Mangal Kothari

List of Publications by Year
in descending order

82 papers	1,303 citations	516681 16 h-index	454934 30 g-index
82 all docs	82 docs citations	82 times ranked	934 citing authors

#	Article	IF	Citations
1	Autonomous Control and Transportation of Underslung Load With Single and Dual Lift Helicopter Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2022, 144, .	1.6	2
2	Performance based systematic design methodology for development and flight testing of fuel engine powered quadrotor Unmanned Aerial System for industrial applications. Mechatronics, 2022, 82, 102722.	3.3	3
3	Robust Geometric Trajectory Tracking Control of a Variable-Pitch Quadrotor. Journal of Guidance, Control, and Dynamics, 2022, 45, 902-920.	2.8	4
4	Roll Angle Estimation of Smart Projectiles using GNSS Signal. IFAC-PapersOnLine, 2022, 55, 211-216.	0.9	1
5	Path Tracking Strategy for Quadruped Robots Using a Hierarchical Framework. IFAC-PapersOnLine, 2022, 55, 192-197.	0.9	1
6	Distributed Average Tracking With Incomplete Measurement Under a Weight-Unbalanced Digraph. IEEE Transactions on Automatic Control, 2022, 67, 6025-6037.	5.7	6
7	Development of a Low Cost Autonomous Ground Vehicle. , 2022, , .		0
8	Robust Attitude Tracking for Aerobatic Helicopters: A Geometric Approach. IEEE Transactions on Control Systems Technology, 2021, 29, 150-164.	5.2	16
9	Circumnavigation on Multiple Circles Around a Nonstationary Target With Desired Angular Spacing. IEEE Transactions on Cybernetics, 2021, 51, 222-232.	9.5	31
10	Inverse Geometric Guidance Strategy for a Three-Body Differential Game. , 2021, , .		1
11	Super Twisting Algorithm for Robust Geometric Control of a Helicopter. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 102, 1.	3.4	4
12	Disturbance Observer-Based Backstepping Control of Tail-Sitter UAVs. Actuators, 2021, 10, 119.	2.3	17
13	Quaternion-based position control of a quadrotor unmanned aerial vehicle using robust nonlinear third-order sliding mode control with disturbance cancellation. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 997-1013.	1.3	15
14	Attitude Control of Novel Tail Sitter: Swiveling Biplaneâ€"Quadrotor. Journal of Guidance, Control, and Dynamics, 2020, 43, 599-607.	2.8	21
15	Robust Geometric Control of a Helicopter using Sliding Mode Control. , 2020, , .		4
16	GPS Denied Localization and Magnetometer-Free Yaw Estimation for Multi-rotor UAVs. , 2020, , .		5
17	Information-Rich Formation Tracking: A Unified Scheme of Cooperative Control and Localization. Journal of Aerospace Information Systems, 2020, 17, 390-406.	1.4	4
18	Iterative Learning based feedforward control for Transition of a Biplane-Quadrotor Tailsitter UAS. , 2020, , .		10

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19	Containment Using Incomplete Agent Information Over a Digraph. , 2020, 4, 614-619.		2
20	Autonomous Load Control and Transportation Using Multiple Quadrotors. Journal of Aerospace Information Systems, 2020, 17, 417-435.	1.4	21
21	Distributed Algorithm for Higher-Order Integrators to Track Average of Unbounded Signals. IFAC-PapersOnLine, 2020, 53, 2903-2908.	0.9	6
22	A Discontinuous Consensus Algorithm with Neighbor Counting. , 2019, , .		2
23	Nested Saturation Based Guidance Law for Unmanned Aerial Vehicles1. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2019, 141, .	1.6	6
24	Vision-based autonomous tracking and landing of a fully-actuated rotorcraft. Control Engineering Practice, 2019, 89, 113-129.	5.5	26
25	Robust nonlinear control of a variable-pitch quadrotor with the flip maneuver. Control Engineering Practice, 2019, 87, 26-42.	5.5	38
26	Sequential Auto-Landing of Multiple UAVs using Control Constrained Path Following. , 2019, , .		1
27	Autonomous Detection and Tracking of a High-Speed Ground Vehicle using a Quadrotor UAV. , 2019, , .		1
28	Computationally Efficient Suboptimal Guidance for Aerocapture. , 2019, , .		0
29	A 3D pitch and impact-angle constrained guidance scheme. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 1571-1584.	1.3	0
30	Quaternion based adaptive control for package delivery using variable-pitch quadrotors. , 2018, , .		15
31	Double integrator consensus in fixed time: A novel distributed algorithm for generalised networks. , 2018, , .		1
32	Biplane-Quadrotor Tail-Sitter UAV: Flight Dynamics and Control. Journal of Guidance, Control, and Dynamics, 2018, 41, 1049-1067.	2.8	59
33	Gyroscopic Stabilization of Flying Wing Aircraft. , 2018, , .		0
34	Cooperative Load Control and Transportation. , 2018, , .		9
35	Cooperative Formation Control Strategy to Maximize Target Information. , 2018, , .		3
36	Development of Flight Dynamics Model of Quadrotor. , 2018, , .		4

