

Dongming Gan

List of Publications by Year in descending order

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81
papers

1,496
citations

361413
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345221
36
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81
all docs

81
docs citations

81
times ranked

688
citing authors

#	ARTICLE	IF	CITATIONS
1	Biologically Inspired and Rehabilitation Robotics 2020. Applied Bionics and Biomechanics, 2022, 2022, 1-2.	1.1	1
2	Real-time grasping strategies using event camera. Journal of Intelligent Manufacturing, 2022, 33, 593-615.	7.3	14
3	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
4	Integrating laser profile sensor to an industrial robotic arm for improving quality inspection in manufacturing processes. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 4-17.	2.1	5
5	Compliant gripper design, prototyping, and modeling using screw theory formulation. International Journal of Robotics Research, 2021, 40, 55-71.	8.5	23
6	Neuromorphic Eye-in-Hand Visual Servoing. IEEE Access, 2021, 9, 55853-55870.	4.2	15
7	Graph Representations. , 2021, , 1-12.		0
8	Design and Control of a Discrete Variable Stiffness Actuator With Instant Stiffness Switch for Safe Human-Robot Interaction. IEEE Access, 2021, 9, 118215-118231.	4.2	14
9	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
10	Structural optimization of a new type of lever-assisted gear reducer based on a genetic algorithm. Mechanical Sciences, 2021, 12, 333-343.	1.0	3
11	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
12	A Double-Layered Elbow Exoskeleton Interface With 3-PRR Planar Parallel Mechanism for Axis Self-Alignment. Journal of Mechanisms and Robotics, 2021, 13, .	2.2	4
13	Deep-Learning-Based Neural Network Training for State Estimation Enhancement: Application to Attitude Estimation. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 24-34.	4.7	53
14	A Survey of Single and Multi-UAV Aerial Manipulation. Unmanned Systems, 2020, 08, 119-147.	3.6	70
15	Neuromorphic Vision Based Contact-Level Classification in Robotic Grasping Applications. Sensors, 2020, 20, 4724.	3.8	13
16	Neuromorphic Event-Based Slip Detection and Suppression in Robotic Grasping and Manipulation. IEEE Access, 2020, 8, 153364-153384.	4.2	20
17	Muscle fatigue evaluation with EMG and Acceleration data: a case study. , 2020, 2020, 3138-3141.		6
18	Dynamic-Vision-Based Force Measurements Using Convolutional Recurrent Neural Networks. Sensors, 2020, 20, 4469.	3.8	19

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19	Design and prototyping soft“rigid tendon-driven modular grippers using interpenetrating phase composites materials. International Journal of Robotics Research, 2020, 39, 1635-1646.	8.5	45
20	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
21	A Mechanically Intelligent Crawling Robot Driven by Shape Memory Alloy and Compliant Bistable Mechanism. Journal of Mechanisms and Robotics, 2020, 12, .	2.2	33
22	Forward Kinematics and Singularities of a 3-(rR)PS Metamorphic Parallel Mechanism. Mechanisms and Machine Science, 2020, , 68-77.	0.5	0
23	Design and Modeling of a Variable Stiffness Barrel Mechanism for Ankle Exoskeleton. , 2020, , .		2
24	Kinematic Calibration of a 3rRPS Metamorphic Parallel Mechanism. , 2020, , .		0
25	Design and Prototype of Supernumerary Robotic Finger (SRF) Inspired by Fin Ray® Effect for Patients Suffering from Sensorimotor Hand Impairment. , 2019, , .		18
26	Modeling, Identification, and Control of a Discrete Variable Stiffness Actuator (DVSA). Actuators, 2019, 8, 50.	2.3	6
27	Biologically Inspired and Rehabilitation Robotics. Applied Bionics and Biomechanics, 2019, 2019, 1-2.	1.1	2
28	UAV Payload Transportation via RTDP Based Optimized Velocity Profiles. Energies, 2019, 12, 3049.	3.1	20
29	Modeling and prototyping of a soft closed-chain modular gripper. Industrial Robot, 2019, 46, 135-145.	2.1	15
30	Investigation and Design of Robotic Assistance Control System for Cooperative Manipulation. , 2019, , .		2
31	Design, Modeling and Testing of a Flagellum-inspired Soft Underwater Propeller Exploiting Passive Elasticity. , 2019, , .		2
32	Design, Prototype, and Control Design Based on Computed Torque Control of Selective Compliance Assembly Robot Arm. , 2019, , .		2
33	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
34	Dynamic Analysis of the 3-RRPS Metamorphic Parallel Mechanism Based on Instantaneous Screw Axis. , 2019, , .		6
35	A Shape Memory Alloy Driven Crawling Robot Utilizing a Bistable Mechanism. , 2019, , .		3
36	Dynamic modeling and numerical simulations of a passive robotic walker using Euler-Lagrange method. , 2018, , .		1

