

Ranjan Mukherjee

List of Publications by Year in Descending Order

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Version: 2024-04-24

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80
papers

951
citations

18
h-index

28
g-index

86
ext. papers

1,183
ext. citations

3.4
avg, IF

4.59
L-index

#	Paper	IF	Citations
80	2022, 6, 1304-1309		1
79	Energy-Based Orbital Stabilization of Underactuated Systems Using Impulse Controlled Poincaré Maps 2021,		1
78	Performance improvement demonstration of an NMP system using sample and hold inputs. <i>International Journal of Dynamics and Control</i> , 2021, 9, 109-120	1.7	1
77	Non-prehensile manipulation of a devil-stick: planar symmetric juggling using impulsive forces. <i>Nonlinear Dynamics</i> , 2021, 103, 2409-2420	5	4
76	Stabilization of energy level sets of underactuated mechanical systems exploiting impulsive braking. <i>Nonlinear Dynamics</i> , 2021, 106, 279-293	5	0
75	Underwater shear-based grooming of marine biofouling using a non-contact Bernoulli pad device. <i>Biofouling</i> , 2020, 36, 951-964	3.3	2
74	Orbital Stabilization of Underactuated Systems using Virtual Holonomic Constraints and Impulse Controlled Poincaré Maps. <i>Systems and Control Letters</i> , 2020, 146, 104813	2.4	5
73	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. <i>PLoS ONE</i> , 2020, 15, e0226052	3.7	2
72	Effect of intermediate support on critical stability of a cantilever with non-conservative loading: Some new results. <i>Journal of Sound and Vibration</i> , 2020, 485, 115564	3.9	4
71	Force-displacement characteristics of circular-shaped massless elastica. <i>Acta Mechanica</i> , 2020, 231, 4585-4602		
70	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 2020, 15, e0226052		
69	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 2020, 15, e0226052		
68	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 2020, 15, e0226052		
67	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 2020, 15, e0226052		
66	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 2020, 15, e0226052		
65	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 2020, 15, e0226052		
64	Power Scaling of Radial Outflow: Bernoulli Pads in Equilibrium. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141,	2.1	1

63	Divergence and flutter instabilities of a cantilever beam subjected to a terminal dynamic moment. <i>Journal of Sound and Vibration</i> , 2019 , 455, 402-412	3.9	4
62	. <i>IEEE Transactions on Robotics</i> , 2019 , 35, 618-632	6.5	12
61	Kinetic to Potential Energy Transformation Using a Spring as an Intermediary: Application to the Pole Vault Problem. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019 , 86,	2.7	2
60	Age-dependent differences in learning to control a robot arm using a body-machine interface. <i>Scientific Reports</i> , 2019 , 9, 1960	4.9	6
59	Stabilization of Homoclinic Orbits of Two Degree-of-Freedom Underactuated Systems 2019 ,		5
58	Variable Structure Control of a Mass Spring Damper Subjected to a Unilateral Constraint: Application to Radio-Frequency MEMS Switches. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2018 , 140,	1.6	1
57	Impulsive Dynamics and Control of the Inertia-Wheel Pendulum. <i>IEEE Robotics and Automation Letters</i> , 2018 , 3, 3208-3215	4.2	10
56	Enlarging the Region of Attraction of equilibria of underactuated systems using Sum of Squares and Impulse Manifold Method 2017 ,		3
55	An algorithm for enlarging the region of attraction using trajectory reversing 2017 ,		7
54	A five degree-of-freedom body-machine interface for children with severe motor impairments 2017 ,		2
53	Swing-up of the inertia wheel pendulum using impulsive torques 2017 ,		2
52	Body-machine interface for control of a screen cursor for a child with congenital absence of upper and lower limbs: a case report. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016 , 13, 34	5.3	8
51	Enlarging the Region of Attraction of Equilibria of Underactuated Systems Using Impulsive Inputs. <i>IEEE Transactions on Control Systems Technology</i> , 2016 , 24, 334-340	4.8	21
50	Sample-and-Hold Inputs for Minimum-Phase Behavior of Nonminimum-Phase Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2016 , 24, 2103-2111	4.8	6
49	Two-mass robot hopping on an elastic foundation: Apex height control 2016 ,		1
48	Apex height control of a two-mass robot hopping on a rigid foundation. <i>Mechanism and Machine Theory</i> , 2016 , 105, 44-57	4	6
47	Output feedback stabilization of inverted pendulum on a cart in the presence of uncertainties. <i>Automatica</i> , 2015 , 54, 146-157	5.7	57
46	A Hybrid System Framework for Unified Impedance and Admittance Control. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2015 , 78, 359-375	2.9	48

