

AIoT for Achieving Sustainable Development Goals

Juan M. Corchado
University of Salamanca, IoT Digital Innovation Hub (Spain)
corchado@usal.es

Abstract

Artificial Intelligence of Things (AIoT) is a relatively new concept that involves the merging of Artificial Intelligence (AI) with the Internet of Things (IoT). It has emerged from the realization that Internet of Things networks could be further enhanced if they were also provided with Artificial Intelligence, enhancing the extraction of data and network operation. Prior to AIoT, the Internet of Things would consist of networks of sensors embedded in a physical environment, that collected data and sent them to a remote server. Upon reaching the server, a data analysis would be carried out which normally involved the application of a series of Artificial Intelligence techniques by experts. However, as Internet of Things networks expand in smart cities, this workflow makes optimal operation unfeasible. This is because the data that is captured by IoT is increasing in size continually. Sending such amounts of data to a remote server becomes costly, time-consuming and resource inefficient. Moreover, dependence on a central server means that a server failure, which would be imminent if overloaded with data, would lead to a halt in the operation of the smart service for which the IoT network had been deployed. Thus, decentralizing the operation becomes a crucial element of AIoT. This is done through the Edge Computing paradigm which takes the processing of data to the edge of the network. Artificial Intelligence is found at the edge of the network so that the data may be processed, filtered and analyzed there. It is even possible to equip the edge of the network with the ability to make decisions through the implementation of AI techniques such as Machine Learning. The speed of decision making at the edge of the network means that many social, environmental, industrial and administrative processes may be optimized, as crucial decisions may be taken faster.

Deep Intelligence is a tool that employs disruptive Artificial Intelligence techniques for data analysis i.e., classification, clustering, forecasting, optimization, visualization. Its strength lies in its ability to extract data from virtually any source type. This is a very important feature given the heterogeneity of the data being produced in the world today. Another very important characteristic is its intuitiveness and ability to operate almost autonomously. The user is guided through the process which means that anyone can use it without any knowledge of the technical, technological and mathematical aspects of the processes performed by the platform. This means that the Deepint.net platform integrates functionalities that would normally take years to implement in any sector individually and that would normally require a group of experts in data analysis and related technologies [1-322].

The Deep Intelligence platform can be used to easily operate Edge Computing architectures and IoT networks. The joint characteristics of a well-designed Edge Computing platform (that is, one which brings computing resources to the edge of the network) and of the advanced Deepint.net platform deployed in a cloud environment, mean that high speed, real-time response, effective troubleshooting and management, as well as precise forecasting can be achieved.

Moreover, the low cost of the solution, in combination with the availability of low-cost sensors, devices, Edge Computing hardware, means that deployment becomes a possibility for developing countries, where such solutions are needed most.

An AIoT implementation of Deepint.net has the potential to help achieve the 2030 Sustainable Goals for Development. There is growing concern over the fact that little progress has been made on some of the goals set out in the United Nations Agenda and others have gone backwards as a result of the Coronavirus pandemic. According to the information on the United Nations website “90 per cent of countries and territories are reporting one or more disruptions to essential health services” as a result of the pandemic [Source: Progress towards the Sustainable Development Goals - E/2021/58](#). Thus, to successfully meet the 17 SDG, solving the problems caused by the pandemic is crucial. Moreover, AIoT Deepint.net could possibly make up for the lost progress if the society focused on implementing this technology for the 17 SDG, especially in the most affected, third world countries.

