

Arun D Mahindrakar

List of Publications by Year in descending order

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44
papers

1,108
citations

566801

15
h-index

525886

27
g-index

45
all docs

45
docs citations

45
times ranked

765
citing authors

#	ARTICLE	IF	CITATIONS
1	Interconnection and damping assignment passivity-based control of mechanical systems with underactuation degree one. IEEE Transactions on Automatic Control, 2005, 50, 1936-1955.	3.6	264
2	Control of a Class of Underactuated Mechanical Systems Using Sliding Modes. IEEE Transactions on Robotics, 2009, 25, 459-467.	7.3	108
3	MEMS-Based IMU Drift Minimization: Sage Husa Adaptive Robust Kalman Filtering. IEEE Sensors Journal, 2020, 20, 250-260.	2.4	104
4	Robust Stabilization of a Class of Underactuated Mechanical Systems Using Time Scaling and Lyapunov Redesign. IEEE Transactions on Industrial Electronics, 2011, 58, 4299-4313.	5.2	82
5	Constructive immersion and invariance stabilization for a class of underactuated mechanical systems. Automatica, 2013, 49, 1442-1448.	3.0	59
6	Further constructive results on interconnection and damping assignment control of mechanical systems: the Acrobot example. International Journal of Robust and Nonlinear Control, 2006, 16, 671-685.	2.1	50
7	Point-to-point control of a 2R planar horizontal underactuated manipulator. Mechanism and Machine Theory, 2006, 41, 838-844.	2.7	49
8	Controllability and point-to-point control of 3-DOF planar horizontal underactuated manipulators. International Journal of Control, 2005, 78, 1-13.	1.2	48
9	Switched control of a nonholonomic mobile robot. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 2319-2327.	1.7	44
10	Formation Control and Trajectory Tracking of Nonholonomic Mobile Robots. IEEE Transactions on Control Systems Technology, 2018, 26, 2250-2258.	3.2	44
11	Geometric Controllability and Stabilization of Spherical Robot Dynamics. IEEE Transactions on Automatic Control, 2015, 60, 2762-2767.	3.6	37
12	A switched controller for an underactuated underwater vehicle. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 2266-2278.	1.7	33
13	Mobile Robot Navigation Through a Hardware-Efficient Implementation for Control-Law-Based Construction of Generalized Voronoi Diagram. IEEE/ASME Transactions on Mechatronics, 2011, 16, 1083-1095.	3.7	30
14	A swing-up of the acrobot based on a simple pendulum strategy. International Journal of Control, 2005, 78, 424-429.	1.2	28
15	Position Stabilization and Waypoint Tracking Control of Mobile Inverted Pendulum Robot. IEEE Transactions on Control Systems Technology, 2014, 22, 2360-2367.	3.2	21
16	State-constrained stabilization of beam-balance systems. International Journal of Robust and Nonlinear Control, 2008, 18, 333-350.	2.1	12
17	Extending interconnection and damping assignment passivity-based control (IDA-PBC) to underactuated mechanical systems with nonholonomic Pfaffian constraints: The mobile inverted pendulum robot. , 2009, , .		10
18	Terminal Sliding Mode Control of a Twin Rotor Multiple-Input Multiple-Output System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 10952-10957.	0.4	10

#	ARTICLE	IF	CITATIONS
19	A Deterministic Attitude Estimation Using a Single Vector Information and Rate Gyros. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2630-2636.	3.7	10
20	Modelling, design and control of non-isolated single-input multi-output Zeta-Buck-Boost converter. IEEE Transactions on Industry Applications, 2020, , 1-1.	3.3	10
21	Configuration Constrained Stabilization of a Wheeled Mobile Robotâ€™ Theory and Experiment. IEEE Transactions on Control Systems Technology, 2013, 21, 275-280.	3.2	9
22	Stability Analysis of Nonlinear Timeâ€™Delayed Systems with Application to Biological Models. International Journal of Applied Mathematics and Computer Science, 2017, 27, 91-103.	1.5	8
23	Asymptotic stabilisation of the ball and beam system: design of energy-based control law and experimental results. International Journal of Control, 2010, 83, 1193-1198.	1.2	6
24	A non-smooth control law and time-optimality notions for the acrobot. International Journal of Control, 2005, 78, 1166-1173.	1.2	5
25	Modelling of non-isolated single-input-multi-output DC-DC converter. , 2018, , .		5
26	Output feedback secondâ€™order sliding mode control of the cart on a beam system. International Journal of Robust and Nonlinear Control, 2010, 20, 561-570.	2.1	4
27	Control of a Driftless Bilinear Vector Field on S^n -Sphere. IEEE Transactions on Automatic Control, 2019, 64, 3226-3238.	3.6	4
28	Numerical and experimental implementation of leapfrog algorithm for optimal control of a mobile robot. , 2017, , .		3
29	Non-Smooth Projected Primal-Dual Dynamical Approach to Solve the Extended Fermat-Torricelli Problem. , 2021, 5, 1109-1114.		3
30	Synchronization of multiple linear systems with communication delay. , 2018, , .		2
31	Stabilization of a circular ball-and-beam system with input and state constraints using linear matrix inequalities. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	1
32	Robust stabilization using time-scaling and Lyapunov redesign: The ball-beam system. , 2010, , .		1
33	Stabilization of a circular ball-and-beam system. , 2010, , .		1
34	A Constructive Method for Designing Higher Order Sliding Surfaces for Single-input Nonlinear System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3944-3949.	0.4	1
35	Constrained stabilization of a cart on an asymmetric-beam system through IDA-PBC. , 2014, , .		1
36	Optimization of Relative and Absolute Thresholding Parameters in Event-triggered Control. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
37	Sub time-optimal swing up of the acrobot. , 2001, , .		0
38	A hardware-architecture for control-law based voronoi diagram computation and FPGA implementation. , 2008, , .		0
39	Semistability Analysis of the Chaplygin Sleigh and Nonsmooth Mechanical Oscillator. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2014, 136, .	0.9	0
40	Finite-Time Control of a Quadrotor System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 643-647.	0.4	0
41	COMPLEX LAPLACIAN-BASED DISTRIBUTED CONTROL FOR MULTI-AGENT NETWORK. International Journal of Modeling, Simulation, and Scientific Computing, 2018, 21, 1850015.	0.9	0
42	Computation of outer approximation to reachable set for cooperative systems: Application to an epidemic spreading model. , 2019, , .		0
43	Reachability analysis and optimal control for epidemic spreading model on multiplex network. , 2019, , .		0
44	Global attitude estimation and dead reckoning of a mobile spherical robot using extended Kalman filter. , 2019, , .		0