Naiqi Wu

List of Publications by Year
in descending order

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129 papers	2,706 citations	201385 27 h-index	214527 47 g-index
129 all docs	129 docs citations	129 times ranked	1718 citing authors

#	Article	IF	Citations
1	Pareto-Optimization for Scheduling of Crude Oil Operations in Refinery via Genetic Algorithm. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 517-530.	5.9	223
2	Short-term scheduling of crude oil operations in refinery with high-fusion-point oil and two transportation pipelines. Enterprise Information Systems, 2016, 10, 581-610.	3.3	113
3	Compact Supervisory Control of Discrete Event Systems by Petri Nets With Data Inhibitor Arcs. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 364-379.	5.9	111
4	IoT-Enabled Real-Time Production Performance Analysis and Exception Diagnosis Model. IEEE Transactions on Automation Science and Engineering, 2016, 13, 1318-1332.	3.4	101
5	Petri Net Modeling and Scheduling of a Close-Down Process for Time-Constrained Single-Arm Cluster Tools. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 389-400.	5.9	89
6	How to Respond to Process Module Failure in Residency Time-Constrained Single-Arm Cluster Tools. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 462-474.	1.4	83
7	Robust Deadlock Control for Automated Manufacturing Systems With Unreliable Resources Based on Petri Net Reachability Graphs. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 1371-1385.	5.9	83
8	Group consensus via pinning control for a class of heterogeneous multi-agent systems with input constraints. Information Sciences, 2021, 542, 247-262.	4.0	83
9	Scheduling Cluster Tools in Semiconductor Manufacturing: Recent Advances and Challenges. IEEE Transactions on Automation Science and Engineering, 2018, 15, 586-601.	3.4	80
10	Repercussions of COVID-19 pandemic on solid waste generation and management strategies. Frontiers of Environmental Science and Engineering, 2021, 15, 115.	3.3	80
11	Wafer Sojourn Time Fluctuation Analysis of Time-Constrained Dual-Arm Cluster Tools With Wafer Revisiting and Activity Time Variation. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 622-636.	5.9	72
12	Multiagent and Bargaining-Game-Based Real-Time Scheduling for Internet of Things-Enabled Flexible Job Shop. IEEE Internet of Things Journal, 2019, 6, 2518-2531.	5.5	70
13	Integration of Learning-Based Testing and Supervisory Control for Requirements Conformance of Black-Box Reactive Systems. IEEE Transactions on Automation Science and Engineering, 2018, 15, 2-15.	3.4	59
14	Fault Identification of Discrete Event Systems Modeled by Petri Nets With Unobservable Transitions. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 333-345.	5.9	56
15	A Petri Net Approach to Fault Diagnosis and Restoration for Power Transmission Systems to Avoid the Output Interruption of Substations. IEEE Systems Journal, 2018, 12, 2566-2576.	2.9	54
16	An Efficient Scheduling Method for Crude Oil Operations in Refinery With Crude Oil Type Mixing Requirements. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2016, 46, 413-426.	5.9	50
17	Scheduling and Control of Startup Process for Single-Arm Cluster Tools With Residency Time Constraints. IEEE Transactions on Control Systems Technology, 2017, 25, 1243-1256.	3.2	47
18	Structural Evolution upon Delithiation/Lithiation in Prelithiated Foil Anodes: A Case Study of AgLi Alloys with High Li Utilization and Marginal Volume Variation. Advanced Energy Materials, 2021, 11, 2003082.	10.2	42