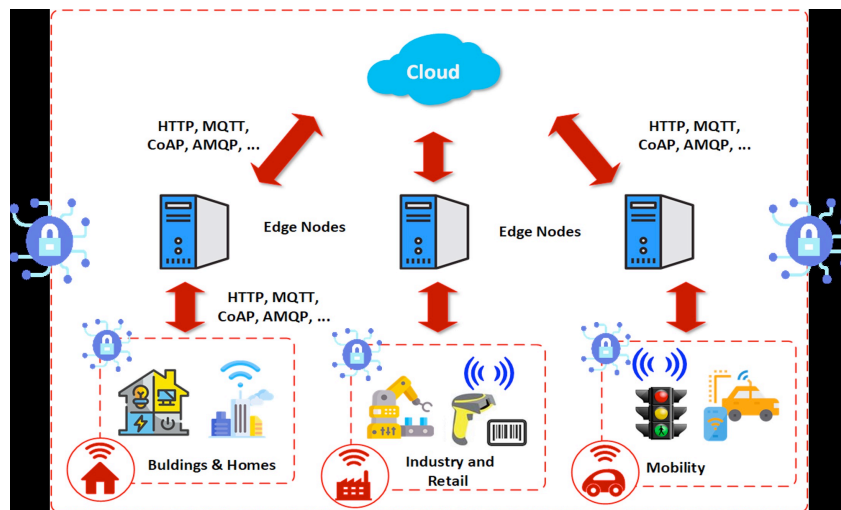


Fig.1 An Edge Computing architecture would send previously processed and filtered data to Deepint.net deployed in a Cloud environment.

The role of Deepint.net would consist in data ingestion, management, analysis, visualization and exportation. Deepint.net can also create models for forecasting and decision-making support. Its modular design would make it possible to dedicate a separate module to each SDG; this would ensure that equal progress is made on all SDGs or that priority is given to the most urgent issues without overlooking other problems.

Below, possible use cases of Deepint.net for the achievement of some of the SDGs are described:

Goals 1&8: Deepint.net could help end poverty by helping governments keep track of their economy, of distribution of aids and investment, helping the economy grow which would lead to the creation of more jobs.

Goal 2: The tool could help end hunger by increasing crop and livestock production while enabling efficient use of scarce resources. This would be achieved through analyzing crop data, aiding in decision making regarding irrigation and animal healthcare, anticipating weather changes.

Goal 3: Deepint.net can be used in healthcare for countless purposes; it can improve healthcare services, curb Covid-19, enable rapid response to accidents and emergency situations, increase the accuracy of diagnosis and treatment.

Goals 4 & 5: In education and gender equality, the tool can help by analyzing different variables, such as political unrest, culture, economy, gender stereotypes, machismo, school distribution i.e., to explain reasons for low school attendance, drop-out rates and/or gender inequality. Learning in detail about the causes that hinder children and adults from receiving education in different geographical areas, will make it possible to counteract them.

In conclusion, all progress is based on increasing our ability to extract valuable knowledge from data and use it to find new solutions. Deepint.net is a comprehensive tool which in combination with IoT and Edge Computing under the AIoT concept, can provide remarkably fast and optimal response to the problems our society is experiencing.

References:

1. Abdullah Talha Kabakus (2019) An Experimental Performance Comparison of Widely Used Face Detection Tools. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 5-12.
2. Abraham, Ajith, Emilio Corchado, and Juan M. Corchado. (2009). Hybrid learning machines.
3. Adrián Valera-Román, Diego Mateos-Matilla, Eduardo Oliva-Rubio, Álvaro Paule-Pereda (2019) Multi-Agent Vehicle Share System. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 27-35.

