

# Rached Dhaouadi

## List of Publications by Year in descending order

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72  
papers

1,533  
citations

567281

15  
h-index

345221

36  
g-index

73  
all docs

73  
docs citations

73  
times ranked

1224  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and implementation of an extended Kalman filter for the state estimation of a permanent magnet synchronous motor. IEEE Transactions on Power Electronics, 1991, 6, 491-497.	7.9	311
2	Efficiency Optimization of a DSP-Based Standalone PV System Using Fuzzy Logic and Dual-MPPT Control. IEEE Transactions on Industrial Informatics, 2012, 8, 573-584.	11.3	298
3	Indirect adaptive tracking control of a nonholonomic mobile robot via neural networks. Neurocomputing, 2012, 88, 54-66.	5.9	111
4	A new dynamic model of hysteresis in harmonic drives. IEEE Transactions on Industrial Electronics, 2003, 50, 1165-1171.	7.9	96
5	Two-degree-of-freedom robust speed controller for high-performance rolling mill drives. IEEE Transactions on Industry Applications, 1993, 29, 919-926.	4.9	73
6	Adaptive control of a nonlinear dc motor drive using recurrent neural networks. Applied Soft Computing Journal, 2008, 8, 371-382.	7.2	58
7	Analysis and compensation of speed drive systems with torsional loads. IEEE Transactions on Industry Applications, 1994, 30, 760-766.	4.9	54
8	Analysis of current-regulated voltage-source inverters for permanent magnet synchronous motor drives in normal and extended speed ranges. IEEE Transactions on Energy Conversion, 1990, 5, 137-144.	5.2	51
9	A characterization study for the properties of dust particles collected on photovoltaic (PV) panels in Sharjah, United Arab Emirates. Renewable Energy, 2021, 171, 133-140.	8.9	49
10	A fuzzy learning-based sliding mode controller for direct field-oriented induction machines. Neurocomputing, 2008, 71, 2693-2701.	5.9	30
11	Robust Control of Elastic Drives Through Immersion and Invariance. IEEE Transactions on Industrial Electronics, 2015, 62, 1572-1580.	7.9	30
12	Using Linear Regression and Back Propagation Neural Networks to Predict Performance of Soiled PV Modules. Procedia Computer Science, 2019, 155, 463-470.	2.0	27
13	Using IoT and smart monitoring devices to optimize the efficiency of large-scale distributed solar farms. Wireless Networks, 2021, 27, 4313-4329.	3.0	23
14	An IoT-based remote IV tracing system for analysis of city-wide solar power facilities. Sustainable Cities and Society, 2020, 57, 102041.	10.4	22
15	Modelling and Analysis of Nonlinear Stiffness, Hysteresis and Friction in Harmonic Drive Gears. International Journal of Modelling and Simulation, 2008, 28, 329-336.	3.3	19
16	Development of a Modular Mobile Robot Platform: Applications in Motion-Control Education. IEEE Industrial Electronics Magazine, 2011, 5, 35-45.	2.6	15
17	Neural-based navigation of a differential-drive mobile robot. , 2012, , .		15
18	Macromodeling of thermally driven V-shaped MEMS actuators. Mechatronics, 2017, 46, 193-204.	3.3	14

#	ARTICLE	IF	CITATIONS
19	Modeling and analysis of a regenerative braking system with a battery-supercapacitor energy storage. , 2017, , .		14
20	Beam-stabilized optical switch using a voice-coil motor actuator. Journal of the Franklin Institute, 2011, 348, 1-11.	3.4	13
21	Supercapacitor Characterization Using Universal Adaptive Stabilization and Optimization. IEEE Open Journal of the Industrial Electronics Society, 2020, 1, 166-183.	6.8	13
22	Nonlinear Friction Estimation in Elastic Drive Systems Using a Dynamic Neural Network-Based Observer. Journal of Advanced Computational Intelligence and Intelligent Informatics, 2013, 17, 637-646.	0.9	12
23	Performance Analysis of Regenerative Braking in Permanent Magnet Synchronous Motor Drives. Advances in Science, Technology and Engineering Systems, 2018, 3, 460-466.	0.5	12
24	Torque Control in Harmonic Drives with Nonlinear Dynamic Friction Compensation. Journal of Robotics and Mechatronics, 2004, 16, 388-396.	1.0	10
25	Robust control of an ultracapacitor-based hybrid energy storage system for electric vehicles. , 2014, , .		9
26	Efficiency optimization of a 150W PV system using dual axis tracking and MPPT. , 2010, , .		8
27	A neural network based technique for vibration characterization using Gaussian laser beams. Mechatronics, 2015, 25, 44-54.	3.3	8
28	Neural Based Autonomous Navigation of Wheeled Mobile Robots. Journal of Automation, Mobile Robotics and Intelligent Systems, 2016, 10, 64-72.	0.4	8
29	Improving electrical engineering education at the American University of Sharjah through continuous assessment. European Journal of Engineering Education, 2009, 34, 15-28.	2.3	7
30	Parameter Identification of DC Motor Drive Systems using Particle Swarm Optimization. , 2021, , .		7
31	Edge-based individualized anomaly detection in large-scale distributed solar farms. ICT Express, 2022, 8, 174-178.	4.8	7
32	A self tuning PID controller using Wavelet Networks. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	6
33	Intelligent neural network based controllers for path tracking of wheeled mobile robots: A comparative analysis. , 2010, , .		6
34	Nonlinear dynamic modeling of a V-shaped metal based thermally driven MEMS actuator for RF switches. Journal of Micromechanics and Microengineering, 2018, 28, 054004.	2.6	6
35	Virtual SCADA Simulation System for Power Substation. , 2007, , .		5
36	Modeling and Analysis of a Wavelet Network-Based Optical Sensor for Vibration Monitoring. IEEE Sensors Journal, 2011, 11, 1657-1668.	4.7	5

