Cunjia Liu

List of Publications by Year
in descending order

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79 papers	2,028 citations	236612 25 h-index	276539 41 g-index
80 all docs	80 docs citations	80 times ranked	1842 citing authors

#	Article	IF	Citations
1	A Novel Algorithm for Quantized Particle Filtering With Multiple Degrading Sensors: Degradation Estimation and Target Tracking. IEEE Transactions on Industrial Informatics, 2023, 19, 5830-5838.	7.2	6
2	Economic Model-Predictive Control for Aircraft Forced Landing: Framework and Two-Level Implementation. IEEE Transactions on Aerospace and Electronic Systems, 2022, 58, 1119-1132.	2.6	5
3	Spectral analysis and mapping of blackgrass weed by leveraging machine learning and UAV multispectral imagery. Computers and Electronics in Agriculture, 2022, 192, 106621.	3.7	27
4	Unmanned Aerial Vehicles: Control Methods and Future Challenges. IEEE/CAA Journal of Automatica Sinica, 2022, 9, 601-614.	8.5	69
5	Autonomous Source Term Estimation in Unknown Environments: From a Dual Control Concept to UAV Deployment. IEEE Robotics and Automation Letters, 2022, 7, 2274-2281.	3.3	10
6	Snow Coverage Mapping by Learning from Sentinel-2 Satellite Multispectral Images via Machine Learning Algorithms. Remote Sensing, 2022, 14, 782.	1.8	8
7	UAV spraying on citrus crop: impact of tank-mix adjuvant on the contact angle and droplet distribution. PeerJ, 2022, 10, e13064.	0.9	7
8	UAV Multispectral Remote Sensing forÂYellow Rust Mapping: Opportunities and Challenges. Smart Agriculture, 2022, , 107-122.	0.3	3
9	Optimal Path Following for Small Fixed-Wing UAVs Under Wind Disturbances. IEEE Transactions on Control Systems Technology, 2021, 29, 996-1008.	3.2	44
10	Aerial Visual Perception in Smart Farming: Field Study of Wheat Yellow Rust Monitoring. IEEE Transactions on Industrial Informatics, 2021, 17, 2242-2249.	7.2	96
11	State and parameter estimation of the AquaCrop model for winter wheat using sensitivity informed particle filter. Computers and Electronics in Agriculture, 2021, 180, 105909.	3.7	19
12	Ir-UNet: Irregular Segmentation U-Shape Network for Wheat Yellow Rust Detection by UAV Multispectral Imagery. Remote Sensing, 2021, 13, 3892.	1.8	17
13	Dual Control for Exploitation and Exploration (DCEE) in autonomous search. Automatica, 2021, 133, 109851.	3.0	15
14	Dual-layer optimization-based control allocation for a fixed-wing UAV. Aerospace Science and Technology, 2021, 119, 107184.	2.5	3
15	Disturbance Rejection for Nonlinear Uncertain Systems With Output Measurement Errors: Application to a Helicopter Model. IEEE Transactions on Industrial Informatics, 2020, 16, 3133-3144.	7.2	20
16	Nonlinearity Estimator-Based Control of A Class of Uncertain Nonlinear Systems. IEEE Transactions on Automatic Control, 2020, 65, 2230-2236.	3.6	30
17	Unmanned Aerial Vehicle-Based Hazardous Materials Response: Information-Theoretic Hazardous Source Search and Reconstruction. IEEE Robotics and Automation Magazine, 2020, 27, 108-119.	2.2	19
18	Decompositionâ€based mission planning for fixedâ€wing UAVs surveying in wind. Journal of Field Robotics, 2020, 37, 440-465.	3.2	19

