

Ranjan Mukherjee

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5846826/publications.pdf>

Version: 2024-02-01

85
papers

1,389
citations

361413

20
h-index

434195

31
g-index

86
all docs

86
docs citations

86
times ranked

1054
citing authors

#	ARTICLE	IF	CITATIONS
1	Juggling a Devil-Stick: Hybrid Orbit Stabilization Using the Impulse Controlled Poincaré Map. , 2022, 6, 1304-1309.		7
2	Performance improvement demonstration of an NMP system using sample and hold inputs. International Journal of Dynamics and Control, 2021, 9, 109-120.	2.5	4
3	Non-prehensile manipulation of a devil-stick: planar symmetric juggling using impulsive forces. Nonlinear Dynamics, 2021, 103, 2409-2420.	5.2	11
4	Energy-Based Orbital Stabilization of Underactuated Systems Using Impulse Controlled Poincaré Maps. , 2021, , .		2
5	Stabilization of energy level sets of underactuated mechanical systems exploiting impulsive braking. Nonlinear Dynamics, 2021, 106, 279-293.	5.2	5
6	Orbital Stabilization of Underactuated Systems using Virtual Holonomic Constraints and Impulse Controlled Poincaré Maps. Systems and Control Letters, 2020, 146, 104813.	2.3	12
7	Controlling a robotic arm for functional tasks using a wireless head-joystick: A case study of a child with congenital absence of upper and lower limbs. PLoS ONE, 2020, 15, e0226052.	2.5	4
8	Effect of intermediate support on critical stability of a cantilever with non-conservative loading: Some new results. Journal of Sound and Vibration, 2020, 485, 115564.	3.9	5
9	Force displacement characteristics of circular-shaped massless elastica. Acta Mechanica, 2020, 231, 4585-4602.	2.1	1
10	Underwater shear-based grooming of marine biofouling using a non-contact Bernoulli pad device. Biofouling, 2020, 36, 951-964.	2.2	8
11	Title is missing!. , 2020, 15, e0226052.		0
12	Title is missing!. , 2020, 15, e0226052.		0
13	Title is missing!. , 2020, 15, e0226052.		0
14	Title is missing!. , 2020, 15, e0226052.		0
15	Title is missing!. , 2020, 15, e0226052.		0
16	Title is missing!. , 2020, 15, e0226052.		0
17	Power Scaling of Radial Outflow: Bernoulli Pads in Equilibrium. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	1.5	6
18	Divergence and flutter instabilities of a cantilever beam subjected to a terminal dynamic moment. Journal of Sound and Vibration, 2019, 455, 402-412.	3.9	7

#	ARTICLE	IF	CITATIONS
19	Estimation of the Region of Attraction of Underactuated Systems and Its Enlargement Using Impulsive Inputs. IEEE Transactions on Robotics, 2019, 35, 618-632.	10.3	24
20	Kinetic to Potential Energy Transformation Using a Spring as an Intermediary: Application to the Pole Vault Problem. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	2.2	4
21	Age-dependent differences in learning to control a robot arm using a body-machine interface. Scientific Reports, 2019, 9, 1960.	3.3	10
22	Stabilization of Homoclinic Orbits of Two Degree-of-Freedom Underactuated Systems. , 2019, , .		7
23	Variable Structure Control of a Mass Spring Damper Subjected to a Unilateral Constraint: Application to Radio-Frequency MEMS Switches. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2018, 140, .	1.6	1
24	Impulsive Dynamics and Control of the Inertia-Wheel Pendulum. IEEE Robotics and Automation Letters, 2018, 3, 3208-3215.	5.1	14
25	Enlarging the Region of Attraction of equilibria of underactuated systems using Sum of Squares and Impulse Manifold Method. , 2017, , .		4
26	An algorithm for enlarging the region of attraction using trajectory reversing. , 2017, , .		11
27	A five degree-of-freedom body-machine interface for children with severe motor impairments. , 2017, , .		7
28	Swing-up of the inertia wheel pendulum using impulsive torques. , 2017, , .		4
29	Apex height control of a two-mass robot hopping on a rigid foundation. Mechanism and Machine Theory, 2016, 105, 44-57.	4.5	12
30	Body-machine interface for control of a screen cursor for a child with congenital absence of upper and lower limbs: a case report. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 34.	4.6	9
31	Enlarging the Region of Attraction of Equilibria of Underactuated Systems Using Impulsive Inputs. IEEE Transactions on Control Systems Technology, 2016, 24, 334-340.	5.2	30
32	Sample-and-Hold Inputs for Minimum-Phase Behavior of Nonminimum-Phase Systems. IEEE Transactions on Control Systems Technology, 2016, 24, 2103-2111.	5.2	13
33	Two-mass robot hopping on an elastic foundation: Apex height control. , 2016, , .		1
34	A Hybrid System Framework for Unified Impedance and Admittance Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 78, 359-375.	3.4	84
35	Asymmetric post-flutter oscillations of a cantilever due to a dynamic follower force. Journal of Sound and Vibration, 2015, 340, 253-266.	3.9	8
36	Output feedback stabilization of inverted pendulum on a cart in the presence of uncertainties. Automatica, 2015, 54, 146-157.	5.0	93

