Curriculum Vitae

Antonio D. Masegosa

Personal Details

IKERBASQUE Research Fellow

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Profiles

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ResearchID: http://www.researcherid.com/rid/E-3302-2012

ResearchGate: https://www.researchgate.net/profile/Antonio_Masegosa/

Short Biography

Antonio D. Masegosa took his University degree in Computer Engineering in 2005 and his PhD in Computer Sciences in 2010, both from the University of Granada, Spain. From June 2010 to November 2014 he was a post-doc researcher at the Research Center for ICT of the University of Granada. In 2014 he received an IKERBASQUE Research Fellowship to work in the Mobility Unit of the Deusto Institute of Technology, in Bilbao, Spain. He has published four books, sixteen JCR papers and more than 20 papers in both international and national conferences. He has supervised one PhD thesis and one MSc Thesis; and he is currently supervising one PhD thesis. He has participated in 3 European research projects (TIMON, PostLowCIT and LOGISTAR) as well as 5 national and 4 regional research projects. He is a member of the program committee of international conferences as IEEE CEC, GECCO, ICCCI, ECAL, HM or NICSO. He has served as a reviewer in international journals as European Journal of Operational Research, Fuzzy Sets and Systems, Information Sciences, NeuroComputing, Optimization Letters and Memetic Computing. His main research interests are: Artificial Intelligence, Intelligent Systems, Soft Computing, Hybrid Metaheuristics, Machine Learning, Deep Learning, Intelligent Transportation Systems, Logistic Networks, Travel Demand Estimation, Traffic Forecasting.

Education

- **Computer Engineering Degree. University of Granada, 2005**. Score: 1.9/4.
- **MS in Soft Computing and Intelligent Systems. University of Granada, 2007**. Score: 7.2/10. Dissertation title: A self-adaptive hybrid metaheuristic for solving multiple instances at once.
- **PhD in Computer Science. University of Granada, 2010**. Score: 9.94/10. Dissertation title: Cooperative methods in optimization: analysis and results.

Professional Experience

- **2006-2010**: PhD Scholarship from the Spanish Government. University of Granada (Spain).
- **2010-2014:** Post-doc researcher at the Research Center for ICT of the University of Granada (Spain).
- **2014-present:** IKERBASQUE Research Fellow at the Deusto Institute of Technology, University of Deusto (Spain)

Research Publications

You can find my complete list of publications in *Appendix A. List of Publications*, at the end of this manuscript. Full details of my publication record can also be found at the profiles listed in the first page.
The main statistics about my research publications are listed below:

- Years as active researcher: **12 years.**
- Number of Journal Papers: **20**
  - In JCR Journals: **17 (10 in Q1 journals, 3 in Q2, 2 in Q3, 2 in Q4)**
  - In non-JCR Journals*:* **3**
- Journal special issues edited in JCR journals: **1**
- Number of books: **4**
  - As editor: **3**
  - As author: **1**
- Number of Book Chapters: **8**
- Number of Conference papers: **20**
  - International conferences: **14**
  - National conferences: **6**
- Number of cites (according to Google scholar): **372**
- h-index (according to Google scholar): **12**

My 10 most relevant publications are:

1. P. Lopez-Garcia, **A. D. Masegosa**, E. Osaba, E. Onieva, A. Perallos, Ensemble Classification for Imbalanced Data Based on Feature Space Partitioning and Hybrid Metaheuristics, *Applied Intelligence*, 2019, *In press*
   Journal JCR Ranking: 63/133(Q2); Google Scholar Citations: --
2. V. C. Guzmán, **A. D. Masegosa**, D. Pelta, J.L. Verdegay, Fuzzy models and resolution methods for covering location problems: an annotated bibliography. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 24 (4): 561-591, 2016
   Journal JCR Ranking: 89/133(Q3); Google Scholar Citations: 10
3. P. Lopez-Garcia, E. Onieva, E. Osaba, **A. D. Masegosa**, A. Perallos, A Hybrid Method for Short-Term Traffic Congestion Forecasting Using Genetic Algorithms and Cross Entropy, *IEEE Transactions on Intelligent Transportation Systems*, In press, 2015
   Journal JCR Ranking: 13/125(Q1); Google Scholar Citations: 49
4. J. Fajardo, **A.D. Masegosa**, D. Pelta, Algorithm portfolio-based scheme for Dynamic Optimization Problems, *International Journal of Computational Intelligent Systems*, 8(4): 667-689, 2015
   Journal JCR Ranking: 125/130 (Q4); Google Scholar Citations: 12
5. P. J. Villacorta, **A. D. Masegosa**, D. Castellanos and M. T. Lamata, A new fuzzy linguistic approach to qualitative cross impact analysis, *Applied Soft Computing*, 24: 19-30, 2014
   Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 17
6. **A. D. Masegosa**, D. Pelta, I. G. del Amo. The role of cardinality and neighborhood sampling strategy in agent-based cooperative strategies for Dynamic Optimization Problems. *Applied Soft Computing*, 14 (Part C): 577-593, 2014.
   Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 6
7. **A. D. Masegosa**, D. A. Pelta, J. L. Verdegay. A centralised cooperative strategy for continuous optimisation: The influence of cooperation in performance and behavior. *Information Sciences*, 219: 73-92, 2013.
   Journal JCR Ranking: 6/132 (Q1); Google Scholar Citations: 9
8. I. G. del Amo, D. A. Pelta, J. R. González, **A. D. Masegosa**. An algorithm comparison for dynamic optimization problems. *Applied Soft Computing*, 12(10): 3176-3192, 2012
   Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 20
9. J. R. González, **A. D. Masegosa** and I. J. García. A cooperative strategy for solving dynamic optimization problems. *Memetic Computing*, 3(1): 3-14, 2011
   Journal JCR Ranking: -/-; Google Scholar Citations: 25
10. **A. D. Masegosa**, D. A. Pelta, and J. R. González. Solving multiple instances at once: the role of search and adaptation. *Soft Computing-A Fusion of Foundations, Methodologies and Applications*, 15(2): 233-250, 2011
    Journal JCR Ranking: 24/99(Q1); Google Scholar Citations: 2