45	Asymmetric post-flutter oscillations of a cantilever due to a dynamic follower force. <i>Journal of Sound and Vibration</i> , 2015 , 340, 253-266	3.9	7
44	Vibration Suppression in a Simple Tension-Aligned Array Structure. <i>AIAA Journal</i> , 2014 , 52, 504-515	2.1	3
43	. <i>IEEE/ASME Transactions on Mechatronics</i> , 2014 , 19, 1469-1474	5.5	20
42	Modeling and simulation of the dynamics of a submersible propelled by a fluttering fluid-conveying tail. <i>Journal of Fluids and Structures</i> , 2013 , 36, 83-110	3.1	7
41	Enlarging the region of attraction for underactuated systems using impulsive inputs 2013 ,		3
40	Apex height control of a four-link hopping robot 2013 ,		2
39	Apex height control of a two-mass hopping robot 2013 ,		7
38	Modeling, Simulation, and Performance of a Synergistically Propelled Ichthyoid. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012 , 17, 36-45	5.5	12
37	Vibration suppression of a string through cyclic application and removal of constraints. <i>Journal of Sound and Vibration</i> , 2012 , 331, 4395-4405	3.9	5
36	Design, Fabrication and Control of Spherobot: A Spherical Mobile Robot. <i>Journal of Intelligent and Robotic Systems: Theory and Applications</i> , 2012 , 67, 117-131	2.9	25
35	Performance recovery under output feedback for input nonaffine nonlinear systems 2012 ,		4
34	Flutter instability of a fluid-conveying fluid-immersed pipe affixed to a rigid body. <i>Journal of Fluids and Structures</i> , 2011 , 27, 1086-1096	3.1	21
33	Vibration control of a string using a scabbard-like actuator. <i>Journal of Sound and Vibration</i> , 2011 , 330, 2721-2732	3.9	5
32	Balance maintenance of the Synthetic-Wheel Biped in the presence of impulsive disturbances 2011 ,		2
31	Efficient swing-up of the acrobot using continuous torque and impulsive braking 2011 ,		5
30	Swing-up control of the acrobot: An impulse-momentum approach 2011 ,		8
29	Steady-State and Transient Analysis of a Steam-Reformer Based Solid Oxide Fuel Cell System. <i>Journal of Fuel Cell Science and Technology</i> , 2010 , 7,		13
28	Vibration Suppression in Structures Using Cable Actuators. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2010 , 132,	1.6	14

27	Unified Impedance and Admittance Control 2010 ,		122
26	Active Synthetic-Wheel Biped With Torso. <i>IEEE Transactions on Robotics</i> , 2010 , 26, 816-826	6.5	17
25	Dynamics of pipes conveying fluid with non-uniform turbulent and laminar velocity profiles. <i>Journal of Fluids and Structures</i> , 2010 , 26, 804-813	3.1	25
24	Vibration of a string wrapping and unwrapping around an obstacle. <i>Journal of Sound and Vibration</i> , 2010 , 329, 2707-2715	3.9	10
23	Shared-Sensing and Control Using Reversible Transducers. <i>IEEE Transactions on Control Systems Technology</i> , 2009 , 17, 242-248	4.8	10
22	Swing-Up Control of the Pendubot: An Impulse-Momentum Approach. <i>IEEE Transactions on Robotics</i> , 2009 , 25, 975-982	6.5	59
21	Energy Dissipation in Dynamical Systems Through Sequential Application and Removal of Constraints. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2009 , 131,	1.6	7
20	Authors' reply to comments on "Optimally switched linear systems" <i>Automatica</i> , 2009 , 45, 1591	5.7	
19	Comparing the mathematical models of Lighthill to the performance of a biomimetic fish. <i>Bioinspiration and Biomimetics</i> , 2008 , 3, 016002	2.6	20
18	An impulse-momentum approach to swing-up control of the pendubot 2008 ,		1
17	Modal disparity and its experimental verification. <i>Journal of Sound and Vibration</i> , 2008 , 311, 1465-1475	3.9	6
16	Optimally switched linear systems. <i>Automatica</i> , 2008 , 44, 1437-1441	5.7	34
15	Active Vibration Control of a Flexible Beam Using a Buckling-Type End Force. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2006 , 128, 278-286	1.6	19
14	Reconfiguration of a Rolling Sphere: A Problem in Evolute-Involute Geometry. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2006 , 73, 590-597	2.7	24
13	Pushing and Steering Wheelchairs using a Holonomic Mobile Robot with a Single Arm 2006 ,		3
12	MEMS implementation of axial and follower end forces. <i>Journal of Sound and Vibration</i> , 2005 , 286, 637-644	3.4	21
11	Ilene J. Busch-Vishniac, Electromechanical Sensors and Actuators, Springer, New York, ISBN: 0-387-98495-X (\$99.00; 341pp).. <i>Automatica</i> , 2005 , 41, 1663-1665	5.7	
10	A Simple Derivation of the Gauss-Bonet Theorem. <i>Journal of the Astronautical Sciences</i> , 2005 , 53, 185-191.	1.1	

9	Enhancing Controllability and Observability in Underactuated and Undersensed Systems Through Switching: Application to Vibration Control. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2004 , 126, 790-799	1.6	6
8	Exponential stabilization of the rolling sphere. <i>Automatica</i> , 2004 , 40, 1877-1889	5.7	35
7	Under-Actuated Kinematic Structures for Miniature Climbing Robots. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2003 , 125, 281-291	3	24
6	Motion Planning for a Spherical Mobile Robot: Revisiting the Classical Ball-Plate Problem. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2002 , 124, 502-511	1.6	74
5	Design considerations in the development of a spherical mobile robot 2001 , 4364, 61		8
4	Adaptive Compensation of Sensor Runout for Magnetic Bearings With Uncertain Parameters: Theory and Experiments. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2001 , 123, 211-218	1.6	28
3	Class of Rotations Induced by Spherical Polygons. <i>Journal of Guidance, Control, and Dynamics</i> , 2000 , 23, 746-749	2.1	4
2	Feedback control strategies for a nonholonomic mobile robot using a nonlinear oscillator. <i>Journal of Field Robotics</i> , 1999 , 16, 237-248		5
1	Control of Planar Space Robots Using Smooth and Time-Invariant Feedback.. <i>Journal of the Robotics Society of Japan</i> , 1998 , 16, 399-406	0.1	3