

# Victor M Becerra

## List of Publications by Year in descending order

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128  
papers

2,126  
citations

279701

23  
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276775

41  
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131  
docs citations

131  
times ranked

2015  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel thermal conductivity enhancing containers for performance enhancement of solar photovoltaics system integrated with phase change material. <i>Energy</i> , 2022, 243, 122923.	4.5	5
2	Nonlinear Model Predictive Control Using Feedback Linearization for a Pressurized Water Nuclear Power Plant. <i>IEEE Access</i> , 2022, 10, 16544-16555.	2.6	10
3	An arbitrary-order continuous sliding mode control technique for nonlinear PWR-type nuclear power plants. <i>Progress in Nuclear Energy</i> , 2022, 150, 104309.	1.3	3
4	Three dimensional analysis of dye-sensitized, perovskite and monocrystalline silicon solar photovoltaic cells under non uniform solar flux. <i>Applied Thermal Engineering</i> , 2021, 182, 115613.	3.0	3
5	Robust-optimal integrated control design technique for a pressurized water-type nuclear power plant. <i>Progress in Nuclear Energy</i> , 2021, 131, 103575.	1.3	15
6	Analysis of Transient Interactions between a PWR Nuclear Power Plant and a Faulted Electricity Grid. <i>Energies</i> , 2021, 14, 1573.	1.6	8
7	A General Framework for Multi-Criteria Based Feasibility Studies for Solar Energy Projects: Application to a Real-World Solar Farm. <i>Energies</i> , 2021, 14, 2204.	1.6	6
8	LQGI/LTR based robust control technique for a pressurized water nuclear power plant. <i>Annals of Nuclear Energy</i> , 2021, 154, 108105.	0.9	15
9	A Review of Photovoltaic Thermal (PVT) Technology for Residential Applications: Performance Indicators, Progress, and Opportunities. <i>Energies</i> , 2021, 14, 3853.	1.6	39
10	Adaptive Robust Control Design for a Pressurized Water-Type Nuclear Power Plant. <i>IEEE Transactions on Nuclear Science</i> , 2021, 68, 1381-1398.	1.2	17
11	Optimization of a novel Hybrid Wind Bio Battery Solar Photovoltaic System Integrated with Phase Change Material. <i>Energies</i> , 2021, 14, 6373.	1.6	4
12	Power improvement of finned solar photovoltaic phase change material system. <i>Energy</i> , 2020, 193, 116735.	4.5	16
13	Gain Scheduled Subspace Predictive Control of a Pressurized Water-type Nuclear Reactor. , 2020, , .		3
14	Adapting futures scenarios to study UK household energy demand. <i>Proceedings of the Institution of Civil Engineers: Engineering Sustainability</i> , 2020, 173, 241-256.	0.4	1
15	Estimation of Radioactivity Release Activity Using Non-Linear Kalman Filter-Based Estimation Techniques. <i>Energies</i> , 2020, 13, 3985.	1.6	3
16	Dynamic modelling, simulation, and control design of a pressurized water-type nuclear power plant. <i>Nuclear Engineering and Design</i> , 2020, 370, 110901.	0.8	32
17	Solar Photovoltaic Panels with Finned Phase Change Material Heat Sinks. <i>Energies</i> , 2020, 13, 2558.	1.6	14
18	Demand Response Model Development for Smart Households Using Time of Use Tariffs and Optimal Control – The Isle of Wight Energy Autonomous Community Case Study. <i>Energies</i> , 2020, 13, 541.	1.6	11

