Moharram H Korayem

List of Publications by Year
in descending order

196 papers	2,388 citations	236612 25 h-index	315357 38 g-index
203 all docs	203 docs citations	203 times ranked	1211 citing authors

#	Article	IF	Citations
1	Finite-time state-dependent Riccati equation for time-varying nonaffine systems: Rigid and flexible joint manipulator control. ISA Transactions, 2015, 54, 125-144.	3.1	100
2	Sensitivity analysis of nanoparticles pushing critical conditions in 2-D controlled nanomanipulation based on AFM. International Journal of Advanced Manufacturing Technology, 2009, 41, 714-726.	1.5	70
3	Mathematical modeling and trajectory planning of mobile manipulators with flexible links and joints. Applied Mathematical Modelling, 2012, 36, 3229-3244.	2.2	67
4	Systematic modeling of a chain of N-flexible link manipulators connected by revolute–prismatic joints using recursive Gibbs-Appell formulation. Archive of Applied Mechanics, 2014, 84, 187-206.	1.2	57
5	State-dependent differential Riccati equation to track control of time-varying systems with state and control nonlinearities. ISA Transactions, 2015, 57, 117-135.	3.1	52
6	Trajectory optimization of flexible mobile manipulators. Robotica, 2006, 24, 333-335.	1.3	49
7	Path Planning of Mobile Elastic Robotic Arms by Indirect Approach of Optimal Control. International Journal of Advanced Robotic Systems, 2011, 8, 10.	1.3	49
8	Theoretical and experimental study of dynamic load–carrying capacity for flexible robotic arms in point–to–point motion. Optimal Control Applications and Methods, 2017, 38, 963-972.	1.3	48
9	Maximum load carrying capacity of mobile manipulators: optimal control approach. Robotica, 2009, 27, 147-159.	1.3	47
10	Maximum load-carrying capacity of autonomous mobile manipulator in an environment with obstacle considering tip over stability. International Journal of Advanced Manufacturing Technology, 2010, 46, 811-829.	1.5	46
11	Maximum DLCC of Spatial Cable Robot for a Predefined Trajectory Within the Workspace Using Closed Loop Optimal Control Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 63, 75-99.	2.0	46
12	Kinematic and dynamic modeling of viscoelastic robotic manipulators using Timoshenko beam theory: theory and experiment. International Journal of Advanced Manufacturing Technology, 2014, 71, 1005-1018.	1.5	46
13	Dynamic Load Carrying Capacity of Flexible Cable Suspended Robot: Robust Feedback Linearization Control Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2010, 60, 341-363.	2.0	43
14	Path planning algorithm in wheeled mobile manipulators based on motion of arms. Journal of Mechanical Science and Technology, 2015, 29, 1753-1763.	0.7	42
15	A new approach for dynamic modeling of n-viscoelastic-link robotic manipulators mounted on a mobile base. Nonlinear Dynamics, 2015, 79, 2767-2786.	2.7	42
16	Trajectory optimization of flexible link manipulators in point-to-point motion. Robotica, 2009, 27, 825-840.	1.3	41
17	Maximum load determination of nonholonomic mobile manipulator using hierarchical optimal control. Robotica, 2012, 30, 53-65.	1.3	40
18	Maximum payload for flexible joint manipulators in point-to-point task using optimal control approach. International Journal of Advanced Manufacturing Technology, 2008, 38, 1045-1060.	1.5	39

#	Article	IF	Citations
19	Indentation analysis of nano-particle using nano-contact mechanics models during nano-manipulation based on atomic force microscopy. Journal of Nanoparticle Research, 2011, 13, 1075-1091.	0.8	39
20	Maximum payload path planning for redundant manipulator using indirect solution of optimal control problem. International Journal of Advanced Manufacturing Technology, 2009, 44, 725-736.	1.5	37
21	Optimal motion planning of non-linear dynamic systems in the presence of obstacles and moving boundaries using SDRE: application on cable-suspended robot. Nonlinear Dynamics, 2014, 76, 1423-1441.	2.7	37
