Antnio E Ruano

List of Publications by Year in Descending Order

124 papers	1,894 citations	22 h-index	39 g-index
145 ext. papers	2,302 ext. citations	3 avg, IF	5 L-index

#	Paper	IF	Citations
124	Non-Intrusive Load Monitoring of Household Devices Using a Hybrid Deep Learning Model through Convex Hull-Based Data Selection. *Energies*, **2022**, 15, 1215	3.1	1
123	A Non Linear Autoregressive Neural Network Model for Forecasting Appliance Power Consumption. *Lecture Notes in Electrical Engineering*, **2022**, 759-768	0.2	
122	A Model-Based Predictive Control Approach for Home Energy Management Systems. First Results. *Lecture Notes in Electrical Engineering*, **2022**, 735-747	0.2	
121	Recent Techniques Used in Home Energy Management Systems: A Review. *Energies*, **2022**, 15, 2866	3.1	0
120	Low frequency-based energy disaggregation using sliding windows and deep learning. *E3S Web of Conferences*, **2022**, 351, 01020	0.5	
119	Home Energy Management System in an Algarve Residence. First Results. *Lecture Notes in Electrical Engineering*, **2021**, 332-341	0.2	1
118	Design of Ensemble Forecasting Models for Home Energy Management Systems. *Energies*, **2021**, 14, 7664	3.1	3
117	Optimized Design of Neural Networks for a River Water Level Prediction System. *Sensors*, **2021**, 21,	3.8	3
116	Control and soft sensing strategies for a wastewater treatment plant using a neuro-genetic approach. *Computers and Chemical Engineering*, **2021**, 144, 107146	4	8
115	Short-Term Forecasting Photovoltaic Solar Power for Home Energy Management Systems. *Inventions*, **2021**, 6, 12	2.9	4
114	Home Energy Management Systems with Branch-and-Bound Model-Based Predictive Control Techniques. *Energies*, **2021**, 14, 5852	3.1	2
113	Wavelet group method of data handling for fault prediction in electrical power insulators. *International Journal of Electrical Power and Energy Systems*, **2020**, 123, 106269	5.1	39
112	Pulse Transition Time Method for Unobtrusive Blood Pressure Estimation. *IFMBE Proceedings*, **2020**, 1477-1484	0.1	1
111	A Survey On Computational Intelligence Techniques For Non Intrusive Load Monitoring **2020**,		2
110	Forecasting Electricity Consumption in Residential Buildings for Home Energy Management Systems. *Communications in Computer and Information Science*, **2020**, 313-326	0.3	1
109	Forecasting Electricity Demand in Households using MOGA-designed Artificial Neural Networks. *IFAC-PapersOnLine*, **2020**, 53, 8225-8230	0.7	2
108	HVAC Systems Applied in University Buildings with Control Based on PMV and aPMV Indexes. *Inventions*, **2019**, 4, 3	2.9	5