Honors and Awards

- *IKERBASQUE Research Fellow Mention*, 2014. Antonio D. Masegosa was one out of 25 researchers awarded with this mentioned in 2014, among 319 researchers from 30 different countries, with 2 to 10 years research experience as PhD. The success ratio was 7,8%.
- *Result of Greater Transcendence and Scientific Originality of the Ministry of Higher Education of Cuba, 2016.* For "New methods and applications of computational intelligence techniques". Resolution No. 021 of April 11, 2016, Ministry of Higher Education of Cuba. Role: Participation as a secondary author. Prize resolution: link (In Spanish).
- *Coordinator of the team Deusto, ranked 3rd in the Transportation Forecasting Competition (TRANSFOR 19) at the 2019 TRB Annual Meeting Workshop*. From a total of 71 registered teams, 31 submitted their models and results within the deadline. We were included among 5 finalists among the 31 submitted model (see next link). In the final stage we were upgraded with the 3rd position for having the best scoring in novelty and presentation (see next link).

Invited Lectures

- Artificial Intelligence applied to Mobility. In *conference on Global innovation for advanced traffic management in the Basque Country*. November 28th 2018, Artium Museum, Vitoria, Spain.
- Soft Computing and its application to technologically advanced environments. In *First Seminar on Topics in Statistics and Operational Research.* February 20th 2014, University of Seville, Seville, Spain.
- Applications and Hybridizations of Soft Computing: fuzzy sets and metaheuristics. In *PhD Course on Decision-Making in Fuzzy Environment.* May 21th 2014, University of Seville, Spain, Seville Spain.

Participation in round-tables

- Social Impact of Electromobility. In *StartNow Congress*. July 5th 2018, CIDETEC, San Sebastian, Spain.
- Building sustainable urban mobility models. Organized by the City Council of Bilbao and Petronor. November 23rd 2018, University of Deusto, Bilbao, Spain.

PhD Thesis supervision

- **PhD Program in Communication and Information Technologies, University of Granada (Spain)**
    - *Thesis Title:* Soft Computing in Dynamic Optimization Problems
    - *PhD Student:* Jenny Fajardo Calderín
    - *Advisors:* David Pelta and Antonio D. Masegosa
    - *Defense date:* December 21st, 2015
    - This thesis is part of the Joint Postgraduate Program in Intelligent Systems and Soft Computing among the University of Granada (Spain), the University of Computer Sciences (Cuba) and the Postgraduate Iberoamerican University Association.
    - *Score:* 10/10
- **PhD Program in Engineering for the Information Society and Sustainable Development, University of Deusto**
    - *Thesis Title:* Evolutionary algorithms for trajectory data mining
    - *PhD Student:* Alejo Vazquez
    - *Advisors:* Enrique Onieva and Antonio D. Masegosa
    - *State:* Suspended by the student because he decided to run his own company
- **PhD Program in Engineering for the Information Society and Sustainable Development, University of Deusto**
    - *Thesis Title:* Auto-ML methods for short-term traffic forecasting
    - *PhD Student:* Juan Sebastian Angarita
    - *Advisors:* Antonio D. Masegosa and Isaac Triguero (University of Nottingham)
    - *State:* In progress

Student supervision

- **BS Theses:**
    - Federico Rutolo (Co-mentored together with J.L. Verdegay). Study and development of cooperative strategies for systems biology problems. University of Rome. May 2011. Score: 6.8/7

- **MS Theses:**
  - Virgilio Cruz (Co-mentored together with D. Pelta). Title: Intelligent Systems of social and healthcare attention: a tool for the design and validation of deployment of services. University of Granada. September 2013. Score: 8/10

Internships

- **September-December 2009:** School of Computer Sciences and IT. University of Nottingham (UK). Host researcher: Professor Natalio Krasnogor (Currently Professor at Newcastle University).
- **August-October 2011:** Department of Electrical and Computer Engineering. University of Alberta (Canada). Host researcher: Professor Witold Pedrycz.
- **September-November 2016:** IRIDIA Lab. Free University of Brussels (Belgium). Host researcher: Professor Thomas Stützle.