22	Sliding mode control design based on the state-dependent Riccati equation: theoretical and experimental implementation. International Journal of Control, 2019, 92, 2136-2149.	1.2	36
23	Dynamic load-carrying capacity of cable-suspended parallel manipulators. International Journal of Advanced Manufacturing Technology, 2009, 44, 829-840.	1.5	35
24	Optimal Trajectory Planning for Flexible Link Manipulators with Large Deflection Using a New Displacements Approach. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 72, 287-300.	2.0	26
25	Derivation of dynamic equation of viscoelastic manipulator with revolute–prismatic joint using recursive Gibbs–Appell formulation. Nonlinear Dynamics, 2017, 89, 2041-2064.	2.7	26
26	Dynamic modeling of submerged nanoparticle pushing based on atomic force microscopy in liquid medium. Journal of Nanoparticle Research, 2011, 13, 5009-5019.	0.8	25
27	Maximum allowable dynamic load of flexible mobile manipulators using finite element approach. International Journal of Advanced Manufacturing Technology, 2008, 36, 1010-1021.	1.5	24
28	Modeling of various contact theories for the manipulation of different biological micro/nanoparticles based on AFM. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	24
29	Motion equations of cooperative multi flexible mobile manipulator via recursive Gibbs–Appell formulation. Applied Mathematical Modelling, 2019, 65, 443-463.	2.2	24
30	Optimal sliding mode control design based on the state-dependent Riccati equation for cooperative manipulators to increase dynamic load carrying capacity. Robotica, 2019, 37, 321-337.	1.3	24
31	Dynamic 3D modeling and simulation of nanoparticles manipulation using an AFM nanorobot. Robotica, 2014, 32, 625-641.	1.3	22
32	Nonlinear dynamics of tapping-mode atomic force microscopy in liquid. Journal of Applied Physics, 2011, 109, 084301.	1.1	21
33	A hybrid co-evolutionary genetic algorithm for multiple nanoparticle assembly task path planning. International Journal of Advanced Manufacturing Technology, 2016, 87, 3527-3543.	1.5	21
34	Analytical design of optimal trajectory with dynamic load-carrying capacity for cable-suspended manipulator. International Journal of Advanced Manufacturing Technology, 2012, 60, 317-327.	1.5	20
35	Application of the state–dependent Riccati equation for flexible–joint arms: Controller and estimator design. Optimal Control Applications and Methods, 2018, 39, 792-808.	1.3	20
36	Dynamic modeling and extended bifurcation analysis of flexible-link manipulator. Mechanics Based Design of Structures and Machines, 2020, 48, 87-110.	3.4	20

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37	Analysis of the effect of mechanical properties of liquid and geometrical parameters of cantilever on the frequency response function of AFM. International Journal of Advanced Manufacturing Technology, 2011, 57, 477-489.	1.5	19
38	Modeling of AFM with a piezoelectric layer based on the modified couple stress theory with geometric discontinuities. Applied Mathematical Modelling, 2017, 45, 439-456.	2.2	19
39	Controller design of cooperative manipulators using state-dependent Riccati equation. Robotica, 2018, 36, 484-515.	1.3	19
40	Maximum allowable dynamic load of flexible mobile manipulators using finite element approach. International Journal of Advanced Manufacturing Technology, 2008, 36, 606-617.	1.5	18
41	Optimal point-to-point motion planning of non-holonomic mobile robots in the presence of multiple obstacles. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2014, 36, 221-232.	0.8	18
42	Optimal path planning of a cable-suspended robot with moving boundary using optimal feedback linearization approach. Nonlinear Dynamics, 2014, 78, 1515-1543.	2.7	18
43	Reconfigurable Mobile Robot with Adjustable Width and Length: Conceptual Design, Motion Equations and Simulation. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 99, 797-814.	2.0	18