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19	Docking control for probe-drogue refueling: An additive-state-decomposition-based output feedback iterative learning control method. Chinese Journal of Aeronautics, 2020, 33, 1016-1025.	2.8	11
20	Implicit Personalization in Driving Assistance: State-of-the-Art and Open Issues. IEEE Transactions on Intelligent Vehicles, 2020, 5, 397-413.	9.4	31
21	On the Actuator Dynamics of Dynamic Control Allocation for a Small Fixed-Wing UAV With Direct Lift Control. IEEE Transactions on Control Systems Technology, 2020, 28, 984-991.	3.2	25
22	Machine Learning-Based Crop Drought Mapping System by UAV Remote Sensing RGB Imagery. Unmanned Systems, 2020, 08, 71-83.	2.7	36
23	Informative Path Planning for Gas Distribution Mapping in Cluttered Environments. , 2020, , .		12
24	Flight Testing Boustrophedon Coverage Path Planning for Fixed Wing UAVs in Wind. , 2019, , .		5
25	Bayesian calibration of AquaCrop model for winter wheat by assimilating UAV multi-spectral images. Computers and Electronics in Agriculture, 2019, 167, 105052.	3.7	25
26	Experimental Assessment of Plume Mapping using Point Measurements from Unmanned Vehicles. , 2019, , .		6
27	Spatio-temporal monitoring of wheat yellow rust using UAV multispectral imagery. Computers and Electronics in Agriculture, 2019, 167, 105035.	3.7	60
28	A machine learning based personalized system for driving state recognition. Transportation Research Part C: Emerging Technologies, 2019, 105, 241-261.	3.9	64
29	Particle Filtering With Soft State Constraints for Target Tracking. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 3492-3504.	2.6	18
30	Information-Based Search for an Atmospheric Release Using a Mobile Robot: Algorithm and Experiments. IEEE Transactions on Control Systems Technology, 2019, 27, 2388-2402.	3.2	50
31	Trajectory Clustering Aided Personalized Driver Intention Prediction for Intelligent Vehicles. IEEE Transactions on Industrial Informatics, 2019, 15, 3693-3702.	7.2	38
32	Source term estimation of a hazardous airborne release using an unmanned aerial vehicle. Journal of Field Robotics, 2019, 36, 797-817.	3.2	43
33	New Driver Workload Prediction Using Clustering-Aided Approaches. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 64-70.	5.9	11
34	Potential Bands of Sentinel-2A Satellite for Classification Problems in Precision Agriculture. International Journal of Automation and Computing, 2019, 16, 16-26.	4.5	37
35	Personalized Driver Workload Inference by Learning From Vehicle Related Measurements. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2019, 49, 159-168.	5.9	29
36	Actuator dynamics augmented DOBC for a small scale fixed wing UAV. , 2018, , .		1

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37	Adaptive fault tolerant control for trajectory tracking of a quadrotor helicopter. Transactions of the Institute of Measurement and Control, 2018, 40, 3560-3569.	1.1	13
38	Bayesian Estimation of A Periodically-Releasing Biochemical Source Using Sensor Networks. , 2018, , .		1
39	Bayesian Calibration of AquaCrop Model. , 2018, , .		1
40	Wheat Drought Assessment by Remote Sensing Imagery Using Unmanned Aerial Vehicle. , 2018, , .		4
41	A Simple Optimal Planer Path Following Algorithm for Unmanned Aerial Vehiclesâˆ—. , 2018, , .		1
42	Information Based Mobile Sensor Planning for Source Term Estimation of a Non-Continuous Atmospheric Release. , 2018, , .		2
43	Fixed Wing UAV Survey Coverage Path Planning in Wind for Improving Existing Ground Control Station Software. , 2018, , .		8
44	Wheat yellow rust monitoring by learning from multispectral UAV aerial imagery. Computers and Electronics in Agriculture, 2018, 155, 157-166.	3.7	180
45	Nonlinear composite bilateral control framework for n-DOF teleoperation systems with disturbances. Science China Information Sciences, 2018, 61, 1.	2.7	6
46	Optimal Polygon Decomposition for UAV Survey Coverage Path Planning in Wind. Sensors, 2018, 18, 2132.	2.1	45
47	Robust Optimal Attitude Controller Design for Tail-Sitters. , 2018, , .		3
48	Nonlinear robust control of tail-sitter aircrafts in flight mode transitions. Aerospace Science and Technology, 2018, 81, 348-361.	2.5	34
49	An Auxiliary Particle Filtering Algorithm With Inequality Constraints. IEEE Transactions on Automatic Control, 2017, 62, 4639-4646.	3.6	22
50	Disturbance Observer Based Control with Anti-Windup Applied to a Small Fixed Wing UAV for Disturbance Rejection. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 88, 329-346.	2.0	56
51	Boustrophedon coverage path planning for UAV aerial surveys in wind. , 2017, , .		35
52	Constrained anti-disturbance control for a quadrotor based on differential flatness. International Journal of Systems Science, 2017, 48, 1182-1193.	3.7	11
53	Band selection in sentinel-2 satellite for agriculture applications. , 2017, , .		43
54	Dimension Reduction Aided Hyperspectral Image Classification with a Small-sized Training Dataset: Experimental Comparisons. Sensors, 2017, 17, 2726.	2.1	35

