

Dongming Gan

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

1,496
citations

361413
20
h-index

345221
36
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81
all docs

81
docs citations

81
times ranked

688
citing authors

#	ARTICLE	IF	CITATIONS
1	Mobility Change in Two Types of Metamorphic Parallel Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2009, 1, .	2.2	124
2	Constraint analysis on mobility change of a novel metamorphic parallel mechanism. <i>Mechanism and Machine Theory</i> , 2010, 45, 1864-1876.	4.5	105
3	Unified kinematics and optimal design of a 3rRPS metamorphic parallel mechanism with a reconfigurable revolute joint. <i>Mechanism and Machine Theory</i> , 2016, 96, 239-254.	4.5	87
4	A Survey of Single and Multi-UAV Aerial Manipulation. <i>Unmanned Systems</i> , 2020, 08, 119-147.	3.6	70
5	Constraint-Based Limb Synthesis and Mobility-Change-Aimed Mechanism Construction. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2011, 133, .	2.9	67
6	Reconfigurability and unified kinematics modeling of a 3rTPS metamorphic parallel mechanism with perpendicular constraint screws. <i>Robotics and Computer-Integrated Manufacturing</i> , 2013, 29, 121-128.	9.9	53
7	Deep-Learning-Based Neural Network Training for State Estimation Enhancement: Application to Attitude Estimation. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 24-34.	4.7	53
8	Forward displacement analysis of the general 6R Stewart mechanism using Gr�bner bases. <i>Mechanism and Machine Theory</i> , 2009, 44, 1640-1647.	4.5	52
9	Unified Kinematics and Singularity Analysis of a Metamorphic Parallel Mechanism With Bifurcated Motion. <i>Journal of Mechanisms and Robotics</i> , 2013, 5, .	2.2	48
10	Design and prototyping soft-rigid tendon-driven modular grippers using interpenetrating phase composites materials. <i>International Journal of Robotics Research</i> , 2020, 39, 1635-1646.	8.5	45
11	Modeling and Prototyping of an Underactuated Gripper Exploiting Joint Compliance and Modularity. <i>IEEE Robotics and Automation Letters</i> , 2018, 3, 2854-2861.	5.1	43
12	Dual quaternion-based inverse kinematics of the general spatial 7R mechanism. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2008, 222, 1593-1598.	2.1	41
13	Singularity-Free Workspace Aimed Optimal Design of a 2T2R Parallel Mechanism for Automated Fiber Placement. <i>Journal of Mechanisms and Robotics</i> , 2015, 7, .	2.2	34
14	Design and kinematics analysis of a new 3CCC parallel mechanism. <i>Robotica</i> , 2010, 28, 1065-1072.	1.9	33
15	Geometry Constraint and Branch Motion Evolution of 3-PUP Parallel Mechanisms with Bifurcated Motion. <i>Mechanism and Machine Theory</i> , 2013, 61, 168-183.	4.5	33
16	A Mechanically Intelligent Crawling Robot Driven by Shape Memory Alloy and Compliant Bistable Mechanism. <i>Journal of Mechanisms and Robotics</i> , 2020, 12, .	2.2	33
17	Constraint-plane-based synthesis and topology variation of a class of metamorphic parallel mechanisms. <i>Journal of Mechanical Science and Technology</i> , 2014, 28, 4179-4191.	1.5	32
18	Variable Motion/Force Transmissibility of a Metamorphic Parallel Mechanism With Reconfigurable 3T and 3R Motion. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	2.2	31