44	Analytical and experimental investigation of the dynamic behavior of a revolute-prismatic manipulator with N flexible links and hubs. International Journal of Advanced Manufacturing Technology, 2019, 103, 2235-2256.	1.5	17
45	Analysis of hysteresis effect on the vibration motion of a bimodal non-uniform micro-cantilever using MCS theory. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	16
46	Analysis and control of micro-cantilever in dynamic mode AFM. International Journal of Advanced Manufacturing Technology, 2010, 50, 979-990.	1.5	15
47	Development of ICASBOT: A Cable-Suspended Robot's with Six DOF. Arabian Journal for Science and Engineering, 2013, 38, 1131-1149.	1.1	15
48	Vibrational analysis of single-layered piezoelectric AFM microcantilever in amplitude mode by considering the capillary force. EPJ Applied Physics, 2014, 68, 30402.	0.3	15
49	Optimal Path Planning of Spatial Cable Robot Using Optimal Sliding Mode Control. International Journal of Advanced Robotic Systems, 2012, 9, 168.	1.3	14
50	Trajectory optimization of nonholonomic mobile manipulators departing to a moving target amidst moving obstacles. Acta Mechanica, 2013, 224, 995-1008.	1.1	14
51	Modeling of contact theories for the manipulation of biological micro/nanoparticles in the form of circular crowned rollers based on the atomic force microscope. Journal of Applied Physics, 2013, 114, 183715.	1.1	14
52	Compensating the flexibility uncertainties of a cable suspended robot using SMC approach. Robotica, 2015, 33, 578-598.	1.3	14
53	Dynamics and input–output feedback linearization control of a wheeled mobile cable-driven parallel robot. Multibody System Dynamics, 2017, 40, 55-73.	1.7	14
54	Designing an optimal control strategy for a mobile manipulator and its application by considering the effect of uncertainties and wheel slipping. Optimal Control Applications and Methods, 2021, 42, 1487-1511.	1.3	14

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55	Workspace analysis of cable-suspended robots with elastic cable. , 2007, , .		13
56	Modelling and simulation of dynamic modes in manipulation of nanorods. Micro and Nano Letters, 2013, 8, 284-287.	0.6	13
57	A survey on dynamic modeling of manipulation of nanoparticles based on atomic force microscope and investigation of involved factors. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	13
58	The effect of base replacement on the dynamic load carrying capacity of robotic manipulators. International Journal of Advanced Manufacturing Technology, 2004, 23, 28-38.	1.5	12
59	Virtual reality interface for nano-manipulation based on enhanced images. International Journal of Advanced Manufacturing Technology, 2012, 63, 1153-1166.	1.5	12
60	A novel method for recording the position and orientation of the end effector of a spatial cable-suspended robot and using for closed-loop control. International Journal of Advanced Manufacturing Technology, 2014, 72, 739-755.	1.5	12
61	FEM analysis of the vibrational motion of oblique piezoelectric microcantilever in the vicinity of a sample surface in liquid. Precision Engineering, 2015, 42, 208-217.	1.8	12
62	Trajectory planning of mobile manipulators using dynamic programming approach. Robotica, 2013, 31, 643-656.	1.3	11
63	Accurate nonlinear modeling for flexible manipulators using mixed finite element formulation in order to obtain maximum allowable load. Journal of Mechanical Science and Technology, 2015, 29, 3971-3982.	0.7	11
64	Finite time SDRE control design for mobile robots with differential wheels. Journal of Mechanical Science and Technology, 2016, 30, 4353-4361.	0.7	11
65	Maximum load of flexible joint manipulators using nonlinear controllers. Robotica, 2017, 35, 119-142.	1.3	11
66	Analytical and FEM solutions for free vibration of joined cross-ply laminated thick conical shells using shear deformation theory. Archive of Applied Mechanics, 2018, 88, 2231-2246.	1.2	11
