John Valasek

List of Publications by Year
in descending order

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76 papers	1,624 citations	430874 18 h-index	454955 30 g-index
91 all docs	91 docs citations	91 times ranked	1246 citing authors

#	Article	IF	Citations
1	Unmanned Aerial Vehicles for High-Throughput Phenotyping and Agronomic Research. PLoS ONE, 2016, 11, e0159781.	2.5	262
2	Vision-Based Sensor and Navigation System for Autonomous Air Refueling. Journal of Guidance, Control, and Dynamics, 2005, 28, 979-989.	2.8	151
3	Trajectory Tracking Controller for Vision-Based Probe and Drogue Autonomous Aerial Refueling. Journal of Guidance, Control, and Dynamics, 2006, 29, 846-857.	2.8	110
4	Evaluation of Longitudinal Desired Dynamics for Dynamic-Inversion Controlled Generic Reentry Vehicles. Journal of Guidance, Control, and Dynamics, 2003, 26, 811-819.	2.8	103
5	Unmanned aerial systems-based remote sensing for monitoring sorghum growth and development. PLoS ONE, 2018, 13, e0196605.	2.5	84
6	Improved Adaptiveâ€“Reinforcement Learning Control for Morphing Unmanned Air Vehicles. IEEE Transactions on Systems, Man, and Cybernetics, 2008, 38, 1014-1020.	5.0	59
7	Observer/Kalman Filter Identification for Online System Identification of Aircraft. Journal of Guidance, Control, and Dynamics, 2003, 26, 347-353.	2.8	57
8	Boom and Receptacle Autonomous Air Refueling Using Visual Snake Optical Sensor. Journal of Guidance, Control, and Dynamics, 2007, 30, 1753-1769.	2.8	52
9	Digital Autoland Control Laws Using Quantitative Feedback Theory and Direct Digital Design. Journal of Guidance, Control, and Dynamics, 2007, 30, 1399-1413.	2.8	44
10	Prediction of icing effects on the lateral/directional stability and control of light airplanes. Aerospace Science and Technology, 2012, 23, 305-311.	4.8	44
11	A Reinforcement Learning - Adaptive Control Architecture for Morphing. Journal of Aerospace Computing, Information, and Communication, 2005, 2, 174-195.	0.8	42
12	Fault-Tolerant Structured Adaptive Model Inversion Control. Journal of Guidance, Control, and Dynamics, 2006, 29, 635-642.	2.8	40
13	Reinforcement Learning of a Morphing Airfoil-Policy and Discrete Learning Analysis. Journal of Aerospace Computing, Information, and Communication, 2010, 7, 241-260.	0.8	36
14	Adaptive Dynamic Inversion Control with Actuator Saturation Constraints Applied to Tracking Spacecraft Maneuvers. Journal of the Astronautical Sciences, 2004, 52, 517-530.	1.5	34
15	Fault-tolerant control allocation for Mars entry vehicle using adaptive control. International Journal of Adaptive Control and Signal Processing, 2011, 25, 95-113.	4.1	32
16	Reinforcement Learning of Morphing Airfoils with Aerodynamic and Structural Effects. Journal of Aerospace Computing, Information, and Communication, 2009, 6, 30-50.	0.8	31
17	Aircraft system identification using artificial neural networks with flight test data. , 2016, , .		23
18	Prediction of Icing Effects on the Dynamic Response of Light Airplanes. Journal of Guidance, Control, and Dynamics, 2007, 30, 722-732.	2.8	22

#	Article	IF	Citations
19	Robust Trajectory Tracking Controller for Vision Based Probe and Drogue Autonomous Aerial Refueling. , 2005, , .		20
20	System Identification of Powered Parafoil-Vehicle from Flight Test Data. , 2003, , .		19
21	Fault-Tolerant Adaptive Model Inversion Control for Vision-Based Autonomous Air Refueling. Journal of Guidance, Control, and Dynamics, 2017, 40, 1336-1347.	2.8	19
22	Structured Adaptive Model Inversion Controller for Mars Atmospheric Flight. Journal of Guidance, Control, and Dynamics, 2008, 31, 937-953.	2.8	18
23	Active Length Control of Shape Memory Alloy Wires Using Reinforcement Learning. Journal of Intelligent Material Systems and Structures, 2011, 22, 1595-1604.	2.5	15
24	Adaptive Dynamic Inversion Control of Linear Plants With Control Position Constraints. IEEE Transactions on Control Systems Technology, 2012, 20, 918-933.	5.2	15
25	Reinforcement Learning for Characterizing Hysteresis Behavior of Shape Memory Alloys. Journal of Aerospace Computing, Information, and Communication, 2009, 6, 227-238.	0.8	14
26	Kinetic State Tracking for a Class of Singularly Perturbed Systems. Journal of Guidance, Control, and Dynamics, 2011, 34, 734-749.	2.8	13
27	Control of Morphing Wing Shapes with Deep Reinforcement Learning. , 2018, , .		13
28	Mapping and Estimating Weeds in Cotton Using Unmanned Aerial Systems-Borne Imagery. AgriEngineering, 2020, 2, 350-366.	3.2	11
29	Structured Adaptive Model Inversion Control to Simultaneously Handle Actuator Failure and Actuator Saturation. , 2003, , .		10
30	Morphing Unmanned Air Vehicle Intelligent Shape and Flight Control. , 2009, , .		10
31	Global Tracking Control Structures for Nonlinear Singularly Perturbed Aircraft Systems. , 2011, , 235-246.		10
32	Preliminary Results of Adaptive Reinforcement Learning Control for Morphing Aircraft. , 2004, , .		9
33	Prediction of Icing Effects on the Lateral/Directional Stability and Control of Light Airplanes. , 2006, , .		8
34	Odometry and calibration methods for multi-castor vehicles. , 2008, , .		8
35	Integrated Guidance and Fault Tolerant Adaptive Control for Mars Entry Vehicle. , 2009, , .		8
36	Online Near Real Time System Identification on a Fixed-Wing Small Unmanned Air Vehicle. , 2018, , .		8

