Jose L. Aguilar
Full Prof.: Computer Science Department, Universidad de Los Andes, Mérida, Venezuela. Systems Engineering Department, Universidad EAFIT, Medellín, Colombia. Currently, he is a Postdoctoral Research Fellow of the GOT ENERGY TALENT fellowship programme, co-funded by the EU as part of the H2020-MSCA-COFUND programme, in the Department of Automática at the Universidad de Alcala (2020-2022)
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Interests: parallel and distributed systems (performance evaluation, task/data/transaction assignment and scheduling, fault tolerance, middleware design, etc.), computational intelligence (artificial neural networks, evolutionary computation, fuzzy logic, swarm intelligence, multi-agent systems, etc.) applied to combinatorial optimization, pattern recognition, control systems (identification and supervision systems, distributed and intelligent control, industrial automation, etc.), data and semantic mining, among others.

EDUCATION

- B. S. degree in System Engineering in 1987 from the Universidad de los Andes-Merida-Venezuela,
- M. Sc. degree in Computer Sciences in 1991 from the Université Paul Sabatier-Toulouse-France,
- Ph.D degree in Computer Sciences in 1995 from the Université Rene Descartes-Paris-France.
- Postdoctoral Research Fellow in the Department of Computer Sciences at the University of Houston (1999-2000)

HONORS/AWARDS [partial list]:

- President, Centro Latino-Americano de Estudios en Informática (CLEI). Periods 2021-2022.
- LAAS Research Fellows, Laboratory for Analysis and Architecture of Systems, France, 2021- currently
- Member as Individual of Number, Academy of Merida. July 2016-currently.
- Executive Secretary, Centro Latino-Americano de Estudios en Informática (CLEI). Periods 2016-2020.
- Regional Technology Award 2015 Mention: Technological Research, FUNDACITE Merida.
- Scholarship. Computer Intelligence Society (CIS)-IEEE to participate in the IEEE World Congress on Computational Intelligence (IEEE WCCI) in Beijing, China, July 2014
- Regional Award Group Research- Edition 2011: At CEMISID.
- Member of the International Technical Committee of the IEEE Neural Networks (CIS IEEE Technical Committee on Neural Networks). January 2010- 2018 (http://www.ieee-cis.org/technical/nntc/)
- Estadal Corresponding Member of the Academy of Merida in the area of Physics, Mathematics, Chemistry, Health and Technology. July 2010-July 2016.
- Regional Technology Award. Mention Technological Development - 2010 Edition
- Tutor of the Master's thesis, 3rd place XII Latin American Master's Thesis Contest -CLEI, UNESCO, Cali, Colombia, Oct. 2005, entitled: "Protocol cache coherency for Distributed Systems" Author: R. Sumoza.
- Honorable Mention work entitled "Definition of an Energy Function for the Random Neural Optimization Problems to solve." Award for Best Scientific and Technological Work. Mention Mathematics. Regional Awards for Science and Technology, 1999 Edition, FUNDACITE -Merida, July 2000.
- Special award for the works: a) “A Novel Methodology to obtain Optimal PI Controller Gains using Multi-gene Genetic Programming for FOPTD Systems”, 3th IEEE Ecuador Technical Chapters Meeting, 2018. b) “A Recognition Algorithm Using the Random Neural Network", 3rd Intl Congress in Computer Science, Mexican Academy for Research in Computer Science, Tijuana, Mexico, 1996.

MOBILITY [partial list]:

- Prometeo Researcher at the Technical University of Loja (UTPL), Escuela Politécnica Nacional (EPN) and Yachay-EP, Ecuador (2014-2017)
- Sabbatical year at the Université Paul Sabatier and Laboratoire d'Architecture et d'Analyse des Systèmes (2010-2011)
- Visiting research in different universities : Université Pierre et Marie Curie-Paris-France (1997-1999): scientifique publications, scientific project; Laboratoire d'Architecture et d'Analyse des Systèmes, Toulouse-France (2000-2002, 2006-2009, 2012-2014, 2018-2019): scientifique publications and exchange of researchers/students, PCP projects; Carlos III Madrid-Spain (2009, 2012): scientifique publications and

exchange of researchers/students; Institut National de Recherche en Informatique et en Automatique Nice-France (2003, 2005): scientifique publications and exchange of researchers/students; Universidad de La Plata-Argentina (2011): exchange of researchers; Universidad de Chile-Chile (2016, 2107): CYTED project, exchange of researchers; Universidad de Alcala-Spain (2017-2019): H2020 project, scientifique publications and exchange of researchers/students; Université de Pau et des Pays de l'Adour-France (2017-2018): scientifique publications and exchange of researchers/students; among other institutions.