#	ARTICLE	IF	CITATIONS
19	Discrete Cosserat Approach for Closed-Chain Soft Robots: Application to the Fin-Ray Finger. IEEE Transactions on Robotics, 2021, 37, 2083-2098.	10.3	24
20	Compliant gripper design, prototyping, and modeling using screw theory formulation. International Journal of Robotics Research, 2021, 40, 55-71.	8.5	23
21	Forward Kinematics Solution Distribution and Analytic Singularity-Free Workspace of Linear-Actuated Symmetrical Spherical Parallel Manipulators. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	22
22	Stiffness Design for a Spatial Three Degrees of Freedom Serial Compliant Manipulator Based on Impact Configuration Decomposition. Journal of Mechanisms and Robotics, 2013, 5, .	2.2	20
23	UAV Payload Transportation via RTDP Based Optimized Velocity Profiles. Energies, 2019, 12, 3049.	3.1	20
24	Neuromorphic Event-Based Slip Detection and Suppression in Robotic Grasping and Manipulation. IEEE Access, 2020, 8, 153364-153384.	4.2	20
25	Modeling, design & characterization of a novel Passive Variable Stiffness Joint (pVSJ)., 2016, , .		19
26	Design of A Novel Passive Binary-Controlled Variable Stiffness Joint (BpVSJ) Towards Passive Haptic Interface Application. IEEE Access, 2018, 6, 63045-63057.	4.2	19
27	Passive Discrete Variable Stiffness Joint (pDVSJ-II): Modeling, Design, Characterization, and Testing Toward Passive Haptic Interface. Journal of Mechanisms and Robotics, 2019, 11, .	2.2	19
28	Dynamic-Vision-Based Force Measurements Using Convolutional Recurrent Neural Networks. Sensors, 2020, 20, 4469.	3.8	19
29	Six novel 6R metamorphic mechanisms induced from three-series-connected Bennett linkages that vary among classical linkages. Mechanism and Machine Theory, 2021, 156, 104133.	4.5	19
30	Forward displacement analysis of a new 1CCC-5SPS parallel mechanism using Gr�bner theory. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2009, 223, 1233-1241.	2.1	18
31	Design and Prototype of Supernumerary Robotic Finger (SRF) Inspired by Fin Ray� Effect for Patients Suffering from Sensorimotor Hand Impairment. , 2019, , .		18
32	Reconfiguration of a 3-(rR)PS Metamorphic Parallel Mechanism Based on Complete Workspace and Operation Mode Analysis. Journal of Mechanisms and Robotics, 2020, 12, .	2.2	18
33	Joint force decomposition and variation in unified inverse dynamics analysis of a metamorphic parallel mechanism. Meccanica, 2016, 51, 1583-1593.	2.0	17
34	On the Design and Development of Vision-based Tactile Sensors. Journal of Intelligent and Robotic Systems: Theory and Applications, 2021, 102, 1.	3.4	16
35	Modeling and prototyping of a soft closed-chain modular gripper. Industrial Robot, 2019, 46, 135-145.	2.1	15
36	Neuromorphic Eye-in-Hand Visual Servoing. IEEE Access, 2021, 9, 55853-55870.	4.2	15

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37	Modeling, Control, and Numerical Simulations of a Novel Binary-Controlled Variable Stiffness Actuator (BcVSA). <i>Frontiers in Robotics and AI</i> , 2018, 5, 68.	3.2	14
38	Design and Control of a Discrete Variable Stiffness Actuator With Instant Stiffness Switch for Safe Human-Robot Interaction. <i>IEEE Access</i> , 2021, 9, 118215-118231.	4.2	14
39	Real-time grasping strategies using event camera. <i>Journal of Intelligent Manufacturing</i> , 2022, 33, 593-615.	7.3	14
40	Modeling and Prototyping of a Soft Prosthetic Hand Exploiting Joint Compliance and Modularity. , 2018, , .		13
41	Neuromorphic Vision Based Contact-Level Classification in Robotic Grasping Applications. <i>Sensors</i> , 2020, 20, 4724.	3.8	13
42	Coverage Path Planning with Adaptive Viewpoint Sampling to Construct 3D Models of Complex Structures for the Purpose of Inspection. , 2018, , .		11
43	Energy distribution in Dual-UAV collaborative transportation through load sharing. <i>Journal of Mechanisms and Robotics</i> , 0, , 1-14.	2.2	11
44	Novel passive Discrete Variable Stiffness Joint (pDVSJ): Modeling, design, and characterization. , 2016, , .		9
45	Modeling, Identification, and Control of a Discrete Variable Stiffness Actuator (DVSA). <i>Actuators</i> , 2019, 8, 50.	2.3	6
46	Muscle fatigue evaluation with EMG and Acceleration data: a case study. , 2020, 2020, 3138-3141.		6
47	Dynamic Analysis of the 3-RRPS Metamorphic Parallel Mechanism Based on Instantaneous Screw Axis. , 2019, , .		6
48	Reconfiguration and Static Joint Force Variation of a 3rRPS Metamorphic Parallel Mechanism with 3R and 1T2R Motion. <i>Mechanisms and Machine Science</i> , 2016, , 213-222.	0.5	5
49	Integrating laser profile sensor to an industrial robotic arm for improving quality inspection in manufacturing processes. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 4-17.	2.1	5
50	Forward Kinematics Analysis of the New 3-CCC Parallel Mechanism. , 2007, , .		4
51	A Double-Layered Elbow Exoskeleton Interface With 3-PRR Planar Parallel Mechanism for Axis Self-Alignment. <i>Journal of Mechanisms and Robotics</i> , 2021, 13, .	2.2	4
52	Haptics and virtual reality based bilateral telemanipulation of miniature aerial vehicle over open communication network. , 2017, , .		3
53	Structural optimization of a new type of lever-assisted gear reducer based on a genetic algorithm. <i>Mechanical Sciences</i> , 2021, 12, 333-343.	1.0	3
54	A Shape Memory Alloy Driven Crawling Robot Utilizing a Bistable Mechanism. , 2019, , .		3

