

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	System Identification Flight Testing of Inverted V-Tail Small Unmanned Air System. , 2022, , .		3
2	Addressing Undesirable Emergent Behavior in Deep Reinforcement Learning UAS Ground Target Tracking. , 2022, , .		3
3	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
4	Asymmetric Quadrotor Modeling and State-Space System Identification. , 2021, , .		2
5	Mapping and Estimating Weeds in Cotton Using Unmanned Aerial Systems-Borne Imagery. AgriEngineering, 2020, 2, 350-366.	3.2	11
6	Nonlinear Multiple-Time-Scale Attitude Control of a Rigid Spacecraft with Uncertain Inertias. , 2019, , .		2
7	Online Near Real Time System Identification on a Fixed-Wing Small Unmanned Air Vehicle. , 2018, , .		8
8	Control of Morphing Wing Shapes with Deep Reinforcement Learning. , 2018, , .		13
9	Two-Time-Scale Control of a Low-Order Nonlinear, Nonstandard System with Uncertain Dynamics. , 2018, , .		5
10	Unmanned aerial systems-based remote sensing for monitoring sorghum growth and development. PLoS ONE, 2018, 13, e0196605.	2.5	84
11	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
12	Flight test instrumentation system for small UAS system identification. , 2017, , .		4
13	Heterogeneous multi-vehicle modular control framework with payload integration. , 2017, , .		1
14	Development and testing of a customized low-cost unmanned aircraft system based on multispectral and thermal sensing for precision agriculture applications. , 2017, , .		7
15	Aircraft system identification using artificial neural networks with flight test data. , 2016, , .		23
16	Infrastructure assessment with small unmanned aircraft systems. , 2016, , .		6
17	Corn and sorghum phenotyping using a fixed-wing UAV-based remote sensing system. Proceedings of SPIE, 2016, , .	0.8	6
18	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

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19	Multispectral and DSLR sensors for assessing crop stress in corn and cotton using fixed-wing unmanned air systems. , 2016, , .		5
20	Unmanned Aerial Vehicles for High-Throughput Phenotyping and Agronomic Research. PLoS ONE, 2016, 11, e0159781.	2.5	262
21	Synthesis and flight test of an automatic landing controller using Quantitative Feedback Theory. , 2015, , .		2
22	Flight test results of Observer/Kalman Filter Identifi[#12#]cation of the Pegasus unmanned vehicle. , 2015, , .		4
23	A constructive stabilization approach for open-loop unstable non-affine systems. , 2013, , .		1
24	Characterization and Control of Hysteretic Dynamics Using Online Reinforcement Learning. Journal of Aerospace Information Systems, 2013, 10, 297-305.	1.4	4
25	Tracking control design for non-standard nonlinear singularly perturbed systems. , 2012, , .		3
26	Modeling and Analysis of Eagle Flight Mechanics from Experimental Flight Data. , 2012, , .		4
27	Adaptive Dynamic Inversion Control of Linear Plants With Control Position Constraints. IEEE Transactions on Control Systems Technology, 2012, 20, 918-933.	5.2	15
28	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
29	Multiresolution state-space discretization for Q-Learning with pseudorandomized discretization. Journal of Control Theory and Applications, 2011, 9, 431-439.	0.8	2
30	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
31	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
32	Kinetic State Tracking for a Class of Singularly Perturbed Systems. Journal of Guidance, Control, and Dynamics, 2011, 34, 734-749.	2.8	13
33	Global Tracking Control Structures for Nonlinear Singularly Perturbed Aircraft Systems. , 2011, , 235-246.		10
34	Kinetic State Tracking for a Class of Singularly Perturbed Systems. , 2010, , .		1
35	Multi-resolution state-space discretization for Q-Learning with pseudo-randomized discretization. , 2010, , .		2
36	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

