

Karl A Stol

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3190606/publications.pdf>

Version: 2024-02-01

67
papers

1,404
citations

567281

15
h-index

552781

26
g-index

68
all docs

68
docs citations

68
times ranked

946
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic tree branch tracking for aerial canopy sampling using stereo vision. Computers and Electronics in Agriculture, 2021, 182, 106007.	7.7	2
2	Energy-Optimal Motion Trajectory of an Omni-Directional Mecanum-Wheeled Robot via Polynomial Functions. Robotica, 2020, 38, 1400-1414.	1.9	6
3	Towards Automated Under-Canopy Exploration of Plantation Forests. , 2019, , .		1
4	Preliminary design of multirotor UAVs with tilted-rotors for improved disturbance rejection capability. Aerospace Science and Technology, 2019, 92, 635-643.	4.8	28
5	An Analytical Dynamics Approach for Nonlinear Trajectory-Tracking Control of Quadrotors: Numerical and Experimental Results. , 2019, , .		1
6	Aerodynamic Force Modeling of Multirotor Unmanned Aerial Vehicles. AIAA Journal, 2019, 57, 1250-1259.	2.6	16
7	Automated Perching of a Multirotor UAV atop Round Timber Posts. , 2018, , .		10
8	Analysis of a Multirotor UAV with Tilted-Rotors for the Purposes of Disturbance Rejection. , 2018, , .		2
9	Aerial Manipulator Interactions With Trees for Canopy Sampling. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1740-1749.	5.8	36
10	Power-minimization and energy-reduction autonomous navigation of an omnidirectional Mecanum robot via the dynamic window approach local trajectory planning. International Journal of Advanced Robotic Systems, 2018, 15, 172988141875456.	2.1	31
11	Vision-based object path following on a quadcopter for GPS-denied environments. , 2017, , .		4
12	Wind turbine blade optimisation with individual pitch and trailing edge flap control. Renewable Energy, 2017, 103, 750-765.	8.9	38
13	System identification and controller design for individual pitch and trailing edge flap control on upscaled wind turbines. Wind Energy, 2016, 19, 1073-1088.	4.2	7
14	Modeling and characterization of a canopy sampling aerial manipulator. , 2016, , .		3
15	Experimental validation of energy consumption model for the four-wheeled omnidirectional Mecanum robots for energy-optimal motion control. , 2016, , .		12
16	Towards autonomous flight of an unmanned aerial system in plantation forests. , 2016, , .		4
17	Initial flight experiments of a canopy sampling aerial manipulator. , 2016, , .		5
18	Speech enhancement using a microphone array mounted on an unmanned aerial vehicle. , 2016, , .		21

#	ARTICLE	IF	CITATIONS
19	Controller comparisons for autonomous railway following with a fixed-wing UAV. , 2015, , .		8
20	Design and analysis of a UAV for skydiving. , 2015, , .		2
21	Canopy sampling using an aerial manipulator: A preliminary study. , 2015, , .		18
22	Heavy-duty omni-directional Mecanum-wheeled robot for autonomous navigation: System development and simulation realization. , 2015, , .		24
23	Handling Qualities of a Twin Ducted-Fan Aircraft: An Analytical Evaluation. Journal of Guidance, Control, and Dynamics, 2015, 38, 1126-1131.	2.8	6
24	Individual Blade Pitch Control of a Spar-Buoy Floating Wind Turbine. IEEE Transactions on Control Systems Technology, 2014, 22, 214-223.	5.2	67
25	Development of an active balance board for progressive ankle rehabilitation. , 2014, , .		0
26	On-board object tracking control of a quadcopter with monocular vision. , 2014, , .		49
27	Model predictive control of a wind turbine using short-term wind field predictions. Wind Energy, 2013, 16, 417-434.	4.2	55
28	Large eddy simulation of dynamically controlled wind turbines in an offshore environment. Wind Energy, 2013, 16, 845-864.	4.2	29
29	Review of modelling and control of two-wheeled robots. Annual Reviews in Control, 2013, 37, 89-103.	7.9	172
30	Lyapunov function-based non-linear control for two-wheeled mobile robots. International Journal of Biomechatronics and Biomedical Robotics, 2013, 2, 172.	0.2	3
31	Effect of Limiting Wheel Slip on Two-Wheeled Robots in Low Traction Environments. Lecture Notes in Computer Science, 2012, , 417-426.	1.3	3
32	Modeling Gusts Moving Through Wind Farms. , 2012, , .		4
33	Large Eddy Simulation of Dynamically Controlled Wind Turbines using Actuator Discs. , 2012, , .		4
34	Predictive Yaw Control of a 5MW Wind Turbine Model. , 2012, , .		9
35	The Effect of Terrain Inclination on Performance and the Stability Region of Two-Wheeled Mobile Robots. International Journal of Advanced Robotic Systems, 2012, 9, 218.	2.1	20
36	Performance analysis of individual blade pitch control of offshore wind turbines on two floating platforms. Mechatronics, 2011, 21, 691-703.	3.3	95