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19	Disturbance Observer-based Subspace Predictive Control of a Pressurized Water-type Nuclear Reactor. , 2020, , .		2
20	Robust Subspace Predictive Control based on Integral Sliding Mode for a Pressurized Water Reactor. , 2020, , .		6
21	ANN Based Sensor and Actuator Fault Detection in Nuclear Reactors. , 2020, , .		2
22	Interval Approach for Stability Analysis of a Pressurized Water Reactor with Parametric Uncertainty using LMI based H-infinity Controller. , 2020, , .		0
23	Dynamic Neural Network-based System Identification of a Pressurized Water Reactor. , 2020, , .		5
24	Fins integrated phase change material for solar photovoltaic for South East United Kingdom. AIP Conference Proceedings, 2019, , .	0.3	3
25	Autonomous Control of Unmanned Aerial Vehicles. Electronics (Switzerland), 2019, 8, 452.	1.8	33
26	Bio-inspired Autonomous Visual Vertical and Horizontal Control of a Quadrotor Unmanned Aerial Vehicle. Electronics (Switzerland), 2019, 8, 184.	1.8	4
27	Speaker recognition using PCA-based feature transformation. Speech Communication, 2019, 110, 33-46.	1.6	15
28	Electrical enhancement period of solar photovoltaic using phase change material. Journal of Cleaner Production, 2019, 221, 878-884.	4.6	33
29	Robust on-line diagnosis tool for the early accident detection in nuclear power plants. Reliability Engineering and System Safety, 2019, 186, 110-119.	5.1	27
30	LMI Based Robust PID Controller Design for PWR with Bounded Uncertainty using Interval Approach. , 2019, , .		2
31	Estimation of Radionuclide Release Activity Using an Unscented Kalman Filter. , 2019, , .		0
32	Day-ahead industrial load forecasting for electric RTG cranes. Journal of Modern Power Systems and Clean Energy, 2018, 6, 223-234.	3.3	30
33	Intelligent Control Approaches for Modeling and Control of Complex Systems. Complexity, 2018, 2018, 1-2.	0.9	1
34	A study on the robustness of neural network models for predicting the break size in LOCA. Progress in Nuclear Energy, 2018, 109, 12-28.	1.3	21
35	Analysis of energy usage for RTG cranes. Energy, 2017, 125, 337-344.	4.5	39
36	Working Together: A Review on Safe Human-Robot Collaboration in Industrial Environments. IEEE Access, 2017, 5, 26754-26773.	2.6	371

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37	Optimal Energy Management and MPC Strategies for Electrified RTG Cranes with Energy Storage Systems. <i>Energies</i> , 2017, 10, 1598.	1.6	24
38	Optimal Power Management Strategy for Energy Storage with Stochastic Loads. <i>Energies</i> , 2016, 9, 175.	1.6	22
39	CHP Toolkit: Case Study of LAI Sensitivity to Discontinuity of Canopy Cover in Fruit Plantations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 5071-5080.	2.7	2
40	Constrained pre-equalization accounting for multi-path fading emulated using large RC networks: applications to wireless and photonics communications. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	2
41	Energy reduction on eRTG. , 2016, , .		6
42	Net energy savings in Rubber Tyred Gantry cranes equipped with an active front end. , 2016, , .		6
43	Modeling Power Flow in a Hoist Motor of a Rubber-Tired Gantry Crane. <i>IEEE Transactions on Industry Applications</i> , 2016, 52, 2088-2094.	3.3	7
44	Sparse density estimator with tunable kernels. <i>Neurocomputing</i> , 2016, 173, 1976-1982.	3.5	5
45	Modeling, Simulation, and Control of Pedestrian Avoidance Maneuver for an Urban Electric Vehicle. , 2015, , .		0
46	Modelling power flow in a hoist motor of a Rubber Tyred Gantry crane. , 2015, , .		0
47	Body-centric modelling, identification, and acceleration tracking control of a quadrotor UAV. <i>International Journal of Modelling, Identification and Control</i> , 2015, 24, 29.	0.2	17
48	Bioinspired Autonomous Visual Vertical Control of a Quadrotor Unmanned Aerial Vehicle. <i>Journal of Guidance, Control, and Dynamics</i> , 2015, 38, 249-262.	1.6	23
49	Validation of Canopy Height Profile methodology for small-footprint full-waveform airborne LiDAR data in a discontinuous canopy environment. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2015, 104, 144-157.	4.9	39
50	Systematic selection of analogue redesign method for forward-type digital power converters. <i>International Journal of Electronics</i> , 2014, 101, 667-680.	0.9	0
51	Visual sensor fusion for active security in robotic industrial environments. <i>Eurasip Journal on Advances in Signal Processing</i> , 2014, 2014, .	1.0	15
52	A method to assess individual research outputs. <i>International Journal of Modelling, Identification and Control</i> , 2014, 21, 1.	0.2	1
53	Applying robust control theory to solve problems in bio-medical sciences: study of an apoptotic model. <i>Journal of Physics: Conference Series</i> , 2014, 490, 012140.	0.3	0
54	Endogenous cholinergic tone modulates spontaneous network level neuronal activity in primary cortical cultures grown on multi-electrode arrays. <i>BMC Neuroscience</i> , 2013, 14, 38.	0.8	22

