Rodolfo Haber

List of Publications by Year
in descending order

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101 papers	2,176 citations	172207 29 h-index	253896 43 g-index
113 all docs	113 docs citations	113 times ranked	1761 citing authors

#	Article	IF	Citations
1	Self-adaptive systems: A survey of current approaches, research challenges and applications. Expert Systems With Applications, 2013, 40, 7267-7279.	4.4	155
2	An investigation of tool-wear monitoring in a high-speed machining process. Sensors and Actuators A: Physical, 2004, 116, 539-545.	2.0	106
3	A decision-making framework for dynamic scheduling of cyber-physical production systems based on digital twins. Annual Reviews in Control, 2021, 51, 357-373.	4.4	101
4	Power-Steering Control Architecture for Automatic Driving. IEEE Transactions on Intelligent Transportation Systems, 2005, 6, 406-415.	4.7	84
5	Tool wear monitoring using neuro-fuzzy techniques: a comparative study in a turning process. Journal of Intelligent Manufacturing, 2012, 23, 869-882.	4.4	76
6	Optimal fuzzy control system using the cross-entropy method. A case study of a drilling process. Information Sciences, 2010, 180, 2777-2792.	4.0	64
7	Digital Twin-Based Optimization for Ultraprecision Motion Systems With Backlash and Friction. IEEE Access, 2019, 7, 93462-93472.	2.6	64
8	Cloud-Based Industrial Cyberâ€“Physical System for Data-Driven Reasoning: A Review and Use Case on an Industry 4.0 Pilot Line. IEEE Transactions on Industrial Informatics, 2020, 16, 5975-5984.	7.2	60
9	Multi-objective optimization based on an improved cross-entropy method. A case study of a micro-scale manufacturing process. Information Sciences, 2016, 334-335, 161-173.	4.0	51
10	Hybrid Incremental Modeling Based on Least Squares and Fuzzy K-NN for Monitoring Tool Wear in Turning Processes. IEEE Transactions on Industrial Informatics, 2012, 8, 811-818.	7.2	49
11	Sensor Reliability in Cyber-Physical Systems Using Internet-of-Things Data: A Review and Case Study. Remote Sensing, 2019, 11, 2252.	1.8	46
12	Surface roughness modeling and optimization of tungstenâ€“copper alloys in micro-milling processes. Measurement: Journal of the International Measurement Confederation, 2016, 86, 246-252.	2.5	45
13	Automatic Selection of Optimal Parameters Based on Simple Soft-Computing Methods: A Case Study of Micromilling Processes. IEEE Transactions on Industrial Informatics, 2019, 15, 800-811.	7.2	45
14	An optimal fuzzy control system in a network environment based on simulated annealing. An application to a drilling process. Applied Soft Computing Journal, 2009, 9, 889-895.	4.1	44
15	From artificial cognitive systems and open architectures to cognitive manufacturing systems. , 2015, , .		43
16	A Simple Multi-Objective Optimization Based on the Cross-Entropy Method. IEEE Access, 2017, 5, 22272-22281.	2.6	43
17	Intelligent process supervision for predicting tool wear in machining processes. Mechatronics, 2003, 13, 825-849.	2.0	42
18	Obstacle Recognition Based on Machine Learning for On-Chip LiDAR Sensors in a Cyber-Physical System. Sensors, 2017, 17, 2109.	2.1	41

