: A System-Theoretic Method. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1732-1749.	5.2	4
96	A Queueing Network Model for Analysis of Patient Transitions Within Hospitals. IEEE Transactions on Automation Science and Engineering, 2019, 16, 6-20.	5.2	4
97	A Markov Chain Model for Transient Analysis of Handoff Process in Emergency Departments. IEEE Robotics and Automation Letters, 2020, 5, 4360-4367.	5.1	4
98	Achieving resilience for a class of serial production networks. , 2010, , .		3
99	Modeling and analysis of hospital emergency department: An analytical framework and problem formulation. , 2010, , .		3
100	Integration of manufacturing system design and quality management. IIE Transactions, 2013, 45, 555-556.	2.1	3
101	Medication Error Propagation In Intensive Care Units. Proceedings of the Human Factors and Ergonomics Society, 2015, 59, 518-521.	0.3	3
102	Guest Editorial Special Section on the 2013 International Conference on Automation Science and Engineering. IEEE Transactions on Automation Science and Engineering, 2015, 12, 3-3.	5.2	3
103	Analysis of Resource Intensive Activity Volumes in us Hospitals. , 2016, , 373-397.		3
104	Modeling, Analysis, and Improvement of Batch-Discrete Manufacturing Systems: A Systems Approach. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1567-1585.	5.2	3
105	Modeling and Analysis of Operating Room Workflow in a Tertiary A Hospital. IEEE Robotics and Automation Letters, 2022, 7, 7006-7013.	5.1	3
106	Guest Editorial Automation in Automotive Manufacturing. IEEE Transactions on Automation Science and Engineering, 2010, 7, 721-723.	5.2	2
107	Modeling, Analysis, and Improvement of Door Production Line at an Automotive Body Shop. , 2013, , .		2
108	Performance evaluation of multi-product manufacturing systems with asynchronous exponential machines. , 2014, , .		2

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109	Modularized global equalization of battery cells for electric vehicles. , 2014, , .		2
110	Modeling and analysis of e-visits in primary care. , 2015, , .		2
111	Analysis of closed loop production lines in automotive body shops. , 2016, , .		2
112	Analysis, design, and management of health care systems. Flexible Services and Manufacturing Journal, 2018, 30, 1-5.	3.4	2
113	An Analytical Framework for Modeling, Analysis, and Improvement of Team Communication and Collaboration Process in Primary Care Clinics. IEEE Transactions on Automation Science and Engineering, 2019, 16, 1148-1162.	5.2	2
114	A two-level iteration approach for modeling and analysis of rapid response process with multiple deteriorating patients. Flexible Services and Manufacturing Journal, 2020, 32, 35-71.	3.4	2
115	Energy and Productivity Analysis in Serial Production Lines With Setups. IEEE Robotics and Automation Letters, 2022, 7, 7108-7115.	5.1	2
116	Modeling and analysis of Bernoulli production systems with split and merge. , 2008, , .		1
117	Monotonic and non-monotonic properties of product quality in flexible manufacturing systems with batch operations. , 2009, , .		1
118	Performance analysis of split and merge production systems. , 2009, , .		1
119	Modeling and analysis of care delivery services within patient rooms. , 2011, , .		1
120	The robustness of scheduling policies in multi-product manufacturing systems with sequence-dependent setup times and finite buffers. , 2012, , .		1
121	Analysis of multi-product manufacturing systems with homogeneous exponential machines. , 2013, , .		1
122	A Markov chain approach to study flow disruptions on surgery in emergency care. , 2013, , .		1
123	Modeling and analysis of mammography testing process at a breast imaging center of University of Wisconsin medical foundation. , 2013, , .		1
124	An analytical model for performance evaluation of operating room schedules in orthopedic surgery. , 2014, , .		1
125	Primary care redesign: A simulation study at a pediatric clinic. , 2014, , .		1
126	Simulation Modeling of Hospital Discharge Process. , 2017, , 113-134.		1

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127	Quality Evaluation in Flexible Machining Systems: A Flexible Fixture Case Study. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	0
128	Transient analysis of dairy filling and packing production lines. , 2010, , .		0
129	A real-time maintenance scheduling policy in serial production lines. , 2011, , .		0
130	Scheduling policies in multi-product manufacturing systems with sequence-dependent setup times. , 2011, , .		0
131	Virtual battery: A simulation framework for batteries in electric vehicles. , 2011, , .		0
132	Improving rapid response operations in acute care delivery - part II: Continuous improvement and case study. , 2012, , .		0
133	Improving rapid response operations in acute care delivery - part I: System modeling and performance evaluation. , 2012, , .		0
134	Modeling and analysis of hospital inpatient rescue process: A Markov chain approach. , 2013, , .		0
135	Integrated model of productivity and quality in serial production lines with repairs: Performance evaluation and bottleneck identification. , 2013, , .		0
136	Dynamic production control of door manufacturing line at an automotive assembly plant. , 2013, , .		0
137	Plant flexibility planning: Problem formulation and performance estimation. , 2015, , .		0
138	An energy and productivity optimization model in Bernoulli serial lines. , 2016, , .		0
139	An iterative method for analysis of joint visit model at Dean East Clinic. , 2016, , .		0
140	Growth Curves of American Children Differ Significantly from CDC Reference Standards. , 2017, , 281-305.		0
141	Iteration algorithms for performance evaluation and buffer design of Bernoulli serial lines with waiting time constraints. , 2017, , .		0
142	Optimal planning of plant flexibility: Problem formulation and performance analysis. , 2017, , .		0
143	Editorial for the special issue on â€œModelling, simulation, and optimization in health careâ€• Flexible Services and Manufacturing Journal, 2020, 32, 1-5.	3.4	0
144	An integrated opioid prescription optimization framework for total joint replacement surgery patients. IISE Transactions on Healthcare Systems Engineering, 0, , 1-15.	1.7	0

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145	Flow time in a human-robot collaborative assembly process: Performance evaluation, system properties, and a case study. IISE Transactions, 0, , 1-13.	2.4	0
146	Reducing Fall-Related Revisits for Elderly Diabetes Patients in Emergency Departments: A Transition Flow Model. IEEE Robotics and Automation Letters, 2021, 6, 5642-5649.	5.1	0
147	Reducing Fall-related Revisits for Elderly Diabetes Patients in Emergency Departments: A Transition Flow Model. IEEE Robotics and Automation Letters, 2021, 6, 5642-5649.	0.0	0
148	Special Issue on Analysis, Design, and Optimization in Smart and Connected Production and Service Systems. International Journal of Production Research, 2022, 60, 3945-3947.	7.5	0