

Guoming G Zhu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106

papers

870

citations

15

h-index

23

g-index

127

ext. papers

1,097

ext. citations

3

avg, IF

4.88

L-index

#	Paper	IF	Citations
106	A Dual-loop Robust Control Scheme with Performance Separation: Theory and Experimental Validation. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	0
105	Modeling and control of a class of urban air mobility tiltrotor aircraft. <i>Aerospace Science and Technology</i> , 2022 , 124, 107561	4.9	0
104	Minimal Energy Transient Motion Control of Electrical Connected Vehicles. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-9	5.5	
103	Experimental Case Study of Stochastic Surrogate-Assisted Engine Calibration. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-11	5.5	
102	Model reference adaptive LQT control for anti-jerk utilizing tire-road interaction characteristics. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2021 , 235, 1670-1684	1.4	
101	Transfer Case Clutch Torque Estimation Using an Extended Kalman Filter With Unknown Input. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021 , 1-9	5.5	1
100	Dynamic System Identification for a Nonlinear Vehicle Model Using δ -Markov Cover under Different Operational Conditions 2021 ,		2
99	Performance improvement demonstration of an NMP system using sample and hold inputs. <i>International Journal of Dynamics and Control</i> , 2021 , 9, 109-120	1.7	1
98	A two-zone reaction-based combustion model for a spark-ignition engine. <i>International Journal of Engine Research</i> , 2021 , 22, 109-124	2.7	9
97	Mixed ICC/HIL control for systems with sensors aging. <i>International Journal of Control</i> , 2021 , 94, 1065-1080.	4.5	
96	A real-time pressure wave model for knock prediction and control. <i>International Journal of Engine Research</i> , 2021 , 22, 986-1000	2.7	5
95	Integrated Clutch Torque Control and Touchpoint Estimation Using Deadbeat Adaptive Backstepping. <i>IEEE Transactions on Control Systems Technology</i> , 2021 , 1-8	4.8	4
94	A Control-Oriented Dynamic Model of Tiltrotor Aircraft for Urban Air Mobility 2021 ,		3
93	Transfer Case Clutch Torque Modeling and Validation Under Slip and Overtaken Conditions. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2021 , 143,	1.6	6
92	A Sequential Design Approach for Switching HILPV Control. <i>International Journal of Control, Automation and Systems</i> , 2021 , 19, 3354	2.9	0
91	Constrained Surrogate-Based Engine Calibration Using Lower Confidence Bound. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021 , 1-1	5.5	5
90	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 2000-2008	5.5	6

89	Review of Advancement in Variable Valve Actuation of Internal Combustion Engines. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1216	2.6	9
88	Engine EGR Valve Modeling and Switched LPV Control Considering Nonlinear Dry Friction. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 1668-1678	5.5	8
87	Economic Adaptive Cruise Control for a Power Split Hybrid Electric Vehicle. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2020 , 21, 4161-4170	6.1	9
86	Smooth Switching LPV Dynamic Output-feedback Control. <i>International Journal of Control, Automation and Systems</i> , 2020 , 18, 1367-1377	2.9	2
85	Hard Constrained LPV Virtual Control with Application to Flutter Suppression of a Smart Airfoil. <i>International Journal of Control, Automation and Systems</i> , 2020 , 18, 1215-1228	2.9	1
84	A Control-Oriented Linear Parameter-Varying Model of a Commercial Vehicle Air Brake System. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 4589	2.6	3
83	Multi-Objective Stochastic Bayesian Optimization for Iterative Engine Calibration 2020 ,		4
82	Deadbeat Adaptive Backstepping Design for Tracking Transfer Case Torque and Estimating its Clutch Touchpoint 2020 ,		2
81	. <i>IEEE Access</i> , 2020 , 8, 149741-149750	3.5	1
80	Multi-zone reaction-based modeling of combustion for multiple-injection diesel engines. <i>International Journal of Engine Research</i> , 2020 , 21, 1012-1025	2.7	10
79	Real-Time Co-optimization of Vehicle Route and Speed Using Generic Algorithm for Improved Fuel Economy. <i>Mechanical Engineering</i> , 2019 , 141, S08-S15	0.9	3
78	Adaptive LQT Valve Timing Control for an Electro-Hydraulic Variable Valve Actuator. <i>IEEE Transactions on Control Systems Technology</i> , 2019 , 27, 2182-2194	4.8	1
77	LPV Modeling and Switched Control for EGR Valves with Dry Friction 2019 ,		3
76	Adaptive Optimal Control for Suppressing Vehicle Longitudinal Vibrations 2019 ,		3
75	Sequential Design of Switching \mathscr{H}_{∞} LPV State-Feedback Control 2019 ,		1
74	Mode shape matching for LPV modeling to handle mode veering phenomena. <i>International Journal of Dynamics and Control</i> , 2019 , 7, 469-475	1.7	1
73	Smooth-switching LPV control for vibration suppression of a flexible airplane wing. <i>Aerospace Science and Technology</i> , 2019 , 84, 895-903	4.9	15
72	Profile Tracking for an Electro-Hydraulic Variable Valve Actuator Using Receding Horizon LQT. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019 , 24, 338-349	5.5	3

