Zafer Bingul

List of Publications by Year
in descending order

77 papers	1,748 citations	393982 19 h-index	344852 36 g-index
79 all docs	79 docs citations	79 times ranked	1403 citing authors

#	ARTICLE	IF	CITATIONS
1	A Study of Anti-swing Fuzzy LQR Control of a Double Serial Link Rotary Pendulum. IETE Journal of Research, 2023, 69, 3443-3454.	1.8	10
2	Anti-swing radial basis neuro-fuzzy linear quadratic regulator control of double link rotary pendulum. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2022, 236, 531-545.	0.7	6
3	Real-time trajectory tracking control of Stewart platform using fractional order fuzzy PID controller optimized by particle swarm algorithm. Industrial Robot, 2022, 49, 708-725.	1.2	9
4	Novel fractional hybrid impedance control of series elastic muscle-tendon actuator. Industrial Robot, 2021, 48, 532-543.	1.2	5
5	Comparative Study of the Parallel and Angular Electrical Gripper for Industrial Applications. Acta Mechanica Et Automatica, 2021, 15, 66-73.	0.3	1
6	Fuzzy torque trajectory control of a rotary series elastic actuator with nonlinear friction compensation. ISA Transactions, 2021, 115, 206-217.	3.1	15
7	Development of a Fuzzy-LQR and Fuzzy-LQG stability control for a double link rotary inverted pendulum. Journal of the Franklin Institute, 2020, 357, 10529-10556.	1.9	50
8	A Comparative Study of the Joint Neuro-Fuzzy Friction Models for a Triple Link Rotary Inverted Pendulum. IEEE Access, 2020, 8, 49066-49078.	2.6	23
9	Human postural ankle torque control model during standing posture with a series elastic muscle-tendon actuator. SN Applied Sciences, 2020, 2, 1.	1.5	5
10	Design, Analysis and Simulation of a 6-DOF Serial Manipulator. Kocaeli Journal of Science and Engineering, 2020, 3, 1-7.	0.3	2
11	Design and Control of an Unmanned Underwater Vehicle. , 2020, , .		3
12	Advanced robotics analysis toolbox for kinematic and dynamic design and analysis of high‐DOF redundant serial manipulators. Computer Applications in Engineering Education, 2019, 27, 1429-1452.	2.2	4
13	Design and Analysis of a Radial Flux Electrically Excited Eddy Current Brake. , 2019, , .		2
14	Modelling and Torque Control of an Non-Linear Friction Inverted Pendulum driven with a Rotary Series Elastic Actuator. , 2019, , .		1
15	Comparison of PID and FOPID controllers tuned by PSO and ABC algorithms for unstable and integrating systems with time delay. Optimal Control Applications and Methods, 2018, 39, 1431-1450.	1.3	114
16	Comparison of Joint Friction Estimation Models for Laboratory 2 DOF Double Dual Twin Rotor Aero-dynamical System. , 2018, , .		6
17	Kinematic and Dynamic Analysis and Design Toolbox of High-DOF Hybrid Multibody Systems. , 2018, , .		1
18	Adaptive Joint Friction Estimation Model For Laboratory 2 DOF Double Dual Twin Rotor Aerodynamical Helicopter System. , 2018, , .		7

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19	Linear and Extended Kalman Filter Estimation of Pitch and Yaw Angles for 2 DOF Double Dual Twin Rotor Aero-dynamical System. , 2018, , .		3
20	A Comparative Study of the Friction Models with Adaptive Coefficients for a Rotary Triple Inverted Pendulum. , 2018, , .		6
21	New Design and Development of Reconfigurable-Hybrid Hexapod Robot. , 2018, , .		4
22	A novel performance criterion approach to optimum design of PID controller using cuckoo search algorithm for AVR system. Journal of the Franklin Institute, 2018, 355, 5534-5559.	1.9	121
23	Blur Analysis for Gimbaled Imaging Systems in Air Vehicles. , 2018, , .		0
24	Position and Trajectory Fuzzy Control of a Laboratory 2 DOF Double Dual Twin Rotor Aerodynamical System. , 2018, , .		10
25	Comparison of Friction Estimation Models for Rotary Triple Inverted Pendulum. International Journal of Mechanical Engineering and Robotics Research, 2018, , 74-78.	0.7	6
26	Trajectory and Vibration Control of a Single-Link Flexible-Joint Manipulator Using a Distributed Higher-Order Differential Feedback Controller. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	0.9	14
27	Robotics toolbox for kinematic analysis and design of hybrid multibody systems. , 2017, , .		2
28	Recent Advances in Control Theory and Applications in Turkey. Transactions of the Institute of Measurement and Control, 2016, 38, 499-500.	1.1	0
29	Higher-order differential feedback control of a flexible-joint manipulator. JVC/Journal of Vibration and Control, 2015, 21, 1976-1986.	1.5	20
30	Intelligent proportional-integral (iPI) control of a single link flexible joint manipulator. JVC/Journal of Vibration and Control, 2015, 21, 2273-2288.	1.5	33
31	Fuzzy impedance and force control of a Stewart platform. Turkish Journal of Electrical Engineering and Computer Sciences, 2014, 22, 924-939.	0.9	13
32	Tip trajectory control of a flexible-link manipulator using an intelligent proportional integral (iPI) controller. Transactions of the Institute of Measurement and Control, 2014, 36, 673-682.	1.1	25
33	Inverse kinematics solutions for industrial robot manipulators with offset wrists. Applied Mathematical Modelling, 2014, 38, 1983-1999.	2.2	100
34	Vision based magnetic levitation system. , 2012, , .		3
35	Obstacle and optimal heading direction detection algorithm on a mobile robot platform. , 2012, , .		2
36	PSO Based Flat Control of a Single Link Flexible Manipulator. , 2012, , 739-746.		0