67	Design and Implementation of the Voice Command Recognition and the Sound Source Localization System for Human–Robot Interaction. Robotica, 2021, 39, 1779-1790.	1.3	11
68	Nonlinear optimal control via finite time horizon state-dependent Riccati equation. , 2014, , .		10
69	Dynamic Load-Carrying Capacity of Multi-arm Cooperating Wheeled Mobile Robots via Optimal Load Distribution Method. Arabian Journal for Science and Engineering, 2014, 39, 6421-6433.	1.1	10
70	Modeling and simulation of AFM cantilever with two piezoelectric layers submerged in liquid over rough surfaces. Precision Engineering, 2015, 42, 261-275.	1.8	10
71	Noncalssical multiscale modeling of ssDNA manipulation using a CNT-nanocarrier based on AFM. Colloids and Surfaces B: Biointerfaces, 2017, 158, 102-111.	2.5	10
72	Dynamic modeling of cooperative manipulators with frictional contact at the end effectors. Applied Mathematical Modelling, 2021, 90, 302-326.	2.2	10

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73	Dynamic load carrying capacity of mobile-base flexible-link manipulators: feedback linearization control approach. , 2007, , .		9
74	Maximum allowable load of atomic force microscope (AFM) nanorobot. International Journal of Advanced Manufacturing Technology, 2009, 43, 690-700.	1.5	9
75	Modeling and simulation of three dimensional manipulations of biological micro/nanoparticles by applying cylindrical contact mechanics models by means of AFM. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	9
76	Three-dimensional modeling and simulation of the AFM-based manipulation of spherical biological micro/nanoparticles with the consideration of contact mechanics theories. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2015, 229, 370-382.	0.5	9
77	Robust Controlled Manipulation of Nanoparticles Using the AFM Nanorobot Probe. Arabian Journal for Science and Engineering, 2015, 40, 2685-2699.	1.1	9
78	Modeling and simulation of critical forces in the manipulation of cylindrical nanoparticles. International Journal of Advanced Manufacturing Technology, 2015, 79, 1505-1517.	1.5	9
79	The effect of off-end tip distance on the nanomanipulation based on rectangular and V-shape cantilevered AFMs. International Journal of Advanced Manufacturing Technology, 2010, 50, 579-589.	1.5	8
80	Smooth Jerk-Bounded Optimal Path Planning of Tricycle Wheeled Mobile Manipulators in the Presence of Environmental Obstacles. International Journal of Advanced Robotic Systems, 2012, 9, 105.	1.3	8
81	Investigating the effect of surface roughness on the critical sliding and rolling forces of cylindrical nanoparticles based on the multi-asperity contact models. Applied Physics A: Materials Science and Processing, 2015, 120, 1511-1528.	1.1	8
82	Using the Multiasperity Models to Investigate the Effect of Cylindrical Micro/Nanoparticle Roughness on the Critical Manipulation Forces. IEEE Nanotechnology Magazine, 2016, 15, 911-921.	1.1	8
83	Dynamic Modeling and Feedback Linearization Control of Wheeled Mobile Cable-Driven Parallel Robot Considering Cable Sag. Arabian Journal for Science and Engineering, 2017, 42, 4779-4788.	1.7	8
84	Hybrid IPSO-automata algorithm for path planning of micro-nanoparticles through random environmental obstacles, based on AFM. Journal of Mechanical Science and Technology, 2018, 32, 805-810.	0.7	8
85	Experimental determination of folding factor of benign breast cancer cell (MCF10A) and its effect on contact models and 3D manipulation of biological particles. Biomechanics and Modeling in Mechanobiology, 2018, 17, 745-761.	1.4	8
86	Sensitivity analysis of surface topography using the submerged non uniform piezoelectric micro cantilever in liquid by considering interatomic force interaction. Journal of Mechanical Science and Technology, 2018, 32, 2201-2207.	0.7	8