#	ARTICLE	IF	CITATIONS
37	Vibration Suppression in a Simple Tension-Aligned Array Structure. AIAA Journal, 2014, 52, 504-515.	2.6	3
38	Impulsive Actuation in Robot Manipulators: Experimental Verification of Pendubot Swing-Up. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1469-1474.	5.8	26
39	Modeling and simulation of the dynamics of a submersible propelled by a fluttering fluid-conveying tail. Journal of Fluids and Structures, 2013, 36, 83-110.	3.4	13
40	Enlarging the region of attraction for underactuated systems using impulsive inputs. , 2013, , .		4
41	Apex height control of a four-link hopping robot. , 2013, , .		4
42	Apex height control of a two-mass hopping robot. , 2013, , .		12
43	Application of dynamic inversion with extended high-gain observers to inverted pendulum on a cart. , 2013, , .		5
44	Performance recovery under output feedback for input nonaffine nonlinear systems. , 2012, , .		5
45	Vibration Control of a String Using Zero-Displacement Constraint at a Point Near One Boundary: Theory and Experiment. , 2012, , .		0
46	Vibration suppression of a string through cyclic application and removal of constraints. Journal of Sound and Vibration, 2012, 331, 4395-4405.	3.9	5
47	Design, Fabrication and Control of Spherobot: A Spherical Mobile Robot. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 67, 117-131.	3.4	37
48	Modeling, Simulation, and Performance of a Synergistically Propelled Ichthyoid. IEEE/ASME Transactions on Mechatronics, 2012, 17, 36-45.	5.8	17
49	Flutter instability of a fluid-conveying fluid-immersed pipe affixed to a rigid body. Journal of Fluids and Structures, 2011, 27, 1086-1096.	3.4	30
50	Vibration control of a string using a scabbard-like actuator. Journal of Sound and Vibration, 2011, 330, 2721-2732.	3.9	8
51	Balance maintenance of the Synthetic-Wheel Biped in the presence of impulsive disturbances. , 2011, , .		2
52	Efficient swing-up of the acrobot using continuous torque and impulsive braking. , 2011, , .		5
53	Swing-up control of the acrobot: An impulse-momentum approach. , 2011, , .		10
54	Dynamics of pipes conveying fluid with non-uniform turbulent and laminar velocity profiles. Journal of Fluids and Structures, 2010, 26, 804-813.	3.4	31