#	Article	IF	Citations
37	Boom and Receptacle Autonomous Air Refueling Using a Visual Pressure Snake Optical Sensor. , 2006, , .		7
38	Fault Tolerant SAMI for Vision-Based Probe and Drogue Autonomous Aerial Refueling. , 2009, , .		7
39	Development and testing of a customized low-cost unmanned aircraft system based on multispectral and thermal sensing for precision agriculture applications. , 2017, , .		7
40	GLOMAP Approach for Nonlinear System Identification of Aircraft Dynamics Using Flight Data. , 2008, , .		6
41	Reinforcement Learning of a Morphing Airfoil-Policy and Discrete Learning Analysis. , 2008, , .		6
42	Fault Tolerant Control Allocation for Mars Entry Vehicle using Adaptive Control. , 2008, , .		6
43	Infrastructure assessment with small unmanned aircraft systems. , 2016, , .		6
44	Corn and sorghum phenotyping using a fixed-wing UAV-based remote sensing system. Proceedings of SPIE, 2016, , .	0.8	6
45	Synthesis and Flight Test of Automatic Landing Controller Using Quantitative Feedback Theory. Journal of Guidance, Control, and Dynamics, 2016, 39, 1994-2010.	2.8	6
46	Multispectral and DSLR sensors for assessing crop stress in corn and cotton using fixed-wing unmanned air systems. , 2016, , .		5
47	Two-Time-Scale Control of a Low-Order Nonlinear, Nonstandard System with Uncertain Dynamics. , 2018, , .		5
48	A Reinforcement Learning - Adaptive Control Architecture for Morphing. , 2004, , .		4
49	Digital Autoland Control Laws Using Direct Digital Design and Quantitative Feedback Theory. , 2006, , .		4
50	Solutions for handling control magnitude bounds in adaptive dynamic inversion controlled satellites. Journal of the Astronautical Sciences, 2007, 55, 171-194.	1.5	4
51	Modeling and Analysis of Eagle Flight Mechanics from Experimental Flight Data. , 2012, , .		4
52	Characterization and Control of Hysteretic Dynamics Using Online Reinforcement Learning. Journal of Aerospace Information Systems, 2013, 10, 297-305.	1.4	4
53	Flight test results of Observer/Kalman Filter Identifi[|#12#|]cation of the Pegasus unmanned vehicle. , 2015, , .		4
54	Flight test instrumentation system for small UAS system identification. , 2017, , .		4

#	Article	IF	Citations
55	Characterization and Implementation of a Vision-Based 6-DOF Localization System. , 2008, , .		3
56	Gust Load Alleviation of an Aeroelastic System Using Nonlinear Control. , 2009, , .		3
57	Tracking control design for non-standard nonlinear singularly perturbed systems. , 2012, , .		3
58	System Identification Flight Testing of Inverted V-Tail Small Unmanned Air System. , 2022, , .		3
59	Addressing Undesirable Emergent Behavior in Deep Reinforcement Learning UAS Ground Target Tracking. , 2022, , .		3
60	Improved Adaptive-Reinforcement Learning Control for Morphing Unmanned Air Vehicles. , 2005, , .		2
61	Multi-resolution state-space discretization for Q-Learning with pseudo-randomized discretization. , 2010, , .		2
62	Multiresolution state-space discretization for Q-Learning with pseudorandomized discretization. Journal of Control Theory and Applications, 2011, 9, 431-439.	0.8	2
63	Synthesis and flight test of an automatic landing controller using Quantitative Feedback Theory. , 2015, , .		2
64	Nonlinear Multiple-Time-Scale Attitude Control of a Rigid Spacecraft with Uncertain Inertias. , 2019, , .		2
65	Output feedback control using state observers of a class of nonlinear nonstandard two-time-scale systems. International Journal of Control, 2021, 94, 1944-1958.	1.9	2
66	Asymmetric Quadrotor Modeling and State-Space System Identification. , 2021, , .		2
67	Reinforcement Learning for Active Length Control of Shape Memory Alloys. , 2008, , .		1
68	A Hierarchical Control Approach to Morphing Dynamics. , 2009, , .		1
69	Kinetic State Tracking for a Class of Singularly Perturbed Systems. , 2010, , .		1
70	A constructive stabilization approach for open-loop unstable non-affine systems. , 2013, , .		1
71	Heterogeneous multi-vehicle modular control framework with payload integration. , 2017, , .		1
72	System Identification of an Unmanned Aerial Vehicle with Hingeless Control Effectors. , 2010, , .		1

#	Article	IF	Citations
73	Structured Adaptive Model Inversion Controller for Mars Atmospheric Flight. , 2007, , .		0
74	Multiresolution state-space discretization method for Q-learning with function approximation and policy iteration. , 2009, , .		0
75	Dimensionality effects on the Markov property in Shape Memory Alloy hysteretic environment. , 2009, , .		0
76	Nonlinear System Identification of Discrete Systems Using GLO-Map. , 2009, , .		0