Lei Feng

List of Publications by Year in Descending Order

62 papers	659 citations	13 h-index	23 g-index
68 ext. papers	806 ext. citations	3.4 avg, IF	4.32 L-index

#	Paper	IF	Citations
62	Optimal shape morphing control of 4D printed shape memory polymer based on reinforcement learning. *Robotics and Computer-Integrated Manufacturing*, **2022**, 73, 102209	9.2	5
61	Customized protective visors enabled by closed loop controlled 4D printing.. *Scientific Reports*, **2022**, 12, 7566	4.9	0
60	Synthesizing the optimal gait of a quadruped robot with soft actuators using deep reinforcement learning. *Robotics and Computer-Integrated Manufacturing*, **2022**, 78, 102382	9.2	2
59	A Joint-space Position Control-based Approach to Haptic Rendering of Stiff Objects using Gain Scheduling. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2021**, 103, 1	2.9	
58	A Bibliometric Analysis on Model-based Systems Engineering **2021**,		1
57	Fuel Minimization of a Hybrid Electric Racing Car by Quasi-Pontryagin\'s Minimum Principle. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 5551-5564	6.8	1
56	A Position-Control Based Approach to Haptic Rendering of Stiff Objects. *IEEE Transactions on Haptics*, **2021**, 14, 646-659	2.7	2
55	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
54	Model abstraction for discrete-event systems by binary linear programming with applications to manufacturing systems. *Science Progress*, **2021**, 104, 368504211030833	1.1	1
53	Optimal road grade design based on stochastic speed trajectories for minimising transportation energy consumption. *IET Intelligent Transport Systems*, **2021**, 15, 1414	2.4	1
52	A position control-based approach to haptic rendering of stiff objects using piece-wise linear model. *Advances in Mechanical Engineering*, **2021**, 13, 168781402110648	1.2	0
51	Hierarchical predictive energy management of hybrid electric buses based on driver information. *Journal of Cleaner Production*, **2020**, 269, 122374	10.3	11
50	Fuel Minimization of the Electric Engine Cooling System With Active Grille Shutter by Iterative Quadratic Programming. *IEEE Transactions on Vehicular Technology*, **2020**, 69, 2621-2635	6.8	4
49	An Approach for Supervisor Reduction of Discrete-Event Systems. *Lecture Notes in Computer Science*, **2020**, 3-14	0.9	
48	Revisiting strong detectability of networked discrete-event systems. *IFAC-PapersOnLine*, **2020**, 53, 21-27	0.7	
47	. *IEEE Transactions on Automation Science and Engineering*, **2020**, 17, 361-374	4.9	3
46	Design and closed loop control of a 3D printed soft actuator **2020**,		3

45	Feedback Control for the Precise Shape Morphing of 4D-Printed Shape Memory Polymer. *IEEE Transactions on Industrial Electronics*, **2020**, 1-1	8.9	2
44	Design and Formal Verification of a Safe Stop Supervisor for an Automated Vehicle* **2019**,		4
43	A cascade control approach to active suspension using pneumatic actuators. *Asian Journal of Control*, **2019**, 21, 70-88	1.7	4
42	A New Approach to Haptic Rendering by Position Control **2019**,		2
41	A Binary Controller to Ensure Engine Peak Efficiency for a Parallel Hybrid Electric Car* **2019**,		1
40	Elastodynamic Optimization of a 5-DoF Parallel Kinematic Machine Considering Parameter Uncertainty. *IEEE/ASME Transactions on Mechatronics*, **2019**, 24, 315-325	5.5	29
39	A Learning-Based Synthesis Approach to the Supremal Nonblocking Supervisor of Discrete-Event Systems. *IEEE Transactions on Automatic Control*, **2018**, 63, 3345-3360	5.9	37
38	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
37	Supervisory Control of Timed Discrete-Event Systems Subject to Communication Delays and Non-FIFO Observations. *IFAC-PapersOnLine*, **2018**, 51, 456-463	0.7	17
36	Increasing Fuel Efficiency of a Hybrid Electric Competition Car by a Binary Equivalent Consumption Minimization Strategy **2018**,		2
35	Safe Stop Trajectory Planning for Highly Automated Vehicles: An Optimal Control Problem Formulation **2018**,		9
34	A Case Study on Achieving Fair Data Age Distribution in Vehicular Communications **2017**,		5
33	Reducing auxiliary energy consumption of heavy trucks by onboard prediction and real-time optimization. *Applied Energy*, **2017**, 188, 652-671	10.7	12
32	Early Phase Design-Optimization of Mechatronic Systems **2017**,		4
31	The Optimal Road Grade Design for Minimizing Ground Vehicle Energy Consumption. *Energies*, **2017**, 10, 700	3.1	5
30	Optimal Complete Vehicle Control for Fuel Efficiency. *Transportation Research Procedia*, **2016**, 14, 1087-1096	2.4	2
29	A geometric programming approach to the optimization of mechatronic systems in early design stages **2016**,		2
28	Optimal Vehicle Control for Fuel Efficiency. *SAE International Journal of Commercial Vehicles*, **2015**, 8, 682-694	1	6

