# Juan R Castro

List of Publications by Year
in descending order

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|---|---|---|---|
| 89 papers | 2,924 citations | 361045 20 h-index | 174990 52 g-index |
| 100 all docs | 100 docs citations | 100 times ranked | 1697 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Interpretable Mamdani neuro-fuzzy model through context awareness and linguistic adaptation. Expert Systems With Applications, 2022, 189, 116098. | 4.4 | 11 |
| 2 | Interval Type-3 Fuzzy Aggregation of Neural Networks for Multiple Time Series Prediction: The Case of Financial Forecasting. Axioms, 2022, 11, 251. | 0.9 | 15 |
| 3 | Interval type-3 fuzzy aggregators for ensembles of neural networks in COVID-19 time series prediction. Engineering Applications of Artificial Intelligence, 2022, 114, 105110. | 4.3 | 19 |
| 4 | An approach on the implementation of full batch, online and mini-batch learning on a Mamdani based neuro-fuzzy system with center-of-sets defuzzification: Analysis and evaluation about its functionality, performance, and behavior. PLoS ONE, 2019, 14, e0221369. | 1.1 | 3 |
| 5 | PSO with Dynamic Adaptation of Parameters for Optimization in Neural Networks with Interval Type-2 Fuzzy Numbers Weights. Axioms, 2019, 8, 14. | 0.9 | 22 |
| 6 | An approach for parameterized shadowed type-2 fuzzy membership functions applied in control applications. Soft Computing, 2019, 23, 3887-3901. | 2.1 | 50 |
| 7 | A New Method for Parameterization of General Type-2 Fuzzy Sets. Fuzzy Information and Engineering, 2018, 10, 31-57. | 1.0 | 18 |
| 8 | Fuzzy Dynamic Parameter Adaptation in the Harmony Search Algorithm for the Optimization of the Ball and Beam Controller. Advances in Operations Research, 2018, 2018, 1-16. | 0.2 | 33 |
| 9 | Ensemble Neural Network with Type-2 Fuzzy Weights Using Response Integration for Time Series Prediction. Studies in Fuzziness and Soft Computing, 2018, , 175-189. | 0.6 | 2 |
| 10 | Toward General Type-2 Fuzzy Logic Systems Based on Shadowed Sets. Advances in Intelligent Systems and Computing, 2018, , 131-142. | 0.5 | 3 |
| 11 | Optimization of Deep Neural Network for Recognition with Human Iris Biometric Measure. Advances in Intelligent Systems and Computing, 2018, , 172-180. | 0.5 | 3 |
| 12 | An Overview of Granular Computing Using Fuzzy Logic Systems. Studies in Computational Intelligence, 2017, , 19-38. | 0.7 | 6 |
| 13 | A FPGA-Based Hardware Architecture Approach for Real-Time Fuzzy Edge Detection. Studies in Computational Intelligence, 2017, , 519-540. | 0.7 | 4 |
| 14 | Choquet Integral and Interval Type-2 Fuzzy Choquet Integral for Edge Detection. Studies in Computational Intelligence, 2017, , 79-97. | 0.7 | 9 |
| 15 | Fuzzy higher type information granules from an uncertainty measurement. Granular Computing, 2017, 2, 95-103. | 4.4 | 59 |
| 16 | Experimentation and Results Discussion. SpringerBriefs in Applied Sciences and Technology, 2017, , 37-49. | 0.2 | 0 |
| 17 | Agent-Based Model for Automaticity Management of Traffic Flows across the Network. Applied Sciences (Switzerland), 2017, 7, 928. | 1.3 | 6 |
| 18 | Comparison of T-Norms and S-Norms for Interval Type-2 Fuzzy Numbers in Weight Adjustment for Neural Networks. Information (Switzerland), 2017, 8, 114. | 1.7 | 11 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|----|-----------|
| 19 | Hybrid Learning for General Type-2 TSK Fuzzy Logic Systems. Algorithms, 2017, 10, 99. | 1.2 | 17 |