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19	Self-Tuning Method for Increased Obstacle Detection Reliability Based on Internet of Things LiDAR Sensor Models. Sensors, 2018, 18, 1508.	2.1	41
20	Toward intelligent machining: hierarchical fuzzy control for the end milling process. IEEE Transactions on Control Systems Technology, 1998, 6, 188-199.	3.2	40
21	Fuzzy model and hierarchical fuzzy control integration: an approach for milling process optimization. Computers in Industry, 1999, 39, 199-207.	5.7	40
22	Sensoring systems and signal analysis to monitor tool wear in microdrilling operations on a sintered tungstenâ€“copper composite material. Sensors and Actuators A: Physical, 2013, 199, 165-175.	2.0	39
23	Fuzzy Logic-Based Torque Control System for Milling Process Optimization. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2007, 37, 941-950.	3.3	38
24	Nonlinear internal model control using neural networks: an application for machining processes. Neural Computing and Applications, 2004, 13, 47-55.	3.2	37
25	A Transductive Neuro-Fuzzy Controller: Application to a Drilling Process. IEEE Transactions on Neural Networks, 2010, 21, 1158-1167.	4.8	37
26	Fuzzy control of a multiple hearth furnace. Computers in Industry, 2004, 54, 105-113.	5.7	36
27	Embedded fuzzy-control system for machining processes. Computers in Industry, 2003, 50, 353-366.	5.7	35
28	Lyapunov Stable Control of Robot Manipulators: A Fuzzy Self-Tuning Procedure. Intelligent Automation and Soft Computing, 1999, 5, 313-326.	1.6	34
29	Artificial cognitive control system based on the shared circuits model of sociocognitive capacities. A first approach. Engineering Applications of Artificial Intelligence, 2011, 24, 209-219.	4.3	34
30	A classic solution for the control of a high-performance drilling process. International Journal of Machine Tools and Manufacture, 2007, 47, 2290-2297.	6.2	33
31	Using circle criteria for verifying asymptotic stability in PI-like fuzzy control systems: application to the milling process. IET Control Theory and Applications, 2003, 150, 619-627.	1.7	31
32	A DRIVERLESS VEHICLE DEMONSTRATION ON MOTORWAYS AND IN URBAN ENVIRONMENTS. Transport, 2015, 30, 253-263.	0.6	29
33	Computer Vision System for Welding Inspection of Liquefied Petroleum Gas Pressure Vessels Based on Combined Digital Image Processing and Deep Learning Techniques. Sensors, 2020, 20, 4505.	2.1	28
34	Coping with Complexity When Predicting Surface Roughness in Milling Processes: Hybrid Incremental Model with Optimal Parametrization. Complexity, 2017, 2017, 1-11.	0.9	25
35	Ensemble of convolutional neural networks based on an evolutionary algorithm applied to an industrial welding process. Computers in Industry, 2021, 133, 103530.	5.7	24
36	Internal Model Control Based on a Neurofuzzy System for Network Applications. A Case Study on the High-Performance Drilling Process. IEEE Transactions on Automation Science and Engineering, 2009, 6, 367-372.	3.4	20

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37	Artificial cognitive control with self-x capabilities: A case study of a micro-manufacturing process. Computers in Industry, 2015, 74, 135-150.	5.7	20
38	System Identification of the High Performance Drilling Process for Network-Based Control. , 2007, , 827.		19
39	Online detection of run out in microdrilling of tungsten and titanium alloys. International Journal of Advanced Manufacturing Technology, 2014, 74, 1567-1575.	1.5	19
40	Correlation of the holes quality with the force signals in a microdrilling process of a sintered tungsten-copper alloy. International Journal of Precision Engineering and Manufacturing, 2014, 15, 1801-1808.	1.1	19
41	Conductance sensing for monitoring micromechanical machining of conductive materials. Sensors and Actuators A: Physical, 2015, 232, 163-171.	2.0	19
42	Fuzzy Control of Spindle Torque in High-Speed Milling Processes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 1014-1018.	1.3	16
43	Industrial cyber-physical system for condition-based monitoring in manufacturing processes. , 2018, , .		15
44	The fuzzy Kalman filter: Improving its implementation by reformulating uncertainty representation. Fuzzy Sets and Systems, 2021, 402, 78-104.	1.6	15
45	Characterization of tool-workpiece contact during the micromachining of conductive materials. Mechanical Systems and Signal Processing, 2017, 83, 489-505.	4.4	14
46	Towards the Adoption of Cyber-Physical Systems of Systems Paradigm in Smart Manufacturing Environments. , 2018, , .		14
47	Fault pattern identification in multi-stage assembly processes with non-ideal sheet-metal parts based on reinforcement learning architecture. Procedia CIRP, 2018, 67, 601-606.	1.0	14
48	Smart Sensing of Pavement Temperature Based on Low-Cost Sensors and V2I Communications. Sensors, 2018, 18, 2092.	2.1	14
49	Local Decision Making based on Distributed Digital Twin Framework. IFAC-PapersOnLine, 2020, 53, 10568-10573.	0.5	14
50	Fuzzy supervisory control of end milling process. Information Sciences, 1996, 89, 95-106.	4.0	13
51	A self-learning strategy for artificial cognitive control systems. , 2015, , .		13
52	Towards Sustainability of Manufacturing Processes by Multiobjective Optimization: A Case Study on a Submerged Arc Welding Process. IEEE Access, 2020, 8, 212904-212916.	2.6	13
53	Transductive-Weighted Neuro-Fuzzy Inference System for Tool Wear Prediction in a Turning Process. Lecture Notes in Computer Science, 2009, , 113-120.	1.0	12
54	Optimal Tuning of a Networked Linear Controller Using a Multi-Objective Genetic Algorithm. Application to a Complex Electromechanical Process. , 2008, , .		11