87	Finite-Time Feedback Linearization (FTFL) Controller Considering Optimal Gains on Mobile Mechanical Manipulators. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 94, 727-744.	2.0	8
88	Modeling and simulation of contact parameters of elliptical and cubic nanoparticles to be used in nanomanipulation based on atomic force microscope. Ultramicroscopy, 2019, 206, 112808.	0.8	8
89	Design and simulation of a magnetohydrodynamic micro-pump to provide time varying tensile force for vibration suppression in viscoelastic micro-beams. Journal of Mechanical Science and Technology, 2019, 33, 2149-2159.	0.7	8
90	Optimal Control of a Wheeled Mobile Cable-Driven Parallel Robot ICaSbot with Viscoelastic Cables. Robotica, 2020, 38, 1513-1537.	1.3	8

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91	The head and neck cancer (HN-5) cell line properties extraction by AFM. Journal of Biological Engineering, 2020, 14, 10.	2.0	8
92	Application of symbolic manipulation to inverse dynamics and kinematics of elastic robots. International Journal of Advanced Manufacturing Technology, 1994, 9, 343-350.	1.5	7
93	A new modeling and compensation approach for creep and hysteretic loops in nanosteering by SPM's piezotubes. International Journal of Advanced Manufacturing Technology, 2009, 44, 1133-1143.	1.5	7
94	Nonlinear dynamic analysis for elastic robotic arms. Frontiers of Mechanical Engineering, 2011, 6, 219.	2.5	7
95	A comparative study on SMC, OSMC and SDRE for robot control. , 2014, , .		7
96	Molecular dynamics simulation of nanomanipulation based on AFM in liquid ambient. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	7
97	Non-singular terminal sliding mode control design for wheeled mobile manipulator. Industrial Robot, 2017, 44, 501-511.	1.2	7
98	Simulating the AFM-based biomanipulation of cylindrical micro/nanoparticles in different biological environments. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 1883-1894.	0.8	7
99	3D investigation of dynamic behavior and sensitivity analysis of the parameters of spherical biological particles in the first phase of AFM-based manipulations with the consideration of humidity effect. Journal of Theoretical Biology, 2018, 436, 105-119.	0.8	7
100	Modification of Algorithms for Determination of Dynamic Load Carrying Capacity in Flexible Joint Robots. , 2006, , .		6
101	Inverse dynamic equation of motion for flexible link manipulators using recursive gibbs-appell formulation. , 2007, , .		6
102	Determining maximum load carrying capacity of planar flexible-link robot: closed-loop approach. Robotica, 2010, 28, 959-973.	1.3	6
103	Suboptimal tracking control of nonlinear systems via state-dependent differential Riccati equation for robotic manipulators. , 2015, , .		6
104	The effect of surfaces type on vibration behavior of piezoelectric micro-cantilever close to sample surface in a humid environment based on MCS theory. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	6
105	Dynamic modeling and simulation of 3D manipulation on rough surfaces based on developed adhesion models. International Journal of Advanced Manufacturing Technology, 2017, 88, 529-545.	1.5	6
106	Vibration suppression of atomic-force microscopy cantilevers covered by a piezoelectric layer with tensile force. Journal of Mechanical Science and Technology, 2018, 32, 4135-4144.	0.7	6
107	Vibration Analysis and Control of AFM Microcantilever Based on the MCS Theory Using the FSMC Control in the Air. Arabian Journal for Science and Engineering, 2019, 44, 7505-7514.	1.7	6
108	Trajectory Optimization of Flexible Mobile Manipulators Using Open-Loop Optimal Control Method. Lecture Notes in Computer Science, 2008, , 54-63.	1.0	5

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109	Optimal trajectory planning with maximum load carrying capacity for cable suspended robots. , 2009, , .		5
110	Exploring the tip-sample interaction regimes in the presence of hysteretic forces in the tapping mode atomic force microscopy. Journal of Applied Physics, 2011, 110, 024512.	1.1	5
