Suril V Shah

List of Publications by Year
in descending order

41 papers	381 citations	933264 10 h-index	996849 15 g-index
42 all docs	42 docs citations	42 times ranked	263 citing authors

#	Article	IF	Citations
1	Reactionless Maneuvering of a Space Robot in Precapture Phase. Journal of Guidance, Control, and Dynamics, 2016, 39, 2419-2425.	1.6	39
2	Modular framework for dynamic modeling and analyses of legged robots. Mechanism and Machine Theory, 2012, 49, 234-255.	2.7	31
3	Reactionless Path Planning Strategies for Capture of Tumbling Objects in Space Using a Dual-Arm Robotic System. , 2013, , .		30
4	Evolution of the DeNOC-based dynamic modelling for multibody systems. Mechanical Sciences, 2013, 4, 1-20.	0.5	23
5	Dynamics of serial kinematic chains with large number of degrees-of-freedom. Multibody System Dynamics, 2014, 32, 273-298.	1.7	22
6	Denavit-Hartenberg Parameterization of Euler Angles. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	0.7	21
7	Recursive dynamics simulator (ReDySim): A multibody dynamics solver. Theoretical and Applied Mechanics Letters, 2012, 2, 063011.	1.3	20
8	Reactionless visual servoing of a multi-arm space robot combined with other manipulation tasks. Robotics and Autonomous Systems, 2017, 91, 1-10.	3.0	20
9	Sensorless full body active compliance in a 6 DOF parallel manipulator. Robotics and Computer-Integrated Manufacturing, 2019, 59, 278-290.	6.1	15
10	Impact modeling and reactionless control for post-capturing and maneuvering of orbiting objects using a multi-arm space robot. Acta Astronautica, 2021, 182, 21-36.	1.7	15
11	Stair Climbing using a compliant modular robot. , 2015, , .		14
12	Reduced-order forward dynamics of multiclosed-loop systems. Multibody System Dynamics, 2014, 31, 451-476.	1.7	13
13	Momentum Model-Based Minimal Parameter Identification of a Space Robot. Journal of Guidance, Control, and Dynamics, 2019, 42, 508-523.	1.6	11
14	An optimal wheel-torque control on a compliant modular robot for wheel-slip minimization. Robotica, 2017, 35, 463-482.	1.3	10
15	Reactionless visual servoing of a dual-arm space robot. , 2014, , .		9
16	A compliant multi-module robot for climbing big step-like obstacles. , 2014, , .		9
17	Image space based path planning for reactionless manipulation of redundant space robot. , 2016, , .		9
18	Motion Planning for Multi-Mobile-Manipulator Payload Transport Systems. , 2019, , .		8

#	Article	IF	Citations
19	Design of a robust stair-climbing compliant modular robot to tackle overhang on stairs. Robotica, 2019, 37, 428-444.	1.3	8
20	Control Strategies for Reactionless Capture of an Orbiting Object using a Satellite Mounted Robot. , 2013, , .		7
21	Switching method to avoid algorithmic singularity in vision-based control of a space robot. , 2015, , .		5
22	Detachable modular robot capable of cooperative climbing and multi agent exploration. , 2017, , .		5
23	RRT-HX: RRT With Heuristic Extend Operations for Motion Planning in Robotic Systems. , 2016, , .		4
24	Image Based Visual Servoing for Tumbling Objects. , 2018, , .		4
25	Denavit-Hartenberg Parameters of Euler-Angle-Joints for Order (N) Recursive Forward Dynamics. , 2009, , .		3
26	An improved compliant joint design of a modular robot for descending big obstacles. , 2015, , .		3
27	Impact Modeling and Estimation for Multi-Arm Space Robot while Capturing Tumbling Orbiting Objects. , 2017, , .		3
28	Terrain Adaptive Posture Correction in Quadruped for Locomotion On Unstructured Terrain. , 2017, , .		3
29	A new perspective towards decomposition of the generalized inertia matrix of multibody systems. Multibody System Dynamics, 2018, 43, 97-130.	1.7	3
30	A semi-active robot for steep obstacle ascent. , 2013, , .		2
31	Design and development of an earth based experimental setup for testing algorithms on space robots. , 2015, , .		2
32	Implementation of gaits for achieving omnidirectional walking in a quadruped robot. , 2015, , .		2
33	Design and development of a humanoid with articulated torso. , 2016, , .		2
34	A Novel Image-based Path Planning Algorithm for Eye-in-Hand Visual Servoing of a Redundant Manipulator in a Human Centered Environment. , 2019, , .		2
35	Optimal whole body motion planning of humanoid with articulated spine for object manipulation in double support phase. , 2015, , .		1
36	Real-time dynamic singularity avoidance while visual servoing of a dual-arm space robot. , 2015, , .		1

#	Article	IF	Citations
37	Design, trajectory generation and control of quadrotor research platform. , 2016, , .		1
38	Correlation Between Diagonal Ratio and Condition Number of the Generalized Inertia Matrix of a Serial-Chain. Archive of Mechanical Engineering, 2013, 60, 147-156.	0.7	1
39	Learning inverse kinematic solutions of redundant manipulators using multiple internal models. , 2016, , .		0
40	Optimal Task Planning of Humanoid in Cluttered Environment. , 2016, , .		0
41	Path Planning through Tight Spaces for Payload Transportation using Multiple Mobile Manipulators. , 2019, , .		0