RESEARCH THESIS SUPERVISION (39 MS and 20 PhD) [partial list]:

Aguilar has supervised more than 55 M.S. and Doctoral students in their theses and dissertation work. He is currently supervising 10 Ph.D. dissertations and 2 MS theses. Some of them:

- PhD of the *École doctorale des sciences exactes et leurs applications* de l'Université de Pau et des Pays de l'Adour (France), MSc. Manuel Sanchez: "Autonomic Process Management for Industry 4.0", May 2020.
- PhD in Applied Sciences of the Universidad de Los Andes, MSc. Eduard Gilberto Puerto: "Modelo Computacional de la Dinámica Neuronal Intrínseca en los Procesos Neurofisiológicos implicados en la Resolución de Problemas de Alta Complejidad Cerebral", August 2019.
- PhD in Applied Sciences of the Universidad de Los Andes, MSc. Jorge Marcos Cordero: "La Computación Afectiva desde la Robótica Social para Ambientes Inteligentes en el ámbito Educativo", August 2019.
- PhD in Applied Sciences of the Universidad de Los Andes, MSc. Ruben Leal: "Desarrollo de un Modelo Inteligente Orientado a Condiciones de Diagnosticabilidad en Procesos de Producción", June 2016.
- PhD in Applied Sciences of the Universidad de Los Andes and PhD in Electronics, Electrical and Automation of the Institut National des Sciences Appliquées de Lyon, Francia, MSc. Karla Quintero: "Optimisation d'Alignements d'un Réseau de Pipelines basée sur les Algèbres Tropicales et les Approches Génétiques", April 2015.

FUNDED GRANTS

He has been the coordinator or inviting research in more than 20 research or industrial projects supported by the Venezuelan Scientific Office, the French Scientific Office, the Scientific Office of the Universidad de los Andes, INTEVEP (Venezuelan Institute of research in oil), the European Economic Community, SENESCYT-Ecuador, among others. In these projects, he has written more than 40 technical reports.

PUBLICATIONS

He has published more than 600 papers in journals, books and proceedings of international conferences. He has published/edited more than 10 books in the domain of computational sciences, and science and technology management (see www.ing.ula.ve/~aguilar for more details).

SUMMARY OF PROFESSIONAL ACCOMPLISHMENTS	
Number of refereed publications in international books, journals, conferences, symposia, workshops	624
Number of refereed international journal publications	281
Number of refereed international conference/symposia/workshop papers	268
Number of refereed book chapters	75
Number of books authored	9
Number of books edited	8
Number of refereed international journals I currently serve as Editor-in-Chief	2
Number of refereed international journals I currently serve as editorial board member/Associate Editor	12
Number of refereed international conferences/workshops/symposia served as General Co/Chair/Program Co/Chair/Vice-Co/Chair	8
Number of refereed proceedings of international conferences/workshops/symposia co-edited	6
Number of Special issues of international refereed journals served as a lead editor or Co-Guest editor	5
Number of refereed international conferences/workshops/symposia I served as a Technical Program Committee (TPC) member	185

Refereed Journal Publications (or accepted for publication) [partial list]

- L. Morales, M. Herrera, O. Camacho, P. Leica, J. Aguilar, "LAMDA control approaches applied to trajectory tracking for mobile robots" *IEEE Access*, 2021.

