Gaiyun Liu

List of Publications by Year
in descending order

32 papers	589 citations	840585 11 h-index	610775 24 g-index
32 all docs	32 docs citations	32 times ranked	207 citing authors

#	Article	IF	Citations
1	Adaptive Deadlock Control for a Class of Petri Nets With Unreliable Resources. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 3113-3125.	5.9	13
2	Robust liveness-enforcing supervisor for Petri nets with unreliable resources based on mixed integer programming. Soft Computing, 2022, 26, 4019.	2.1	2
3	Time based deadlock prevention for Petri nets. Automatica, 2022, 137, 110119.	3.0	3
4	Fault-Recovery and Robust Deadlock Control of Reconfigurable Multi-Unit Resource Allocation Systems Using Siphons. IEEE Access, 2021, 9, 67942-67956.	2.6	4
5	Petri Net-Based Robust Supervisory Control of Automated Manufacturing Systems With Multiple Unreliable Resources. IEEE Access, 2021, 9, 100264-100278.	2.6	3
6	Robust deadlock control for automated manufacturing systems based on elementary siphon theory. Information Sciences, 2020, 510, 165-182.	4.0	17
7	Formal Analysis of Emergency Department Staffing Based on Stochastic Timed Petri Net Models. IFAC-PapersOnLine, 2020, 53, 405-410.	0.5	2
8	Robust Deadlock Control for Automated Manufacturing Systems Based on the Max-Controllability of Siphons. IEEE Access, 2019, 7, 88579-88591.	2.6	5
9	On modelling and evaluation of corrective and preventive maintenance policies of unreliable manufacturing systems. , 2019, , .		1
10	Elementary Siphon-Based Robust Control for Automated Manufacturing Systems With Multiple Unreliable Resources. IEEE Access, 2019, 7, 21006-21019.	2.6	24
11	Robust Deadlock-free Scheduling for FMS with Liveness-enforcing Supervisor Combined with Beam Search Controller. , 2019, , .		4
12	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
13	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
14	Cyclic workflow resource requirement analysis and application in healthcare. , 2016, , .		0
15	Resource requirement analysis for cyclic workflows. , 2016, , .		0
16	A survey of siphons in Petri nets. Information Sciences, 2016, 363, 198-220.	4.0	54
17	Confusion Control in Generalized Petri Nets Using Synchronized Events. Mathematical Problems in Engineering, 2015, 2015, 1-23.	0.6	0
18	Necessary and sufficient liveness condition of GS^3PR Petri nets. International Journal of Systems Science, 2015, 46, 1147-1160.	3.7	27

#	Article	IF	Citations
19	Further reduction of minimal first-met bad markings for the computationally efficient synthesis of a maximally permissive controller. International Journal of Control, 2015, 88, 1423-1428.	1.2	10
20	A merging method for the siphon-based FMS maximally permissive controllers with simpler structures. IMA Journal of Mathematical Control and Information, 2014, 31, 551-573.	1.1	9
21	Liveness Analysis of Petri Nets Using Siphons and Mathematical Programming. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 383-387.	0.4	1
22	Robustness of deadlock control for a class of Petri nets with unreliable resources. Information Sciences, 2013, 235, 259-279.	4.0	86
23	Correction to 'New controllability condition for siphons in a class of generalised Petri nets'. IET Control Theory and Applications, 2013, 7, 632-633.	1.2	0
24	Erratum to Deadlock Prevention Based on Structure Reuse of Petri Net Supervisors for Flexible Manufacturing Systems [Jan 12 178-191]. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 474-474.	5.9	1
25	Computation of resource circuits of Petri nets by using binary decision diagrams. , 2013, , .		0
26	Maximally permissive deadlock prevention via an invariant controlled method. International Journal of Production Research, 2013, 51, 4431-4442.	4.9	4
27	Computation of Minimal Siphons in Petri Nets by Using Binary Decision Diagrams. Transactions on Embedded Computing Systems, 2013, 12, 1-15.	2.1	8
28	Control policy for a subclass of Petri nets without reachability analysis. IET Control Theory and Applications, 2013, 7, 1131-1141.	1.2	17
29	Deadlock Prevention Based on Structure Reuse of Petri Net Supervisors for Flexible Manufacturing Systems. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2012, 42, 178-191.	3.4	142
30	New controllability condition for siphons in a class of generalised Petri nets. IET Control Theory and Applications, 2010, 4, 854-864.	1.2	31
31	General mixed integer programming-based liveness test for system of sequential systems with shared resources nets. IET Control Theory and Applications, 2010, 4, 2867-2878.	1.2	24
32	Comments on "An iterative synthesis approach to petri net based deadlock prevention policy for flexible manufacturing systems". IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2009, 39, 692-692.	3.4	4