

# Gerardo Espinosa-Perez

## List of Publications by Year in descending order

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95  
papers

1,630  
citations

331670

21  
h-index

345221

36  
g-index

98  
all docs

98  
docs citations

98  
times ranked

854  
citing authors

#	ARTICLE	IF	CITATIONS
1	On speed control of induction motors. <i>Automatica</i> , 1996, 32, 455-460.	5.0	174
2	Torque regulation of induction motors. <i>Automatica</i> , 1993, 29, 621-633.	5.0	131
3	Passivity-based control of a class of Blondel-Park transformable electric machines. <i>IEEE Transactions on Automatic Control</i> , 1997, 42, 629-647.	5.7	120
4	A stable design of PI control for DC-DC converters with an RHS zero. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2001, 48, 103-106.	0.1	111
5	Global observability analysis of sensorless induction motors. <i>Automatica</i> , 2004, 40, 1079-1085.	5.0	106
6	State observers are unnecessary for induction motor control. <i>Systems and Control Letters</i> , 1994, 23, 315-323.	2.3	93
7	Tuning rules for the PI gains of field-oriented controllers of induction motors. <i>IEEE Transactions on Industrial Electronics</i> , 2000, 47, 592-602.	7.9	62
8	An output feedback globally stable controller for induction motors. <i>IEEE Transactions on Automatic Control</i> , 1995, 40, 138-143.	5.7	55
9	Passivity-Based Control of Switched Reluctance Motors With Nonlinear Magnetic Circuits. <i>IEEE Transactions on Control Systems Technology</i> , 2004, 12, 439-448.	5.2	48
10	Stability of current-mode control for DC-DC power converters. <i>Systems and Control Letters</i> , 2002, 45, 113-119.	2.3	42
11	Current-mode control of DC-DC power converters: a backstepping approach. <i>International Journal of Robust and Nonlinear Control</i> , 2003, 13, 421-442.	3.7	38
12	Passivity-based control of a wound-rotor synchronous motor. <i>IET Control Theory and Applications</i> , 2010, 4, 2049-2057.	2.1	36
13	An asymptotically stable sensorless speed controller for non-salient permanent magnet synchronous motors. <i>International Journal of Robust and Nonlinear Control</i> , 2014, 24, 644-668.	3.7	31
14	Simultaneous interconnection and damping assignment passivity-based control: the induction machine case study. <i>International Journal of Control</i> , 2009, 82, 241-255.	1.9	29
15	Observer-based control of a synchronous generator: a Hamiltonian approach. <i>International Journal of Electrical Power and Energy Systems</i> , 2002, 24, 655-663.	5.5	27
16	Characterization of Multimachine System Behavior Using a Hierarchical Trajectory Cluster Analysis. <i>IEEE Transactions on Power Systems</i> , 2011, 26, 972-981.	6.5	27
17	A generalized passivity-based control approach for power compensation in distribution systems using electrical energy storage systems. <i>Journal of Energy Storage</i> , 2018, 16, 259-268.	8.1	27
18	Validity testing of third-order nonlinear models for synchronous generators. <i>Electric Power Systems Research</i> , 2009, 79, 953-958.	3.6	25

#	ARTICLE	IF	CITATIONS
19	On the passivity-based power control of a doubly-fed induction machine. International Journal of Electrical Power and Energy Systems, 2013, 45, 303-312.	5.5	24
20	Passivity-based control for variable speed constant frequency operation of a DFIG wind turbine. International Journal of Control, 2008, 81, 1399-1407.	1.9	22
21	Control of bilateral teleoperators with time delays using only position measurements. International Journal of Robust and Nonlinear Control, 2018, 28, 808-824.	3.7	22
22	Output feedback excitation control of synchronous generators. International Journal of Robust and Nonlinear Control, 2004, 14, 879-890.	3.7	21
23	Indirect IDA-PBC for active and reactive power support in distribution networks using SMES systems with PWM-CSC. Journal of Energy Storage, 2018, 17, 261-271.	8.1	19
24	Consensus control of flexible-joint robots. International Journal of Control, 2015, 88, 1201-1208.	1.9	18
25	Dynamics of electricity market correlations. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 2173-2188.	2.6	15
26	IDA-Passivity-Based Control for Superconducting Magnetic Energy Storage with PWM-CSC. , 2017, , .		15
27	Energy shaping plus damping injection control for a class of chemical reactors. Chemical Engineering Science, 2011, 66, 6280-6286.	3.8	14
28	Control of induction motors in the field weakening region. , 0, , .		12
29	Global adaptive linear control of the permanentâ€magnet synchronous motor. International Journal of Adaptive Control and Signal Processing, 2014, 28, 971-986.	4.1	12
30	Dynamic Characterization of Typical Electrical Circuits via Structural Properties. Mathematical Problems in Engineering, 2016, 2016, 1-13.	1.1	12
31	A two-loop excitation control system for synchronous generators. International Journal of Electrical Power and Energy Systems, 2005, 27, 556-566.	5.5	10
32	Sensorless PBC of induction motors: a separation principle from ISS properties. , 2007, , .		10
33	Passivity-based control of AC drives: theory for the user and application examples. International Journal of Control, 2013, 86, 625-635.	1.9	10
34	Passivity-based power control of a doubly fed induction generator with unknown parameters. International Transactions on Electrical Energy Systems, 2016, 26, 2402-2424.	1.9	10
35	Control of a Detailed Model of Microgrids from a Hamiltonian Approach â€” Part of this work was supported by DGAPA-UNAM under grant IN116516.. IFAC-PapersOnLine, 2018, 51, 187-192.	0.9	10
36	Consensus control of flexible joint robots with uncertain communication delays. , 2012, , .		9