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19	Petri Net-Based Optimal One-Wafer Cyclic Scheduling of Hybrid Multi-Cluster Tools in Wafer Fabrication. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 192-203.	1.4	41
20	Improved Multi-Step Look-Ahead Control Policies for Automated Manufacturing Systems. IEEE Access, 2018, 6, 68824-68838.	2.6	41
21	Multiple templates fabrication of hierarchical porous carbon for enhanced rate capability in potassium-ion batteries. Materials Today Energy, 2019, 11, 182-191.	2.5	39
22	On Multiplexity-Aware Influence Spread in Social Networks. IEEE Access, 2020, 8, 106705-106713.	2.6	36
23	Homomorphic Encryption of Supervisory Control Systems Using Automata. IEEE Access, 2020, 8, 147185-147198.	2.6	35
24	On a maximally permissive deadlock prevention policy for automated manufacturing systems by using resource-oriented Petri nets. ISA Transactions, 2019, 89, 67-76.	3.1	34
25	Solving Biobjective Distributed Flow-Shop Scheduling Problems With Lot-Streaming Using an Improved Jaya Algorithm. IEEE Transactions on Cybernetics, 2023, 53, 3818-3828.	6.2	34
26	Robust Scheduling of Time-Constrained Dual-Arm Cluster Tools With Wafer Revisiting and Activity Time Disturbance. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 1228-1240.	5.9	30
27	On Algebraic Identification of Critical States for Deadlock Control in Automated Manufacturing Systems Modeled With Petri Nets. IEEE Access, 2019, 7, 121332-121349.	2.6	30
28	Modeling and Verification of Reconfigurable and Energy-Efficient Manufacturing Systems. Discrete Dynamics in Nature and Society, 2015, 2015, 1-14.	0.5	26
29	Diagnosability of Vector Discrete-Event Systems Using Predicates. IEEE Access, 2019, 7, 147143-147155.	2.6	26
30	Reducing Wafer Delay Time by Robot Idle Time Regulation for Single-Arm Cluster Tools. IEEE Transactions on Automation Science and Engineering, 2021, 18, 1653-1667.	3.4	26
31	Exploration of Nanoporous CuBi Binary Alloy for Potassium Storage. Advanced Functional Materials, 2020, 30, 2003838.	7.8	26
32	Short-Term Traffic Flow Forecasting Using Ensemble Approach Based on Deep Belief Networks. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 404-417.	4.7	25
33	Optimal One-Wafer Cyclic Scheduling of Single-Arm Multicluster Tools With Two-Space Buffering Modules. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2014, 44, 1584-1597.	5.9	24
34	Transformation of Business Process Model and Notation models onto Petri nets and their analysis. Advances in Mechanical Engineering, 2018, 10, 168781401880817.	0.8	24
35	Elementary Siphon-Based Robust Control for Automated Manufacturing Systems With Multiple Unreliable Resources. IEEE Access, 2019, 7, 21006-21019.	2.6	24
36	Performance evaluation of vehicular platoons using Webots. IET Intelligent Transport Systems, 2017, 11, 441-449.	1.7	23

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37	A scientometric review of research on traffic forecasting in transportation. IET Intelligent Transport Systems, 2021, 15, 1-16.	1.7	23
38	Analysis and Control of Dynamic Reconfiguration Processes of Manufacturing Systems. IEEE Access, 2018, 6, 28028-28040.	2.6	22
39	Optimal enforcement of liveness to flexible manufacturing systems modeled with Petri nets via transition-based controllers. Advances in Mechanical Engineering, 2018, 10, 168781401775070.	0.8	21
40	Design of Optimal Petri Net Supervisors for Flexible Manufacturing Systems via Weighted Inhibitor Arcs. Asian Journal of Control, 2018, 20, 511-530.	1.9	21
41	SLNL: A novel method for gene selection and phenotype classification. International Journal of Intelligent Systems, 2022, 37, 6283-6304.	3.3	21
42	Deadlock analysis and control using Petri net decomposition techniques. Information Sciences, 2019, 482, 440-456.	4.0	18
43	Modeling and Optimal Cyclic Scheduling of Time-Constrained Single-Robot-Arm Cluster Tools via Petri Nets and Linear Programming. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 871-883.	5.9	18
44	An Efficient Fault Diagnosis Approach Based on Integer Linear Programming for Labeled Petri Nets. IEEE Transactions on Automatic Control, 2021, 66, 2393-2398.	3.6	18
45	Solving Last-Mile Logistics Problem in Spatiotemporal Crowdsourcing via Role Awareness With Adaptive Clustering. IEEE Transactions on Computational Social Systems, 2021, 8, 668-681.	3.2	18
46	Supervisory control of state-tree structures with partial observation. Information Sciences, 2018, 465, 523-544.	4.0	17
47	Robust deadlock control for automated manufacturing systems based on elementary siphon theory. Information Sciences, 2020, 510, 165-182.	4.0	17
48	Fault Diagnosis in Partially Observed Petri Nets Using Redundancies. IEEE Access, 2018, 6, 7541-7556.	2.6	15
49	Scheduling Transient Processes for Time-Constrained Single-Arm Robotic Multi-Cluster Tools. IEEE Transactions on Semiconductor Manufacturing, 2017, 30, 261-269.	1.4	14
50	A Minimal Supervisory Structure to Optimally Enforce Liveness on Petri Net Models for Flexible Manufacturing Systems. IEEE Access, 2017, 5, 15731-15749.	2.6	14
51	IoT-based smart and complex systems: a guest editorial report. IEEE/CAA Journal of Automatica Sinica, 2018, 5, 69-73.	8.5	14
52	Efficient Approach to Cyclic Scheduling of Single-Arm Cluster Tools With Chamber Cleaning Operations and Wafer Residency Time Constraint. IEEE Transactions on Semiconductor Manufacturing, 2018, 31, 196-205.	1.4	14
53	Improved Meta-Heuristics for Solving Distributed Lot-Streaming Permutation Flow Shop Scheduling Problems. IEEE Transactions on Automation Science and Engineering, 2023, 20, 361-371.	3.4	14
54	Efficient Approach to Scheduling of Transient Processes for Time-Constrained Single-Arm Cluster Tools With Parallel Chambers. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 3646-3657.	5.9	13

