

# Karl A Stol

## List of Publications by Year in descending order

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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	Review of modelling and control of two-wheeled robots. Annual Reviews in Control, 2013, 37, 89-103.	7.9	172
2	Performance analysis of individual blade pitch control of offshore wind turbines on two floating platforms. Mechatronics, 2011, 21, 691-703.	3.3	95
3	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
4	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
5	Individual Blade Pitch Control of a Spar-Buoy Floating Wind Turbine. IEEE Transactions on Control Systems Technology, 2014, 22, 214-223.	5.2	67
6	Model predictive control of a wind turbine using short-term wind field predictions. Wind Energy, 2013, 16, 417-434.	4.2	55
7	On-board object tracking control of a quadcopter with monocular vision. , 2014, , .		49
8	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
9	A Comparison of Multi-Blade Coordinate Transformation and Direct Periodic Techniques for Wind Turbine Control Design. , 2009, , .		43
10	Scheduled Model Predictive Control of a wind Turbine. , 2009, , .		41
11	Wind turbine blade optimisation with individual pitch and trailing edge flap control. Renewable Energy, 2017, 103, 750-765.	8.9	38
12	Aerial Manipulator Interactions With Trees for Canopy Sampling. IEEE/ASME Transactions on Mechatronics, 2018, 23, 1740-1749.	5.8	36
13	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
14	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
15	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
16	Large eddy simulation of dynamically controlled wind turbines in an offshore environment. Wind Energy, 2013, 16, 845-864.	4.2	29
17	Preliminary design of multirotor UAVs with tilted-rotors for improved disturbance rejection capability. Aerospace Science and Technology, 2019, 92, 635-643.	4.8	28
18	Heavy-duty omni-directional Mecanum-wheeled robot for autonomous navigation: System development and simulation realization. , 2015, , .		24

#	ARTICLE	IF	CITATIONS
19	Disturbance Accommodating Control of a variable-speed turbine using a symbolic dynamics structural model. , 2000, , .		23
20	Disturbance Accommodating Control of Floating Offshore Wind Turbines. , 2009, , .		21
21	Speech enhancement using a microphone array mounted on an unmanned aerial vehicle. , 2016, , .		21
22	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
23	Canopy sampling using an aerial manipulator: A preliminary study. , 2015, , .		18
24	Periodic Disturbance Accommodating Control for Speed Regulation of Wind Turbines. , 2002, , 310.		17
25	Disturbance Tracking and Blade Load Control of Wind Turbines in Variable-Speed Operation. , 2003, , 317.		16
26	Progress In Implementing and Testing State-Space Controls for the Controls Advanced Research Turbine. , 2005, , .		16
27	Aerodynamic Force Modeling of Multirotor Unmanned Aerial Vehicles. AIAA Journal, 2019, 57, 1250-1259.	2.6	16
28	Designing and Testing Controls to Mitigate Tower Dynamic Loads in the Controls Advanced Research Turbine. , 2007, , .		14
29	Development of a Mobile Two-Wheel Balancing Platform for Autonomous Applications. , 2008, , .		14
30	Development of a robotic driver for autonomous vehicle following. International Journal of Intelligent Systems Technologies and Applications, 2010, 8, 276.	0.2	14
31	Approximate output regulation for a spherical inverted pendulum. , 2011, , .		12
32	Experimental validation of energy consumption model for the four-wheeled omnidirectional Mecanum robots for energy-optimal motion control. , 2016, , .		12
33	Individual Blade Pitch for Active Yaw Control of a Horizontal-Axis Wind Turbine. , 2007, , .		11
34	Testing controls to mitigate fatigue loads in the controls Advanced Research Turbine. , 2009, , .		11
35	Performance enhancement of a statically unstable Two Wheeled Mobile Robot traversing on an uneven surface. , 2010, , .		11
36	Testing Further Controls to Mitigate Loads in the Controls Advanced Research Turbine. , 2010, , .		10

#	ARTICLE	IF	CITATIONS
37	Automated Perching of a Multirotor UAV atop Round Timber Posts. , 2018, , .		10
38	Modal analysis of a teetered-rotor wind turbine using the Floquet approach. , 2000, , .		9
39	Designing and Testing Controls to Mitigate Dynamic Loads in the Control Advanced Research Turbine. , 2008, , .		9
40	Predictive Yaw Control of a 5MW Wind Turbine Model. , 2012, , .		9
41	Autonomous Vehicle Following Using a Robotic Driver. , 2008, , .		8
42	Controller comparisons for autonomous railway following with a fixed-wing UAV. , 2015, , .		8
43	Validation of a symbolic wind turbine structural dynamics model. , 2000, , .		7
44	Simulating MIMO Feedback Linearization Control of Wind Turbines Using FAST. , 2008, , .		7
45	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
46	Time-varying control of wind turbines. , 0, , .		6
47	Handling Qualities of a Twin Ducted-Fan Aircraft: An Analytical Evaluation. Journal of Guidance, Control, and Dynamics, 2015, 38, 1126-1131.	2.8	6
48	Energy-Optimal Motion Trajectory of an Omni-Directional Mecanum-Wheeled Robot via Polynomial Functions. Robotica, 2020, 38, 1400-1414.	1.9	6
49	Initial flight experiments of a canopy sampling aerial manipulator. , 2016, , .		5
50	Modeling Gusts Moving Through Wind Farms. , 2012, , .		4
51	Large Eddy Simulation of Dynamically Controlled Wind Turbines using Actuator Discs. , 2012, , .		4
52	Towards autonomous flight of an unmanned aerial system in plantation forests. , 2016, , .		4
53	Vision-based object path following on a quadcopter for GPS-denied environments. , 2017, , .		4
54	Disturbance Tracking and Blade Load Control of Wind Turbines in Variable-Speed Operation. , 2003, , .		3

#	ARTICLE	IF	CITATIONS
55	Effect of Limiting Wheel Slip on Two-Wheeled Robots in Low Traction Environments. Lecture Notes in Computer Science, 2012, , 417-426.	1.3	3
56	Lyapunov function-based non-linear control for two-wheeled mobile robots. International Journal of Biomechatronics and Biomedical Robotics, 2013, 2, 172.	0.2	3
57	Modeling and characterization of a canopy sampling aerial manipulator. , 2016, , .		3
58	Real-Time Robust Image Feature Description and Matching. Lecture Notes in Computer Science, 2011, , 334-345.	1.3	3
59	Stability region estimation of statically unstable two wheeled mobile robots. , 2011, , .		2
60	Design and analysis of a UAV for skydiving. , 2015, , .		2
61	Analysis of a Multirotor UAV with Tilted-Rotors for the Purposes of Disturbance Rejection. , 2018, , .		2
62	Dynamic tree branch tracking for aerial canopy sampling using stereo vision. Computers and Electronics in Agriculture, 2021, 182, 106007.	7.7	2
63	Periodic and Non-Periodic Disturbance Accommodating Control of the Controls Advanced Research Turbine (CART). , 2004, , .		1
64	FPGA-based low-cost autonomous vehicle platform for mechatronics education. International Journal of Mechatronics and Manufacturing Systems, 2009, 2, 200.	0.1	1
65	Towards Automated Under-Canopy Exploration of Plantation Forests. , 2019, , .		1
66	An Analytical Dynamics Approach for Nonlinear Trajectory-Tracking Control of Quadrotors: Numerical and Experimental Results. , 2019, , .		1
67	Development of an active balance board for progressive ankle rehabilitation. , 2014, , .		0