71	Novel linear parameter-varying modeling and flutter suppression control of a smart airfoil. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2019 , 233, 609-624		1
70	Static output-feedback robust gain-scheduling control with guaranteed H_2 performance. <i>Journal of the Franklin Institute</i> , 2018 , 355, 2221-2242	4	13
69	A Reduced Complexity Model for the Compressor Power of an Automotive Turbocharger. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2018 , 140,	1.6	2
68	Guaranteed H_∞ Performance LPV ICC Control with Application to Blended-Wing-Body Model 2018 ,		1
67	Connectivity-based optimization of vehicle route and speed for improved fuel economy. <i>Transportation Research Part C: Emerging Technologies</i> , 2018 , 91, 353-368	8.4	32
66	Linear Parameter-Varying Model of an Electro-Hydraulic Variable Valve Actuator for Internal Combustion Engines. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2018 , 140,	1.6	6
65	Three-parameter transmission gear-shifting schedule for improved fuel economy. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2018 , 232, 521-533	1.4	8
64	Optimal Combustion Phasing Modeling and Control of a Turbulent Jet Ignition Engine. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018 , 23, 1811-1822	5.5	10
63	Combustion Model for a Homogeneous Turbocharged Gasoline Direct-Injection Engine. <i>Journal of Engineering for Gas Turbines and Power</i> , 2018 , 140,	1.7	10
62	Application of ICC LPV control to a blended-wing-body airplane with guaranteed H_2 performance. <i>Aerospace Science and Technology</i> , 2018 , 81, 88-98	4.9	12
61	Optimal Combustion Phasing Control of a Turbulent Jet Ignition Engine 2018 ,		1
60	Simultaneous Design of Smooth Switching State-Feedback LPV Control 2018 ,		1
59	Model-based calibration of reaction-based diesel combustion dynamics. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2018 , 232, 1611-1622	1.4	4
58	Optimum distributed wing shaping and control loads for highly flexible aircraft. <i>Aerospace Science and Technology</i> , 2018 , 79, 255-265	4.9	8
57	Improved synthesis conditions for mixed gain-scheduling control subject to uncertain scheduling parameters. <i>International Journal of Control</i> , 2017 , 90, 580-598	1.5	8
56	LPV Modeling of a Flexible Wing Aircraft Using Modal Alignment and Adaptive Gridding Methods. <i>Aerospace Science and Technology</i> , 2017 , 66, 92-102	4.9	25
55	Model-Based Control for Mode Transition Between Spark Ignition and HCCI Combustion. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017 , 139,	1.6	8
54	A control-oriented model of turbulent jet ignition combustion in a rapid compression machine. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2017 , 231, 1315-1325	1.4	15

53	Experimental Study on an Electric Variable Valve Timing Actuator: Linear Parameter Varying Modeling and Control. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2017 , 139,	1.6	1
52	Switching State-Feedback LPV control with uncertain scheduling parameters 2017 ,		4
51	Control-oriented crank-resolved and state-space models for a gasoline turbulent jet ignition engine 2017 ,		4
50	Adaptive feedforward control of an electro-hydraulic variable valve actuator for internal combustion engines 2017 ,		2
49	Model-based calibration of the reaction-based diesel combustion dynamics 2017 ,		1
48	Model predictive control of a power split hybrid powertrain 2016 ,		5
47	Robust Input Covariance Constraint Control for Uncertain Polytopic Systems. <i>Asian Journal of Control</i> , 2016 , 18, 1489-1500	1.7	1
46	Improvement in the combustion mode transition for a spark ignition engine capable of homogeneous charge compression ignition. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2016 , 230, 215-228	1.4	7
45	Guaranteed Performance State-Feedback Gain-Scheduling Control With Uncertain Scheduling Parameters. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2016 , 138,	1.6	14
44	Stochastic Predictive Boundary Management for a Hybrid Powertrain. <i>IEEE Transactions on Vehicular Technology</i> , 2016 , 65, 4700-4713	6.8	5
43	Optimal LPV control with hard constraints. <i>International Journal of Control, Automation and Systems</i> , 2016 , 14, 148-162	2.9	8
42	Optimum Wing Shape Determination of Highly Flexible Morphing Aircraft for Improved Flight Performance. <i>Journal of Aircraft</i> , 2016 , 53, 1305-1316	1.6	15
41	Tutorial of model-based powertrain and aftertreatment system control design and implementation 2015 ,		2
40	Detecting the combustion phase and the biodiesel blend using a knock sensor. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2015 , 229, 1189-1199	1.4	1
39	Camless Variable Valve Actuator with Two Discrete Lifts 2015 ,		9
38	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 2120-2132	5.5	27
37	Linear Matrix Inequalities Approach to Input Covariance Constraint Control With Application to Electronic Throttle. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2015 , 137,	1.6	3
36	. <i>IEEE Transactions on Vehicular Technology</i> , 2014 , 63, 1079-1090	6.8	20

