Naiqi Wu

List of Publications by Year in Descending Order

107 papers	1,779 citations	24 h-index	38 g-index
129 ext. papers	2,176 ext. citations	4.5 avg, IF	5.72 L-index

#	Paper	IF	Citations
107	Improved Meta-Heuristics for Solving Distributed Lot-Streaming Permutation Flow Shop Scheduling Problems. *IEEE Transactions on Automation Science and Engineering*, **2022**, 1-11	4.9	1
106	Symbolic Verification of Current-State Opacity of Discrete Event Systems Using Petri Nets. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2022**, 1-14	7.3	0
105	Optimally Scheduling Dual-Arm Multi-Cluster Tools to Process Two Wafer Types. *IEEE Robotics and Automation Letters*, **2022**, 7, 5920-5927	4.2	
104	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**, 1-12	7.3	0
103	An Efficient Binary Integer Programming Model for Residency Time-Constrained Cluster Tools With Chamber Cleaning Requirements. *IEEE Transactions on Automation Science and Engineering*, **2021**, 1-15	4.9	1
102	. *IEEE Access*, **2021**, 9, 163504-163515	3.5	1
101	. *IEEE Access*, **2021**, 9, 142664-142680	3.5	
100	An Efficient Method of Deadlock Detection and Recovery for Flexible Manufacturing Systems by Resource Flow Graphs. *IEEE Transactions on Automation Science and Engineering*, **2021**, 1-12	4.9	1
99	Scheduling of Single-Arm Cluster Tools with Residency Time Constraints and Chamber Cleaning Operations. *Applied Sciences (Switzerland)*, **2021**, 11, 9193	2.6	0
98	A scientometric review of research on traffic forecasting in transportation. *IET Intelligent Transport Systems*, **2021**, 15, 1-16	2.4	9
97	Repercussions of COVID-19 pandemic on solid waste generation and management strategies. *Frontiers of Environmental Science and Engineering*, **2021**, 15, 115	5.8	28
96	Wafer Reflectance Prediction for Complex Etching Process Based on K-Means Clustering and Neural Network. *IEEE Transactions on Semiconductor Manufacturing*, **2021**, 34, 207-216	2.6	1
95	Solving Last-Mile Logistics Problem in Spatiotemporal Crowdsourcing via Role Awareness With Adaptive Clustering. *IEEE Transactions on Computational Social Systems*, **2021**, 8, 668-681	4.5	5
94	Short-Term Traffic Flow Forecasting Using Ensemble Approach Based on Deep Belief Networks. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-14	6.1	5
93	An Efficient Fault Diagnosis Approach Based on Integer Linear Programming for Labeled Petri Nets. *IEEE Transactions on Automatic Control*, **2021**, 66, 2393-2398	5.9	3
92	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 51, 4347-4358	7.3	
91	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 51, 1612-1629	7.3	6

90	Route Choice Behavior Modeling for Emergency Evacuation and Efficiency Analysis Based on Type-II Fuzzy Theory. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-16	6.1	0
89	. *IEEE Access*, **2021**, 9, 70868-70883	3.5	1
88	Anomaly detection via a combination model in time series data. *Applied Intelligence*, **2021**, 51, 4874-4887	4.9	5
87	On Optimal Supervisor Design for Discrete-Event Systems Modeled With Petri Nets via Constraint Simplification. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 1-15	7.3	0
86	Group consensus via pinning control for a class of heterogeneous multi-agent systems with input constraints. *Information Sciences*, **2021**, 542, 247-262	7.7	46
85	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	21.8	15
84	Closing-Down Optimization for Single-Arm Cluster Tools Subject to Wafer Residency Time Constraints. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2020**, 1-16	7.3	5
83	On Multiplexity-Aware Influence Spread in Social Networks. *IEEE Access*, **2020**, 8, 106705-106713	3.5	34
82	Wafer sojourn time fluctuation analysis for time-constrained dual-arm multi-cluster tools with activity time variation. *International Journal of Computer Integrated Manufacturing*, **2020**, 1-17	4.3	1
81	A Comparative Study on Contract Recommendation Model: Using Macao Mobile Phone Datasets. *IEEE Access*, **2020**, 8, 39747-39757	3.5	3
80	. *IEEE Transactions on Network Science and Engineering*, **2020**, 7, 1545-1556	4.9	3
79	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2020**, 50, 5015-5023	7.3	6
78	Robust deadlock control for automated manufacturing systems based on elementary siphon theory. *Information Sciences*, **2020**, 510, 165-182	7.7	10
77	Reducing Wafer Delay Time by Robot Idle Time Regulation for Single-Arm Cluster Tools. *IEEE Transactions on Automation Science and Engineering*, **2020**, 1-15	4.9	12
76	. *IEEE Access*, **2020**, 8, 133605-133621	3.5	2
75	Fault Diagnosis of Backward Conflict-Free Petri Nets by Generalized Markings. *IEEE Access*, **2020**, 8, 154871-154880	3.5	8
74	Fault-Recovery and Repair Modeling of Discrete Event Systems Using Petri Nets. *IEEE Access*, **2020**, 8, 170237-170247	3.5	5
73	Exploration of Nanoporous CuBi Binary Alloy for Potassium Storage. *Advanced Functional Materials*, **2020**, 30, 2003838	15.6	17

