Francesco Basile

List of Publications by Year
in descending order

103 papers	1,648 citations	331670 21 h-index	330143 37 g-index
104 all docs	104 docs citations	104 times ranked	620 citing authors

#	Article	IF	Citations
1	Validation of Industrial Automation Systems Using a Timed Model of System Requirements. IEEE Transactions on Control Systems Technology, 2023, 31, 130-143.	5.2	2
2	Assessment of Multilevel Intransitive Non-Interference for Discrete Event Systems. , 2022, 6, 349-354.		2
3	Supervisory Control of Timed Discrete-Event Systems With Logical and Temporal Specifications. IEEE Transactions on Automatic Control, 2022, 67, 2800-2815.	5.7	8
4	An optimization-based approach to assess non-interference in labeled and bounded Petri net systems. Nonlinear Analysis: Hybrid Systems, 2022, 44, 101153.	3.5	2
5	Necessary and Sufficient Condition to Assess Initial-State-Opacity in Live Bounded and Reversible Discrete Event Systems. , 2022, 6, 2683-2688.		3
6	Noninterference Enforcement via Supervisory Control in Bounded Petri Nets. IEEE Transactions on Automatic Control, 2021, 66, 3653-3666.	5.7	12
7	Assessment of Bisimulation Non-Interference in Discrete Event Systems Modelled With Bounded Petri Nets. , 2021, 5, 1151-1156.		5
8	Closed-Loop Deadlock-Free Supervision for GMECs in Time Petri Net Systems. IEEE Transactions on Automatic Control, 2021, 66, 5326-5341.	5.7	13
9	An approach based on timed Petri nets and tree encoding to implement search algorithms for a class of scheduling problems. Information Sciences, 2021, 559, 314-335.	6.9	9
10	A model-based approach to the validation of automation systems. , 2021, , .		3
11	A sliding-window approach to analyze the accuracy of timed DESs. , 2021, , .		0
12	Finite-time accuracy of timed discrete event systems. , 2021, , .		1
13	An Approach to Improve Permissiveness of Supervisors for GMECs in Time Petri Net Systems. IEEE Transactions on Automatic Control, 2020, 65, 237-251.	5.7	45
14	An Optimization-Based Approach to Discover the Unobservable Behavior of a Discrete-Event System Through Interpreted Petri Nets. IEEE Transactions on Automation Science and Engineering, 2020, 17, 784-798.	5.2	14
15	A Reduced Computation of State Space to Enforce GMECs and Deadlock-Freeness on TPN Systems. IFAC-PapersOnLine, 2020, 53, 166-172.	0.9	1
16	An auction-based approach to control automated warehouses using smart vehicles. Control Engineering Practice, 2019, 90, 285-300.	5.5	7
17	Auction-based mechanisms for the control of vehicles in Smart Logistic Systems. , 2019, , .		1
18	Some Remarks on â€œState Estimation and Fault Diagnosis of Labeled Time Petri Net Systems With Unobservable Transitionsâ€. IEEE Transactions on Automatic Control, 2019, 64, 5253-5259.	5.7	13

#	Article	IF	Citations
19	Discovering of the unobservable behaviour of an Interpreted Petri Net model. , 2019, , .		1
20	Identification of Timed Input/Output Relationships For Industrial Automation Systems Using Timed Interpreted Petri Nets. , 2019, , .		4
21	Non-Interference Enforcement in Bounded Petri Nets. , 2018, , .		5
22	Efficient diagnosability assessment via ILP optimization: a railway benchmark. , 2018, , .		15
23	Control design for timed Petri nets based on LMIs and structure expansion. , 2018, , .		1
24	Design of control sequences for timed Petri nets based on tree encoding. IFAC-PapersOnLine, 2018, 51, 218-223.	0.9	3
25	An algebraic characterization of language-based opacity in labeled Petri nets. IFAC-PapersOnLine, 2018, 51, 329-336.	0.9	17
26	Identification of Time Petri Net Models. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 2586-2600.	9.3	25
27	Diagnosability Analysis of Labeled Time Petri Net Systems. IEEE Transactions on Automatic Control, 2017, 62, 1384-1396.	5.7	34
28	Corrections to ''Identification of Time Petri Net Models''. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, , 1-2.	9.3	0
29	An incremental model repair approach to timed discrete event systems. IFAC-PapersOnLine, 2017, 50, 13636-13641.	0.9	2
30	IdentifyTPN: a tool for the identification of Time Petri nets. IFAC-PapersOnLine, 2017, 50, 5843-5848.	0.9	1
31	A matrix-based approach for supervising and controlling timed Discrete Event System. , 2017, , .		0
32	An auction-based approach for the coordination of vehicles in automated warehouse systems. , 2017, , .		2
33	Identification of labeled Time Petri nets. , 2016, , .		2
34	Faulty model identification in deterministic labeled Time Petri nets. , 2016, , .		3
35	A Colored Timed Petri Net model for a cyber-physical view of automated warehouse systems. , 2016, , .		2
36	A cyber-physical view of automated warehouse systems. , 2016, , .		8