Technology Transfer

- **Intelligent System for Police Rostering (2012-2013)**

This intelligent system was developed in collaboration with a local company called Gobile S.L. (http://www.gobile.es), as a part of the joint innovation project i-APUS (http://www.iapus.gobile.es/) that aimed at implementing a software platform for police forces (subject to a "non-disclosure agreement"). The objective of this intelligent system for scheduling and rostering of police forces consisted on finding the assignment of polices to shifts that better fitted a predefined set of requirements (numbers of police officers needed, skills, etc.) and constraints (maximum number of working hours, minimum resting time after a night shift, etc.). The development entailed the next aspects: modelling of the requirements and constraints by an XML schema; definition of the search model as a constraint satisfaction problem; and the design of a metaheuristic to solve the underlying optimization problem. I was in charge of the whole design and implementation in Java of this intelligent system.

- **Intelligent System for the design of Police Patrol Areas (2013-2014)**

This intelligent system was also part of the i-APUS project. Its function was the design of patrol areas for police forces in urban regions. Given an incident prediction map (provided by other intelligent system of the i-APUS project) and the available resources (number of patrols, vehicle types and availability, etc.) the intelligent system defines the patrol areas that maximize the expected percentage of incidents attended before a predefined time threshold.

The development entailed the next aspects: modelling of the problem elements (patrols, incidents, locations, patrol areas, etc.); definition of the optimization model as a Maximum Expected Covering Location Problem; and the design of a metaheuristic to solve the underlying maximization problem. I was in charge of the whole design and implementation in Java of this intelligent system.

- **Real-time Traffic and Traffic Prediction System (2015-2018)**

This intelligent system was developed in the framework of the H2020 project TIMON (Grant agreement 636220). The objective of this system was two-fold: on the one hand, to provide real-time traffic information (flow, average speed and traffic state) at a road link level by fusing information from different traffic data sources as loop sensors, Bluetooth sensors and floating data coming from vehicles; and on the other hand, to provide traffic information, also at a road link level, in future time horizons (15, 30, 45 and 60 minutes) by fusing data coming from traffic sensors and contextual information (weather and calendar) and by using models based on Fuzzy Rule-Based Systems. The system developed is a stand-alone software module with standardized inputs and outputs according to DATEX-II guidelines. I was in charge of the design and architecture of the system as well as the supervision of its implementation, deployment, integration and testing during the project.

- **Multi-Modal Route Planning System (2015-2018)**

This intelligent system was also developed in the framework of the H2020 project TIMON (Grant agreement 636220). The aim of the system was to provide point-to-point routes for various means of transport: bike, motorbike, car and public transport. Furthermore, for some of these means of transport, the system allowed different type of routes. Concretely, for bikes, the system offered the safest, the flattest and the quickest routes; for motorbikes, the safest, the greenest and the quickest routes; and for cars, the greenest and the quickest routes. Apart from this, the system also presented two main novelties: 1) a functionality based on Evolutionary Algorithms that provided alternative routes to users by exploiting their usual flexibility in their preferences (e.g. a route that is only 3 minutes longer than the preferred one, but a 30% safer); and 2) the incorporation of different type of events (e.g. traffic accidents, road works, traffic jams, etc.) and the traffic information generated by the previous system in the calculation of the routes. The system developed was also a stand-alone software module with standardized inputs (i.e. DATEX II compliant data sources, GTFS, RT-GTFS, etc.), whereas output information was designed to contain the general information of the route (e.g. distance, travel time, geometry, etc.) and the turn by turn navigation indications. As in the previous system, I was in charge of the design and architecture of the system as well as the supervision of its implementation, deployment, integration and testing during the project.

Memberships

- **Organizing Committee Member:**
    - Co-organizer of the VI International Workshop on Nature Inspired Cooperative Strategies for Optimization (NICSO 2013), Canterbury (UK), September 2-4, 2013
    - Publicity chair at the 10th International Workshop on Hybrid Metaheuristics (HM 2016), Plymouth (UK), June 8-10th, 2016.

