

Shyh-Chour Huang

List of Publications by Year in descending order

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116
papers

1,169
citations

394286

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454834

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118
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118
docs citations

118
times ranked

720
citing authors

#	ARTICLE	IF	CITATIONS
1	Time-varying disturbance observer based on sliding-mode observer and double phases fixed-time sliding mode control for a T-S fuzzy micro-electro-mechanical system gyroscope. <i>JVC/Journal of Vibration and Control</i> , 2023, 29, 1927-1942.	1.5	12
2	Robust Sliding Mode Control-Based a Novel Super-Twisting Disturbance Observer and Fixed-Time State Observer for Slotless-Self Bearing Motor System. <i>IEEE Access</i> , 2022, 10, 23980-23994.	2.6	17
3	Dynamic and Wrench-Feasible Workspace Analysis of a Cable-Driven Parallel Robot Considering a Nonlinear Cable Tension Model. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 244.	1.3	4
4	Disturbance Observer Based on Terminal Sliding-Mode Control for a Secure Communication of Fractional-Order Takagi-Sugeno Fuzzy Chaotic Systems. <i>Lecture Notes in Mechanical Engineering</i> , 2022, , 936-941.	0.3	9
5	Optimal Design of a Leaf Flexure Compliant Mechanism Based on 2-DOF Tuned Mass Damping Stage Analysis. <i>Micromachines</i> , 2022, 13, 817.	1.4	0
6	Designing and Calculating the Nonlinear Elastic Characteristic of Longitudinal-Transverse Transducers of an Ultrasonic Medical Instrument Based on the Method of Successive Loadings. <i>Materials</i> , 2022, 15, 4002.	1.3	1
7	Inversed Model-Based Disturbance Observer Base on Adaptive Fast Convergent Sliding Mode Control and Fixed-Time State Observer for Slotless Self-Bearing Motor. <i>Symmetry</i> , 2022, 14, 1206.	1.1	10
8	Time-varying disturbance observer based on regulating boundary layer thickness sliding mode control for microelectromechanical systems gyroscope. <i>Measurement and Control</i> , 2022, 55, 247-256.	0.9	4
9	Multi-objective optimization of hard milling process of AISI H13 in terms of productivity, quality, and cutting energy under nanofluid minimum quantity lubrication condition. <i>Measurement and Control</i> , 2021, 54, 820-834.	0.9	14
10	Modeling and optimization of machining parameters in milling of INCONEL-800 super alloy considering energy, productivity, and quality using nanoparticle suspended lubrication. <i>Measurement and Control</i> , 2021, 54, 880-894.	0.9	14
11	Optimal displacement amplification ratio of bridge-type compliant mechanism flexure hinge using the Taguchi method with grey relational analysis. <i>Microsystem Technologies</i> , 2021, 27, 1251-1265.	1.2	9
12	Time Varying Disturbance Observer Based on Sliding Mode Control for Active Magnetic Bearing System. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 929-935.	0.3	3
13	Biomechanical Evaluation of Dynamic Splint Based on Pulley Rotation Design for Management of Hand Spasticity. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 683-689.	2.7	6
14	Robust Observer Based on Fixed-Time Sliding Mode Control of Position/Velocity for a T-S Fuzzy MEMS Gyroscope. <i>IEEE Access</i> , 2021, 9, 96390-96403.	2.6	10
15	Disturbance and Uncertainty Rejection-Based on Fixed-Time Sliding-Mode Control for the Secure Communication of Chaotic Systems. <i>IEEE Access</i> , 2021, 9, 133663-133685.	2.6	19
16	Multi-objective optimization of carbon fiber-reinforced polymer drilling process based on grey fuzzy reasoning grade analysis. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 115, 503-513.	1.5	8
17	Computing Optimization of a Parallel Structure-Based Monolithic Gripper for Manipulation Using Weight Method-Based Grey Relational Analysis. <i>International Journal of Ambient Computing and Intelligence</i> , 2021, 12, 39-74.	0.8	3
18	Effectiveness of a New 3D-Printed Dynamic Hand-Wrist Splint on Hand Motor Function and Spasticity in Chronic Stroke Patients. <i>Journal of Clinical Medicine</i> , 2021, 10, 4549.	1.0	5