#	ARTICLE	IF	CITATIONS
37	Stability Analysis of Single-Phase Low-Voltage AC Microgrids With Constant Power Terminals. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1212-1216.	3.0	9
38	Online estimation of switched reluctance motor parameters. International Journal of Adaptive Control and Signal Processing, 2018, 32, 950-966.	4.1	8
39	Velocity-sensorless tracking control and identification of switched-reluctance motors. Automatica, 2014, 50, 3123-3130.	5.0	7
40	Control of islanded microgrids considering power converter dynamics. International Journal of Control, 2021, 94, 2520-2530.	1.9	7
41	Integración de REDs en Redes AC: una Familia de Controladores Basados en Pasividad. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2019, 16, 212.	1.0	7
42	Experimental evaluation of an adaptive nonlinear controller for single-phase UPS. , 0, , .		6
43	Performance evaluation of energy-shaping approach controllers for synchronous generators using a finite-element model. International Journal of Robust and Nonlinear Control, 2004, 14, 857-877.	3.7	6
44	On the Passivity-based Control for Multilevel Inverters. , 2006, , .		6
45	Multilevel Cascade Inverter with Voltage and Current Output Regulated Using a Passivity - Based Controller. , 2006, , .		6
46	IDA passivity-based control of single phase back-to-back converters. , 2008, , .		6
47	Passivity-based control of multilevel cascade inverters: High performance with reduced switching frequency. International Journal of Robust and Nonlinear Control, 2010, 20, 961-974.	3.7	6
48	Exponential Stabilization of Switched-Reluctance Motors Via Speed-Sensorless Feedback. IEEE Transactions on Control Systems Technology, 2014, 22, 1224-1232.	5.2	6
49	Model-based Fault Detection and Isolation in a MPPT BOOST converter for photovoltaic systems. , 2016, , .		6
50	Passivity-based speed control of a 2ŕ induction motor: experimental results. , 0, , .		5
51	Passivity- based Control of Multilevel Cascade Inverters: High Performance with Reduced Switching Frequency. , 2007, , .		5
52	Generalized DC voltage regulation strategy for &#x03B7;:1 relation cascade H-bridge converter-based STATCOM. , 2009, , .		5
53	Hybrid Control Scheme for a Single-Phase Shunt Active Power Filter Based on Multilevel Cascaded Inverter. , 2007, , .		4
54	Output-feedback IDA stabilisation of an SMIB system using a TCSC. International Journal of Control, 2010, 83, 2471-2482.	1.9	4