- **Program Committee Member:**
    - 10th International Workshop on Hybrid Metaheuristics (HM2016)
    - 7th International Conference on Computational Collective Intelligence Technologies and Applications (ICCCI2015, ICCCI2016, ICCCI2017)
    - 2015-2018 International Conference on Hybrid Artificial Intelligent Systems (HAIS2015-HAIS2018)
    - 2013-2018 Ant Colony Optimization and Swarm Intelligence Track at the Genetic and Evolutionary Computation Conference (GECCO2013-GECCO2018)
    - 2013-2018 IEEE Congress on Evolutionary Computation (CEC2013-CEC2018)
    - 12th European Conference on Artificial Life (ECAL2013)
    - V International Workshop on Nature Inspired Cooperative Strategies for Optimization (NICSO 2011)

Grants and Funding

- **Participation as Work Package Leader in H2020 projects:**
    - *Leader of Work Package 3 "Data Collection and Analysis" in project MOMENTUM: Modelling Emerging Transport Solutions for Urban Mobility*. European Union's Horizon 2020 Programme. Topic LC-MG-1-3-2018: Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for sustainable urban mobility. Coordinating Institution: EMT Madrid S.A. Coordinator: Sergio Fernández Balaguer. Total budget consortium: 2,927,875€. Total budget for my group: 204,000€. Duration: June 2019 – May 2022

- **Participation as Principal Investigator:**
    - *Improving reliability of mobility in urban environments through Big Data, Artificial Intelligence, System Dynamics and Economic Geography,* DIRS-COFUND Project from the University of Deusto. Co-funded by EU's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie, Grant Agreement 65959, 109780€, November 2017 – October 2020
    - *Automatic configuration and selection of algorithms for Dynamic Optimization Problems,* Spanish Ministry of Education, Culture and Sport, Jose Castillejo Program, CAS16/00320, 11042€, September-November 2016.
    - *Application of Soft Computing techniques to analyze the temporal stability of therapeutic Monoclonal Antibodies*, program "micro-projects for young researchers", CEI Biotic - University of Granada, CEI2014-MPBS21, 3000€, May 2014-July 2014
- **Participation in Researcher Projects with public funding:**
    - *LOGISTAR: Enhanced data management techniques for real time logistics planning and scheduling*. Horizon 2020 programme - MG-5.2-2017: Innovative ICT solutions for future logistics operations [Grant Agreement 769142], Funding consortium: 4.997.548,75€. Funding group: 811.000€. June 2018 – May 2021, Coordinator: Enrique Onieva (University of Deusto)
    - *Low noise and low carbon freight delivery for Postal Operators to ensure last mile connections through optimized urban and long-distance transport (PostLowCIT*), CEF Transport Programme, European Comission, 2015-ES-TM-0239-S, Funding consortium: 1.033.273€, Funding group: 302.925€, February 2016 - December 2019, Coordinator: Santiago Muñoz (Correos)
    - *TIMON: Enhanced real time services for optimized multimodal mobility relying on cooperative networks and open data.* Horizon 2020 - MG-3.5a-2014 - Cooperative ITS for safe, congestion-free and sustainable mobility [Grant Agreement – 636220], Funding consortium: 5.605.213 €, Funding group: 943.750€, June 2015 - November 2018, Coordinator: Leire Serrano (University of Deusto)

- *ESPHIA: Enabling Seamless Positioning for helping Inhabitants Anywhere.* Spanish Ministry of Economy and Competitiveness, TIN2014-56042-JIN, Funding: 129.000€, September 2015 – August 2018, Principal Investigator: Alfonso Bahillo
- *ASCETAS: Applicability of Soft Computing in Technologically Advance Environments.* Spanish Ministry of Economy and Competitiveness, TIN2011-27696-C02-01, 31.218€, January 2012-December 2014, Principal Investigator: José L. Verdegay
- *OPEN-BIA: Intelligent Information Management Platform Oriented to Decision Making.* Spanish Ministry of Industry, Tourism and Commerce, TSI-020513-2009-74, Funding: 164.300€, January 2009 – January 2012, Principal Investigator: José L. Verdegay
- *Optimization strategies in Intelligent Systems: Applications to Dynamic Environments,* Spanish Ministry of Science and Innovation, TIN2008-01948, Funding: 25.410€, January 2009 – June 2012, Principal Investigator: David Pelta
- *Imprecise and Dynamic Optimization Models in Intelligent Systems: Analysis of Resolution Methods and Development of Applications,* Andalusian Government, P07-TIC-02970, Funding: 391.668€, January 2008 – February 2012, Principal Investigator: José L. Verdegay
- *Development of Cooperative Heuristics based on Soft Computing. Applications to Bioinformatics,* Spanish Ministry of Science and Innovation, TIN2005-08404-C04-01, Funding: 92.820€, January 2006 – December 2008, Principal Investigator: José L. Verdegay