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55	Channel equalization for indoor lighting communications networks. Journal of Physics: Conference Series, 2013, 450, 012051.	0.3	2
56	New opportunities for secure communication networks using shaped femtosecond laser pulses inducing filamentation processes in the atmosphere. Journal of Physics: Conference Series, 2013, 472, 012009.	0.3	3
57	Estimation of Visual Motion Parameters Used for Bio-inspired Navigation. Journal of Image and Graphics(United Kingdom), 2013, 1, 120-124.	3.1	4
58	Emergence of a Small-World Functional Network in Cultured Neurons. PLoS Computational Biology, 2012, 8, e1002522.	1.5	132
59	Choosing the most suitable analogue redesign method for forward-type digital power converters. , 2012, , .		0
60	Strong Structural Controllability and the Multilink Inverted Pendulum. IEEE Transactions on Automatic Control, 2012, 57, 2891-2896.	3.6	35
61	Modelling and simulating the operation of RTG container cranes. , 2012, , .		5
62	Practical Direct Collocation Methods for Computational Optimal Control. Springer Optimization and Its Applications, 2012, , 33-60.	0.6	9
63	Space heating and hot water demand analysis of dwellings connected to district heating scheme in UK. Journal of Central South University, 2012, 19, 1629-1638.	1.2	9
64	Multiscale Evolving Complex Network Model of Functional Connectivity in Neuronal Cultures. IEEE Transactions on Biomedical Engineering, 2012, 59, 30-34.	2.5	12
65	Adaptive recursive control of a soil testing load frame. , 2011, , .		1
66	A robust controller design method for feedback substitution schemes using genetic algorithms. Journal of Physics: Conference Series, 2011, 307, 012040.	0.3	0
67	Real-time application of a constrained predictive controller based on dynamic neural networks with feedback linearization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6727-6732.	0.4	1
68	Revealing Ensemble State Transition Patterns in Multi-Electrode Neuronal Recordings Using Hidden Markov Models. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 345-355.	2.7	16
69	Spatio-temporal dependencies in functional connectivity in rodent cortical cultures. Paladyn, 2011, 2, .	1.9	0
70	Experiments with an In-Vitro Robot Brain. Lecture Notes in Computer Science, 2011, , 1-15.	1.0	14
71	Um tutorial sobre métodos pseudo-espectrais para controle em tempo computacional. Controle and Automacao, 2010, 21, 224-244.	0.2	0
72	Actuator placement in the multi-link inverted pendulum. , 2010, , .		1

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73	Solving complex optimal control problems at no cost with PSOPT. , 2010, , .		77
74	Investigation of spatio-temporal dependencies in neuronal functional connectivity. , 2010, , .		2
75	Robust H <sup>∞</sup> optimal controller designs for feedback substitution schemes using LSDP and MOGA. , 2010, , .		0
76	Application of Poisson-based hidden Markov models to in vitro neuronal data. , 2010, , .		0
77	Controlling a Mobile Robot with a Biological Brain. Defence Science Journal, 2010, 60, 5-14.	0.5	61
78	Input Constraints Handling in an MPC/Feedback Linearization Scheme. International Journal of Applied Mathematics and Computer Science, 2009, 19, 219-232.	1.5	38
79	High signal to noise ratio THz spectroscopy with ASOPS and signal processing schemes for mapping and controlling molecular and bulk relaxation processes. Journal of Physics: Conference Series, 2009, 183, 012003.	0.3	5
80	Optimising the feedback loop of a millimetre-wave absolute photoacoustic power meter using $H_{\infty}$ -infinity control synthesis. Journal of Physics: Conference Series, 2009, 178, 012042.	0.3	0
81	Architecture for Neuronal Cell Control of a Mobile Robot. , 2008, , 23-31.		16
82	INTEGRATING THE UTKIN OBSERVER WITH THE UNSCENTED KALMAN FILTER. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 12534-12539.	0.4	2
83	Predictive control using feedback linearization based on dynamic neural models. , 2007, , .		4
84	Hybrid fault detection and isolation in an heater bank of an HVAC system. , 2007, , .		0
85	MIMO Wiener Model Identification for Large Scale Fading of Wireless Mobile Communications Links. IEEE Communications Letters, 2007, 11, 513-515.	2.5	7
86	Search space pruning and global optimization of multiple gravity assist trajectories with deep space manoeuvres. , 2007, , .		2
87	Wiener-System Subspace Identification for Mobile Wireless mm-Wave Networks. IEEE Transactions on Vehicular Technology, 2007, 56, 1935-1948.	3.9	13
88	On improving the performance in robust controllers for robot manipulators with parametric disturbances. Control Engineering Practice, 2007, 15, 557-566.	3.2	13
89	Search space pruning and global optimisation of multiple gravity assist spacecraft trajectories. Journal of Global Optimization, 2007, 38, 283-296.	1.1	90
90	Efficient fuzzy control of a rotary inverted pendulum based on LQR mapping. , 2006, , .		10

