

Guoming G Zhu

List of Publications by Citations

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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	Modeling and Inverse Compensation of Temperature-Dependent Ionic Polymer/Metal Composite Sensor Dynamics. <i>IEEE/ASME Transactions on Mechatronics</i> , 2011 , 16, 80-89	5.5	54
105	Covariance control design for Hubble Space Telescope. <i>Journal of Guidance, Control, and Dynamics</i> , 1995 , 18, 230-236	2.1	41
104	Model-Based Estimation of Flow Characteristics Using an Ionic Polymer/Metal Composite Beam. <i>IEEE/ASME Transactions on Mechatronics</i> , 2013 , 18, 932-943	5.5	40
103	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
102	MBT Timing Detection and its Closed-Loop Control Using In-Cylinder Pressure Signal 2003 ,		34
101	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
100	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2015 , 20, 2120-2132	5.5	27
99	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
98	. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 229-238	4.8	22
97	Linear Parameter-Varying Control for Engineering Applications. <i>Springer Briefs in Electrical and Computer Engineering</i> , 2013 ,	0.4	22
96	Trajectory Optimization for the Engine/Generator Operation of a Series Hybrid Electric Vehicle. <i>IEEE Transactions on Vehicular Technology</i> , 2011 , 60, 2438-2447	6.8	22
95	. <i>IEEE Transactions on Vehicular Technology</i> , 2014 , 63, 1079-1090	6.8	20
94	Gain-scheduling control of port-fuel-injection processes. <i>Control Engineering Practice</i> , 2011 , 19, 380-394	3.9	18
93	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
92	. <i>IEEE Transactions on Control Systems Technology</i> , 2013 , 21, 1558-1569	4.8	17
91	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
90	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

89	q-Markov Cover identification using pseudo-random binary signals. <i>International Journal of Control</i> , 1995 , 62, 1273-1290	1.5	15
88	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
87	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
86	. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 730-743	4.8	14
85	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
84	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
83	Application of ICC LPV control to a blended-wing-body airplane with guaranteed H ₁ performance. <i>Aerospace Science and Technology</i> , 2018 , 81, 88-98	4.9	12
82	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
81	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
80	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
79	. <i>IEEE Transactions on Control Systems Technology</i> , 2011 , 19, 1433-1443	4.8	10
78	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
77	Adaptive Control of a Pneumatic Valve Actuator for an Internal Combustion Engine. <i>Proceedings of the American Control Conference</i> , 2007 ,	1.2	10
76	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
75	Review of Advancement in Variable Valve Actuation of Internal Combustion Engines. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1216	2.6	9
74	Camless Variable Valve Actuator with Two Discrete Lifts 2015 ,		9
73	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
72	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

71	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
70	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
69	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
68	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
67	Optimal LPV control with hard constraints. <i>International Journal of Control, Automation and Systems</i> , 2016 , 14, 148-162	2.9	8
66	Optimum distributed wing shaping and control loads for highly flexible aircraft. <i>Aerospace Science and Technology</i> , 2018 , 79, 255-265	4.9	8
65	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
64	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020 , 25, 2000-2008	5.5	6
63	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
62	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
61	A two-zone control oriented SI-HCCI hybrid combustion model for the HIL engine simulation 2011 ,		6
60	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
59	Model predictive control of a power split hybrid powertrain 2016 ,		5
58	Stochastic Predictive Boundary Management for a Hybrid Powertrain. <i>IEEE Transactions on Vehicular Technology</i> , 2016 , 65, 4700-4713	6.8	5
57	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
56	An iterative algorithm for model-based predictive control of an Electro-Pneumatic Valve Actuator 2009 ,		5
55	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
54	Constrained Surrogate-Based Engine Calibration Using Lower Confidence Bound. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021 , 1-1	5.5	5