#	ARTICLE	IF	CITATIONS
37	Single input fuzzy controller (SFLC) based maximum power point tracking. , 2011, , .		5
38	Position detection and vibration monitoring system using quad-cell optical beam power distribution. Journal of the Franklin Institute, 2011, 348, 1435-1455.	3.4	5
39	Hybrid dynamic modeling of V-shaped thermal micro-actuators. , 2016, , .		5
40	A nonlinear control method for good dynamic performance elastic drives. IEEE Transactions on Industrial Electronics, 1999, 46, 868-870.	7.9	4
41	Energy management and control of a standalone PV system using ultracapacitors. , 2015, , .		4
42	Friction estimation of a linear voice coil motor using robust state space sinusoidal reference tracking. , 2018, , .		4
43	Modeling and analysis of PV soiling and its effect on the transmittance of solar radiation. , 2018, , .		4
44	LC Impedance Source Bi-Directional Converter with Reduced Capacitor Voltages. Electronics (Switzerland), 2020, 9, 1062.	3.1	4
45	Dynamic Friction Characterization of a Linear Servo Motor Using an Optimal Sinusoidal Reference Tracking Controller. Journal of Robotics and Mechatronics, 2018, 30, 1014-1018.	1.0	4
46	An MQTT-Based Scalable Architecture for Remote Monitoring and Control of Large-Scale Solar Photovoltaic Systems. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 57-67.	0.3	4
47	Nonlinear reduced order observer design for elastic drive systems using invariant manifolds. , 2015, , .		3
48	Power Prediction via Module Temperature for Solar Modules Under Soiling Conditions. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 85-95.	0.3	3
49	A New Adaptive Control Scheme Using Dynamic Neural Networks. Journal of Robotics and Mechatronics, 2008, 20, 171-177.	1.0	3
50	Application of Particle Swarm Optimization for the Identification of Two-Mass Electric Drive Systems. , 2022, , .		3
51	Microcontroller-operated anthropomorphic manipulator with haptic feedback. Robotics and Computer-Integrated Manufacturing, 2007, 23, 63-70.	9.9	2
52	Design of a novel optical vibrometer using Gaussian beam analysis. , 2008, , .		2
53	Vibration suppression in elastic drive systems using the immersion and invariance methodology. , 2013, , .		2
54	Vibration characterization using Gaussian laser beam. , 2013, , .		2

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55	Simultaneous identification of the linear and nonlinear characteristics of motor drives using Dynamic Wavelet Networks. , 2015, , .		2
56	Modeling and characterization of thin film polysilicon in thermally driven MEMS actuators. , 2016, , .		2
57	Optimal Coil Design for a Quadrotor Wireless Charging System. , 2019, , .		2
58	A Minimal Neural Network Model to Predict Power Loss due to Soiling in Stable Environments. , 2020, , .		2
59	Adaptive PID Neuro-Controller for a Nonlinear Servomechanism. , 2007, , .		1
60	A Neural Network Based Adaptive Tracking Controller for Nonholonomic Wheeled Mobile Robots With Unknown Dynamics. , 2010, , .		1
61	Reactive navigation algorithm for wheeled mobile robots under non-holonomic constraints. , 2011, , .		1
62	ADALINE-Based Friction Identification and Compensation of a Linear Voice-Coil DC Motor. , 2018, , .		1
63	Synergetic Control of a Hybrid Battery-Ultracapacitor Energy Storage System. , 2018, , .		1
64	Adaptive Identification and Compensation of Nonlinear Friction in a Voice-Coil Linear Servomotor. , 2019, , .		1
65	Dynamic Modeling of Nonlinear Systems Using Wavelet Networks. Journal of Robotics and Mechatronics, 2008, 20, 178-187.	1.0	1
66	Using Siamese Networks to Detect Shading on the Edge of Solar Farms. , 2020, , .		1
67	Autonomous Landing of a Quadrotor with Wireless Charging. Advances in Intelligent Systems and Computing, 2021, , 830-846.	0.6	1
68	Nonlinear modeling and characterization of a thermally driven MEMS actuator with a folded spring reference beam. , 2017, , .		0
69	Femto-farad capacitive sensor for MEMS thermal actuators. , 2017, , .		0
70	Deep Learning at the Edge for Operation and Maintenance of Large-Scale Solar Farms. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 27-44.	0.3	0
71	Discussion on: Adaptive Field-oriented Control of Synchronous Motors with Damping Windings. European Journal of Control, 2008, 14, 196-200.	2.6	0
72	Wireless Charging of an Autonomous Drone. , 2020, , .		0