72	Homomorphic Encryption of Supervisory Control Systems Using Automata. *IEEE Access*, **2020**, 8, 147185-147198	3.7	30
71	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	7.3	12
70	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	4.8	7
69	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	7.3	10
68	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	7.3	3
67	. *IEEE Access*, **2019**, 7, 17760-17771	3.5	6
66	On Algebraic Identification of Critical States for Deadlock Control in Automated Manufacturing Systems Modeled With Petri Nets. *IEEE Access*, **2019**, 7, 121332-121349	3.5	26
65	. *IEEE Access*, **2019**, 7, 21006-21019	3.5	19
64	Most permissive liveness-enforcing Petri net supervisors for discrete event systems via linear monitors. *ISA Transactions*, **2019**, 92, 145-154	5.5	4
63	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	7.3	17
62	Optimal Petri net supervisor synthesis for forbidden state problems using marking mask. *Information Sciences*, **2019**, 505, 183-197	7.7	5
61	. *IEEE Access*, **2019**, 7, 88579-88591	3.5	3
60	A Deadlock Prevention Policy for Flexible Manufacturing Systems Modeled With Petri Nets Using Structural Analysis. *IEEE Access*, **2019**, 7, 49362-49376	3.5	4
59	Diagnosability of Vector Discrete-Event Systems Using Predicates. *IEEE Access*, **2019**, 7, 147143-147155	3.5	23
58	A Petri Net-Based Heuristic Algorithm for Short-Term Vehicle Scheduling in a Vehicle Inspection System. *IEEE Access*, **2019**, 7, 138442-138460	3.5	0
57	. *IEEE Access*, **2019**, 7, 186378-186392	3.5	6
56	. *IEEE Internet of Things Journal*, **2019**, 6, 2518-2531	10.7	46
55	Multiple templates fabrication of hierarchical porous carbon for enhanced rate capability in potassium-ion batteries. *Materials Today Energy*, **2019**, 11, 182-191	7	28

54	Deadlock analysis and control using Petri net decomposition techniques. *Information Sciences*, **2019**, 482, 440-456	7.7	8
53	On a maximally permissive deadlock prevention policy for automated manufacturing systems by using resource-oriented Petri nets. *ISA Transactions*, **2019**, 89, 67-76	5.5	30
52	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	7.3	38
51	. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2019**, 49, 1371-1385	7.3	57
50	A Method for Construction of Software Protection Technology Application Sequence Based on Petri Net With Inhibitor Arcs. *IEEE Access*, **2018**, 6, 11988-12000	3.5	3
49	Petri Net-Based Efficient Determination of Optimal Schedules for Transport-Dominant Single-Arm Multi-Cluster Tools. *IEEE Access*, **2018**, 6, 355-365	3.5	4
48	IoT-based smart and complex systems: a guest editorial report. *IEEE/CAA Journal of Automatica Sinica*, **2018**, 5, 69-73	7	9
47	Optimal enforcement of liveness to flexible manufacturing systems modeled with Petri nets via transition-based controllers. *Advances in Mechanical Engineering*, **2018**, 10, 168781401775070	1.2	9
46	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	7.3	55
45	Optimal Petri Net Supervisors of Discrete Event Systems via Weighted and Data Inhibitor Arcs. *IEEE Access*, **2018**, 6, 8245-8257	3.5	6
44	. *IEEE Access*, **2018**, 6, 28028-28040	3.5	16
43	Fault Diagnosis in Partially Observed Petri Nets Using Redundancies. *IEEE Access*, **2018**, 6, 7541-7556	3.5	12
42	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	7.3	69
41	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	4.3	40
40	Scheduling Cluster Tools in Semiconductor Manufacturing: Recent Advances and Challenges. *IEEE Transactions on Automation Science and Engineering*, **2018**, 15, 586-601	4.9	49
39	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	4.9	50
38	Design of Optimal Petri Net Supervisors for Flexible Manufacturing Systems via Weighted Inhibitor Arcs. *Asian Journal of Control*, **2018**, 20, 511-530	1.7	14
37	One-Step Control-Ahead Approach for the Design of an Optimal Petri-Net Based Deadlock Prevention Policy. *IEEE Access*, **2018**, 6, 34307-34323	3.5	10

