

Shyh-Chour Huang

List of Publications by Year in descending order

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116
papers

1,169
citations

394286

19
h-index

454834

30
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118
all docs

118
docs citations

118
times ranked

720
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust design for a flexible bearing with 1-DOF translation using the Taguchi method and the utility concept. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 3309-3320.	0.7	73
2	Thermal and Mechanical Behavior of Hybrid Polymer Nanocomposite Reinforced with Graphene Nanoplatelets. <i>Materials</i> , 2015, 8, 5526-5536.	1.3	68
3	Design and computational optimization of a flexure-based XY positioning platform using FEA-based response surface methodology. <i>International Journal of Precision Engineering and Manufacturing</i> , 2016, 17, 1035-1048.	1.1	63
4	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
5	Analysis of a model to forecast thermal deformation of ball screw feed drive systems. <i>International Journal of Machine Tools and Manufacture</i> , 1995, 35, 1099-1104.	6.2	46
6	Multi-objective Optimal Design of a 2-DOF Flexure-Based Mechanism Using Hybrid Approach of Grey-Taguchi Coupled Response Surface Methodology and Entropy Measurement. <i>Arabian Journal for Science and Engineering</i> , 2016, 41, 5215-5231.	1.1	46
7	Optimizing compliant gripper mechanism design by employing an effective bi-algorithm: fuzzy logic and ANFIS. <i>Microsystem Technologies</i> , 2021, 27, 3389-3412.	1.2	45
8	Metal-coated fiber Bragg grating for dynamic temperature sensor. <i>Optik</i> , 2016, 127, 10740-10745.	1.4	37
9	Effectiveness of fuzzy sliding mode control boundary layer based on uncertainty and disturbance compensator on suspension active magnetic bearing system. <i>Measurement and Control</i> , 2020, 53, 934-942.	0.9	37
10	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
11	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
12	Synthetic Adaptive Fuzzy Disturbance Observer and Sliding-Mode Control for Chaos-Based Secure Communication Systems. <i>IEEE Access</i> , 2021, 9, 23907-23928.	2.6	31
13	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
14	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
15	Multi-objective optimization design of a compliant microgripper based on hybrid teaching learning-based optimization algorithm. <i>Microsystem Technologies</i> , 2019, 25, 2067-2083.	1.2	27
16	Disturbance Observer-Based Linear Matrix Inequality for the Synchronization of Takagi-Sugeno Fuzzy Chaotic Systems. <i>IEEE Access</i> , 2020, 8, 225805-225821.	2.6	27
17	An Investigation of the Microstructure of an Intermetallic Layer in Welding Aluminum Alloys to Steel by MIG Process. <i>Materials</i> , 2015, 8, 8246-8254.	1.3	26
18	Compliant thin-walled joint based on zygoptera nonlinear geometry. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 1293-1303.	0.7	26

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19	Head Injury in Facial Impact—A Finite Element Analysis of Helmet Chin Bar Performance. <i>Journal of Biomechanical Engineering</i> , 2000, 122, 640-646.	0.6	21
20	Design and fabrication of a micro-compliant amplifier with a topology optimal compliant mechanism integrated with a piezoelectric microactuator. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 531-538.	1.5	20
21	Effect of Nano-fillers on the Strength Reinforcement of Novel Hybrid Polymer Nanocomposites. <i>Materials and Manufacturing Processes</i> , 2016, 31, 1066-1072.	2.7	20
22	Drilling Process on CFRP: Multi-Criteria Decision-Making with Entropy Weight Using Grey-TOPSIS Method. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7207.	1.3	20
23	DESIGN, FABRICATION, AND PREDICTIVE MODEL OF A 1-DOF TRANSLATIONAL FLEXIBLE BEARING FOR HIGH PRECISION MECHANISM. <i>Transactions of the Canadian Society for Mechanical Engineering</i> , 2015, 39, 419-429.	0.3	19
24	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
25	Design and Fabrication of Single-Walled Carbon Nanonet Flexible Strain Sensors. <i>Sensors</i> , 2012, 12, 3269-3280.	2.1	17
26	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
27	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
28	A combination method of the theory and experiment in determination of cutting force coefficients in ball-end mill processes. <i>Journal of Computational Design and Engineering</i> , 2015, 2, 233-247.	1.5	14
29	An effective approach of adaptive neuro-fuzzy inference system-integrated teaching learning-based optimization for use in machining optimization of S45C CNC turning. <i>Optimization and Engineering</i> , 2019, 20, 811-832.	1.3	14
30	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
31	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
32	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
33	Topology Optimal Compliant Microgripper. <i>JSME International Journal Series A-Solid Mechanics and Material Engineering</i> , 2006, 49, 589-596.	0.4	10
34	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
35	Robust control-based disturbance observer and optimal states feedback for T-S fuzzy systems. <i>Journal of Low Frequency Noise Vibration and Active Control</i> , 2021, 40, 1509-1525.	1.3	10
36	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