107	GPR target detection using a neural network classifier designed by a multi-objective genetic algorithm. *Applied Soft Computing Journal*, **2019**, 79, 310-325	7.5	25
106	NILM Techniques for Intelligent Home Energy Management and Ambient Assisted Living: A Review. *Energies*, **2019**, 12, 2203	3.1	86
105	Applications of NILM Techniques to Energy Management and Assisted Living. *IFAC-PapersOnLine*, **2019**, 52, 164-171	0.7	7
104	A New Convex Hull, Sliding Window Based Online Adaptation Method for Fixed-Structure Radial Basis Function Neural Networks. *Studies in Computational Intelligence*, **2019**, 103-112	0.8	1
103	Wireless Sensors and IoT Platform for Intelligent HVAC Control. *Applied Sciences (Switzerland)*, **2018**, 8, 370	2.6	14
102	Application of HVAC Systems with Control Based on PMV Index in University Buildings with Complex Topology. *IFAC-PapersOnLine*, **2018**, 51, 20-25	0.7	31
101	An Artificial Neural Network (ANN) model to predict the electric load profile for an HVAC system. *IFAC-PapersOnLine*, **2018**, 51, 26-31	0.7	12
100	Classifier Design by a Multi-Objective Genetic Algorithm Approach for GPR Automatic Target Detection. *IFAC-PapersOnLine*, **2018**, 51, 187-192	0.7	8
99	A New Convex Hull, Sliding Window Based Online Adaptation Method. *IFAC-PapersOnLine*, **2018**, 51, 211-216	0.7	
98	The IMBPC HVAC system: Wireless Sensors and IoT Platform. *IFAC-PapersOnLine*, **2018**, 51, 1-8	0.7	6
97	An intelligent support system for automatic detection of cerebral vascular accidents from brain CT images. *Computer Methods and Programs in Biomedicine*, **2017**, 146, 109-123	6.9	12
96	Intelligent non-invasive modeling of ultrasound-induced temperature in tissue phantoms. *Biomedical Signal Processing and Control*, **2017**, 33, 141-150	4.9	1
95	A Comparison of Four Data Selection Methods for Artificial Neural Networks and Support Vector Machines. *IFAC-PapersOnLine*, **2017**, 50, 11227-11232	0.7	3
94	Comparison of different methods of measuring similarity in physiologic time series. *IFAC-PapersOnLine*, **2017**, 50, 11005-11010	0.7	13
93	An Economic Model-Based Predictive Control to Manage the Users Thermal Comfort in a Building. *Energies*, **2017**, 10, 321	3.1	22
92	PVM-based intelligent predictive control of HVAC systems. *IFAC-PapersOnLine*, **2016**, 49, 371-376	0.7	7
91	Soft-sensing estimation of plant effluent concentrations in a biological wastewater treatment plant using an optimal neural network. *Expert Systems With Applications*, **2016**, 63, 8-19	7.8	53
90	A convex hull-based data selection method for data driven models. *Applied Soft Computing Journal*, **2016**, 47, 515-533	7.5	22

89	The IMBPC HVAC system: A complete MBPC solution for existing HVAC systems. *Energy and Buildings*, **2016**, 120, 145-158	7	33
88	A Comparison of Energy Consumption Prediction Models Based on Neural Networks of a Bioclimatic Building. *Energies*, **2016**, 9, 57	3.1	60
87	Non-invasive modelling of ultrasound-induced temperature in tissues: a b-splines neural network solution. *IFAC-PapersOnLine*, **2016**, 49, 297-302	0.7	
86	A Radial Basis Function classifier for the automatic diagnosis of Cerebral Vascular Accidents **2016**,		3
85	A neural-network based intelligent weather station **2015**,		6
84	Improving a neural networks based HVAC predictive control approach **2015**,		3
83	An Intelligent Weather Station. *Sensors*, **2015**, 15, 31005-22	3.8	29
82	A Randomized Approximation Convex Hull Algorithm for High Dimensions. *IFAC-PapersOnLine*, **2015**, 48, 123-128	0.7	9
81	Computational intelligence in control. *Annual Reviews in Control*, **2014**, 38, 233-242	10.3	14
80	Neural Network based HVAC Predictive Control. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 3617-3622		5
79	Seismic detection using support vector machines. *Neurocomputing*, **2014**, 135, 273-283	5.4	43
78	A simple algorithm for convex hull determination in high dimensions **2013**,		7
77	A Support Vector Machine Seismic Detector for Early-Warning Applications. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 405-410		1
76	Forecasting the Portuguese Electricity Consumption using Least-Squares Support Vector Machines. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2013**, 46, 411-416		2
75	On the Use of Artificial Neural Networks for Biomedical Applications. *Advances in Intelligent Systems and Computing*, **2013**, 433-451	0.4	7
74	On-Line Operation of an Intelligent Seismic Detector. *Advances in Intelligent Systems and Computing* , **2013**, 531-542	0.4	1
73	Exploiting the Functional Training Approach in Takagi-Sugeno Neuro-fuzzy Systems. *Advances in Intelligent Systems and Computing*, **2013**, 543-559	0.4	1
72	A neural network based intelligent predictive sensor for cloudiness, solar radiation and air temperature. *Sensors*, **2012**, 12, 15750-77	3.8	23