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55	Disturbance observer based control for gust alleviation of a small fixed-wing UAS. , 2016, , .		8
56	Situation awareness for UAV operating in terminal areas using bearing-only observations and circuit flight rules. , 2016, , .		2
57	Data-driven situation awareness algorithm for vehicle lane change. , 2016, , .		2
58	Enhanced situation awareness for unmanned aerial vehicle operating in terminal areas with circuit flight rules. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2016, 230, 1683-1693.	0.7	7
59	Integrated guidance and control design based on a reference model. International Journal of Control, Automation and Systems, 2016, 14, 1299-1308.	1.6	9
60	An enhanced particle filtering method for GMTI radar tracking. IEEE Transactions on Aerospace and Electronic Systems, 2016, 52, 1408-1420.	2.6	14
61	Online optimisationâ€based backstepping control design with application to quadrotor. IET Control Theory and Applications, 2016, 10, 1601-1611.	1.2	39
62	Dynamic decision making in lane change: Game theory with receding horizon. , 2016, , .		30
63	Disturbance Rejection Flight Control for Small Fixed-Wing Unmanned Aerial Vehicles. Journal of Guidance, Control, and Dynamics, 2016, 39, 2810-2819.	1.6	54
64	A modified weighted pseudo-inverse control allocation using genetic algorithm. , 2015, , .		1
65	Coordinated standoff tracking of in- and out-of-surveillance targets using constrained particle filter for UAVs. , 2015, , .		0
66	An explicit MPC for quadrotor trajectory tracking. , 2015, , .		14
67	Flight Control Design for Small-Scale Helicopter Using Disturbance-Observer-Based Backstepping. Journal of Guidance, Control, and Dynamics, 2015, 38, 2235-2240.	1.6	55
68	Internal model tracking control of an uncertain impulsive switched system. , 2014, , .		1
69	Guaranteed cost control of uncertain impulsive switched systems with nonlinear disturbances. , 2014, , .		2
70	An Explicit Model Predictive Control Framework for Turbocharged Diesel Engines. IEEE Transactions on Industrial Electronics, 2014, 61, 3540-3552.	5.2	52
71	Pathâ€following control for small fixedâ€wing unmanned aerial vehicles under wind disturbances. International Journal of Robust and Nonlinear Control, 2013, 23, 1682-1698.	2.1	50
72	Hierarchical path planning and flight control of small autonomous helicopters using MPC techniques. , 2013, , .		3

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73	Path following for small UAVs in the presence of wind disturbance. , 2012, , .		15
74	Tracking control of small-scale helicopters using explicit nonlinear MPC augmented with disturbance observers. Control Engineering Practice, 2012, 20, 258-268.	3.2	183
75	Optimization-Based Safety Analysis of Obstacle Avoidance Systems for Unmanned Aerial Vehicles. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 65, 219-231.	2.0	19
76	Rapid prototyping flight test environment for autonomous unmanned aerial vehicles. International Journal of Modelling, Identification and Control, 2011, 12, 200.	0.2	4
77	Piecewise constant model predictive control for autonomous helicopters. Robotics and Autonomous Systems, 2011, 59, 571-579.	3.0	31
78	Experimental tests of autonomous ground vehicles with preview. International Journal of Automation and Computing, 2010, 7, 342-348.	4.5	5
79	Optimisation based control framework for autonomous vehicles: Algorithm and experiment. , 2010, , .		9