27	On the Computation of Natural Observers for Extended Finite Automata. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 2448-2455		1
26	One-Step Prediction for Improving Gear Changing Control of HEVs. *Journal of Robotics and Mechatronics*, **2014**, 26, 799-808	0.7	3
25	An architectural approach to the analysis, verification and validation of software intensive embedded systems. *Computing (Vienna/New York)*, **2013**, 95, 649-688	2.2	17
24	A real-time optimal control method for swing-free tower crane motions **2013**,		7
23	Fuel efficiency improvement in HEVs using electromechanical brake system **2013**,		4
22	Systems Modeling with EAST-ADL for Fault Tree Analysis through HiP-HOPS*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 91-96		16
21	Optimization of Gear Shifting and Torque Split for Improved Fuel Efficiency and Drivability of HEVs **2013**,		5
20	Case Studies in Learning-Based Testing. *Lecture Notes in Computer Science*, **2013**, 164-179	0.9	17
19	Abstractions for nonblocking supervisory control of Extended Finite Automata **2012**,		6
18	Supervisory control of extended finite automata using transition projection **2012**,		5
17	Development of a micromirror based laser vector scanning automotive HUD **2011**,		9
16	Verifying system behaviors in EAST-ADL2 with the SPIN model checker **2010**,		8
15	On the Computation of Natural Observers in Discrete-Event Systems. *Discrete Event Dynamic Systems: Theory and Applications*, **2010**, 20, 63-102	1	41
14	Model-Based Safety Engineering of Interdependent Functions in Automotive Vehicles Using EAST-ADL2. *Lecture Notes in Computer Science*, **2010**, 332-346	0.9	10
13	17 Towards Model-Based Engineering of Self-configuring Embedded Systems. *Lecture Notes in Computer Science*, **2010**, 345-353	0.9	1
12	A structural approach to the non-blocking supervisory control of discrete-event systems. *International Journal of Advanced Manufacturing Technology*, **2009**, 41, 1152-1168	3.2	27
11	Autonomic Middleware for Automotive Embedded Systems **2009**, 169-210		3
10	Supervisory Control Architecture for Discrete-Event Systems. *IEEE Transactions on Automatic Control*, **2008**, 53, 1449-1461	5.9	92

List of Publications

9	Self configuration of dependent tasks for dynamically reconfigurable automotive embedded systems **2008**,		2
8	Nonblocking coordination of discrete-event systems by control-flow nets **2007**,		1
7	Designing communicating transaction processes by supervisory control theory. *Formal Methods in System Design*, **2007**, 30, 117-141	1.4	9
6	On the Computation of Natural Observers in Discrete-Event Systems **2006**,		12
5	TCT: A Computation Tool for Supervisory Control Synthesis **2006**,		40
4	Achieving Online Coordination in Real-Time Collaborative Assembly Modeling: A Supervisory Control Approach. *Journal of Computing and Information Science in Engineering*, **2006**, 6, 252-262	2.4	1
3	Internet-enabled real-time collaborative assembly modeling via an e-Assembly system: status and promise. *CAD Computer Aided Design*, **2004**, 36, 835-847	2.9	59
2	Computationally Efficient Supervisor Design: Control Flow Decomposition		5
1	Computationally efficient supervisor design: abstraction and modularity		24