71	Neural network PMV estimation for model-based predictive control of HVAC systems **2012**,		18
70	Extending the functional training approach for B-splines **2012**,		2
69	Neural networks based predictive control for thermal comfort and energy savings in public buildings. *Energy and Buildings*, **2012**, 55, 238-251	7	278
68	**2012**,		6
67	Exploiting the functional training approach in B-Splines. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 127-132		
66	Model based predictive control of HVAC systems for human thermal comfort and energy consumption minimisation. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 236-241		11
65	**2011**,		7
64	Performance of intertidal topography video monitoring of a meso-tidal reflective beach in South Portugal. *Ocean Dynamics*, **2011**, 61, 1521-1540	2.3	45
63	Exploiting the functional training approach in Radial Basis Function networks **2011**,		2
62	**2011**,		3
61	Evolutionary Multiobjective Neural Network Models Identification: Evolving Task-Optimised Models. *Studies in Computational Intelligence*, **2011**, 21-53	0.8	14
60	MOGA Design of Temperature and Relative Humidity Models for Predictive Thermal Comfort.1. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 116-121		3
59	Improving the Identification of RBF Predictive Models to Forecast the Portuguese Electricity Consumption*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 208-213		3
58	Cloud and Clear Sky Pixel Classification in Ground-Based All-Sky Hemispherical Digital Images*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 273-278		2
57	On the possibility of non-invasive multilayer temperature estimation using soft-computing methods. *Ultrasonics*, **2010**, 50, 32-43	3.5	16
56	Online Sliding-Window Methods for Process Model Adaptation. *IEEE Transactions on Instrumentation and Measurement*, **2009**, 58, 3012-3020	5.2	22
55	Fuzzy rule extraction by bacterial memetic algorithms. *International Journal of Intelligent Systems*, **2009**, 24, 312-339	8.4	48
54	Development of a temperature control model used in HVAC systems in school spaces in Mediterranean climate. *Building and Environment*, **2009**, 44, 871-877	6.5	21

53	Evolving RBF Predictive Models to Forecast the Portuguese Electricity Consumption. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 414-419		7
52	A NEURAL NETWORK SEISMIC DETECTOR. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 304-309		10
51	MOGA Design of Neural Network Predictors of Inside Temperature in Public Buildings. *Studies in Computational Intelligence*, **2009**, 35-61	0.8	1
50	Neuro-genetic non-invasive temperature estimation: intensity and spatial prediction. *Artificial Intelligence in Medicine*, **2008**, 43, 127-39	7.4	4
49	Application of computational intelligence methods to greenhouse environmental modelling **2008**,		7
48	A soft-computing methodology for noninvasive time-spatial temperature estimation. *IEEE Transactions on Biomedical Engineering*, **2008**, 55, 572-80	5	21
47	Fuzzy Rule Base Extraction by the Improved Bacterial Memetic Algorithm **2008**,		4
46	Discrete Model-Based Greenhouse Environmental Control using the Branch & Bound Algorithm. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 2937-2943		7
45	Improving the Diagnosis of Ischemic CVA's through CT Scan with Neural Networks **2007**,		1
44	NARX structures for non-invasive temperature estimation in non-homogeneous media **2007**,		2
43	Neural networks assisted diagnosis of ischemic CVA's through CT scan **2007**,		2
42	Non-invasive tissue temperature evaluation during application of therapeutic ultrasound: precise time-spatial non-linear modelling **2007**, 69-72		
41	Application of Computation Intelligence Techniques for Energy Load and Price Forecast in some States of USA **2007**,		2
40	Genetic and Bacterial Programming for B-Spline Neural Networks Design. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, **2007**, 11, 220-231	0.4	12
39	Non-invasive temperature prediction of in vitro therapeutic ultrasound signals using neural networks. *Medical and Biological Engineering and Computing*, **2006**, 44, 111-6	3.1	12
38	Neural network approach to collision free path-planning for robotic manipulators. *International Journal of Systems Science*, **2006**, 37, 555-564	2.3	8
37	Solar radiation prediction using RBF Neural Networks and cloudiness indices **2006**,		6
36	Application of the Levenberg-Marquardt method to the training of spiking neural networks **2006**,		1