| 20 | Advances in Granular Computing. SpringerBriefs in Applied Sciences and Technology, 2017, , 19-35. | 0.2 | 1 |
| 21 | General Type-2 Fuzzy Edge Detection in the Preprocessing of a Face Recognition System. Studies in Computational Intelligence, 2017, , 3-18. | 0.7 | 10 |
| 22 | Non-singleton Interval Type-2 Fuzzy Systems as Integration Methods in Modular Neural Networks Used Genetic Algorithms to Design. Studies in Computational Intelligence, 2017, , 821-838. | 0.7 | 2 |
| 23 | Edge Detection Methods and Filters Used on Digital Image Processing. SpringerBriefs in Applied Sciences and Technology, 2017, , 11-16. | 0.2 | 2 |
| 24 | Generalized Type-2 Fuzzy Edge Detection Applied on a Face Recognition System. SpringerBriefs in Applied Sciences and Technology, 2017, , 37-41. | 0.2 | 2 |
| 25 | Experimentation and Results Discussion. SpringerBriefs in Applied Sciences and Technology, 2017, , 43-75. | 0.2 | 0 |
| 26 | Edge Detection Methods Based on Generalized Type-2 Fuzzy Logic Systems. SpringerBriefs in Applied Sciences and Technology, 2017, , 21-35. | 0.2 | 3 |
| 27 | Fuzzy Sets in Dynamic Adaptation of Parameters of a Bee Colony Optimization for Controlling the Trajectory of an Autonomous Mobile Robot. Sensors, 2016, 16, 1458. | 2.1 | 64 |
| 28 | Comparison between Choquet and Sugeno integrals as aggregation operators for pattern recognition. , 2016, , . | | 6 |
| 29 | General Type-2 fuzzy edge detectors applied to face recognition systems. , 2016, , . | | 5 |
| 30 | A Generalized Type-2 Fuzzy Logic System for the dynamic adaptation the parameters in a Bee Colony Optimization algorithm applied in an autonomous mobile robot control. , 2016, , . | | 11 |
| 31 | Optimization with genetic algorithm and particle swarm optimization of type-2 fuzzy integrator for ensemble neural network in time series. , 2016, , . | | 4 |
| 32 | General type-2 fuzzy edge detector applied on face recognition system using neural networks. , 2016, , . | | 3 |
| 33 | An improved sobel edge detection method based on generalized type-2 fuzzy logic. Soft Computing, 2016, 20, 773-784. | 2.1 | 158 |
| 34 | Optimization of interval type-2 fuzzy systems for image edge detection. Applied Soft Computing Journal, 2016, 47, 631-643. | 4.1 | 136 |
| 35 | A generalized type-2 fuzzy granular approach with applications to aerospace. Information Sciences, 2016, 354, 165-177. | 4.0 | 204 |
| 36 | A comparative study of type-1 fuzzy logic systems, interval type-2 fuzzy logic systems and generalized type-2 fuzzy logic systems in control problems. Information Sciences, 2016, 354, 257-274. | 4.0 | 346 |

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|---|---------|-----|-----------|
| 37 | Method for Higher Order polynomial Sugeno Fuzzy Inference Systems. Information Sciences, 2016, 351, 76-89. | 4.0 | 15 |
| 38 | Optimization of type-2 fuzzy weights in backpropagation learning for neural networks using GAs and PSO. Applied Soft Computing Journal, 2016, 38, 860-871. | 4.1 | 125 |
| 39 | Optimization by Cuckoo Search of Interval Type-2 Fuzzy Logic Systems for Edge Detection. Studies in Fuzziness and Soft Computing, 2016, , 141-154. | 0.6 | 3 |
| 40 | Choquet Integral with Interval Type 2 Sugeno Measures as an Integration Method for Modular Neural Networks. Studies in Fuzziness and Soft Computing, 2016, , 71-86. | 0.6 | 1 |
| 41 | Method for Uncertainty Measurement and Its Application to the Formation of Interval Type-2 Fuzzy Sets. Advances in Intelligent Systems and Computing, 2016, , 61-74. | 0.5 | 0 |