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55	Robust passivity-based control of switched-reluctance motors. International Journal of Robust and Nonlinear Control, 2015, 25, 3384-3403.	3.7	4
56	On the control of power flows in microgrids. , 2017, , .		4
57	Passivity-based control of islanded microgrids with unknown power loads. IMA Journal of Mathematical Control and Information, 2020, 37, 1548-1573.	1.7	4
58	Observer Design for a Class of Nonlinear Hamiltonian Systems. IFAC-PapersOnLine, 2021, 54, 125-130.	0.9	4
59	Stability of the equilibria of adaptive systems with leakage estimator. International Journal of Adaptive Control and Signal Processing, 1991, 5, 175-183.	4.1	3
60	GLOBAL OBSERVABILITY ANALYSIS OF INDUCTION MOTORS UNDER SENSORLESS CONDITIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 351-356.	0.4	3
61	Transient Analysis of a Synchronous Generator Using a High-Order State Space Representation. , 2006, , .		3
62	A passivity-based approach for HIV-1 treatment scheduling. Proceedings of the American Control Conference, 2007, , .	0.0	3
63	Simultaneous IDA-passivity-based control of a wound rotor synchronous motor. , 2008, , .		3
64	Speed-sensorless control of switched-reluctance motors with uncertain payload. , 2013, , .		3
65	Consensus control of flexible joint robots. , 2013, , .		3
66	Global observability analysis of the SR Motor under sensorless operation. , 2015, , .		3
67	Observer-based ida control of synchronous generators. , 0, , .		2
68	On the globally defined sensorless control of induction motors. International Journal of Robust and Nonlinear Control, 2009, 19, 117-134.	3.7	2
69	A novel PID-based control approach for switched-reluctance motors. , 2012, , .		2
70	Development of a current source inverter for energy storage systems. , 2016, , .		2
71	A Global Bivalued-Observer for the Sensorless Induction Motor * *Financial support from PAPIIT-UNAM, projects IN113617 and IN116516; CONACyT, project 241171; Fondo de Colaboraci3n II-FI UNAM, 0.9 Project IISGBAS-100-2015. IFAC-PapersOnLine, 2017, 50, 15428-15433.		2
72	On the Dynamic Solution of Power Flow Equations for Microgrids Control. , 2019, , .		2

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73	Power control of a doubly fed induction generator connected to the power grid. International Journal of Control, 2019, 92, 1471-1480.	1.9	2
74	Harmonic voltage compensation for single phase power systems. , 2003, , .		2
75	Passivity-Based Control of a Class of Blondel-Park Transformable Electric Machines. Modeling, Identification and Control, 1997, 18, 273-305.	1.1	2
76	A Hamiltonian control approach for electric microgrids with dynamic power flow solution. Automatica, 2022, 139, 110192.	5.0	2
77	Correction to "Passivity-based control of a class of blondel-park transformable electric machines". IEEE Transactions on Automatic Control, 2001, 46, 172-172.	5.7	1
78	A dq0 passivity-based approach for 3&#x03C6; four-wire shunt active power filter based on NPC three-level converter. , 2008, , .		1
79	Output-feedback IDA control design via structural properties: Application to Thyristor Controlled Series Capacitors. , 2009, , .		1
80	Theory for the user and application examples of the passivity-based control for AC electric machines. , 2012, , .		1
81	Analysis of the power coefficient for a wind generation system. , 2014, , .		1
82	Control Vectorial de un Motor de InducciÃ³n con Carga Desconocida Basado en un Nuevo Observador No Lineal. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2010, 7, 74-82.	1.0	1
83	Fast adaptive stabilization of first order plants with unknown sign of the high frequency gain. International Journal of Control, 1990, 52, 499-507.	1.9	0
84	Regulation of the PPR mobile robot with a flexible joint: a combined passivity and flatness approach. , 0, , .		0
85	Dynamic output feedback for a class of Hamiltonian systems. , 0, , .		0
86	A NOTE ON THE PASSIVITY BASED CONTROL OF SWITCHED RELUCTANCE MOTORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 211-216.	0.4	0
87	Discussion on: â€œRobustness of PID-Controlled Manipulators vis-Ã-vis Actuator Dynamics and External Disturbancesâ€ European Journal of Control, 2007, 13, 579-582.	2.6	0
88	Discussion on: â€œAdaptive Field-oriented Control of Synchronous Motors with Damping Windingsâ€ European Journal of Control, 2008, 14, 198-200.	2.6	0
89	A passive speed observer for induction motor. , 2009, , .		0
90	Output feedback control of PMSM. , 2010, , .		0

#	ARTICLE	IF	CITATIONS
91	A simple PI <sup>2</sup> D output feedback controller for the Permanent Magnet Synchronous Motor. , 2011, , .		0
92	A robust observer for switched-reluctance motors. , 2014, , .		0
93	Stability and Consensus of Electrical Circuits via Structural Properties. IFAC-PapersOnLine, 2015, 48, 111-116.	0.9	0
94	On the Robustness of a Passivity-based Controller for Microgrids * *Part of this work was supported by DGAPA-UNAM under grant IN116516.. IFAC-PapersOnLine, 2017, 50, 6648-6653.	0.9	0
95	Discussion on: Adaptive Field-oriented Control of Synchronous Motors with Damping Windings. European Journal of Control, 2008, 14, 196-200.	2.6	0