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91	Stable Nonlinear Receding Horizon Regulator Using RBF Neural Network Models. , 2006, , .		0
92	Comparison of extrasystolic ECG signal classifiers using discrete wavelet transforms. Pattern Recognition Letters, 2006, 27, 393-407.	2.6	39
93	Efficient Control of Robot Manipulators with Model Disturbances. , 2006, , .		2
94	Multiple-Model Fault Tolerant Control of Terminal Units of HVAC Systems. , 2006, , .		5
95	Efficient Fuzzy Control of a Rotary Inverted Pendulum Based on LQR Mapping. , 2006, , .		16
96	Stable Nonlinear Receding Horizon Regulator Using RBF Neural Network Models. , 2006, , .		0
97	A NOVEL DYNAMIC NEURAL NETWORK STRUCTURE FOR NONLINEAR SYSTEM IDENTIFICATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 348-353.	0.4	3
98	Neural and Wavelet Network Models for Financial Distress Classification. Data Mining and Knowledge Discovery, 2005, 11, 35-55.	2.4	44
99	Subspace system identification framework for the analysis of multimoded propagation of THz-transient signals. Measurement Science and Technology, 2005, 16, 1037-1053.	1.4	22
100	An Efficient Parameterization of Dynamic Neural Networks for Nonlinear System Identification. IEEE Transactions on Neural Networks, 2005, 16, 983-988.	4.8	23
101	Comparison of Subspace and ARX Models of a Waveguide's Terahertz Transient Response After Optimal Wavelet Filtering. IEEE Transactions on Microwave Theory and Techniques, 2004, 52, 2409-2419.	2.9	18
102	Solving Optimal Control Problems With State Constraints Using Nonlinear Programming and Simulation Tools. IEEE Transactions on Education, 2004, 47, 377-384.	2.0	39
103	Ratio Selection for Classification Models. Data Mining and Knowledge Discovery, 2004, 8, 151-170.	2.4	8
104	Hardware retrofit and computed torque control of a Puma 560 Robot updating an industrial manipulator. IEEE Control Systems, 2004, 24, 78-82.	1.0	30
105	Strategies for Feedback Linearisation. Advances in Industrial Control, 2003, , .	0.4	16
106	Nonlinear Identification of a Two Link Robotic System Using Dynamic Neural Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 363-368.	0.4	0
107	LINEAR-WAVELET MODELS FOR SYSTEM IDENTIFICATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 217-222.	0.4	1
108	Enhancing model predictive control using dynamic data reconciliation. AIChE Journal, 2002, 48, 324-333.	1.8	21

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109	Combined bias and outlier identification in dynamic data reconciliation. Computers and Chemical Engineering, 2002, 26, 921-935.	2.0	30
110	Steady-State Optimisation Using Data Reconciliation and Bias Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 283-288.	0.4	1
111	Hierarchical Algorithm for Optimal Control of Nonlinear Differential Algebraic Equation Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 271-276.	0.4	1
112	Applying the extended Kalman filter to systems described by nonlinear differential-algebraic equations. Control Engineering Practice, 2001, 9, 267-281.	3.2	118
113	Optimal control of a class of discrete-continuous non-linear systems decomposition and hierarchical structure. Automatica, 2001, 37, 1757-1769.	3.0	24
114	Optimal control of nonlinear systems represented by differential algebraic equations. , 2000, , .		4
115	Novel developments in process optimisation using predictive control. Journal of Process Control, 1998, 8, 117-138.	1.7	18
116	Application of a novel optimal control algorithm to a benchmark fed - batch fermentation process. Transactions of the Institute of Measurement and Control, 1998, 20, 11-18.	1.1	17
117	Optimal Control of Non-Linear Hybrid Systems Under Model-Reality Differences - Decomposition and Hierarchical Structure. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 169-174.	0.4	1
118	Integrated Predictive Control and Economic Optimisation: Decomposition and Hierarchical Structure. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 463-468.	0.4	0
119	Dynamic data reconciliation for sequential modular simulators. , 1998, , .		2
120	Dynamic integrated system optimization and parameter estimation for discrete time optimal control of nonlinear systems. International Journal of Control, 1996, 63, 257-281.	1.2	36
121	Nonlinear Predictive Control Using Dynamic Integrated System Optimisation and Parameter Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 795-800.	0.4	6
122	A Hierarchical Extension of Dynamic Integrated System Optimisation and Parameter Estimation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 191-196.	0.4	0
123	Limit equation of fuzzy relation and its application. , 0, , .		0
124	Variable selection for financial distress classification using a genetic algorithm. , 0, , .		3
125	Wavelet filtered modelling applied to measurements of a waveguide's THz time domain response. , 0, , .		0
126	Preliminary results from a real time control system using optical information. , 0, , .		1



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127	A Wavelet Network Classifier Applied to Financial Distress Prediction. , 0, , .		0
128	Modeling, Simulation and Control of Pedestrian Avoidance Maneuver for an Urban Electric Vehicle. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	0