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19	Synthetic Adaptive Fuzzy Disturbance Observer and Sliding-Mode Control for Chaos-Based Secure Communication Systems. IEEE Access, 2021, 9, 23907-23928.	2.6	31
20	Optimizing compliant gripper mechanism design by employing an effective bi-algorithm: fuzzy logic and ANFIS. Microsystem Technologies, 2021, 27, 3389-3412.	1.2	45
21	Robust control-based disturbance observer and optimal states feedback for T ∞ S fuzzy systems. Journal of Low Frequency Noise Vibration and Active Control, 2021, 40, 1509-1525.	1.3	10
22	The Uniaxial Stress-Strain Relationship of Hyperelastic Material Models of Rubber Cracks in the Platens of Papermaking Machines Based on Nonlinear Strain and Stress Measurements with the Finite Element Method. Materials, 2021, 14, 7534.	1.3	8
23	Drilling Process on CFRP: Multi-Criteria Decision-Making with Entropy Weight Using Grey-TOPSIS Method. Applied Sciences (Switzerland), 2020, 10, 7207.	1.3	20
24	Design variables optimization effects on acceleration and contact force of the double sliders-crank mechanism having multiple revolute clearance joints by use of the Taguchi method based on a grey relational analysis. Sadhana - Academy Proceedings in Engineering Sciences, 2020, 45, 1.	0.8	6
25	Effectiveness of fuzzy sliding mode control boundary layer based on uncertainty and disturbance compensator on suspension active magnetic bearing system. Measurement and Control, 2020, 53, 934-942.	0.9	37
26	Experimental influence of twist angle and cryogenic gas on quality of drilled hole in carbon fiber reinforced plastic composites. Measurement and Control, 2020, 53, 943-953.	0.9	4
27	Optimization of CFRP Drilling Process with Multi-Criteria Using TGRA. , 2020, , .		3
28	Disturbance Observer-Based Linear Matrix Inequality for the Synchronization of Takagi-Sugeno Fuzzy Chaotic Systems. IEEE Access, 2020, 8, 225805-225821.	2.6	27
29	Synchronization of 3D Chaotic System Based on Sliding Mode Control: Electronic Circuit Implementation. , 2020, , .		9
30	Dynamic Creep Phenomenon on Polymer Cable with Non-linear Characteristics for Cable-driven Parallel Robots. , 2020, , .		1
31	Optimizing resistance welding parameters on adhesion strength of C45 steel shaft by using Taguchi method. Journal of Physics: Conference Series, 2019, 1303, 012148.	0.3	2
32	Investigate and analyse the oscillation response of large displacement amplification mechanism. , 2019, , .		0
33	Analysis and optimal design a new flexible hinge displacement amplifier mechanism by using Finite element analysis based on Taguchi method. , 2019, , .		1
34	Multi-objective optimization design of a compliant microgripper based on hybrid teaching learning-based optimization algorithm. Microsystem Technologies, 2019, 25, 2067-2083.	1.2	27
35	An effective approach of adaptive neuro-fuzzy inference system-integrated teaching learning-based optimization for use in machining optimization of S45C CNC turning. Optimization and Engineering, 2019, 20, 811-832.	1.3	14
36	Application of User Experience and Design Thinking to the Construction of a Class Assistance System for Hearing- and Speech-Impaired People. Sustainability, 2019, 11, 7191.	1.6	1