#	Article	IF	Citations
37	A Novel Model Repair Approach of Timed Discrete-Event Systems With Anomalies. IEEE Transactions on Automation Science and Engineering, 2016, 13, 1541-1556.	5.2	16
38	Automated warehouse systems: A cyber-physical system perspective. , 2015, , .		8
39	Real time identification of Time Petri net faulty models. , 2015, , .		3
40	A branch and bound approach for the design of decentralized supervisors in Petri net models. Automatica, 2015, 52, 322-333.	5.0	45
41	Sensors selection for K-diagnosability of Petri nets via Integer Linear Programming. , 2015, , .		6
42	State Estimation and Fault Diagnosis of Labeled Time Petri Net Systems With Unobservable Transitions. IEEE Transactions on Automatic Control, 2015, 60, 997-1009.	5.7	93
43	Automated implementation of Petri Nets on PLCs with OOP. , 2014, , .		0
44	Supervisory Control for State-Vector Transition Modelsâ€"A Unified Approach. IEEE Transactions on Automation Science and Engineering, 2014, 11, 33-47.	5.2	10
45	Overview of fault diagnosis methods based on Petri net models. , 2014, , .		21
46	Automated synthesis of hybrid Petri net models for robotic cells in the aircraft industry. Control Engineering Practice, 2014, 31, 35-49.	5.5	8
47	Unified Model for Synthesis and Optimization of Discrete Event and Hybrid Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 86-92.	0.4	3
48	Decentralized monitors design for Petri net models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 73-79.	0.4	0
49	K-diagnosability of Time labeled Petri nets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 135-141.	0.4	1
50	A decentralized kinematic control architecture for collaborative and cooperative multi-arm systems. Mechatronics, 2013, 23, 1100-1112.	3.3	14
51	Integrated design of optimal supervisors for the enforcement of static and behavioral specifications in Petri net models. Automatica, 2013, 49, 3432-3439.	5.0	66
52	An approach for the identification of time Petri net systems. , 2013, , .		4
53	Parsimonious deadlock-free Petri net models of flexible manufacturing systems. , 2013, , .		1
54	On the Implementation of Industrial Automation Systems Based on PLC. IEEE Transactions on Automation Science and Engineering, 2013, 10, 990-1003.	5.2	89

#	Article	IF	Citations
55	Marking estimation of Time Petri nets with unobservable transitions. , 2013, , .		10
56	Compact and decentralized supervisors for general constraint enforcement in Petri net models. , 2013, , .		2
57	Compact supervisors for general constraint enforcement in Petri net models with uncontrollable transitions. , 2013, , .		2
58	A Hybrid Petri Nets approach for Unmanned Aerial Vehicles monitoring. , 2012, , .		1
59	A Hybrid Model of Complex Automated Warehouse Systems—Part I: Modeling and Simulation. IEEE Transactions on Automation Science and Engineering, 2012, 9, 640-653.	5.2	54
60	On $\mathcal{K}$-diagnosability of Petri nets via integer linear programming. Automatica, 2012, 48, 2047-2058.	5.0	95
61	A control oriented model for manual-pick warehouses. Control Engineering Practice, 2012, 20, 1426-1437.	5.5	6
62	A Hybrid Model of Complex Automated Warehouse Systems—Part II: Analysis and Experimental Results. IEEE Transactions on Automation Science and Engineering, 2012, 9, 654-668.	5.2	37
63	A hybrid model for real time simulation of urban traffic. Control Engineering Practice, 2012, 20, 123-137.	5.5	36
64	Task-oriented motion planning for multi-arm robotic systems. Robotics and Computer-Integrated Manufacturing, 2012, 28, 569-582.	9.9	77
65	A hybrid model for the control and the analysis of complex automated warehouse systems. , 2011, , .		1
66	Identification of Petri nets using timing information. , 2011, , .		6
67	A discrete event model for the control and analysis of complex automated warehouse systems. , 2011, , .		2
68	Progress in PLC programming for distributed automation systems control. , 2011, , .		4
69	Colored Hybrid Petri-nets for modeling material handling systems. , 2011, , .		3
70	A novel approach to PLC programming for distributed automation systems control. , 2010, , .		1
71	A two-stage modelling architecture for distributed control of real-time industrial systems: Application of UML and Petri Net. Computer Standards and Interfaces, 2009, 31, 528-538.	5.4	22
72	Closed-loop Live Marked Graphs under Generalized Mutual Exclusion Constraint Enforcement. Discrete Event Dynamic Systems: Theory and Applications, 2009, 19, 1-30.	1.5	18