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37	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
38	Synchronization of 3D Chaotic System Based on Sliding Mode Control: Electronic Circuit Implementation. , 2020, , .		9
39	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
40	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
41	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. <i>Materials</i> , 2021, 14, 7534.	1.3	8
42	Analysis of human body dynamics in simulated rear-end impacts. <i>Human Movement Science</i> , 1998, 17, 821-838.	0.6	6
43	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. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020, 45, 1.	0.8	6
44	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
45	FINITE ELEMENT ANALYSIS OF A DENTAL IMPLANT. <i>Biomedical Engineering - Applications, Basis and Communications</i> , 2003, 15, 82-85.	0.3	5
46	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
47	Design of topologically optimal microgripper. <i>Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics</i> , 2008, , .	0.0	4
48	Hexagonal Representative Volume Element for Modeling and Analysis of Mechanical Properties of Carbon Nanotube Reinforced Composites. <i>Applied Mechanics and Materials</i> , 0, 496-500, 251-254.	0.2	4
49	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
50	Biomechanical Design of a Novel Six DOF Compliant Prosthetic Ankle-Foot 2.0 for Rehabilitation of Amputee. , 2017, , .		4
51	Evaluation of structural behaviour of a novel compliant prosthetic ankle-foot. , 2017, , .		4
52	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
53	Experimental influence of twist angle and cryogenic gas on quality of drilled hole in carbon fiber reinforced plastic composites. <i>Measurement and Control</i> , 2020, 53, 943-953.	0.9	4
54	Robust Multi-Criteria Optimal Design for Improving the Yield of BGA Packaging. <i>Advanced Science Letters</i> , 2012, 13, 420-426.	0.2	4

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55	Dynamic and Wrench-Feasible Workspace Analysis of a Cable-Driven Parallel Robot Considering a Nonlinear Cable Tension Model. Applied Sciences (Switzerland), 2022, 12, 244.	1.3	4
56	Time-varying disturbance observer based on regulating boundary layer thickness sliding mode control for microelectromechanical systems gyroscope. Measurement and Control, 2022, 55, 247-256.	0.9	4
57	Optimal Design of a Closed-Loop Control Compliant Microgripper. , 2008, , .		3
58	Design and Analysis of Compliant Rotary Joint. Applied Mechanics and Materials, 2013, 372, 467-470.	0.2	3
59	Optimization of Multiresponse Performance Measure in Slider-Rocker Compliant Mechanism Using Fuzzy-Taguchi Method. Advanced Materials Research, 0, 683, 708-711.	0.3	3
60	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
61	An investigated of butt joint between aluminum alloy A5052 and stainless steel SS400 by using MIG welding method. , 2017, , .		3
62	Creative Design Of Sitting Hug Machine In The Treatment Of Students With Autism. MATEC Web of Conferences, 2018, 213, 01009.	0.1	3
63	Time Varying Disturbance Observer Based on Sliding Mode Control for Active Magnetic Bearing System. Lecture Notes in Mechanical Engineering, 2021, , 929-935.	0.3	3
64	Computing Optimization of a Parallel Structure-Based Monolithic Gripper for Manipulation Using Weight Method-Based Grey Relational Analysis. International Journal of Ambient Computing and Intelligence, 2021, 12, 39-74.	0.8	3
65	Optimization of CFRP Drilling Process with Multi-Criteria Using TGRA. , 2020, , .		3
66	Chattering-free sliding mode control-based disturbance observer for MEMS gyroscope system. Microsystem Technologies, 0, , .	1.2	3
67	Application of Taguchi method to robust multi—criteria optimum design for ultra-thin centrifugal fan. , 2011, , .		2
68	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
69	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
70	Effects of material characteristics and clearance size on dynamics of a slider-crank mechanism with two sliders and revolute clearance joints. IOP Conference Series: Materials Science and Engineering, 2018, 378, 012016.	0.3	2
71	Two-Dimensional Finite Element Analysis for Investigating Stresses Developed in Cement and Bone Layers in Total Knee Replacement. Defect and Diffusion Forum, 2018, 382, 181-185.	0.4	2
72	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