111	Effects of macro-scale uncertainties on the imaging and automatic manipulation of nanoparticles. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	5
112	New optimization method to solve motion planning of dynamic systems: application on mechanical manipulators. Multibody System Dynamics, 2014, 31, 169-189.	1.7	5
113	Path planning in the AFM nanomanipulation of multiple spherical nanoparticles by using a coevolutionary Genetic Algorithm. , 2016, , .		5
114	Analysis the effect of different geometries of AFM's cantilever on the dynamic behavior and the critical forces of three-dimensional manipulation. Ultramicroscopy, 2017, 175, 9-24.	0.8	5
115	A new motion planning method for discretely actuated hyper-redundant manipulators. Robotica, 2017, 35, 101-118.	1.3	5
116	Investigation of geometrical effects in the carbon allotropes manipulation based on AFM: multiscale approach. Journal of Nanoparticle Research, 2017, 19, 1.	0.8	5
117	Analyzing the effect of the forces exerted on cantilever probe tip of atomic force microscope with tapering-shaped geometry and double piezoelectric extended layers in the air and liquid environments. Journal of Sound and Vibration, 2017, 386, 251-264.	2.1	5
118	Multilayered non‐uniform atomic force microscope piezoelectric microcantilever control and vibration analysis considering different excitation based on the modified couple stress theory. Microscopy Research and Technique, 2021, 84, 943-954.	1.2	5
119	Optimal point to point path planning of flexible manipulator under large deformation by using harmony search method. Journal of Theoretical and Applied Mechanics, 0, , 179.	0.2	5
120	Maximum Dynamic Load Carrying Capacity of 6UPS-Stewart Platform flexible joint Manipulator. , 2006, , .		4
121	Determination the Effects of Structural Parameters on Pull Down Voltage of RF MEMS Switches. , 2007, , .		4
122	Simulation and experiments for a vision-based control of a 6R robot. International Journal of Advanced Manufacturing Technology, 2009, 41, 367-385.	1.5	4
123	Maximum Allowable Load of Mobile Manipulator in the Presence of Obstacle Using Non-Linear Open and Closed Loop Optimal Control. Arabian Journal for Science and Engineering, 2014, 39, 4103-4117.	1.1	4
124	Optimal regulation of a cable robot in presence of obstacle using optimal adaptive feedback linearization approach. Robotica, 2015, 33, 933-952.	1.3	4
125	Effect of geometrical and environmental parameters on vibration of multi-layered piezoelectric microcantilever in amplitude mode. Applied Physics A: Materials Science and Processing, 2015, 121, 203-215.	1.1	4
126	Algorithm for determining the cantilever load carrying capacity in the 3D manipulation of nanoparticles with geometrical constraints based on FEM simulations. Robotica, 2016, 34, 2087-2104.	1.3	4

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127	Optimal trajectory planning for increased stability of mobile flexible manipulators undergoing large deflection. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2017, 231, 85-95.	1.5	4
128	Effects of Tip Mass and Interaction Force on Nonlinear Behavior of Force Modulation FM-AFM Cantilever. Journal of Mechanics, 2017, 33, 257-268.	0.7	4
129	Analyzing the vibrational response of an AFM cantilever in liquid with the consideration of tip mass by comparing the hydrodynamic and contact repulsive force models in higher modes. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	4
130	3D simulation of AFM non-uniform piezoelectric micro-cantilever with various geometries subjected to the tip-sample forces. EPJ Applied Physics, 2017, 77, 20701.	0.3	4
131	Experimental analysis of rough surface topography and modifying the humidity effect in AFM images to improve the topography quality. International Journal of Advanced Manufacturing Technology, 2018, 94, 1229-1241.	1.5	4