35	Optimal Air-to-Fuel Ratio Tracking Control With Adaptive Biofuel Content Estimation for LNT Regeneration. <i>IEEE Transactions on Control Systems Technology</i> , 2014 , 22, 428-439	4.8	17
34	Transient Air-to-Fuel Ratio Control of an Spark Ignited Engine Using Linear Quadratic Tracking. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2014 , 136,	1.6	6
33	A Control-Oriented Two-Zone Charge Mixing Model for HCCI Engines With Experimental Validation Using an Optical Engine. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2014 , 136,	1.6	5
32	Dynamic, output-feedback, gain-scheduling control of an electric variable valve timing system 2013 ,		2
31	. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 229-238	4.8	22
30	. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 1558-1569	4.8	17
29	Model-Based Estimation of Flow Characteristics Using an Ionic PolymerMetal Composite Beam. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 932-943	5.5	40
28	Linear Parameter-Varying Control for Engineering Applications. <i>Springer Briefs in Electrical and Computer Engineering</i> , 2013 ,	0.4	22
27	Development of control-oriented charge mixing model and experimental validation using graphical analysis 2013 ,		1
26	Integrated Model Reduction and Control of Aircraft with Flexible Wings 2013 ,		3
25	A control-oriented hybrid combustion model of a homogeneous charge compression ignition capable spark ignition engine. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2012 , 226, 1380-1395	1.4	13
24	Cycle-to-cycle response of ionic polymer-metal composite materials subject to pulsing flow-induced stimulus 2012 ,		2
23	. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 730-743	4.8	14
22	Trajectory Optimization for the EngineGenerator Operation of a Series Hybrid Electric Vehicle. <i>IEEE Transactions on Vehicular Technology</i> , 2011 , 60, 2438-2447	6.8	22
21	Modeling and Inverse Compensation of Temperature-Dependent Ionic PolymerMetal Composite Sensor Dynamics. <i>IEEE/ASME Transactions on Mechatronics</i> , 2011 , 16, 80-89	5.5	54
20	Fuel spray visualization and its impingement analysis on in-cylinder surfaces in a direct-injection spark-ignition engine. <i>Journal of Visualization</i> , 2011 , 14, 149-160	1.6	11
19	. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 1433-1443	4.8	10
18	A two-zone control oriented SI-HCCI hybrid combustion model for the HIL engine simulation 2011 ,		6

17	Gain-scheduling control of port-fuel-injection processes. <i>Control Engineering Practice</i> , 2011 , 19, 380-394	3.9	18
16	Integrated System ID and Control Design for an IC Engine Variable Valve Timing System. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2011 , 133,	1.6	10
15	Control-oriented mixing model for Homogeneous Charge Compression Ignition engines 2010 ,		4
14	Temperature-dependent ionic polymer-metal composite (IPMC) sensing dynamics: Modeling and inverse compensation 2010 ,		3
13	Modeling of Ionic Polymer-Metal Composite beam dynamics and its validation using high-speed motion visualization 2010 ,		2
12	An iterative algorithm for model-based predictive control of an Electro-Pneumatic Valve Actuator 2009 ,		5
11	Model-based predictive control of an Electro-Pneumatic exhaust valve for Internal Combustion engines 2008 ,		4
10	Adaptive Control of a Pneumatic Valve Actuator for an Internal Combustion Engine. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	10
9	Closed-Loop Ignition Timing Control for SI Engines Using Ionization Current Feedback. <i>IEEE Transactions on Control Systems Technology</i> , 2007 , 15, 416-427	4.8	37
8	MBT Timing Detection and its Closed-Loop Control Using In-Cylinder Pressure Signal 2003 ,		34
7	Covariance control design for Hubble Space Telescope. <i>Journal of Guidance, Control, and Dynamics</i> , 1995 , 18, 230-236	2.1	41
6	q-Markov Cover identification using pseudo-random binary signals. <i>International Journal of Control</i> , 1995 , 62, 1273-1290	1.5	15
5	Adaptive model predictive control of a six-rotor electric vertical take-off and landing urban air mobility aircraft subject to motor failure during hovering. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 095441002110324	0.9	
4	Review of engine control-oriented combustion models. <i>International Journal of Engine Research</i> , 146808742199295	2.7	1
3	Stochastic Bayesian optimization for predicting borderline knock. <i>International Journal of Engine Research</i> , 146808742110652	2.7	1
2	Linear parameter-varying-based transition flight control design for a tilt-rotor aircraft. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 095441002210837	0.9	
1	Data-driven model-based calibration for optimizing electrically boosted diesel engine performance. <i>International Journal of Engine Research</i> , 146808742210903	2.7	