#	ARTICLE	IF	CITATIONS
37	Stability region estimation of statically unstable two wheeled mobile robots. , 2011, , .		2
38	Approximate output regulation for a spherical inverted pendulum. , 2011, , .		12
39	Real-Time Robust Image Feature Description and Matching. Lecture Notes in Computer Science, 2011, , 334-345.	1.3	3
40	Development of a robotic driver for autonomous vehicle following. International Journal of Intelligent Systems Technologies and Applications, 2010, 8, 276.	0.2	14
41	Performance enhancement of a statically unstable Two Wheeled Mobile Robot traversing on an uneven surface. , 2010, , .		11
42	Testing Further Controls to Mitigate Loads in the Controls Advanced Research Turbine. , 2010, , .		10
43	A Comparison of Multi-Blade Coordinate Transformation and Direct Periodic Techniques for Wind Turbine Control Design. , 2009, , .		43
44	Scheduled Model Predictive Control of a wind Turbine. , 2009, , .		41
45	Disturbance Accommodating Control of Floating Offshore Wind Turbines. , 2009, , .		21
46	Testing controls to mitigate fatigue loads in the controls Advanced Research Turbine. , 2009, , .		11
47	FPGA-based low-cost autonomous vehicle platform for mechatronics education. International Journal of Mechatronics and Manufacturing Systems, 2009, 2, 200.	0.1	1
48	Designing and Testing Controls to Mitigate Dynamic Loads in the Control Advanced Research Turbine. , 2008, , .		9
49	Simulating MIMO Feedback Linearization Control of Wind Turbines Using FAST. , 2008, , .		7
50	Autonomous Vehicle Following Using a Robotic Driver. , 2008, , .		8
51	Development of a Mobile Two-Wheel Balancing Platform for Autonomous Applications. , 2008, , .		14
52	Designing and Testing Controls to Mitigate Tower Dynamic Loads in the Controls Advanced Research Turbine. , 2007, , .		14
53	Individual Blade Pitch for Active Yaw Control of a Horizontal-Axis Wind Turbine. , 2007, , .		11
54	Individual Blade Pitch Control for the Controls Advanced Research Turbine (CART). Journal of Solar Energy Engineering, Transactions of the ASME, 2006, 128, 498-505.	1.8	86

#	ARTICLE	IF	CITATIONS
55	Progress In Implementing and Testing State-Space Controls for the Controls Advanced Research Turbine. , 2005, , .		16
56	Periodic and Non-Periodic Disturbance Accommodating Control of the Controls Advanced Research Turbine (CART). , 2004, , .		1
57	Disturbance Tracking and Blade Load Control of Wind Turbines in Variable-Speed Operation. , 2003, , .		3
58	Periodic Disturbance Accommodating Control for Blade Load Mitigation in Wind Turbines. Journal of Solar Energy Engineering, Transactions of the ASME, 2003, 125, 379-385.	1.8	80
59	Disturbance Tracking Control and Blade Load Mitigation for Variable-Speed Wind Turbines. Journal of Solar Energy Engineering, Transactions of the ASME, 2003, 125, 396-401.	1.8	31
60	Disturbance Tracking and Blade Load Control of Wind Turbines in Variable-Speed Operation. , 2003, , 317.		16
61	Floquet Modal Analysis of a Teetered-Rotor Wind Turbine. Journal of Solar Energy Engineering, Transactions of the ASME, 2002, 124, 364-371.	1.8	30
62	Periodic Disturbance Accommodating Control for Speed Regulation of Wind Turbines. , 2002, , 310.		17
63	Full-State Feedback Control of a Variable-Speed Wind Turbine: A Comparison of Periodic and Constant Gains. Journal of Solar Energy Engineering, Transactions of the ASME, 2001, 123, 319-326.	1.8	45
64	Disturbance Accommodating Control of a variable-speed turbine using a symbolic dynamics structural model. , 2000, , .		23
65	Modal analysis of a teetered-rotor wind turbine using the Floquet approach. , 2000, , .		9
66	Validation of a symbolic wind turbine structural dynamics model. , 2000, , .		7
67	Time-varying control of wind turbines. , 0, , .		6