- **Participation in Research Projects with private funding:**
  - *i-APUS: Advance Software for Police Services*, Research contract between the University of Granada, Gobile S.L. and Granatel S.L., 54.333€, July 2011- December 2013, Principal Investigator: David Pelta

Teaching Experience

- **November 2018.** Teacher. Course on academic writing in engineering, Ph.D. Programme on Engineering for the Information Society and Sustainable Development, University of Deusto, 6 hours.
- **November 2017.** Teacher. Research seminar on academic writing in engineering, Ph.D. Programme on Engineering for the Information Society and Sustainable Development, University of Deusto, 3 hours
- **October 2012 – February 2013.** Teaching assistant. Subject: Fundamentals of IT. Degree in Information and Communication. 1st year. University of Granada. 30 Hours.
- **November 2010 – January 2011.** Teaching assistant. Subject: Fundamentals of Programming. Degree in Computer Engineering. 1st year. University of Granada. 32 Hours.

Software development

- **MODO Optimization Package** (https://forja.rediris.es/projects/modooptim/) **(2013):** Optimization framework mostly aimed at dynamic optimization problems.
- **ALSPT MPB: Adaptive Local Search with Prioritized Tracking for Dynamic Optimization Problems (2016)**. Author: Antonio D. Masegosa. Registered in the Spanish registry of intellectual property. Reference: 01/2016/1414.
- **GAOpt NAVI: Genetic Algorithm for the optimization of Vehicular Area Network (2016).** Authors: Antonio D. Masegosa, Idoia de la Iglesia, Unai Hernández. Registered in the Spanish registry of intellectual property. Reference: 01/2017/181.

Appendix A. List of publications

Books

1. M. S. García-Cascales, J.M. Sánchez Lozano, **A. D. Masegosa**, C. Cruz-Corona, (Eds). Soft Computing Applications for Renewable Energy and Energy Efficiency. *Part of Advances in Environmental Engineering and Green Technologies Book Series (AEEGT), IGI Global*, 2014, ISBN: 978-1-466-66631-3, Pages: 408
2. G. Terrazas, F. E. B. Otero, **A. D. Masegosa** (Eds.): Nature Inspired Cooperative Strategies for Optimization (NICSO 2013), *vol. 512 of Studies in Computational Intelligence, Springer Berlin*, 2014. ISBN: 978-3-319-01691-7. Pages: 355
3. **A. D. Masegosa**, P. J. Villacorta, C. Cruz-Corona, M. S. García-Cascales, M. T. Lamata and J. L. Verdegay (Eds). Exploring Innovative and Successful Applications of Soft Computing. *Part of Advances in Computational Intelligence and Robotics Series, IGI Global*, 2013, ISBN: 978-1-466-64785-5, Pages: 375
4. **A. D. Masegosa**, D. Pelta and J. L. Verdegay. Cooperative Methods in Optimisation. Analysis And Results, *Lambert Academic Publishing*, 2011, ISBN: 978-3-8443-2458-7, Pages: 229

Book Chapters

1. **A. D. Masegosa**, E. Onieva, P. Lopez-Garcia, E. Osaba. Application of Soft Computing in Intelligent Transportation Systems. In *Soft Computing based Optimization and Decision Models. To commemorate the 65th birthday of Professor José Luis "Curro" Verdegay. Studies in Computation Intelligence*, pages 63-81. Springer Berlin, 2018.
2. **A. D. Masegosa**, I. de la Iglesia, U. Hernandez-Jayo, L. E. Diez, A. Bahillo, E. Onieva, A new approach for information dissemination in VANETs based on covering location and metaheuristics, In *Solutions based on Soft Computing for the Sustainability and Climate Change*, pages 179-202. Springer Berlin, 2017.
3. J. Fajardo, **A. D. Masegosa**, A. R. Suárez and D. A. Pelta. Adaptation Schemes and Dynamic Optimization Problems: A Basic Study on the Adaptive Hill Climbing Memetic Algorithm. In *Nature Inspired Cooperative Strategies for Optimization (NICSO 2013), vol. 512 of Studies in Computational Intelligence*, pages 85-97. Springer Berlin, 2014