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73	Modeling Human Body Motion with Application in Crash Victim Simulation. Journal of Applied Biomechanics, 1995, 11, 322-336.	0.3	1
74	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
75	Optimal Design of Microgripper. , 0, , .		1
76	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
77	The Analysis of Pulse Pressure by Vascular Strain. Applied Mechanics and Materials, 2012, 256-259, 2383-2386.	0.2	1
78	Application TRIZ Principles for Design and Manufacturing Coconut Cutting Machine. Applied Mechanics and Materials, 2013, 284-287, 613-616.	0.2	1
79	Study computational simulation and experimental of Tee-joint by Visual-Weld software and Tungsten Inert gas welding process. , 2016, , .		1
80	Design and analysis of a new gear-driven compliant torsional spring for upper-limb biomedical rehabilitation device. , 2017, , .		1
81	Analysis and optimal design a new flexible hinge displacement amplifier mechanism by using Finite element analysis based on Taguchi method. , 2019, , .		1
82	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
83	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
84	Dynamic Creep Phenomenon on Polymer Cable with Non-linear Characteristics for Cable-driven Parallel Robots. , 2020, , .		1
85	Designing and Calculating the Nonlinear Elastic Characteristic of Longitudinalâ€“Transverse Transducers of an Ultrasonic Medical Instrument Based on the Method of Successive Loadings. Materials, 2022, 15, 4002.	1.3	1
86	Vehicle occupant response to rear-end impacts. International Journal of Vehicle Design, 2000, 24, 198.	0.1	0
87	<title>Determination of dynamic rail properties by means of modal testing</title>. , 2002, , .		0
88	Design of Micro-Gripper With Topology Optimal Compliant Mechanisms. , 2004, , 473.		0
89	Design and Fabrication of Micro-Compliant Amplifier with Topology Optimal Compliant Mechanism Integrated with a Piezoelectric Microactuator. , 2005, , .		0
90	Design and control of a topology optimal compliant microgripper. Proceedings of SPIE, 2007, , .	0.8	0

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91	Polyimide-based Single-walled Carbon Nanonets (SWCNNs) flexible strain sensor for bone. , 2010, , .		0
92	The Analysis of Pulse Pressure by Vascular Strain. Applied Mechanics and Materials, 0, 268-270, 1194-1197.	0.2	0
93	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
94	Analysis of the Biomechanics of the Fingers in Different Writing Stances. Advanced Materials Research, 0, 605-607, 1419-1422.	0.3	0
95	Robust Design of an Ultra-Thin Centrifugal Fan on Fuzzy-Based Taguchi Method. Advanced Materials Research, 0, 605-607, 189-192.	0.3	0
96	Reinforcement of Polypropylene Using Micro-Fillers. Applied Mechanics and Materials, 0, 300-301, 1321-1324.	0.2	0
97	Optimization of Flapper Compliant Mechanism Using Fuzzy Logic Combined Taguchi Method. Applied Mechanics and Materials, 0, 300-301, 710-713.	0.2	0
98	Analysis of the Effect the Modal-Parameter on the Milling Stability. Applied Mechanics and Materials, 0, 372, 459-462.	0.2	0
99	Analysis of the Strain of the Great Saphenous Vein in Motion. Bio-Medical Materials and Engineering, 2014, 24, 1093-1099.	0.4	0
100	A Flexible Bearing with 1-DOF Translation for High-Precision Mechanism. Applied Mechanics and Materials, 0, 764-765, 155-159.	0.2	0
101	Numerical Simulation of Nanoindentation of Single Wall Carbon Nanotube Reinforced Epoxy Composite. Applied Mechanics and Materials, 2015, 764-765, 66-70.	0.2	0
102	Hybrid Weights-Utility and Taguchi Method for Multi-Objective Optimization Problems. Applied Mechanics and Materials, 0, 764-765, 305-308.	0.2	0
103	Fatigue Life Analysis of Cantilever Probe on Wafer Test. MATEC Web of Conferences, 2016, 71, 04007.	0.1	0
104	Finite element analysis of the thickness for staggered dynamic compression bone plate treatment of femoral shaft fracture. , 2016, , .		0
105	Investigation clearance size and friction effect on dynamic of a slider-crank mechanism with two sliders by quantitative analysis method. , 2017, , .		0
106	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
107	Optimal displacement amplification ratio of bridge-type compliant mechanism flexure hinge by using Taguchi method with grey relational analysis. , 2018, , .		0
108	Analysis influence of journal radius and length of bearing on dynamics of a slider-crank mechanism with two sliders and revolute clearance joints. Journal of Physics: Conference Series, 2018, 1074, 012005.	0.3	0

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109	Investigate and analyse the oscillation response of large displacement amplification mechanism. , 2019, , .		0
110	Vehicle Occupant Crash Simulation Using SuperCrash. , 1992, , .		0
111	Investigation on The Effect of Micro-fillers on The Strength Reinforcement of Polypropylene. Advanced Materials Letters, 2014, 5, 593-597.	0.3	0
112	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
113	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
114	Investigation of A5052 Aluminum Alloy to SS400 Steel by MIG Welding Process. Lecture Notes in Mechanical Engineering, 2018, , 645-656.	0.3	0
115	Optimal Design of a Leaf Flexure Compliant Mechanism Based on 2-DOF Tuned Mass Damping Stage Analysis. Micromachines, 2022, 13, 817.	1.4	0
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