35	Bacterial Memetic Algorithm for Fuzzy Rule Base Optimization **2006**,		5
34	SINGLE BLACK-BOX MODELS FOR TWO-POINT NON-INVASIVE TEMPERATURE PREDICTION. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 135-140		1
33	Prediction of building's temperature using neural networks models. *Energy and Buildings*, **2006**, 38, 682-694		134
32	EVOLUTIONARY MULTIOBJECTIVE DESIGN OF RADIAL BASIS FUNCTION NETWORKS FOR GREENHOUSE ENVIRONMENTAL CONTROL. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 63-68		9
31	TEMPERATURE MODELLING OF AN HOMOGENEOUS MEDIUM USING GENETICALLY SELECTED RBF(LIC). *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 119-124		1
30	Multi-objective genetic algorithm applied to the structure selection of RBFNN temperature estimators **2005**, 506-509		0
29	Intelligent Control Systems using Computational Intelligence Techniques **2005**,		20
28	Feature extraction for moving objects tracking system in indoor environments. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2004**, 37, 96-101		4
27	Nonlinear identification of aircraft gas-turbine dynamics. *Neurocomputing*, **2003**, 55, 551-579	5.4	37
26	Neural network models in greenhouse air temperature prediction. *Neurocomputing*, **2002**, 43, 51-75	5.4	113
25	Supervised training algorithms for B-Spline neural networks and neuro-fuzzy systems. *International Journal of Systems Science*, **2002**, 33, 689-711	2.3	19
24	CHOICE OF RBF MODEL STRUCTURE FOR PREDICTING GREENHOUSE INSIDE AIR TEMPERATURE. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2002**, 35, 91-96		9
23	TRAINING NEURAL NETWORKS AND NEURO-FUZZY SYSTEMS: A UNIFIED VIEW. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2002**, 35, 415-420		4
22	Completely Supervised Training Algorithms for B-spline Neural Networks and Neuro-fuzzy Systems. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 608-613		2
21	Predicting the Greenhouse Inside Air Temperature with RBF Neural Networks. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2001**, 34, 67-72		2
20	Neuro-genetic PID autotuning **2001**,		2
19	Identification of Aircraft Gas-Turbine Dynamics using B-splines Neural Networks. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2000**, 33, 123-128		2
18	Application of Radial Basis Function Neural Networks to a Greenhouse Inside Air Temperature Model. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2000**, 33, 137-142		

17	Neuro-genetic PID autotuning: time invariant case. *Mathematics and Computers in Simulation*, **2000**, 51, 287-300	3.3	9
16	Performance comparison of parallel architectures for real-time control. *Microprocessors and Microsystems*, **1999**, 23, 325-336	2.4	5
15	B-splines neural network assisted PID autotuning. *International Journal of Adaptive Control and Signal Processing*, **1999**, 13, 291-306	2.8	6
14	Automatic tuning of controllers using a neural-genetic system. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **1999**, 32, 5176-5181		2
13	Real-time parameter estimation of dynamic temperature models for greenhouse environmental control. *Control Engineering Practice*, **1997**, 5, 1473-1481	3.9	42
12	An efficient parallel implementation of a least squares problem. *Computing Systems in Engineering: an International Journal*, **1995**, 6, 313-318		1
11	Application of Levenberg-Marquardt method to the training of spiking neural networks		8
10	Fast Line, Arc/Circle and Leg Detection from Laser Scan Data in a Player Driver		74
9	Design of B-spline neural networks using a bacterial programming approach		3
8	Estimating fuzzy membership functions parameters by the Levenberg-Marquardt algorithm		12
7	Genetic assisted selection of RBF model structures for greenhouse inside air temperature prediction		16
6	Reactive local navigation		7
5	Accelerating multi-objective control system design using a neuro-genetic approach		1
4	Exploiting the separability of linear and nonlinear parameters in radial basis function networks		25
3	Anytime information processing based on fuzzy and neural network models		13
2	Supervised training algorithms for B-spline neural networks and fuzzy systems		6
1	An overview of nonlinear identification and control with neural networks37-88		17