4. P. J. Villacorta, **A. D. Masegosa**, D. Castellanos and M. T. Lamata. A Linguistic Approach to Structural Analysis in Prospective Studies. In *Advances on Computational Intelligence, vol. 297 of Communications in Computer and Information Science*, pages 150-159, Springer Berlin, 2012
5. **A. D. Masegosa**, E. Muñoz, D. Pelta, and J. M. Cadenas. Using knowledge discovery in cooperative strategies: two case studies. In *Nature Inspired Cooperative Strategies for Optimization (NICSO 2010), vol. 284 of Studies in Computational Intelligence*, pages 25-38. Springer Berlin, 2010
6. **A. D. Masegosa**, D. Pelta, I. G. del Amo, and J. L. Verdegay. On the Performance of Homogeneous and Heterogeneous Cooperative Search Strategies. In *Nature Inspired Cooperative Strategies for Optimization (NICSO 2008), vol. 236 of Studies in Computational Intelligence*, pages 287-300. Springer Berlin, 2009.
7. **A. D. Masegosa**, F. Mascia, D. Pelta, and M. Brunato. Cooperative strategies and reactive search: A hybrid model proposal. In *Learning and Intelligent Optimization (LION 3), vol. 5851 of Lecture Notes in Computer Science*, pages 206-220. Springer Berlin, 2009.
8. **A. D. Masegosa**, A. Sancho-Royo, and D. Pelta. An adaptive metaheuristic for the simultaneous resolution of a set of instances. In *Nature Inspired Cooperative Strategies for Optimization (NICSO 2007), vol. 129 of Studies in Computational Intelligence*, pages 125-137. Springer Berlin, 2008.

JCR Journal Papers

1. P. Lopez-Garcia, **A. D. Masegosa**, E. Osaba, E. Onieva, A. Perallos, Ensemble Classification for Imbalanced Data Based on Feature Space Partitioning and Hybrid Metaheuristics, *Applied Intelligence*, 2019, *In press*
   Journal JCR Ranking: 63/133(Q2); Google Scholar Citations: --
2. E. Osaba, R. Carballedo, F. Diaz, E. Onieva, **A.D. Masegosa**, A. Perallos. Good practice proposal for the implementation, presentation, and comparison of metaheuristics for solving routing problems. *Neurocomputing* 271: 2-8, 2018
   Journal JCR Ranking: 24/133(Q1); Google Scholar Citations: 4
3. J. F. Calderín, **A. D. Masegosa**, D. A. Pelta, An algorithm portfolio for the dynamic maximal covering location problem. *Memetic Computing* 9(2): 141–151, 2017
   Journal JCR Ranking: 50/133(Q2); Google Scholar Citations: 1
4. E. Osaba, X. S. Yang, F. Diaz, E. Onieva, **A. D. Masegosa**, A. Perallos. A discrete firefly algorithm to solve a rich vehicle routing problem modelling a distribution system with recycling policy. *Soft Computing-A Fusion of Foundations, Methodologies and Applications*, 21(18): 5295-5308, 2017
   Journal JCR Ranking: 46/133(Q2); Google Scholar Citations: 20

5. V. C. Guzmán, **A. D. Masegosa**, D. Pelta, J.L. Verdegay, Fuzzy models and resolution methods for covering location problems: an annotated bibliography. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 24 (4): 561-591, 2016
   Journal JCR Ranking: 89/133(Q3); Google Scholar Citations: 8
6. *P. Lopez-Garcia, E. Onieva, E. Osaba, **A. D. Masegosa**, A. Perallo.* GACE: A meta-heuristic based in the hybridization of Genetic Algorithms and Cross Entropy methods for continuous optimization. *Expert Systems with Applications,* 55, 508-519, 2016
   Journal JCR Ranking: 29/123(Q1); Google Scholar Citations: 8
7. P. Lopez-Garcia, E. Onieva, E. Osaba, **A. D. Masegosa**, A. Perallos, A Hybrid Method for Short-Term Traffic Congestion Forecasting Using Genetic Algorithms and Cross Entropy, *IEEE Transactions on Intelligent Transportation Systems* 17(2): 557-569, 2016
   Journal JCR Ranking: 44/262(Q1); Google Scholar Citations: 32
8. **A.D. Masegosa**, E. Onieva, P. Lopez-Garcia, E. Osaba, A. Perallos, An adaptive local search with prioritized tracking for Dynamic Environments, *International Journal of Computational Intelligence Systems* 8 (6): 1053-1075, 2015
   Journal JCR Ranking: 125/130 (Q4); Google Scholar Citations: 0
9. A. Moreno, A. Perallos, D. López-de-Ipiña, E. Onieva, I. Salaberria, **A. D. Masegosa**, A Novel Software Architecture for the Provision of Context-Aware Semantic Transport Information., *Sensors* 15 (6): 12299-12322, 2015
   Journal JCR Ranking: 12/56 (Q1); Google Scholar Citations: 1
10. J. Fajardo, **A.D. Masegosa**, D. Pelta, Algorithm portfolio based scheme for Dynamic Optimization Problems, *International Journal of Computational Intelligent Systems*, 8(4): 667-689, 2015
    Journal JCR Ranking: 125/130 (Q4); Google Scholar Citations: 9
11. P. J. Villacorta, **A. D. Masegosa**, D. Castellanos and M. T. Lamata, A new fuzzy linguistic approach to qualitative cross impact analysis, *Applied Soft Computing*, 24: 19-30, 2014
    Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 15
12. **A. D. Masegosa**, D. Pelta, I. G. del Amo. The role of cardinality and neighborhood sampling strategy in agent-based cooperative strategies for Dynamic Optimization Problems. *Applied Soft Computing*, 14 (Part C): 577-593, 2014.
    Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 6
13. **A. D. Masegosa**, D. A. Pelta, J. L. Verdegay. A centralised cooperative strategy for continuous optimisation: The influence of cooperation in performance and behavior. *Information Sciences*, 219: 73-92, 2013.
    Journal JCR Ranking: 6/132 (Q1); Google Scholar Citations: 9