| 42 | Response integration in modular neural networks using Choquet Integral with Interval type 2 Sugeno measures. , 2015, , . | | 4 |
| 43 | Fuzzy Index to Evaluate Edge Detection in Digital Images. PLoS ONE, 2015, 10, e0131161. | 1.1 | 17 |
| 44 | Method for Measurement of Uncertainty Applied to the Formation of Interval Type-2 Fuzzy Sets. Studies in Computational Intelligence, 2015, , 13-25. | 0.7 | 5 |
| 45 | Generalized Type-2 Fuzzy Systems for controlling a mobile robot and a performance comparison with Interval Type-2 and Type-1 Fuzzy Systems. Expert Systems With Applications, 2015, 42, 5904-5914. | 4.4 | 251 |
| 46 | Color Image Edge Detection Method Based on Interval Type-2 Fuzzy Systems. Studies in Computational Intelligence, 2015, , 3-11. | 0.7 | 4 |
| 47 | Information granule formation via the concept of uncertainty-based information with Interval Type-2 Fuzzy Sets representation and Takagiâ€"Sugenoâ€"Kang consequents optimized with Cuckoo search. Applied Soft Computing Journal, 2015, 27, 602-609. | 4.1 | 138 |
| 48 | Uncertainty-Based Information Granule Formation. Studies in Computational Intelligence, 2014, , 113-123. | 0.7 | 2 |
| 49 | Genetic Algorithm Optimization for Type-2 Non-singleton Fuzzy Logic Controllers. Studies in Computational Intelligence, 2014, , 3-18. | 0.7 | 23 |
| 50 | Fuzzy granular gravitational clustering algorithm for multivariate data. Information Sciences, 2014, 279, 498-511. | 4.0 | 113 |
| 51 | Application of interval type-2 fuzzy neural networks in non-linear identification and time series prediction. Soft Computing, 2014, 18, 1213-1224. | 2.1 | 99 |
| 52 | Edge-Detection Method for Image Processing Based on Generalized Type-2 Fuzzy Logic. IEEE Transactions on Fuzzy Systems, 2014, 22, 1515-1525. | 6.5 | 222 |
| 53 | Using MatLab's fuzzy logic toolbox to create an application for RAMSET in software engineering courses. Computer Applications in Engineering Education, 2013, 21, 596-605. | 2.2 | 7 |
| 54 | Computational intelligence software for interval typeâ€2 fuzzy logic. Computer Applications in Engineering Education, 2013, 21, 737-747. | 2.2 | 23 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|-----|-----------|
| 55 | Towards a Personality Fuzzy Model Based on Big Five Patterns for Engineers Using an ANFIS Learning Approach. Lecture Notes in Computer Science, 2013, , 456-466. | 1.0 | 2 |
| 56 | A new approach based on generalized type-2 fuzzy logic for edge detection. , 2013, , . | | 5 |
| 57 | A hybrid method for IT2 TSK formation based on the principle of justifiable granularity and PSO for spread optimization. , 2013, , . | | 5 |
| 58 | Generalized type-2 fuzzy logic in response integration of modular neural networks. , 2013, , . | | 5 |
| 59 | Fuzzy operators for quality evaluation in images edge detection. , 2013, , . | | 0 |
| 60 | Formation of general type-2 Gaussian membership functions based on the information granule numerical evidence. , 2013, , . | | 5 |
| 61 | A class of interval type-2 fuzzy neural networks illustrated with application to non-linear identification. , 2013, , . | | 5 |
| 62 | An Analysis of the Relationship between the Size of the Clusters and the Principle of Justifiable Granularity in Clustering Algorithms. Studies in Fuzziness and Soft Computing, 2013, , 239-263. | 0.6 | 1 |
| 63 | An edge detection method based on generalized type-2 fuzzy logic. , 2013, , . | | 3 |
| 64 | An Analysis on the Intrinsic Implementation of the Principle of Justifiable Granularity in Clustering Algorithms. Studies in Computational Intelligence, 2013, , 121-134. | 0.7 | 3 |