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37	System Identification of an Unmanned Aerial Vehicle with Hingeless Control Effectors. , 2010, , .		1
38	Multiresolution state-space discretization method for Q-learning with function approximation and policy iteration. , 2009, , .		0
39	Dimensionality effects on the Markov property in Shape Memory Alloy hysteretic environment. , 2009, , .		0
40	Reinforcement Learning for Characterizing Hysteresis Behavior of Shape Memory Alloys. Journal of Aerospace Computing, Information, and Communication, 2009, 6, 227-238.	0.8	14
41	Reinforcement Learning of Morphing Airfoils with Aerodynamic and Structural Effects. Journal of Aerospace Computing, Information, and Communication, 2009, 6, 30-50.	0.8	31
42	Morphing Unmanned Air Vehicle Intelligent Shape and Flight Control. , 2009, , .		10
43	A Hierarchical Control Approach to Morphing Dynamics. , 2009, , .		1
44	Fault Tolerant SAMI for Vision-Based Probe and Drogue Autonomous Aerial Refueling. , 2009, , .		7
45	Gust Load Alleviation of an Aeroelastic System Using Nonlinear Control. , 2009, , .		3
46	Integrated Guidance and Fault Tolerant Adaptive Control for Mars Entry Vehicle. , 2009, , .		8
47	Nonlinear System Identification of Discrete Systems Using GLO-Map. , 2009, , .		0
48	Structured Adaptive Model Inversion Controller for Mars Atmospheric Flight. Journal of Guidance, Control, and Dynamics, 2008, 31, 937-953.	2.8	18
49	GLOMAP Approach for Nonlinear System Identification of Aircraft Dynamics Using Flight Data. , 2008, , .		6
50	Reinforcement Learning for Active Length Control of Shape Memory Alloys. , 2008, , .		1
51	Reinforcement Learning of a Morphing Airfoil-Policy and Discrete Learning Analysis. , 2008, , .		6
52	Characterization and Implementation of a Vision-Based 6-DOF Localization System. , 2008, , .		3
53	Fault Tolerant Control Allocation for Mars Entry Vehicle using Adaptive Control. , 2008, , .		6
54	Improved Adaptive Reinforcement Learning Control for Morphing Unmanned Air Vehicles. IEEE Transactions on Systems, Man, and Cybernetics, 2008, 38, 1014-1020.	5.0	59

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55	Odometry and calibration methods for multi-castor vehicles. , 2008, , .		8
56	Prediction of Icing Effects on the Dynamic Response of Light Airplanes. Journal of Guidance, Control, and Dynamics, 2007, 30, 722-732.	2.8	22
57	Boom and Receptacle Autonomous Air Refueling Using Visual Snake Optical Sensor. Journal of Guidance, Control, and Dynamics, 2007, 30, 1753-1769.	2.8	52
58	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
59	Structured Adaptive Model Inversion Controller for Mars Atmospheric Flight. , 2007, , .		0
60	Solutions for handling control magnitude bounds in adaptive dynamic inversion controlled satellites. Journal of the Astronautical Sciences, 2007, 55, 171-194.	1.5	4
61	Boom and Receptacle Autonomous Air Refueling Using a Visual Pressure Snake Optical Sensor. , 2006, , .		7
62	Digital Autoland Control Laws Using Direct Digital Design and Quantitative Feedback Theory. , 2006, , .		4
63	Prediction of Icing Effects on the Lateral/Directional Stability and Control of Light Airplanes. , 2006, , .		8
64	Fault-Tolerant Structured Adaptive Model Inversion Control. Journal of Guidance, Control, and Dynamics, 2006, 29, 635-642.	2.8	40
65	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
66	Vision-Based Sensor and Navigation System for Autonomous Air Refueling. Journal of Guidance, Control, and Dynamics, 2005, 28, 979-989.	2.8	151
67	A Reinforcement Learning - Adaptive Control Architecture for Morphing. Journal of Aerospace Computing, Information, and Communication, 2005, 2, 174-195.	0.8	42
68	Robust Trajectory Tracking Controller for Vision Based Probe and Drogue Autonomous Aerial Refueling. , 2005, , .		20
69	Improved Adaptive-Reinforcement Learning Control for Morphing Unmanned Air Vehicles. , 2005, , .		2
70	Preliminary Results of Adaptive Reinforcement Learning Control for Morphing Aircraft. , 2004, , .		9
71	A Reinforcement Learning - Adaptive Control Architecture for Morphing. , 2004, , .		4
72	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

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73	Observer/Kalman Filter Identification for Online System Identification of Aircraft. Journal of Guidance, Control, and Dynamics, 2003, 26, 347-353.	2.8	57
74	Structured Adaptive Model Inversion Control to Simultaneously Handle Actuator Failure and Actuator Saturation. , 2003, , .		10
75	System Identification of Powered Parafoil-Vehicle from Flight Test Data. , 2003, , .		19
76	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