36	Assessment of Energy-Saving Practices of the Hospitality Industry in Macau. *Sustainability*, **2018**, 10, 255	3.6	3
35	Hierarchical Colored Petri Nets for Modeling and Analysis of Transit Signal Priority Control Systems. *Applied Sciences (Switzerland)*, **2018**, 8, 141	2.6	6
34	Supervisory control of state-tree structures with partial observation. *Information Sciences*, **2018**, 465, 523-544	7.7	14
33	State Space Characterization of Disjunctive Single-Unit Resource Allocation Systems. *IEEE Access*, **2018**, 6, 51515-51527	3.5	1
32	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	4
31	Short-Term Scheduling of Vehicle Testing System Using Object Petri Net. *IEEE Access*, **2018**, 6, 61317-61330	3.5	5
30	Transformation of Business Process Model and Notation models onto Petri nets and their analysis. *Advances in Mechanical Engineering*, **2018**, 10, 168781401880817	1.2	10
29	Improved Multi-Step Look-Ahead Control Policies for Automated Manufacturing Systems. *IEEE Access*, **2018**, 6, 68824-68838	3.5	37
28	Two-step approach to robust deadlock control in automated manufacturing systems with multiple resource failures **2018**, 41, 452-462		7
27	Automatic supervisory control for the self-healing of smart grids based on colored Petri nets. *IEEJ Transactions on Electrical and Electronic Engineering*, **2018**, 13, 1612-1623	1	6
26	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	2.6	9
25	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	7.3	175
24	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	7.3	94
23	Total completion time minimization for scheduling of two-machine flow shop with deterioration jobs and setup time. *Advances in Mechanical Engineering*, **2017**, 9, 168781401769888	1.2	2
22	Scheduling of Crude Oil Operations in Refinery without Sufficient Charging Tanks Using Petri Nets. *Applied Sciences (Switzerland)*, **2017**, 7, 564	2.6	3
21	Scheduling Transient Processes for Time-Constrained Single-Arm Robotic Multi-Cluster Tools. *IEEE Transactions on Semiconductor Manufacturing*, **2017**, 30, 261-269	2.6	10
20	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	4.8	31
19	Resource Configuration Analysis for a Class of Petri Nets Based on Strongly Connected Characteristic Resource Subnets. *IEEE Access*, **2017**, 5, 26376-26386	3.5	6

18	Performance evaluation of vehicular platoons using Webots. *IET Intelligent Transport Systems*, **2017**, 11, 441-449	2.4	18
17	. *IEEE Access*, **2017**, 5, 15731-15749	3.5	11
16	Fault diagnosis in DESs modeled by partially observed Petri nets **2016**,		1
15	A genetic algorithm approach to short-term scheduling of crude oil operations in refinery. *IEEJ Transactions on Electrical and Electronic Engineering*, **2016**, 11, 593-603	1	6
14	Petri net-based scheduling of time constrained single-arm cluster tools with wafer revisiting. *Advances in Mechanical Engineering*, **2016**, 8, 168781401664650	1.2	2
13	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	3.5	100
12	IoT-Enabled Real-Time Production Performance Analysis and Exception Diagnosis Model. *IEEE Transactions on Automation Science and Engineering*, **2016**, 13, 1318-1332	4.9	80
11	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	7.3	38
10	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	3.9	7
9	Confusion diagnosis and avoidance of discrete event systems using supervisory control. *IEEJ Transactions on Electrical and Electronic Engineering*, **2016**, 11, 49-62	1	2
8	Modeling and Verification of Reconfigurable and Energy-Efficient Manufacturing Systems. *Discrete Dynamics in Nature and Society*, **2015**, 2015, 1-14	1.1	18
7	Confusion Control in Generalized Petri Nets Using Synchronized Events. *Mathematical Problems in Engineering*, **2015**, 2015, 1-23	1.1	
6	Equivalent Transformation of Nonlinear Constraints to Linear Constraints in Petri Nets. *Mathematical Problems in Engineering*, **2015**, 2015, 1-11	1.1	1
5	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	7.3	20
4	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	2.6	36
3	How to Respond to Process Module Failure in Residency Time-Constrained Single-Arm Cluster Tools. *IEEE Transactions on Semiconductor Manufacturing*, **2014**, 27, 462-474	2.6	51
2	An approximate algorithm for the Lane Reservation Problem in Time Constrained Transportation **2010**,		1
1	SLNL: A novel method for gene selection and phenotype classification. *International Journal of Intelligent Systems*,	8.4	2