#	ARTICLE	IF	CITATIONS
73	An Efficient Approach for Online Diagnosis of Discrete Event Systems. IEEE Transactions on Automatic Control, 2009, 54, 748-759.	5.7	145
74	A control oriented model of generalized warehouses based on Colored Timed Petri Nets. , 2009, , .		0
75	Improving real-time identification of Petri Nets using timing information. , 2009, , .		1
76	An approach to control generalized warehouses. , 2009, , .		1
77	IMPLEMENTATION OF HYDRAULIC SERVO CONTROLLERS WITH ONLY POSITION MEASURE. International Journal of Robotics and Automation, 2009, 24, .	0.1	5
78	Online diagnosis of discrete event systems based on Petri nets. , 2008, , .		7
79	UML-based modeling and model-driven development of distributed control systems. , 2008, , .		1
80	Modelling automation systems by UML and Petri Nets. , 2008, , .		4
81	Sufficient conditions for diagnosability of Petri nets. , 2008, , .		15
82	Performing fault diagnosis for PNs using g-markings: A benchmark case. , 2008, , .		1
83	Decentralized Supervisory Control of Petri Nets with Monitor Places. , 2007, , .		2
84	Supervisory Control of Petri Nets with Decentralized Monitor Places. Proceedings of the American Control Conference, 2007, , .	0.0	9
85	On the Implementation of Supervised Control of Discrete Event Systems. IEEE Transactions on Control Systems Technology, 2007, 15, 725-739.	5.2	51
86	An efficient approach for on-line diagnosis of discrete event systems. , 2007, , .		10
87	Feedback Control Logic for Backward Conflict Free Choice Nets. IEEE Transactions on Automatic Control, 2007, 52, 387-400.	5.7	38
88	Improving on-line fault diagnosis for discrete event systems using time. , 2007, , .		8
89	An Optimization Approach to Petri Net Monitor Design. IEEE Transactions on Automatic Control, 2007, 52, 306-311.	5.7	45
90	Simulation and analysis of discrete-event control systems based on Petri nets using PNetLab. Control Engineering Practice, 2007, 15, 241-259.	5.5	36

#	Article	IF	Citations
91	Suboptimal supervisory control of Petri nets in presence of uncontrollable transitions via monitor places. Automatica, 2006, 42, 995-1004.	5.0	68
92	IEC 61131-3 based implementation of PN supervisors. , 2006, , 309-314.		1
93	An approach to control automated warehouse systems. Control Engineering Practice, 2005, 13, 1223-1241.	5.5	51
94	Observer-Based State-Feedback Control of Timed Petri Nets With Deadlock Recovery. IEEE Transactions on Automatic Control, 2004, 49, 17-29.	5.7	58
95	Modeling and logic controller specification of flexible manufacturing systems using behavioral traces and Petri net building blocks. Journal of Intelligent Manufacturing, 2004, 15, 351-371.	7.3	8
96	PNetLab: a tool for the simulation, analysis and control of discrete event systems based on petri nets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 213-218.	0.4	0
97	A contribution to minimum-time task-space path-following problem for redundant manipulators. Robotica, 2003, 21, 137-142.	1.9	3
98	A reachable throughput upper bound for live and safe free choice nets via T-invariants. , 2003, , .		0
99	Optimal Petri Net Monitor Design. , 2002, , 141-153.		7
100	Specification and modeling of flexible manufacturing systems using behaviours and Petri nets building blocks. , 1999, , .		2
101	Deadlock recovery of Petri net models controlled using observers. , 0, , .		17
102	Crane and shuttle optimization in warehousing systems. , 0, , .		4
103	A hybrid model for urban traffic control. , 0, , .		18