14. I. G. del Amo, D. A. Pelta, J. R. González, **A. D. Masegosa**. An algorithm comparison for dynamic optimization problems. *Applied Soft Computing*, 12(10): 3176-3192, 2012
    Journal JCR Ranking: 23/115 (Q1); Google Scholar Citations: 19
15. **A. D. Masegosa**, D. A. Pelta, and J. R. González. Solving multiple instances at once: the role of search and adaptation. *Soft Computing-A Fusion of Foundations, Methodologies and Applications*, 15(2): 233-250, 2011
    Journal JCR Ranking: 24/99(Q1); Google Scholar Citations: 2
16. I. J. G. del Amo, D. A. Pelta, **A. D. Masegosa**, and J. L. Verdegay. A software modeling approach for the design and analysis of cooperative optimization systems. *Software: Practice and Experience*, 40(9): 811-823. 2010.
    Journal JCR Ranking: 84/99(Q3); Google Scholar Citations: 2
17. J. R. González, D. A. Pelta, and **A. D. Masegosa**. A Framework for developing optimization-based decision support systems. *Expert Systems with Applications*, 36(3P1):4581-4588, 2009.
    Journal JCR Ranking: 15/103(Q1); Google Scholar Citations: 27

Non-JCR Journal Papers

1. **A.D. Masegosa**, D. Pelta, Problemas de optimizacion dinamicos: enfoques y perspectivas, *Investigación Operacional* 38(2):111-122, 2018
   Google Scholar Citations: 0
2. E. Onieva, P. Lopez-Garcia, **A.D. Masegosa**, E. Osaba, A. Perallos, A Comparative Study on the Performance of Evolutionary Fuzzy and Crisp Rule Based Classification Methods in Congestion Prediction, *Transportation Research Procedia* 14: 4458-4467, 2016.
   Google Scholar Citations: 3
3. J. R. González, **A. D. Masegosa** and I. J. García. A cooperative strategy for solving dynamic optimization problems. *Memetic Computing*, 3(1): 3-14, 2011
   Scimago Journal Rank: Q1; Google Scholar Citations: 25

Journal Special Issues

1. F. E. B. Otero, **A. D. Masegosa**, G. Terrazas (Guest Editors). Thematic issue on advances in nature inspired cooperative strategies for optimization. *Memetic Computing* 6 (3), 2014

Conference Papers

1. J. S. Angarita-Zapata, I. Triguero, **A. D. Masegosa** (2018). A Preliminary Study on Automatic Algorithm Selection for Short-Term Traffic Forecasting. In *Proceedings of the 12th International Symposium on Intelligent and Distributed Computing (IDC 2018)*, pages: 204-214. Bilbao, Spain, October 2018.
2. P. Lopez-Garcia, E. Osaba, **A. D. Masegosa**, E. Onieva, Ensemble and Soft Computing techniques applied to Imbalance Traffic Congestion Classification: a Comparative Study, In *the 8th International Conference on Bioinspired Optimization Methods and their Applications (BIOMA2018)*, May 2018, In press
3. L. E. Diez, A. Bahillo, S. Bataineh, **A. D. Masegosa**, A. Perallos, Enhancing Improved Heuristic Drift Elimination for Wrist-Worn PDR Systems in Buildings. In *2016 IEEE 84th Vehicular Technology Conference (VTC-Fall)*, pages: 1-5, September 2016.
4. L. E. Diez, A. Bahillo, S. Bataineh, **A. D. Masegosa**, A. Perallos. Enhancing improved heuristic drift elimination for step-and-heading based pedestrian dead-reckoning systems. *In IEEE 38th Annual International Conference of the Engineering in Medicine and Biology Society (EMBC)*, pages: 4415-4418, August 2016.
5. J. F. Calderín, **A. D. Masegosa**, D. A.Pelta. Dynamic optimization with restricted and unrestricted moves between changes: A study on the dynamic maximal covering location problem. In *2016 IEEE Congress on Evolutionary Computation (CEC2016)*, pages: 570-577, July 2016.
6. E. Osaba, P. López-Garcia, **A. D Masegosa**, E. Onieva, H. Landaluce, A. Perallos, TIMON Project: Description and Preliminary Tests for Traffic Prediction Using Evolutionary Techniques, *2016 Genetic and Evolutionary Computation Conference (GECCO 2016)*, pages: 1471-1472, July 2016.
7. L.E. Diez, A. Bahillo, **A.D. Masegosa**, A. Perallos, L. Azpilicueta, F. Falcone, J.J. Astrain, J. Villadangos, Signal processing requirements for step detection using wrist-worn IMU, *2015 International Conference on Electromagnetics in Advanced Applications (ICEAA)*, pages: 1032-1035, Torino, Italy, September 2015.
8. P. Lopez-Garcia, E. Onieva, E. Osaba, **A. D. Masegosa**, A. Perallos, Hybridizing Genetic Algorithm with Cross Entropy for Solving Continuous Functions, *2015 Genetic and Evolutionary Computation Conference (GECCO 2015)*, pages: 763-764, Madrid, Spain, July 2015.