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55	Consensus-Based Cooperative Control Based on Pollution Sensing and Traffic Information for Urban Traffic Networks. Sensors, 2017, 17, 953.	2.1	11
56	Using Simulated Annealing for Optimal Tuning of a PID Controller for Time-Delay Systems. An Application to a High-Performance Drilling Process. Lecture Notes in Computer Science, 2007, , 1155-1162.	1.0	11
57	Condition-based Monitoring Architecture for CNC Machine Tools based on Global Knowledge. IFAC-PapersOnLine, 2018, 51, 200-204.	0.5	10
58	Networked sensing for high-speed machining processes based on CORBA. Sensors and Actuators A: Physical, 2005, 119, 418-426.	2.0	9
59	Needs, Requirements and a Concept of a Tool Condition Monitoring System for the Aerospace Industry. Sensors, 2021, 21, 5086.	2.1	7
60	Networked Fuzzy Control System for a High-Performance Drilling Process. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2008, 130, .	1.3	6
61	Control Neuroborroso en Red. AplicaciÃ³n al Proceso de Taladrado de Alto Rendimiento. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2009, 6, 31-38.	0.6	6
62	Controlling a complex electromechanical process on the basis of a neurofuzzy approach. Future Generation Computer Systems, 2005, 21, 1083-1095.	4.9	5
63	Visual Analytics Framework for Condition Monitoring in Cyber-Physical Systems. , 2019, , .		5
64	Dynamic Model of the Machining Process on the Basis of Neural Networks: from Simulation to Real Time Application. Lecture Notes in Computer Science, 2002, , 574-583.	1.0	5
65	CORBA-Based Open Platform for Processes Monitoring. An Application to a Complex Electromechanical Process. Lecture Notes in Computer Science, 2004, , 523-526.	1.0	5
66	Application of hybrid incremental modeling for predicting surface roughness in micromachining processes. , 2014, , .		4
67	1st International Workshop on Software Engineering for Smart Cyber-Physical Systems (SEsCPS 2015). , 2015, , .		4
68	Automated Driving. , 2018, , 275-342.		4
69	Optimal Tuning of Cascade Controllers for Feed Drive Systems using Particle Swarm Optimization. , 2019, , .		4
70	Modeling of Communication Delays Aiming at the Design of Networked Supervisory and Control Systems. A First Approach. Lecture Notes in Computer Science, 2005, , 1056-1059.	1.0	3
71	Advanced Co-simulation Framework for Cooperative Maneuvers Among Vehicles. , 2015, , .		3
72	Networked Control Based on Fuzzy Logic. An Application to a High-Performance Milling Process. Lecture Notes in Computer Science, 2007, , 391-398.	1.0	3