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37	Robust parameter design for a compliant microgripper based on hybrid Taguchi-differential evolution algorithm. <i>Microsystem Technologies</i> , 2018, 24, 1461-1477.	1.2	28
38	Optimal displacement amplification ratio of bridge-type compliant mechanism flexure hinge by using Taguchi method with grey relational analysis. , 2018, , .		0
39	Creative Design Of Sitting Hug Machine In The Treatment Of Students With Autism. <i>MATEC Web of Conferences</i> , 2018, 213, 01009.	0.1	3
40	Analysis influence of journal radius and length of bearing on dynamics of a slider-crank mechanism with two sliders and revolute clearance joints. <i>Journal of Physics: Conference Series</i> , 2018, 1074, 012005.	0.3	0
41	Microstructure and Mechanical Properties of Butt Joints between Stainless Steel SUS304L and Aluminum Alloy A6061-T6 by TIG Welding. <i>Materials</i> , 2018, 11, 1136.	1.3	15
42	Effects of material characteristics and clearance size on dynamics of a slider-crank mechanism with two sliders and revolute clearance joints. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 378, 012016.	0.3	2
43	Two-Dimensional Finite Element Analysis for Investigating Stresses Developed in Cement and Bone Layers in Total Knee Replacement. <i>Defect and Diffusion Forum</i> , 2018, 382, 181-185.	0.4	2
44	Investigation on lap-joint friction stir welding between AA6351 alloys and DP800 steel sheets. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2018, 43, 1.	0.8	4
45	Investigation of A5052 Aluminum Alloy to SS400 Steel by MIG Welding Process. <i>Lecture Notes in Mechanical Engineering</i> , 2018, , 645-656.	0.3	0
46	Design and analysis of a compliant micro-positioning platform with embedded strain gauges and viscoelastic damper. <i>Microsystem Technologies</i> , 2017, 23, 441-456.	1.2	27
47	Optimization of a two degrees of freedom compliant mechanism using Taguchi method-based grey relational analysis. <i>Microsystem Technologies</i> , 2017, 23, 4815-4830.	1.2	36
48	Hybrid Taguchi-cuckoo search algorithm for optimization of a compliant focus positioning platform. <i>Applied Soft Computing Journal</i> , 2017, 57, 526-538.	4.1	48
49	Compliant thin-walled joint based on zygoptera nonlinear geometry. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 1293-1303.	0.7	26
50	Design and multi-objective optimization for a broad self-amplified 2-DOF monolithic mechanism. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2017, 42, 1527-1542.	0.8	36
51	Investigation clearance size and friction effect on dynamic of a slider-crank mechanism with two sliders by quantitative analysis method. , 2017, , .		0
52	An investigated of butt joint between aluminum alloy A5052 and stainless steel SS400 by using MIG welding method. , 2017, , .		3
53	The study of stresses characteristic of contact mechanism in total knee replacement using two-dimensional finite element analysis. <i>Bio-Medical Materials and Engineering</i> , 2017, 28, 567-578.	0.4	4
54	Biomechanical Design of a Novel Six DOF Compliant Prosthetic Ankle-Foot 2.0 for Rehabilitation of Amputee. , 2017, , .		4

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55	Evaluation of structural behaviour of a novel compliant prosthetic ankle-foot. , 2017, , .		4
56	Design and analysis of a new gear-driven compliant torsional spring for upper-limb biomedical rehabilitation device. , 2017, , .		1
57	DESIGN OPTIMIZATION OF VERTICAL NEEDLE GEOMETRY FOR BLUMP WAFER-LEVEL PROBING. Transactions of the Canadian Society for Mechanical Engineering, 2017, 41, 313-326.	0.3	2
58	THE INFLUENCE OF MEDIAL-LATERAL CONTACT PAIR CONFORMITY ON CONTACT STRESSES IN TOTAL KNEE REPLACEMENT. Transactions of the Canadian Society for Mechanical Engineering, 2017, 41, 301-312.	0.3	0
59	THE INFLUENCE OF MEDIAL-LATERAL CONTACT PAIR CONFORMITY ON CONTACT STRESSES IN TOTAL KNEE REPLACEMENT. Transactions of the Canadian Society for Mechanical Engineering, 2017, 41, 301-312.	0.3	0
60	Effect of total knee replacement conformity design on the displacement, indentation time, contact stress, and strain during impact loading. Journal of Vibroengineering, 2017, 19, 3855-3865.	0.5	0
61	Fatigue Life Analysis of Cantilever Probe on Wafer Test. MATEC Web of Conferences, 2016, 71, 04007.	0.1	0
62	Multi-objective Optimal Design of a 2-DOF Flexure-Based Mechanism Using Hybrid Approach of Grey-Taguchi Coupled Response Surface Methodology and Entropy Measurement. Arabian Journal for Science and Engineering, 2016, 41, 5215-5231.	1.1	46
63	Study computational simulation and experimental of Tee-joint by Visual-Weld software and Tungsten Inert gas welding process. , 2016, , .		1
64	Design and computational optimization of a flexure-based XY positioning platform using FEA-based response surface methodology. International Journal of Precision Engineering and Manufacturing, 2016, 17, 1035-1048.	1.1	63
65	Metal-coated fiber Bragg grating for dynamic temperature sensor. Optik, 2016, 127, 10740-10745.	1.4	37
66	Finite element analysis of the thickness for staggered dynamic compression bone plate treatment of femoral shaft fracture. , 2016, , .		0
67	Effect of Nano-fillers on the Strength Reinforcement of Novel Hybrid Polymer Nanocomposites. Materials and Manufacturing Processes, 2016, 31, 1066-1072.	2.7	20
68	An Investigation of the Microstructure of an Intermetallic Layer in Welding Aluminum Alloys to Steel by MIG Process. Materials, 2015, 8, 8246-8254.	1.3	26
69	Thermal and Mechanical Behavior of Hybrid Polymer Nanocomposite Reinforced with Graphene Nanoplatelets. Materials, 2015, 8, 5526-5536.	1.3	68
70	DESIGN, FABRICATION, AND PREDICTIVE MODEL OF A 1-DOF TRANSLATIONAL FLEXIBLE BEARING FOR HIGH PRECISION MECHANISM. Transactions of the Canadian Society for Mechanical Engineering, 2015, 39, 419-429.	0.3	19
71	Numerical Simulation of Nanoindentation of Single Wall Carbon Nanotube Reinforced Epoxy Composite. Applied Mechanics and Materials, 2015, 764-765, 66-70.	0.2	0
72	A combination method of the theory and experiment in determination of cutting force coefficients in ball-end mill processes. Journal of Computational Design and Engineering, 2015, 2, 233-247.	1.5	14