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37	Modeling and Prototyping of a Soft Prosthetic Hand Exploiting Joint Compliance and Modularity. , 2018, , .		13
38	Coverage Path Planning with Adaptive Viewpoint Sampling to Construct 3D Models of Complex Structures for the Purpose of Inspection. , 2018, , .		11
39	Workspace Transition of 3-rRPS Metamorphic Parallel Mechanism in Hyperboloid Configuration. , 2018, , .		1
40	Operation Mode and Workspace of a 3-rRPS Metamorphic Parallel Mechanism with a Reconfigurable Revolute Joint. , 2018, , .		2
41	Design of A Novel Passive Binary-Controlled Variable Stiffness Joint (BpVSI) Towards Passive Haptic Interface Application. IEEE Access, 2018, 6, 63045-63057.	4.2	19
42	Modeling, Control, and Numerical Simulations of a Novel Binary-Controlled Variable Stiffness Actuator (BcVSA). Frontiers in Robotics and AI, 2018, 5, 68.	3.2	14
43	Modeling and Prototyping of an Underactuated Gripper Exploiting Joint Compliance and Modularity. IEEE Robotics and Automation Letters, 2018, 3, 2854-2861.	5.1	43
44	Haptics and virtual reality based bilateral telemanipulation of miniature aerial vehicle over open communication network. , 2017, , .		3
45	Dynamics and control of separable coupled rigid body systems. Robotics and Biomimetics, 2017, 4, 14.	1.7	0
46	Variable Motion/Force Transmissibility of a Metamorphic Parallel Mechanism With Reconfigurable 3T and 3R Motion. Journal of Mechanisms and Robotics, 2016, 8, .	2.2	31
47	Design of Passive 3-PRR Planar Parallel Manipulators for Self-Alignment of Exoskeleton Axes. , 2016, , .		2
48	Optimal Design of a Metamorphic Parallel Mechanism With Reconfigurable 1T2R and 3R Motion Based on Unified Motion/Force Transmissibility. , 2016, , .		1
49	Novel passive Discrete Variable Stiffness Joint (pDVSJ): Modeling, design, and characterization. , 2016, , .		9
50	Modeling, design & characterization of a novel Passive Variable Stiffness Joint (pVSJ). , 2016, , .		19
51	Reconfiguration and Static Joint Force Variation of a 3rRPS Metamorphic Parallel Mechanism with 3R and 1T2R Motion. Mechanisms and Machine Science, 2016, , 213-222.	0.5	5
52	Unified kinematics and optimal design of a 3rRPS metamorphic parallel mechanism with a reconfigurable revolute joint. Mechanism and Machine Theory, 2016, 96, 239-254.	4.5	87
53	Joint force decomposition and variation in unified inverse dynamics analysis of a metamorphic parallel mechanism. Meccanica, 2016, 51, 1583-1593.	2.0	17
54	Singularity-Free Workspace Aimed Optimal Design of a 2T2R Parallel Mechanism for Automated Fiber Placement. Journal of Mechanisms and Robotics, 2015, 7, .	2.2	34

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55	Unified Singularity Modeling and Reconfiguration of 3RTPS Metamorphic Parallel Mechanisms with Parallel Constraint Screws. <i>Advances in Mechanical Engineering</i> , 2015, 7, 352797.	1.6	1
56	Forward Kinematics Solution Distribution and Analytic Singularity-Free Workspace of Linear-Actuated Symmetrical Spherical Parallel Manipulators. <i>Journal of Mechanisms and Robotics</i> , 2015, 7, .	2.2	22
57	Variable Motion/Force Transmissibility of a Metamorphic Parallel Mechanism With Reconfigurable 3T and 3R Motion. , 2015, , .		2
58	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
59	Unified Kinematics Analysis and Analytic Singularity-Free Workspace of a Metamorphic Parallel Mechanism With Controllable Rotation Center. , 2014, , .		0
60	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
61	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
62	Unified Inverse Dynamics of Variable Topologies of a Metamorphic Parallel Mechanism Using Screw Theory. , 2013, , .		1
63	Stiffness Design for a Spatial Three Degrees of Freedom Serial Compliant Manipulator Based on Impact Configuration Decomposition. <i>Journal of Mechanisms and Robotics</i> , 2013, 5, .	2.2	20
64	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
65	Object shape perception in blind robot grasping using a wrist force/torque sensor. , 2013, , .		2
66	Attitude control of quad-rotor UAVs using an intuitive kinematics model. , 2013, , .		1
67	Controllable Rotation Workspace of a Metamorphic Parallel Mechanism With Reconfigurable Universal Joints. , 2013, , .		0
68	Unified kinematics modeling of variable topologies of a 3RTPS metamorphic parallel mechanism. , 2012, , .		1
69	Reconfiguration and Unified Kinematics Analysis of a Metamorphic Parallel Mechanism With Bifurcated Motion. , 2012, , .		0
70	Reconfiguration and Actuation Scheme of 3RTPS Metamorphic Parallel Mechanisms with Parallel Constraint Screws. , 2012, , 259-268.		0
71	Stiffness Design for Compliant Manipulators Based on Dynamics Analysis of the Impact Configuration. , 2011, , .		1
72	Constraint-Based Limb Synthesis and Mobility-Change-Aimed Mechanism Construction. <i>Journal of Mechanical Design</i> , <i>Transactions of the ASME</i> , 2011, 133, .	2.9	67

#	ARTICLE	IF	CITATIONS
73	Constraint-Based Limb Synthesis and Mobility-Change-Aimed Mechanism Construction. , 2010, , .		0
74	Constraint analysis on mobility change of a novel metamorphic parallel mechanism. Mechanism and Machine Theory, 2010, 45, 1864-1876.	4.5	105
75	Design and kinematics analysis of a new 3CCC parallel mechanism. Robotica, 2010, 28, 1065-1072.	1.9	33
76	Forward displacement analysis of a new 1CCC ⁴ 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
77	Mobility Change in Two Types of Metamorphic Parallel Mechanisms. Journal of Mechanisms and Robotics, 2009, 1, .	2.2	124
78	Forward displacement analysis of the general 6 ⁺ 6 Stewart mechanism using Gr�bner bases. Mechanism and Machine Theory, 2009, 44, 1640-1647.	4.5	52
79	Dual quaternion-based inverse kinematics of the general spatial 7R mechanism. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2008, 222, 1593-1598.	2.1	41
80	Forward Kinematics Analysis of the New 3-CCC Parallel Mechanism. , 2007, , .		4
81	Energy distribution in Dual-UAV collaborative transportation through load sharing. Journal of Mechanisms and Robotics, 0, , 1-14.	2.2	11