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73	Digital twin-based Optimization on the basis of Grey Wolf Method. A Case Study on Motion Control Systems. , 2020, , .		3
74	Optimal Fuzzy Control for a Time-Delay System Using Simulated Annealing: An Application to High-Performance Drilling. , 2007, , .		2
75	The State-of-the-Art in Nano-Turning. , 2007, , .		2
76	A fuzzy-genetic system to predict the cutting force in microdrilling processes. , 2014, , .		2
77	Connectivity control in WSN based on fuzzy logic control. ACM SIGBED Review, 2014, 11, 54-57.	1.8	2
78	Tool Wear Prediction in Milling Using Neural Networks. Lecture Notes in Computer Science, 2002, , 807-812.	1.0	2
79	EXTRACCIÃ“N DE RASGOS DE LAS SEÃ‘ALES PARA LA MONITORIZACIÃ“N INDIRECTA DE LA HERRAMIENTA EN EL MICROTALADRADO. Dyna (Spain), 2013, 88, 405-413.	0.1	2
80	A MIMO fuzzy-control system for high-speed machining processes. Results of a case study. , 0, , .		1
81	Detecting Nano-Scale Vibrations in Rotating Devices by Using Advanced Computational Methods. Sensors, 2010, 10, 4983-4995.	2.1	1
82	Intelligent Models for Predicting the Thrust Force and Perpendicular Vibrations in Microdrilling Processes. , 2014, , .		1
83	Monitoring tool usage on the basis of sensory information in micro-drilling operations. , 2016, , .		1
84	Time-To-Failure Modelling in On-Chip LiDAR Sensors for Automotive Applications. Proceedings (mdpi), 2017, 1, .	0.2	1
85	Wireless Monitoring of Pavement Temperature Based on Low Cost Computing Platform. Proceedings (mdpi), 2017, 2, .	0.2	1
86	Computational Intelligence for Simulating a LiDAR Sensor. , 2020, , 149-178.		1
87	Nonlinear Internal Model Control Using Neural Networks and Fuzzy Logic: Application to an Electromechanical Process. Lecture Notes in Computer Science, 2003, , 351-360.	1.0	1
88	Networked Fuzzy Control System for a High-Performance Drilling Process. , 2007, , .		1
89	Fuzzy Control of Spindle Torque in High-Speed Milling Processes. , 2005, , .		0
90	Arm-Helicopter Control with Positive Signals. , 2008, , .		0

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91	Neurofuzzy Force-Based Control in an Ethernet-Based Application. A Case Study on a Drilling Process. , 2008, , .		0
92	Artificial intelligence-based modelling and optimization of microdrilling processes. , 2014, , .		0
93	Conductance sensor for micromachining. A case study on monitoring tool-workpiece contact. , 2015, , .		0
94	Consensus-Based Cooperative Control Approach Applied to Urban Traffic Networks. Proceedings (mdpi), 2016, 1, .	0.2	0
95	Embedded Fuzzy Control System in an Open Computerized Numerical Control: A Technology Transfer Case-Study. Lecture Notes in Computer Science, 2003, , 442-449.	1.0	0
96	Fuzzy Logic Based Drilling Force Control in a Network-Based Application. , 2007, , .		0
97	A Transductive Neuro-Fuzzy Force Control: An Ethernet-Based Application to a Drilling Process. Lecture Notes in Computer Science, 2009, , 573-582.	1.0	0
98	Modified Shared Circuits Model for Manufacturing Processes Control:. Lecture Notes in Computer Science, 2012, , 232-242.	1.0	0
99	HERRAMIENTA DE MONITORIZACIÃ“N PARA MEJORAR LAS PRESTACIONES DE LOS GRUPOS ELECTRÃ“GENOS FUELOIL EN CUBA. Dyna (Spain), 2015, 90, 34-39.	0.1	0
100	PROTOTIPO DE UN COLECTOR SOLAR DE PLACAS PLANAS. Dyna (Spain), 2016, 91, 18-18.	0.1	0
101	Advanced Controls for New Machining Processes. , 2009, , 159-218.		0