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55	Object shape perception in blind robot grasping using a wrist force/torque sensor. , 2013, , .		2
56	Variable Motion/Force Transmissibility of a Metamorphic Parallel Mechanism With Reconfigurable 3T and 3R Motion. , 2015, , .		2
57	Design of Passive 3-PRR Planar Parallel Manipulators for Self-Alignment of Exoskeleton Axes. , 2016, , .		2
58	Operation Mode and Workspace of a 3-rRPS Metamorphic Parallel Mechanism with a Reconfigurable Revolute Joint. , 2018, , .		2
59	Biologically Inspired and Rehabilitation Robotics. Applied Bionics and Biomechanics, 2019, 2019, 1-2.	1.1	2
60	Investigation and Design of Robotic Assistance Control System for Cooperative Manipulation. , 2019, , .		2
61	Design, Modeling and Testing of a Flagellum-inspired Soft Underwater Propeller Exploiting Passive Elasticity. , 2019, , .		2
62	Design, Prototype, and Control Design Based on Computed Torque Control of Selective Compliance Assembly Robot Arm. , 2019, , .		2
63	Design and Modeling of a Variable Stiffness Barrel Mechanism for Ankle Exoskeleton. , 2020, , .		2
64	Stiffness Design for Compliant Manipulators Based on Dynamics Analysis of the Impact Configuration. , 2011, , .		1
65	Unified kinematics modeling of variable topologies of a 3rTPS metamorphic parallel mechanism. , 2012, , .		1
66	Unified Inverse Dynamics of Variable Topologies of a Metamorphic Parallel Mechanism Using Screw Theory. , 2013, , .		1
67	Attitude control of quad-rotor UAVs using an intuitive kinematics model. , 2013, , .		1
68	Unified Singularity Modeling and Reconfiguration of 3rT<i>PS</i> Metamorphic Parallel Mechanisms with Parallel Constraint Screws. Advances in Mechanical Engineering, 2015, 7, 352797.	1.6	1
69	Optimal Design of a Metamorphic Parallel Mechanism With Reconfigurable 1T2R and 3R Motion Based on Unified Motion/Force Transmissibility. , 2016, , .		1
70	Dynamic modeling and numerical simulations of a passive robotic walker using Euler-Lagrange method. , 2018, , .		1
71	Workspace Transition of 3-rRPS Metamorphic Parallel Mechanism in Hyperboloid Configuration. , 2018, , .		1
72	Biologically Inspired and Rehabilitation Robotics 2020. Applied Bionics and Biomechanics, 2022, 2022, 1-2.	1.1	1

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73	Constraint-Based Limb Synthesis and Mobility-Change-Aimed Mechanism Construction. , 2010, , .		0
74	Reconfiguration and Unified Kinematics Analysis of a Metamorphic Parallel Mechanism With Bifurcated Motion. , 2012, , .		0
75	Controllable Rotation Workspace of a Metamorphic Parallel Mechanism With Reconfigurable Universal Joints. , 2013, , .		0
76	Unified Kinematics Analysis and Analytic Singularity-Free Workspace of a Metamorphic Parallel Mechanism With Controllable Rotation Center. , 2014, , .		0
77	Dynamics and control of separable coupled rigid body systems. Robotics and Biomimetics, 2017, 4, 14.	1.7	0
78	Graph Representations. , 2021, , 1-12.		0
79	Reconfiguration and Actuation Scheme of 3rTPS Metamorphic Parallel Mechanisms with Parallel Constraint Screws. , 2012, , 259-268.		0
80	Forward Kinematics and Singularities of a 3-(rR)PS Metamorphic Parallel Mechanism. Mechanisms and Machine Science, 2020, , 68-77.	0.5	0
81	Kinematic Calibration of a 3rRPS Metamorphic Parallel Mechanism. , 2020, , .		0