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73	Robust design for a flexible bearing with 1-DOF translation using the Taguchi method and the utility concept. Journal of Mechanical Science and Technology, 2015, 29, 3309-3320.	0.7	73
74	Analysis of the Strain of the Great Saphenous Vein in Motion. Bio-Medical Materials and Engineering, 2014, 24, 1093-1099.	0.4	0
75	Investigation on The Effect of Micro-fillers on The Strength Reinforcement of Polypropylene. Advanced Materials Letters, 2014, 5, 593-597.	0.3	0
76	Use of the Fuzzy-Based Taguchi Method for the Optimization Design of an Ultrathin Centrifugal Fan. Applied Mechanics and Materials, 2013, 284-287, 2946-2949.	0.2	2
77	Design and Analysis of Compliant Rotary Joint. Applied Mechanics and Materials, 2013, 372, 467-470.	0.2	3
78	Application TRIZ Principles for Design and Manufacturing Coconut Cutting Machine. Applied Mechanics and Materials, 2013, 284-287, 613-616.	0.2	1
79	OPTIMIZATION OF AN ULTRATHIN CENTRIFUGAL FAN BASED ON THE TAGUCHI METHOD WITH FUZZY LOGICS. Transactions of the Canadian Society for Mechanical Engineering, 2013, 37, 449-457.	0.3	1
80	Use of the Fuzzy-Based Taguchi Method for Improving the Yield of BGA Packaging. Advanced Materials Research, 2012, 605-607, 2062-2065.	0.3	1
81	The Analysis of Pulse Pressure by Vascular Strain. Applied Mechanics and Materials, 2012, 256-259, 2383-2386.	0.2	1
82	Optimization of Micro Wind Turbine for Dental Fiber Handpiece Based on the Taguchi Method. Advanced Materials Research, 2012, 605-607, 401-404.	0.3	0
83	Design and Fabrication of Single-Walled Carbon Nanonet Flexible Strain Sensors. Sensors, 2012, 12, 3269-3280.	2.1	17
84	Robust Multi-Criteria Optimal Design for Improving the Yield of BGA Packaging. Advanced Science Letters, 2012, 13, 420-426.	0.2	4
85	Application of Taguchi method to robust multi—criteria optimum design for ultra-thin centrifugal fan. , 2011, , .		2
86	Polyimide-based Single-walled Carbon Nanonets (SWCNNs) flexible strain sensor for bone. , 2010, , .		0
87	Design of topologically optimal microgripper. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	4
88	Optimal Design of a Closed-Loop Control Compliant Microgripper. , 2008, , .		3
89	Design and control of a topology optimal compliant microgripper. Proceedings of SPIE, 2007, , .	0.8	0
90	Topology Optimal Compliant Microgripper. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2006, 49, 589-596.	0.4	10