9. **A. D. Masegosa**, A. Bahillo, E. Onieva, P. López-García, A. Perallos, A new optimization approach for indoor location based on Differential Evolution, *16th World Congress of the International Fuzzy Systems Association and the 9th Conference of the European Society for Fuzzy Logic and Technology (IFSA-EUSFLAT 2015)*, pages: 1604-1611, Gijón, Spain, July 2015.
10. V. Cruz, **A. D. Masegosa**, D. Pelta y J.L. Verdegay. Handling uncertainty in Maximum Covering Location Problems: a review with emphasis in the fuzzy approach. In *XVII Spanish Conference on Fuzzy Logic and Technology (ESTYLF2014)*, pages: 265-270. Zaragoza, Spain, February 2014 (In Spanish)
11. J. Fajardo, **A. D. Masegosa**, A. Rosete, and D. A. Pelta. Learning in Dynamic Optimization Problems: an analysis over the AHMA algorithm. In *IX Spanish Conference on Metaheuristics, Evolutionary and Bio-inspired Algorithms (MAEB2013)*, pages:637-682, Madrid, Spain, September 2013 (In Spanish)
12. P. J. Villacorta, **A. D. Masegosa**, and M. T. Lamata. Linguistic fuzzy morphological analysis in the context of scenario planning. In *IV Symposium on Fuzzy Logic and Soft Computing (LFSC2013)*, pages: 1095-1104, Madrid, Spain, September 2013 (In Spanish)
13. P.J. Villacorta, **A.D. Masegosa**, M.T. Lamata. Fuzzy linguistic multicriteria morphological analysis in scenario planning, In *IFSA World Congress and NAFIPS Annual Meeting (IFSA/NAFIPS 2013)*, pages 777-782, Edmonton, Canada, June 2013
14. P.J. Villacorta, D. Castellanos, **A.D. Masegosa**. Fuzzy method for the identification of relevant variables in technology prospective. In *XVI Spanish Conference on Fuzzy Logic and Technology (ESTYLF2012)*, pages 241-246. Valladolid, Spain, February 2012. (In Spanish)
15. **A.D. Masegosa**, F. Rutolo, D.A. Pelta. A cooperative strategy for parameter estimation problems in Systems Biology: Preliminary results, In *11th International Conference on Intelligent Systems Design and Applications (ISDA2011)*, pages 1207-1212, Córdoba, Spain, November 2011
16. P.J. Villacorta, **A.D. Masegosa**, D. Castellanos, P. Novoa, D.A. Pelta, Sensitivity analysis in the scenario method: A multi-objective approach, In *11th International Conference on Intelligent Systems Design and Applications (ISDA2011)*, pages 867-872, Córdoba, Spain, November 2011
17. **A. D. Masegosa**, D. Pelta. Studying the robustness of cooperative strategies against changes in their component settings. In *VII Spanish Conference on Metaheuristics, Evolutionary and Bioinspired Algorithms (MAEB2010)*, pages 693-700, Valencia, Spain, September 2010 (In Spanish)

18. J. R. González, **A. D. Masegosa**, I. J. García, and D. Pelta. Cooperation rules in a trajectory-based centralised cooperative strategy for dynamic optimisation problems. In *IEEE International Conference on Evolutionary Computation (CEC2010)*, pages 1746-1753, Barcelona, Spain, July 2010.
19. **A. D. Masegosa**, F. Mascia, D. Pelta and M. Brunato. Control rules in cooperative strategies. In *Learning and Intelligent Optimization Workshop (LIONIII)*. Abstract, Trento, Italy, January 2009.
20. **A. D. Masegosa**, A. Sancho-Royo, and D. Pelta. A self-adaptive hybrid multi-layer metaheuristic for the simultaneous resolution of multiples instances. In *I Conference on Evolutionary Algorithms and Metaheuristics (JAEM2007)*, pages 57-63, Zaragoza, Spain, September 2007