| 65 | Universal Approximation of a Class of Interval Type-2 Fuzzy Neural Networks in Nonlinear Identification. Advances in Fuzzy Systems, 2013, 2013, 1-16. | 0.6 | 20 |
| 66 | Type-2 Fuzzy Grammar in Language Evolution. Studies in Computational Intelligence, 2013, , 501-515. | 0.7 | 7 |
| 67 | Interval Type-2 Fuzzy System for Image Edge Detection Quality Evaluation Applied to Synthetic and Real Images. Studies in Computational Intelligence, 2013, , 147-157. | 0.7 | 0 |
| 68 | Type-2 Fuzzy Logic Grammars in Language Evolution. Studies in Fuzziness and Soft Computing, 2013, , 265-286. | 0.6 | 0 |
| 69 | Distance Aproximator Using IEEE 802.11 Received Signal Strength and Fuzzy Logic. Lecture Notes in Computer Science, 2013, , 411-420. | 1.0 | 3 |
| 70 | Simulation of language evolution using Fuzzy Grammars. , 2012, , . | | 2 |
| 71 | Fuzzy granular gravitational clustering algorithm. , 2012, , . | | 6 |
| 72 | Interval type-2 fuzzy logic for image edge detection quality evaluation. , 2012, , . | | 6 |

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|---|---------|-----|-----------|
| 73 | Decision making fuzzy model for software engineering role assignment based on fuzzy logic and big five patterns using RAMSET. Intelligent Decision Technologies, 2011, 6, 59-67. | 0.6 | 3 |
| 74 | Assessment of Uncertainty in the Projective Tree Test Using an ANFIS Learning Approach. Lecture Notes in Computer Science, 2011, , 46-57. | 1.0 | 0 |
| 75 | Fuzzy Models for Complex Social Systems Using Distributed Agencies in Poverty Studies. Communications in Computer and Information Science, 2011, , 391-400. | 0.4 | 3 |
| 76 | A T-S Fuzzy Logic Controller for biped robot walking based on adaptive network fuzzy inference system. , 2010, , . | | 8 |
| 77 | Type-2 fuzzy load regulation of a servomechanism with backlash using only motor position measurements. , 2010, , . | | 3 |
| 78 | Experiences in software engineering courses using psychometrics with RAMSET. , 2010, , . | | 13 |
| 79 | An Interval Type-2 Fuzzy Neural Network for Chaotic Time Series Prediction with Cross-Validation and Akaike Test. Studies in Computational Intelligence, 2010, , 269-285. | 0.7 | 30 |
| 80 | Towards a Fuzzy Model for RAMSET: Role Assignment Methodology for Software Engineering Teams. Studies in Computational Intelligence, 2010, , 23-41. | 0.7 | 2 |
| 81 | Big Five Patterns for Software Engineering Roles Using an ANFIS Learning Approach with RAMSET. Lecture Notes in Computer Science, 2010, , 428-439. | 1.0 | 16 |
| 82 | A hybrid learning algorithm for a class of interval type-2 fuzzy neural networks. Information Sciences, 2009, 179, 2175-2193. | 4.0 | 261 |
| 83 | Intelligent control using an Interval Type-2 Fuzzy Neural Network with a hybrid learning algorithm. , 2008, , . | | 5 |
| 84 | Building Fuzzy Inference Systems with a New Interval Type-2 Fuzzy Logic Toolbox. , 2008, , 104-114. | | 42 |
| 85 | A Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks: The Case of Time Series Prediction. Studies in Computational Intelligence, 2008, , 363-386. | 0.7 | 15 |
| 86 | Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks. , 2007, , . | | 3 |
| 87 | An Interval Type-2 Fuzzy Logic Toolbox for Control Applications. IEEE International Conference on Fuzzy Systems, 2007, , . | 0.0 | 99 |
| 88 | Hybrid Learning Algorithm for Interval Type-2 Fuzzy Neural Networks. , 2007, , . | | 17 |
| 89 | Interval Type-2 Fuzzy Logic for Intelligent Control Applications. , 2007, , . | | 9 |