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91	Design and fabrication of a micro-compliant amplifier with a topology optimal compliant mechanism integrated with a piezoelectric microactuator. Journal of Micromechanics and Microengineering, 2006, 16, 531-538.	1.5	20
92	Design and Fabrication of Micro-Compliant Amplifier with Topology Optimal Compliant Mechanism Integrated with a Piezoelectric Microactuator. , 2005, , .		0
93	Design of Micro-Gripper With Topology Optimal Compliant Mechanisms. , 2004, , 473.		0
94	FINITE ELEMENT ANALYSIS OF A DENTAL IMPLANT. Biomedical Engineering - Applications, Basis and Communications, 2003, 15, 82-85.	0.3	5
95	INFLUENCE OF THE HEAD RESTRAINT POSITION ON DYNAMIC RESPONSE OF THE HEAD/NECK SYSTEM UNDER WHIPLASH LOADING. Biomedical Engineering - Applications, Basis and Communications, 2003, 15, 164-169.	0.3	1
96	<title>Determination of dynamic rail properties by means of modal testing</title>. , 2002, , .		0
97	Vehicle occupant response to rear-end impacts. International Journal of Vehicle Design, 2000, 24, 198.	0.1	0
98	Head Injury in Facial Impactâ€”A Finite Element Analysis of Helmet Chin Bar Performance. Journal of Biomechanical Engineering, 2000, 122, 640-646.	0.6	21
99	Analysis of human body dynamics in simulated rear-end impacts. Human Movement Science, 1998, 17, 821-838.	0.6	6
100	Modeling Human Body Motion with Application in Crash Victim Simulation. Journal of Applied Biomechanics, 1995, 11, 322-336.	0.3	1
101	Analysis of a model to forecast thermal deformation of ball screw feed drive systems. International Journal of Machine Tools and Manufacture, 1995, 35, 1099-1104.	6.2	46
102	Vehicle Occupant Crash Simulation Using SuperCrash. , 1992, , .		0
103	Optimal Design of Microgripper. , 0, , .		1
104	The Analysis of Pulse Pressure by Vascular Strain. Applied Mechanics and Materials, 0, 268-270, 1194-1197.	0.2	0
105	Analysis of the Biomechanics of the Fingers in Different Writing Stances. Advanced Materials Research, 0, 605-607, 1419-1422.	0.3	0
106	Robust Design of an Ultra-Thin Centrifugal Fan on Fuzzy-Based Taguchi Method. Advanced Materials Research, 0, 605-607, 189-192.	0.3	0
107	Reinforcement of Polypropylene Using Micro-Fillers. Applied Mechanics and Materials, 0, 300-301, 1321-1324.	0.2	0
108	Optimization of Flapper Compliant Mechanism Using Fuzzy Logic Combined Taguchi Method. Applied Mechanics and Materials, 0, 300-301, 710-713.	0.2	0

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109	Analysis of the Effect the Modal-Parameter on the Milling Stability. Applied Mechanics and Materials, 0, 372, 459-462.	0.2	0
110	Optimization of Multiresponse Performance Measure in Slider-Rocker Compliant Mechanism Using Fuzzy-Taguchi Method. Advanced Materials Research, 0, 683, 708-711.	0.3	3
111	Hexagonal Representative Volume Element for Modeling and Analysis of Mechanical Properties of Carbon Nanotube Reinforced Composites. Applied Mechanics and Materials, 0, 496-500, 251-254.	0.2	4
112	A Flexible Bearing with 1-DOF Translation for High-Precision Mechanism. Applied Mechanics and Materials, 0, 764-765, 155-159.	0.2	0
113	Hybrid Weights-Utility and Taguchi Method for Multi-Objective Optimization Problems. Applied Mechanics and Materials, 0, 764-765, 305-308.	0.2	0
114	An Investigation of Dissimilar Welding Aluminum Alloys to Stainless Steel by the Tungsten Inert Gas (TIG) Welding Process. Materials Science Forum, 0, 904, 19-23.	0.3	3
115	Chattering-free sliding mode control-based disturbance observer for MEMS gyroscope system. Microsystem Technologies, 0, , .	1.2	3
116	Computational optimization of a steel A-36 monolithic mechanism by bonobo algorithm and intelligent model for precision machining application. International Journal on Interactive Design and Manufacturing, 0, , .	1.3	0