53	Switching State-Feedback LPV control with uncertain scheduling parameters 2017 ,		4
52	Control-oriented crank-resolved and state-space models for a gasoline turbulent jet ignition engine 2017 ,		4
51	Control-oriented mixing model for Homogeneous Charge Compression Ignition engines 2010 ,		4
50	Model-based predictive control of an Electro-Pneumatic exhaust valve for Internal Combustion engines 2008 ,		4
49	Multi-Objective Stochastic Bayesian Optimization for Iterative Engine Calibration 2020 ,		4
48	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
47	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
46	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
45	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
44	Integrated Model Reduction and Control of Aircraft with Flexible Wings 2013 ,		3
43	Temperature-dependent Ionic polymer-metal composite (IPMC) sensing dynamics: Modeling and inverse compensation 2010 ,		3
42	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
41	LPV Modeling and Switched Control for EGR Valves with Dry Friction 2019 ,		3
40	Adaptive Optimal Control for Suppressing Vehicle Longitudinal Vibrations 2019 ,		3
39	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
38	A Control-Oriented Dynamic Model of Tiltrotor Aircraft for Urban Air Mobility 2021 ,		3
37	Tutorial of model-based powertrain and aftertreatment system control design and implementation 2015 ,		2
36	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

35	Dynamic, output-feedback, gain-scheduling control of an electric variable valve timing system 2013 ,		2
34	Adaptive feedforward control of an electro-hydraulic variable valve actuator for internal combustion engines 2017 ,		2
33	Modeling of Ionic Polymer-Metal Composite beam dynamics and its validation using high-speed motion visualization 2010 ,		2
32	Cycle-to-cycle response of ionic polymer-metal composite materials subject to pulsing flow-induced stimulus 2012 ,		2
31	Smooth Switching LPV Dynamic Output-feedback Control. <i>International Journal of Control, Automation and Systems</i> , 2020 , 18, 1367-1377	2.9	2
30	Deadbeat Adaptive Backstepping Design for Tracking Transfer Case Torque and Estimating its Clutch Touchpoint 2020 ,		2
29	Dynamic System Identification for a Nonlinear Vehicle Model Using \mathcal{H}_∞ -Markov Cover under Different Operational Conditions 2021 ,		2
28	Review of engine control-oriented combustion models. <i>International Journal of Engine Research</i> , 146808742199295		2
27	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
26	Guaranteed H_∞ Performance LPV ICC Control with Application to Blended-Wing-Body Model 2018 ,		1
25	Robust Input Covariance Constraint Control for Uncertain Polytopic Systems. <i>Asian Journal of Control</i> , 2016 , 18, 1489-1500	1.7	1
24	Optimal Combustion Phasing Control of a Turbulent Jet Ignition Engine 2018 ,		1
23	Simultaneous Design of Smooth Switching State-Feedback LPV Control 2018 ,		1
22	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
21	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
20	Model-based calibration of the reaction-based diesel combustion dynamics 2017 ,		1
19	Development of control-oriented charge mixing model and experimental validation using graphical analysis 2013 ,		1
18	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

17	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
16	. <i>IEEE Access</i> , 2020 , 8, 149741-149750	3.5	1
15	Sequential Design of Switching \mathscr{H}_∞ LPV State-Feedback Control 2019 ,		1
14	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
13	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
12	Stochastic Bayesian optimization for predicting borderline knock. <i>International Journal of Engine Research</i> ,146808742110652	2.7	1
11	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
10	A Sequential Design Approach for Switching \mathscr{H}_∞ LPV Control. <i>International Journal of Control, Automation and Systems</i> , 2021 , 19, 3354	2.9	0
9	Modeling and control of a class of urban air mobility tiltrotor aircraft. <i>Aerospace Science and Technology</i> , 2022 , 124, 107561	4.9	0
8	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	
7	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	
6	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	
5	Mixed ICC/ \mathscr{H}_∞ control for systems with sensors aging. <i>International Journal of Control</i> , 2021 , 94, 1065-1080.	1.5	
4	Minimal Energy Transient Motion Control of Electrical Connected Vehicles. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-9	5.5	
3	Experimental Case Study of Stochastic Surrogate-Assisted Engine Calibration. <i>IEEE/ASME Transactions on Mechatronics</i> , 2022 , 1-11	5.5	
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	