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37	Development of Flight Dynamics Model and Control of Biplane-Quadrotor UAV. , 2018, , .		4
38	Low Cost Solution for Pose Estimation of Quadrotor. , 2018, , .		1
39	A Novel Fully Quaternion based Nonlinear Attitude and Position Controller. , 2018, , .		11
40	Advanced Flight Dynamic Modelling of Variable Pitch Quadrotor. , 2018, , .		2
41	Nonlinear formation control strategies for agents without relative measurements under heterogeneous networks. International Journal of Robust and Nonlinear Control, 2018, 28, 1653-1671.	3.7	14
42	Optimal Orbital Transfers to Asteroids. IFAC-PapersOnLine, 2018, 51, 638-643.	0.9	3
43	Robust Attitude Tracking in the Presence of Parameter Uncertainty for a Variable-Pitch Quadrotor. , 2018, , .		4
44	Systematic design methodology for development and flight testing of a variable pitch quadrotor biplane VTOL UAV for payload delivery. Mechatronics, 2018, 55, 94-114.	3.3	31
45	Convolutional Neural Network Based Sensors for Mobile Robot Relocalization. , 2018, , .		4
46	A Novel Distributed Algorithm for Consensus under Digraph Topology with Uncertain Target Information. , 2018, , .		8
47	A Low-Cost Tilt-Augmented Quadrotor Helicopter : Modeling and Control. , 2018, , .		4
48	Generalized Flight Dynamic Model of Quadrotor Using Hybrid Blade Element Momentum Theory. Journal of Aircraft, 2018, 55, 2162-2168.	2.4	11
49	Cooperative Target-centric Formation Control without Relative Velocity Measurements under Heterogeneous Networks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 87, 683-698.	3.4	14
50	Cooperative formation control strategy in heterogeneous network with bounded acceleration. , 2017, , .		10
51	A nonlinear impact-angle guidance law. International Journal of Intelligent Unmanned Systems, 2017, 5, 46-62.	1.0	1
52	A Comprehensive Differential Game Theoretic Solution to a Game of Two Cars. Journal of Optimization Theory and Applications, 2017, 174, 818-836.	1.5	15
53	Pursuit-Evasion Games of High Speed Evader. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 293-306.	3.4	65
54	Cooperative Multiple Pursuers against a Single Evader. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 86, 551-567.	3.4	27

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55	Pursuit Strategy to Capture High-Speed Evaders Using Multiple Pursuers. Journal of Guidance, Control, and Dynamics, 2017, 40, 139-149.	2.8	34
56	Attitude tracking control for aerobatic helicopters: A geometric approach. , 2017, , .		5
57	A novel guidance law with input saturation. , 2016, , .		2
58	A Simplified Adaptive Backstepping Control of Aircraft Lateral/Directional Dynamics. IFAC-PapersOnLine, 2016, 49, 579-584.	0.9	16
59	Adaptive Longitudinal Control of UAVs with Direct Lift Control. IFAC-PapersOnLine, 2016, 49, 296-301.	0.9	8
60	Neuro-adaptive Augmented Dynamic Inversion Controller for Quadrotors. IFAC-PapersOnLine, 2016, 49, 302-307.	0.9	10
61	Motion Planning for a Fixed-Wing UAV in Urban Environments. IFAC-PapersOnLine, 2016, 49, 419-424.	0.9	23
62	Flight dynamics and nonlinear control design for variable-pitch quadrotors. , 2016, , .		32
63	An SDRE based Impact and Body Angle Constrained Guidance Against a Stationary Surface Target. IFAC-PapersOnLine, 2016, 49, 1-6.	0.9	8
64	A Cooperative Target-centric Formation with Bounded Acceleration. IFAC-PapersOnLine, 2016, 49, 425-430.	0.9	8
65	Target centric formation control with bounded input. , 2016, , .		7
66	A Cooperative Pursuit Strategy for a High Speed Evader. , 2016, , .		2
67	A Pitch Controlled Impact-Angle-Constrained Guidance Law for Surface-to-Surface Missiles. , 2016, , .		1
68	A cooperative pursuit-evasion game of a high speed evader. , 2015, , .		24
69	Nonlinear control design for quadrotors. , 2015, , .		8
70	A cooperative formation control strategy maintaining connectivity of a multi-agent system. , 2014, , .		11
71	UAV Path Following in Windy Urban Environments. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 1013-1028.	3.4	54
72	A Cooperative Pursuit-Evasion Game for Non-holonomic Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1977-1984.	0.4	15

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73	Cooperative Target-capturing with Incomplete Target Information. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 72, 373-384.	3.4	54
74	A Probabilistically Robust Path Planning Algorithm for UAVs Using Rapidly-Exploring Random Trees. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 71, 231-253.	3.4	132
75	A distributed closed-loop probabilistic robust prioritized motion planning algorithm. , 2013, , .		0
76	Multi-agent motion planning for nonlinear Gaussian systems. International Journal of Control, 2013, 86, 2075-2089.	1.9	3
77	Adaptive Optimal Path Following for High Wind Flights. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12985-12990.	0.4	66
78	Chance Constrained RRT for Probabilistic Robustness to Environmental Uncertainty. , 2010, , .		119
79	A Suboptimal Path Planning Algorithm Using Rapidly-exploring Random Trees. International Journal of Aerospace Innovations, 2010, 2, 93-104.	0.2	31
80	Multi-UAV path planning in obstacle rich environments using Rapidly-exploring Random Trees. , 2009, , .		45
81	A HYBRID ENERGY-INSENSITIVE EXPLICIT GUIDANCE SCHEME FOR LONG RANGE FLIGHT VEHICLES WITH SOLID MOTORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 651-656.	0.4	3
82	An optimal dynamic inversion-based neuro-adaptive approach for treatment of chronic myelogenous leukemia. Computer Methods and Programs in Biomedicine, 2007, 87, 208-224.	4.7	14