- C. Ouedraogo, S. Medjiah, C Chassot, K. Drira, J. Aguilar, "A Cost-Effective Approach for End-to-End QoS Management in NFV-enabled IoT Platforms", *IEEE Internet of Things Journal*, vol. 8, no. 5, pp. 3885-3903, 2021.
- C. Salazar, J. Aguilar, J. Monsalve, E. Montoya, "Affective recommender systems in the educational field. A systematic literature review", Co-autores: *Computer Science Review*, 2021.
- M. Jimenez, J. Aguilar, J. Monsalve-Pulido, E. Montoya, "An Automatic Approach of Audio Feature Engineering for the Extraction, Analysis and Selection of Descriptors**",** *International Journal of Multimedia Information Retrieval,* 2021
- R. Garcia, J. Aguilar, M. Toro, A. Pinto, P. Rodríguez, "A Systematic Literature Review on the use of machine learning in Precision Livestock Farming", *Computers and Electronics in Agriculture*, 179, 2020.
- L. Morales, J. Aguilar, A. Rosales, D. Chávez, P. Leica, "Modeling and control of nonlinear systems using an Adaptive LAMDA approach", *Applied Soft Computing*, Vol. 95, 2020
- M. Sanchez, E. Exposito, J. Aguilar, "Implementing self-* autonomic properties in self-coordinated manufacturing processes for the Industry 4.0 context", *Computers in Industry*, Vol. 121, 2020
- L. Morales, J. Aguilar, "An automatic merge technique to improve the clustering quality performed by LAMDA", *IEEE Access*, vol. 8, pp. 162917-162944, 2020
- M. Mendonça, N. Perozo, J. Aguilar, "Ontological Emergence Scheme in Self-Organized and Emerging Systems". *Advanced Engineering Informatics*, vol. 44, 2020.
- H. Sánchez, J. Aguilar, O. Terán, J. Gutiérrez, "Modeling the process of shaping the Public Opinion through Multilevel Fuzzy Cognitive Maps", *Applied Soft Computing*, 2019.
- F. Pacheco, E. Exposito, M. Gineste, C. Baudoin, J. Aguilar, "Towards the deployment of Machine Learning solutions in traffic network classification: A systematic survey", *IEEE Communications Surveys and Tutorials*, Vol. 21, No. 2, pp. 1988-2014, 2019
- E. Puerto, J. Aguilar, D. Chávez, C. López, "Using Multilayer Fuzzy Cognitive Maps to Diagnose Autism Spectrum Disorder", *Applied Soft Computing Journal*, Vol. 75, pp. 58–71, 2019.
- M. Cerrada, J. Aguilar, J. Altamiranda, R. Sanchez, "A hybrid heuristic algorithm for evolving models in simultaneous scenarios of classification and clustering", *Knowledge and Information Systems*, Vol. 58, No. 2, pp. 755-798, 2019.
- J. Aguilar, J. Cordero, O. Buendia, "Specification of the Autonomic Cycles of Learning Analytic Tasks for a Smart Classroom", *Journal of Educational Computing Research*, vol 56 no. 6, pp. 866-891, 2018.
- K. Quintero, J. Aguilar, E. Niel, "A Hybrid Approach based on Genetic Algorithms and (Max, +) Algebra for Network Applications", *Applied Soft Computing*, Vol. 54, pp. 93–107, 2017.
- J. Terán, J. Aguilar, M. Cerrada, "Integration in industrial automation based on multi-agent systems using cultural algorithms for optimizing the coordination mechanisms", *Computers in Industry*, 91, 11-23, 2017.
- D. Zubillaga, G. Cruz, J. Aguilar, L. Aguilar, J. Zapotecatl, N. Fernandez, D. Rosenblueth, C. Gershenson, "Measuring the Complexity of Self-organizing Traffic Lights", *Entropy*, Vol. 16, pp. 2384-2407, 2014.
- N. Perozo, J. Aguilar, O. Terán, H. Molina, "A Verification Method for MASOES", *IEEE Transactions on Systems, Man, and Cybernetics: Part B,* vol. 43, No. 1, pp. 64-76, 2013.
- C. Bravo. J. Aguilar, J Aguilar-Martin, F. Rivas, A. Rios, L. Saputelli. "An implementation of a Distributed Artificial Intelligence Architecture to the Integrated Production Management", *Journal of Natural Gas Science & Engineering*, Elsevier, Vol. 3, No. 6, pp. 735-747, 2011.
- M. Cerrada, J, Cardillo, J. Aguilar, "Agents-Based design for fault management systems in industrial processes", *Computer in Industry*, Vol. 58, pp. 313-328, 2007.
- M. Cerrada, J. Aguilar, A. Titli, "Dynamical Membership Functions: an Approach for Adaptive Fuzzy Modelling", *Fuzzy Sets and Systems*, Vol. 152, No. 3, pp. 513-533, 2005.
- J. Aguilar, "A Color Pattern Recognition Problem Based on the Multiple Classes Random Neural Network Model", *Neurocomputing (special issue: Hybrid Neurocomputing)*, Vol. 61, pp. 71-83, 2004
- J. Aguilar, "Learning Algorithm and Retrieval Process for the Multiple Classes Random Neural Network Model", *Neural Processing Letters*, Vol. 13, No. 1, pp. 81-91, 2001.
- J. Aguilar, "Definition of an Energy Function for the Random Neural to solve Optimization Problems", *Neural Networks*, Vol. 11, No. 4, pp. 731-738, 1998.
- J. Aguilar, E. Gelenbe, "Task Assignment and Transaction Clustering Heuristics for Distributed Systems". *Information Sciences: Informatics and Computer Science*, Vol. 97, 199-219, 1997.

Edited/Authored Books [Partial list]

- J. Aguilar, J. Amaya, A. Gil (Eds.) *Introducción a la Computación Afectiva*, Fondo Editorial UNET, 2020.