#	ARTICLE	IF	CITATIONS
55	Vibration of a string wrapping and unwrapping around an obstacle. Journal of Sound and Vibration, 2010, 329, 2707-2715.	3.9	13
56	Design and control of an underactuated three-link rolling biped. , 2010, , .		0
57	Steady-State and Transient Analysis of a Steam-Reformer Based Solid Oxide Fuel Cell System. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	16
58	Vibration Suppression in Structures Using Cable Actuators. Journal of Vibration and Acoustics, Transactions of the ASME, 2010, 132, .	1.6	22
59	Unified Impedance and Admittance Control. , 2010, , .		189
60	Active Synthetic-Wheel Biped With Torso. IEEE Transactions on Robotics, 2010, 26, 816-826.	10.3	24
61	Shared-Sensing and Control Using Reversible Transducers. IEEE Transactions on Control Systems Technology, 2009, 17, 242-248.	5.2	15
62	Swing-Up Control of the Pendubot: An Impulse-Momentum Approach. IEEE Transactions on Robotics, 2009, 25, 975-982.	10.3	70
63	Energy Dissipation in Dynamical Systems Through Sequential Application and Removal of Constraints. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2009, 131, .	1.6	9
64	Authors' reply to comments on "Optimally switched linear systems". Automatica, 2009, 45, 1591.	5.0	0
65	Vibration Suppression in Space Structures Through Cyclic Application and Removal of Constraints. , 2009, , .		0
66	Modal disparity and its experimental verification. Journal of Sound and Vibration, 2008, 311, 1465-1475.	3.9	9
67	Optimally switched linear systems. Automatica, 2008, 44, 1437-1441.	5.0	52
68	Comparing the mathematical models of Lighthill to the performance of a biomimetic fish. Bioinspiration and Biomimetics, 2008, 3, 016002.	2.9	27
69	An impulse-momentum approach to swing-up control of the pendubot. , 2008, , .		1
70	Design of Switching Laws for Shared-Sensing and Control by Reversible Transducers. Proceedings of the American Control Conference, 2007, , .	0.0	0
71	Pushing and Steering Wheelchairs using a Holonomic Mobile Robot with a Single Arm. , 2006, , .		8
72	Active Vibration Control of a Flexible Beam Using a Buckling-Type End Force. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2006, 128, 278-286.	1.6	23

#	ARTICLE	IF	CITATIONS
73	Reconfiguration of a Rolling Sphere: A Problem in Evolute-Involute Geometry. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 590-597.	2.2	29
74	MEMS implementation of axial and follower end forces. Journal of Sound and Vibration, 2005, 286, 637-644.	3.9	25
75	Ilene J. Busch-Vishniac, Electromechanical Sensors and Actuators, Springer, New York, ISBN: 0-387-98495-X (\$99.00; 341pp).. Automatica, 2005, 41, 1663-1665.	5.0	0
76	A Simple Derivation of the Gauss-Bonet Theorem. Journal of the Astronautical Sciences, 2005, 53, 185-191.	1.5	0
77	Enhancing Controllability and Observability in Underactuated and Undersensed Systems Through Switching: Application to Vibration Control. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 790-799.	1.6	10
78	Exponential stabilization of the rolling sphere. Automatica, 2004, 40, 1877-1889.	5.0	38
79	Under-Actuated Kinematic Structures for Miniature Climbing Robots. Journal of Mechanical Design, Transactions of the ASME, 2003, 125, 281-291.	2.9	29
80	Motion Planning for a Spherical Mobile Robot: Revisiting the Classical Ball-Plate Problem. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2002, 124, 502-511.	1.6	94
81	Adaptive Compensation of Sensor Runout for Magnetic Bearings With Uncertain Parameters: Theory and Experiments. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2001, 123, 211-218.	1.6	32
82	<title>Design considerations in the development of a spherical mobile robot</title>., 2001, 4364, 61.		12
83	Class of Rotations Induced by Spherical Polygons. Journal of Guidance, Control, and Dynamics, 2000, 23, 746-749.	2.8	5
84	Feedback control strategies for a nonholonomic mobile robot using a nonlinear oscillator. Journal of Field Robotics, 1999, 16, 237-248.	0.7	6
85	Control of Planar Space Robots Using Smooth and Time-Invariant Feedback.. Journal of the Robotics Society of Japan, 1998, 16, 399-406.	0.1	6