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55	Efficient Allocation Strategy of Energy Storage Systems in Power Grids Considering Contingencies. IEEE Access, 2019, 7, 186378-186392.	2.6	12
56	Multiobjective Scheduling of Dual-Blade Robotic Cells in Wafer Fabrication. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 5015-5023.	5.9	12
57	Domain adaptation via incremental confidence samples into classification. International Journal of Intelligent Systems, 2022, 37, 365-385.	3.3	12
58	Wafer Residency Time Analysis for Time-Constrained Single-Robot-Arm Cluster Tools With Activity Time Variation. IEEE Transactions on Control Systems Technology, 2020, 28, 1177-1188.	3.2	11
59	Anomaly detection via a combination model in time series data. Applied Intelligence, 2021, 51, 4874-4887.	3.3	11
60	An Efficient Method of Deadlock Detection and Recovery for Flexible Manufacturing Systems by Resource Flow Graphs. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1707-1718.	3.4	11
61	A Novel Solution Approach to a Priority-Slot-Based Continuous-Time Mixed Integer Nonlinear Programming Formulation for a Crude-Oil Scheduling Problem. Industrial & Engineering Chemistry Research, 2016, 55, 10955-10967.	1.8	10
62	Two-step approach to robust deadlock control in automated manufacturing systems with multiple resource failures. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers,Series A/Chung-kuo Kung Ch'eng Hsuch K'an, 2018, 41, 452-462.	0.6	10
63	One-Step Control-Ahead Approach for the Design of an Optimal Petri-Net Based Deadlock Prevention Policy. IEEE Access, 2018, 6, 34307-34323.	2.6	10
64	Closing-Down Optimization for Single-Arm Cluster Tools Subject to Wafer Residency Time Constraints. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 6792-6807.	5.9	10
65	Efficient Approach to Failure Response of Process Module in Dual-Arm Cluster Tools With Wafer Residency Time Constraints. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 1612-1629.	5.9	9
66	Resource Configuration Analysis for a Class of Petri Nets Based on Strongly Connected Characteristic Resource Subnets. IEEE Access, 2017, 5, 26376-26386.	2.6	8
67	A Method for Construction of Software Protection Technology Application Sequence Based on Petri Net With Inhibitor Arcs. IEEE Access, 2018, 6, 11988-12000.	2.6	8
68	Automatic supervisory control for the selfâ€healing of smart grids based on colored Petri nets. IEEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 1612-1623.	0.8	8
69	Assessment of Energy-Saving Practices of the Hospitality Industry in Macau. Sustainability, 2018, 10, 255.	1.6	8
70	Hierarchical Colored Petri Nets for Modeling and Analysis of Transit Signal Priority Control Systems. Applied Sciences (Switzerland), 2018, 8, 141.	1.3	8
71	Optimal Petri net supervisor synthesis for forbidden state problems using marking mask. Information Sciences, 2019, 505, 183-197.	4.0	8
72	A Deadlock Prevention Policy for Flexible Manufacturing Systems Modeled With Petri Nets Using Structural Analysis. IEEE Access, 2019, 7, 49362-49376.	2.6	8