132	Analysis of the atomic force microscopy vibration behavior using the Timoshenko theory by multi-scale method in the air environment. Microscopy Research and Technique, 2019, 82, 1787-1801.	1.2	4
133	Development of 3D manipulation of viscoelastic biological cells by AFM based on contact models and oscillatory drag. Mechanics of Advanced Materials and Structures, 2021, 28, 2572-2584.	1.5	4
134	Optimal load of robotic manipulator with joint elasticity using accuracy and actuator constraints. International Journal of Advanced Manufacturing Technology, 1995, 10, 427-434.	1.5	3
135	Determining maximum load-carrying capacity of robots using adaptive robust neural controller. Robotica, 2010, 28, 1083-1093.	1.3	3
136	FORCE TRANSDUCER MODELING OF RECTANGULAR, V-SHAPED, AND DAGGER CANTILEVER PROBES BASED ON ATOMIC FORCE MICROSCOPY. Instrumentation Science and Technology, 2012, 40, 338-354.	0.9	3
137	An experimental electronic interface design for a two-link elastic robotic arm. , 2013, , .		3
138	Simulating the impact between particles with applications in nanotechnology fields (identification of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.3	3
139	Dynamic modeling and simulation of cylindrical nanoparticles in liquid medium. International Journal of Advanced Manufacturing Technology, 2014, 75, 197-208.	1.5	3
140	Sliding mode control design with adaptable gains for robotic manipulators. , 2015, , .		3
141	Comprehensive modelling and simulation of cylindrical nanoparticles manipulation by using a virtual reality environment. Journal of Molecular Graphics and Modelling, 2017, 75, 266-276.	1.3	3
142	Modeling and simulation of viscoelastic biological particles' 3D manipulation using atomic force microscopy. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	3
143	Finite-time nonsingular terminal sliding mode control: A time setting approach. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2019, 233, 1392-1412.	0.7	3
144	Effect of three types of piezoelectric cantilever on the topography quality in the vicinity of rough surface in a fluid ambient. Applied Mathematical Modelling, 2019, 65, 333-347.	2.2	3

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145	Simulation of 3D nanomanipulation for rough spherical elastic and viscoelastic particles in a liquid medium; experimentally determination of cell's roughness parameters and Hamaker constant's correction. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 313-327.	1.5	3
146	The effect of liquid medium on vibration and control of the AFM piezoelectric microcantilever. Microscopy Research and Technique, 2020, 83, 1427-1437.	1.2	3
147	Modeling and simulation of three-dimensional manipulation of viscoelastic folded biological particles considering the nonlinear model of the cell by AFM. Mechanics of Materials, 2020, 143, 103342.	1.7	3
148	Analysis of Four Wheeled Flexible Joint Robotic Arms with Application on Optimal Motion Design. Studies in Computational Intelligence, 2009, , 107-116.	0.7	3
149	Nonlinear dynamic modeling of a mobile spatial cable-driven robot with flexible cables. Nonlinear Dynamics, 2022, 108, 3219-3245.	2.7	3
150	Optimal Motion Planning of Manipulators With Elastic Links and Joints in Generalized Point-to-Point Task. , 2009, , .		2
151	Dynamic Modeling of Nanoparticle Pushing Based on V-Shape Cantilevered AFM. Arabian Journal for Science and Engineering, 2012, 37, 1665-1679.	1.1	2
152	Simulation of Two-Dimensional Nanomanipulation of Particles Based on the HK and LuGre Friction Models. Arabian Journal for Science and Engineering, 2013, 38, 1573-1585.	1.1	2
153	Experimental results for the flexible joint cable-suspended manipulator of ICaSbot. Robotica, 2013, 31, 887-904.	1.3	2
154	Nonlinear suboptimal SDRE controller for cooperative manipulators to increase dynamic load carrying capacity. , 2015, , .		2