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37	Fuzzy logic control of single-link flexible joint manipulator. , 2011, , .		8
38	PID and state feedback control of a single-link flexible joint robot manipulator. , 2011, , .		26
39	Tuning of fractional PID controllers using PSO algorithm for robot trajectory control. , 2011, , .		27
40	A Fuzzy Logic Controller tuned with PSO for 2 DOF robot trajectory control. Expert Systems With Applications, 2011, 38, 1017-1031.	4.4	214
41	Dynamic identification of Staubli RX-60 robot using PSO and LS methods. Expert Systems With Applications, 2011, 38, 4136-4149.	4.4	49
42	An off‑line robot simulation toolbox. Computer Applications in Engineering Education, 2010, 18, 41-52.	2.2	24
43	Fuzzy control of a real time inverted pendulum system. Journal of Intelligent and Fuzzy Systems, 2010, 21, 121-133.	0.8	19
44	Application of heuristic and hybrid-GASA algorithms to tool-path optimization problem for minimizing airtime during machining. Engineering Applications of Artificial Intelligence, 2009, 22, 389-396.	4.3	58
45	PD-Fuzzy Controller Tuned with PSO for Robot Trajectory Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 444-449.	0.4	2
46	Modelling and Identification of STAUBLI RX-60 Robot. , 2008, , .		8
47	Fuzzy Control of a Real Time Inverted Pendulum System. Lecture Notes in Computer Science, 2008, , 674-681.	1.0	8
48	Adaptive genetic algorithms applied to dynamic multiobjective problems. Applied Soft Computing Journal, 2007, 7, 791-799.	4.1	85
49	A real-time prediction model of electrode extension for GMAW. IEEE/ASME Transactions on Mechatronics, 2006, 11, 47-54.	3.7	32
50	Hybrid genetic algorithm and simulated annealing for two-dimensional non-guillotine rectangular packing problems. Engineering Applications of Artificial Intelligence, 2006, 19, 557-567.	4.3	60
51	Comparative study of performance indices for fundamental robot manipulators. Robotics and Autonomous Systems, 2006, 54, 567-573.	3.0	102
52	Robot Workspace Optimization Based on a Novel Local and Global Performance Indices. , 2005, , .		22
53	Applying Neural Network to Inverse Kinematic Problem for 6R Robot Manipulator with Offset Wrist. , 2005, , 112-115.		28
54	Comparison of Meta-heuristic Hybrid Approaches for Two Dimensional Non-guillotine Rectangular Cutting Problems. Lecture Notes in Computer Science, 2005, , 1304-1307.	1.0	0

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55	Comparison of Stochastic and Approximation Algorithms for One-Dimensional Cutting Problems. Lecture Notes in Computer Science, 2005, , 976-985.	1.0	1
56	A new PID tuning technique using ant algorithm. , 2004, , .		44
57	A New PID Tuning Technique Using Differential Evolution for Unstable and Integrating Processes with Time Delay. Lecture Notes in Computer Science, 2004, , 254-260.	1.0	26
58	Comparison of constant current and pulsed gas metal arc welding processes on basis of electrode resistive dissipation. Science and Technology of Welding and Joining, 2003, 8, 19-28.	1.5	0
59	Robot workspace optimization based on the global conditioning index. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 117-122.	0.4	2
60	Instability phenomena in the gasâ€"metal arc welding self-regulation process. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2002, 216, 899-910.	1.5	2
61	Dynamic model for electrode melting rate in gas metal arc welding process. Science and Technology of Welding and Joining, 2001, 6, 41-50.	1.5	13
62	Application of fuzzy logic to spatial thermal control in fusion welding. IEEE Transactions on Industry Applications, 2000, 36, 1523-1530.	3.3	46
63	Evolutionary approach to multi-objective problems using adaptive genetic algorithms. , 0, , .		6
64	Application of fuzzy logic to spatial thermal control in fusion welding. , 0, , .		2
65	Dynamic modeling of GMAW process. , 0, , .		7
66	Comparison of algorithms for detection of the number of signal sources. , 0, , .		3
67	Human-robot interaction over the Internet. , 0, , .		6
68	Genetic algorithms applied to real time multiobjective optimization problems. , 0, , .		8
69	The inverse kinematics solutions of industrial robot manipulators. , 0, , .		63
70	Comparison of Inverse Kinematics Solutions Using Neural Network for 6R Robot Manipulator with Offset. , 0, , .		40
71	The inverse kinematics solutions of fundamental robot manipulators with offset wrist. , 0, , .		13
72	Dynamic Modeling and Simulation of Stewart Platform. , 0, , .		32

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73	Position Control and Trajectory Tracking of the Stewart Platform. , 0, , .		7
74	Design and development of a Stewart platform assisted and navigated transsphenoidal surgery. Turkish Journal of Electrical Engineering and Computer Sciences, 0, , 961-972.	0.9	12
75	Cascade fuzzy logic control of a single-link flexible-joint manipulator. Turkish Journal of Electrical Engineering and Computer Sciences, 0, , .	0.9	7
76	Fractional PID controllers tuned by evolutionary algorithms for robot trajectory control. Turkish Journal of Electrical Engineering and Computer Sciences, 0, , .	0.9	6
77	Link Mass Optimization Using Genetic Algorithms for Industrial Robot Manipulators. , 0, , .		0