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73	Fault-Recovery and Repair Modeling of Discrete Event Systems Using Petri Nets. IEEE Access, 2020, 8, 170237-170247.	2.6	8
74	Scheduling of Single-Arm Cluster Tools with Residency Time Constraints and Chamber Cleaning Operations. Applied Sciences (Switzerland), 2021, 11, 9193.	1.3	8
75	An Efficient Binary Integer Programming Model for Residency Time-Constrained Cluster Tools With Chamber Cleaning Requirements. IEEE Transactions on Automation Science and Engineering, 2022, 19, 1757-1771.	3.4	8
76	Symbolic Verification of Current-State Opacity of Discrete Event Systems Using Petri Nets. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 7628-7641.	5.9	8
77	A genetic algorithm approach to shortâ€term scheduling of crude oil operations in refinery. IEEJ Transactions on Electrical and Electronic Engineering, 2016, 11, 593-603.	0.8	7
78	Optimal Petri Net Supervisors of Discrete Event Systems via Weighted and Data Inhibitor Arcs. IEEE Access, 2018, 6, 8245-8257.	2.6	7
79	On structural reduction of liveness-enforcing Petri net supervisors for flexible manufacturing systems: an algebraic approach. IMA Journal of Mathematical Control and Information, 2018, 35, 1217-1249.	1.1	7
80	Short-Term Scheduling of Vehicle Testing System Using Object Petri Net. IEEE Access, 2018, 6, 61317-61330.	2.6	7
81	Liveness of Disjunctive and Strict Single-Type Automated Manufacturing System: An ROPN Approach. IEEE Access, 2019, 7, 17760-17771.	2.6	7
82	On Hierarchical Construction of the State Space of an Automated Manufacturing System Modeled With Petri Nets. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 3613-3627.	5.9	7
83	Propagation Dynamics of a Periodic Epidemic Model on Weighted Interconnected Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 1545-1556.	4.1	7
84	Optimally Scheduling Dual-Arm Multi-Cluster Tools to Process Two Wafer Types. IEEE Robotics and Automation Letters, 2022, 7, 5920-5927.	3.3	7
85	Most permissive liveness-enforcing Petri net supervisors for discrete event systems via linear monitors. ISA Transactions, 2019, 92, 145-154.	3.1	6
86	Wafer Reflectance Prediction for Complex Etching Process Based on K-Means Clustering and Neural Network. IEEE Transactions on Semiconductor Manufacturing, 2021, 34, 207-216.	1.4	6
87	Semantic-guided hashing learning for domain adaptive retrieval. World Wide Web, 2023, 26, 1093-1112.	2.7	6
88	Scheduling of Crude Oil Operations in Refinery without Sufficient Charging Tanks Using Petri Nets. Applied Sciences (Switzerland), 2017, 7, 564.	1.3	5
89	Petri Net-Based Efficient Determination of Optimal Schedules for Transport-Dominant Single-Arm Multi-Cluster Tools. IEEE Access, 2018, 6, 355-365.	2.6	5
90	Robust Deadlock Control for Automated Manufacturing Systems Based on the Max-Controllability of Siphons. IEEE Access, 2019, 7, 88579-88591.	2.6	5