155	Investigating the effective parameters in the Atomic Force Microscope–based dynamic manipulation of rough micro/nanoparticles by using the Sobol sensitivity analysis method. Simulation, 2015, 91, 1068-1080.	1.1	2
156	Hysteresis effect on dynamic modeling of AFM heterogeneous dagger MC in the vicinity of sample using MCS theory in liquid. EPJ Applied Physics, 2016, 76, 20401.	0.3	2
157	Optimal regulation of a cable suspended robot equipped with cable interfering avoidance controller. Advanced Robotics, 2016, 30, 1273-1287.	1.1	2
158	Simulating the Manipulation of Various Biological Micro/Nanoparticles by Considering a Crowned Roller Geometry. Arabian Journal for Science and Engineering, 2016, 41, 4449-4462.	1.1	2
159	Neural network sliding mode controller of atomic force microscope–based manipulation with different cantilever probes. Microscopy Research and Technique, 2019, 82, 993-1003.	1.2	2
160	Modeling the Amplitude Mode of Piezoelectric Microcantilever AFM in Contrast to the Surface of the Sample in a Liquid Medium. Arabian Journal for Science and Engineering, 2020, 45, 675-688.	1.7	2
161	Nonclassical dynamic modeling of nano/microparticles during nanomanipulation processes. Beilstein Journal of Nanotechnology, 2020, 11, 147-166.	1.5	2
162	Correlation Error Reduction of Images in Stereo Vision with Fuzzy Method and Its Application on Cartesian Robot. Lecture Notes in Computer Science, 2006, , 1271-1275.	1.0	2

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163	OPTIMAL FEEDBACK LINEARIZATION CONTROL OF A FLEXIBLE CABLE ROBOT. Latin American Applied Research, 2014, 44, 259-265.	0.2	2
164	Optimal motion planning of non-holonomic mobile robots in presence of multi obstacles. , 2010, , .		1
165	Vibration response of an atomic force microscopy piezoelectrically actuated microcantilever in liquid environment. Micro and Nano Letters, 2013, 8, 229-233.	0.6	1
166	Analysis of AFM cantilever dynamics close to sample surface. EPJ Applied Physics, 2013, 63, 10401.	0.3	1
167	Derivation of dynamic equations and parametric analysis for dual arm mobile manipulators using recursive Gibbs-Appell formulation. , 2014, , .		1
168	Comments on the Dynamic Analysis of V-Shaped Atomic Force Microscopy in Liquid Environment by Considering Timoshenko Beam Theory. Arabian Journal for Science and Engineering, 2014, 39, 7251-7263.	1.1	1
169	Analyzing the Effect of Capillary Force on Vibrational Performance of the Cantilever of an Atomic Force Microscope in Tapping Mode with Double Piezoelectric Layers in an Air Environment. Microscopy and Microanalysis, 2015, 21, 1195-1206.	0.2	1
170	Sobol method application in dimensional sensitivity analyses of different AFM cantilevers for biological particles. Modern Physics Letters B, 2015, 29, 1550123.	1.0	1
171	Effects of damping and stiffness of AFM cantilever on the imaging of fine surfaces. Microscopy Research and Technique, 2016, 79, 982-992.	1.2	1
172	Determining load carrying capacity of a manipulator by game theory: Closed-loop nonzero-sum differential game approach. Journal of Mechanical Science and Technology, 2016, 30, 5197-5205.	0.7	1
173	Investigation of piezoelectric microcantilever performance in constant amplitude mode in different work environments. Mechanics and Industry, 2017, 18, 504.	0.5	1
174	Sensitivity Analysis in 3D Manipulation of Biological Nanoparticles. Journal of Nanoscience and Nanotechnology, 2017, 17, 5205-5208.	0.9	1
175	The effect of glycerin solution density and viscosity on vibration amplitude of oblique different piezoelectric MC near the surface in 3D modeling. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	1
176	Geometric parameters effect of the atomic force microscopy smart piezoelectric cantilever on the different rough surface topography quality by considering the capillary force. Microscopy Research and Technique, 2019, 82, 517-529.	1.2	1
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