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91	SMSPL: Robust Multimodal Approach to Integrative Analysis of Multiomics Data. IEEE Transactions on Cybernetics, 2022, 52, 2082-2095.	6.2	5
92	A Comparative Study on Contract Recommendation Model: Using Macao Mobile Phone Datasets. IEEE Access, 2020, 8, 39747-39757.	2.6	4
93	Route Choice Behavior Modeling for Emergency Evacuation and Efficiency Analysis Based on Type-II Fuzzy Theory. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 6934-6949.	4.7	4
94	Modeling and Control for Deadlock-Free Operation of Single-Arm Cluster Tools With Concurrently Processing Multiple Wafer Types via Petri Net. IEEE Access, 2021, 9, 70868-70883.	2.6	4
95	On Optimal Supervisor Design for Discrete-Event Systems Modeled With Petri Nets via Constraint Simplification. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 3404-3418.	5.9	4
96	Urban Road Network Partitioning Based on Bi-Modal Traffic Flows With Multiobjective Optimization. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 20664-20680.	4.7	4
97	An approximate algorithm for the Lane Reservation Problem in Time Constrained Transportation. , 2010, , .		3
98	Petri net-based scheduling of time constrained single-arm cluster tools with wafer revisiting. Advances in Mechanical Engineering, 2016, 8, 168781401664650.	0.8	3
99	Special Issue on Modeling, Simulation, Operation and Control of Discrete Event Systems. Applied Sciences (Switzerland), 2018, 8, 202.	1.3	3
100	Modeling and Deadlock Control of Reconfigurable Multi-Unit Resource Systems. IEEE Access, 2020, 8, 133605-133621.	2.6	3
101	Error- and Tamper-Tolerant Decentralized Diagnosability of Discrete Event Systems under Cost Constraints. , 2021, , .		3
102	A Novel Control-Theory-Based Approach to Scheduling of High-Throughput Screening System for Enzymatic Assay. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 7667-7678.	5.9	3
103	Equivalent Transformation of Nonlinear Constraints to Linear Constraints in Petri Nets. Mathematical Problems in Engineering, 2015, 2015, 1-11.	0.6	2
104	Confusion diagnosis and avoidance of discrete event systems using supervisory control. IEEJ Transactions on Electrical and Electronic Engineering, 2016, 11, 49-62.	0.8	2
105	Total completion time minimization for scheduling of two-machine flow shop with deterioration jobs and setup time. Advances in Mechanical Engineering, 2017, 9, 168781401769888.	0.8	2
106	State Space Characterization of Disjunctive Single-Unit Resource Allocation Systems. IEEE Access, 2018, 6, 51515-51527.	2.6	2
107	Wafer sojourn time fluctuation analysis for time-constrained dual-arm multi-cluster tools with activity time variation. International Journal of Computer Integrated Manufacturing, 2021, 34, 734-751.	2.9	2
108	Robust Diagnosability Analysis of Discrete Event Systems Using Labeled Petri Nets. IEEE Access, 2021, 9, 163504-163515.	2.6	2

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109	Fault diagnosis in DESs modeled by partially observed Petri nets. , 2016, , .		1
110	A Petri Net-Based Heuristic Algorithm for Short-Term Vehicle Scheduling in a Vehicle Inspection System. IEEE Access, 2019, 7, 138442-138460.	2.6	1
111	Fault Diagnosis of Backward Conflict-Free Petri Nets by Generalized Markings. IEEE Access, 2020, 8, 154871-154880.	2.6	1
112	Verification of Current-state Opacity for Discrete Event Systems Modeled With Unbounded Petri Nets. , 2022, , .		1
113	Deadlock-free control of ratio-enforced automated manufacturing systems with flexible routes and assembly operations. , 2010, , .		0
114	Closed-form solution for cycle time of revisiting processes in single-arm cluster tool scheduling with atomic layer deposition. , 2011, , .		0
115	Simulation modeling and visualization of start-up transient processes of dual-arm cluster tools with wafer revisiting. , 2014, , .		0
116	A novel failure response policy for single-arm cluster tools with residency time constraints. , 2014, , .		0
117	Confusion Control in Generalized Petri Nets Using Synchronized Events. Mathematical Problems in Engineering, 2015, 2015, 1-23.	0.6	0
118	Modeling and optimization for short-term scheduling of crude oil operations in refinery. , 2015, , .		0
119	Buffer space configuration and scheduling analysis of single-arm multi-cluster tools. , 2016, , .		0
120	Optimizing close-down processes of single-robot cluster tools via linear programing. , 2016, , .		0
121	Close-down process scheduling of wafer residence time-constrained multi-cluster tools. , 2017, , .		0
122	Scheduling of crude oil operations in refineries with least tank requirement. , 2017, , .		0
123	Optimization on ACC Systems and Layout Design for Maximizing Thermal Comfort and Energy Saving in Large Rooms - A Case Study. , 2019, , .		0
124	Decision on Maximal Permissiveness of Linear Constraints via Structural Analysis of a Subclass of Petri Nets. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 4347-4358.	5.9	0
125	Urban Traffic Light Control Considering Capacity Difference Between Public Bus and Private Vehicles. IEEE Access, 2021, 9, 142664-142680.	2.6	0
126	Minimization of Product Transportation and Temporary Storage Costs for Home Appliances Manufacturing Factories. , 2021, , .		0

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127	A Virtual Wafer-based Scheduling Method for Dual-arm Cluster Tools with Chamber Cleaning Requirements. , 2021, , .		0
128	A Partitioning Algorithm for Bi-modal Road Networks. , 2021, , .		0
129	Liveness Enforcement for Time Petri Nets. , 2022, , .		0