4. Afreen Khan, Swaleha Zubair, Samreen Khan (2021) Comprehensive Performance Analysis of Neurodegenerative disease Incidence in the Females of 60-96 year Age Group. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
5. Akshansh Mishra (2020) Local binary pattern for the evaluation of surface quality of dissimilar friction stir welded ultrafine grained 1050 and 6061-t6 aluminium alloys. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 69-77.
6. Akshansh Mishra, Anusri Patti (2021) Deep Convolutional Neural Network Modeling and Laplace Transformation Algorithm for the Analysis of Surface Quality of Friction Stir Welded Joints. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 307-320.
7. Akshansh Mishra, Devarrishi Dixit (2021) Brain Inspired Computing Approach for the Optimization of the Thin Film Thickness of Polystyrene on the Glass Substrates. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 267-279.
8. Akshansh Mishra, Tarushi Pathak (2021) Estimation of Grain Size Distribution of Friction Stir Welded Joint by using Machine Learning Approach. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 99-110.
9. Alberto Botana López (2019) Deep Learning in Biometrics: A Survey. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 19-32.
10. Alberto Rivas, Jesús M. Fraile, Pablo Chamoso, Alfonso González-Briones, Sara Rodríguez, Juan M. Corchado (2019) Students Performance Analysis Based on Machine Learning Techniques. LTEC 2019: 428-438
11. Alberto Rivas, Jesús M. Fraile, Pablo Chamoso, Alfonso González-Briones, Inés Sittón, Juan M. Corchado (2019) A Predictive Maintenance Model Using Recurrent Neural Networks. SOCO 2019: 261-270
12. Alberto Rivas, Pablo Chamoso, Alfonso González-Briones, Juan Pavón, Juan M. Corchado (2020) Social Network Recommender System, A Neural Network Approach. IDEAL (2) 213-222
13. Alda Canito, Daniel Mota, Goretí Marreiros, Juan M. Corchado, Constantino Martins (2020) Contextual Adaptative Interfaces for Industry 4.0. DCAI (Special Sessions) 2020: 149-157
14. Alda Canito, Gabriel Santos, Juan M. Corchado, Goretí Marreiros, Zita A. Vale (2019) Semantic Web Services for Multi-Agent Systems Interoperability. EPIA (2) 2019: 606-616
15. Alda Canito, Goretí Marreiros, Juan Manuel Corchado (2019) Automatic Document Annotation with Data Mining Algorithms. WorldCIST (1) 2019: 68-76
16. Alda Canito, Juan M. Corchado, Goretí Marreiros (2021) Bridging the Gap Between Domain Ontologies for Predictive Maintenance with Machine Learning. WorldCIST (2) 2021: 533-543
17. Alda Canito, Juan M. Corchado, Goretí Marreiros: Bridging the Gap Between Domain Ontologies for Predictive Maintenance with Machine Learning. WorldCIST (2) 2021: 533-543
18. Alfonso González (2020) Fintech and Tokenization: A legislative study in Argentina and Spain about the application of Blockchain in the field of properties. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 51-59.
19. Alfonso González-Briones, Javier Prieto, Fernando de la Prieta, Yves Demazeau, Juan M. Corchado: Virtual agent organizations for user behaviour pattern extraction in energy optimization processes: A new perspective. Neurocomputing 452: 374-385 (2021)
20. Alfonso González-Briones, Javier Prieto, Fernando de la Prieta, Yves Demazeau, Juan M. Corchado: Virtual agent organizations for user behaviour pattern extraction in energy optimization processes: A new perspective. Neurocomputing 452: 374-385
21. Alfonso González-Briones, Roberto Garcia-Martin, Francisco Lecumberri de Alba, Juan M. Corchado (2020) Agent-Based Platform for Monitoring the Pressure Status of Fire Extinguishers in a Building. PAAMS (Workshops) 2020: 373-384
22. Alfonso González-Briones, Yeray Mezquita Martín, José A. Castellanos-Garzón, Javier Prieto, Juan M. Corchado (2019) Intelligent multi-agent system for water reduction in automotive irrigation processes. ANT/EDI40 2019: 971-976
23. Ali Wided, Kazar Okba, Bouakkaz Fatima (2019) Load balancing with Job Migration Algorithm for improving performance on grid computing: Experimental Results. ADCAIJ: Advances in

- Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 5-18.
24. Altaf Hussain, Tariq Hussain, Iqtidar Ali, Muhammad Rafiq Khan (2020) Impact of Sparse and Dense Deployment of Nodes Under Different Propagation Models in Manets. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 61-84.
 25. Álvaro Martín, David Trejo, Alejandro Yagüe, José Sánchez (2019) Multi-agent system for selecting images based on the gender and age. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 49-54.
 26. AMIT PURUSHOTTAM Pimpalkar, R. Jeberson Retna Raj (2020) Influence of Pre-Processing Strategies on the Performance of ML Classifiers Exploiting TF-IDF and BOW Features. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 49-68.
 27. Angel Canal-Alonso, Roberto Casado-Vara, Juan Manuel Corchado (2020) An affordable implantable VNS for use in animal research. ICECS 2020: 1-4
 28. Anibal Reñones, Marta Galende (2020) F.A.I.R. open dataset of brushed DC motor faults for testing of AI algorithms. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 83-94.
 29. Antônio C R Costa (2020) Elements for the Agent-Based Modeling of Slavery Systems. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 15-27.
 30. Antonio J. Sánchez, Elena Hernández Nieves, Fernando de la Prieta, Juan Manuel Corchado, Sara Rodríguez (2019) Describing Interfaces in the Framework of Adaptive Interface Ecosystems. EPIA (2) 2019: 38-49
 31. Aparna V (2020) Application of DCS for Level Control in Nonlinear System using Optimization and Robust Algorithms. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 29-50.
 32. Areej Alshutayria, Nahla Aljojo, Basma Alharbia, Ameen Banjarb, Atheer Alshehria, Mashaiel Alargoubia, Ola Barradha, Rahaf Helabia (2021) An Interactive Mobile Application to Request the Help of the Nearest First Aider by the Injured The Design and Implementation of an Interactive Mobile Application to request the help of the nearest first aider by the injured. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 15-32.
 33. Aria Jozi, Tiago Pinto, Isabel Praça, Francisco Silva, Brigida Teixeira, Zita Val (2019) Genetic fuzzy rule-based system using MOGUL learning methodology for energy consumption forecasting. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 55-64.
 34. Arya Tanmay Gupta, Himani Gupta, Muskan Sharma, Priyanka Khanna (2020) A secure home automation prototype built on raspberry-pi. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 2
 35. Aversa, Raffaella, et al. "Kinematics and forces to a new model forging manipulator." *American Journal of Applied Sciences* 14.1 (2017): 60-80.
 36. Bardos, C., Catto, I., Mauser, N. J., & Trabelsi, S. (2009). Global-in-time existence of solutions to the multiconfiguration time-dependent Hartree–Fock equations: A sufficient condition. *Applied Mathematics Letters*, 22(2), 147-152.
 37. Baruque, Bruno, et al. "A forecasting solution to the oil spill problem based on a hybrid intelligent system." *Information Sciences* 180.10 (2010): 2029-2043.
 38. Bessaih, H., Trabelsi, S., & Zorgati, H. (2016). Existence and uniqueness of global solutions for the modified anisotropic 3D Navier–Stokes equations. *ESAIM: Mathematical Modelling and Numerical Analysis*, 50(6), 1817-1823.
 39. Borrajo, M. Lourdes, et al. "Autonomous internal control system for small to medium firms." *International Conference on Case-Based Reasoning*. Springer, Berlin, Heidelberg, 2005.
 40. Brigida Teixeira, Gabriel Santos, Tiago Pinto, Zita A. Vale, Juan M. Corchado (2020) Application Ontology for Multi-Agent and Web-Services' Co-Simulation in Power and Energy Systems. *IEEE Access* 8: 81129-81141
 41. Budor Alharbi, Fatmah Assiri, Basma Alharbi (2021) A Comparative Study of Student Performance Prediction using Pre-Course Data. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 49-61.

42. Canito, A., Corchado, J., & Marreiros, G. (2021) Bridging the Gap Between Domain Ontologies for Predictive Maintenance with Machine Learning. In Trends and Applications in Information Systems and Technologies: Volume 2 9 (pp. 533-543). Springer International Publishing .
43. Canito, A., Corchado, J., & Marreiros, G.: Bridging the Gap Between Domain Ontologies for Predictive Maintenance with Machine Learning. In Trends and Applications in Information Systems and Technologies: Volume 2 9 (pp. 533-543). Springer International Publishing (2021).
44. Carlos Lopez-Castaño , Luis Fernando Castillo , Juan M. Corchado : Discovering the Value Creation System in IoT Ecosystems. *Sensors* 21(2): 328 (2021)
45. Carlos Lopez-Castaño , Luis Fernando Castillo , Juan M. Corchado (2021) Discovering the Value Creation System in IoT Ecosystems. *Sensors* 21(2): 328
46. Carlos Silva, Juliano Weber, Bruno Belloni (2019) Segmentation and detection of cattle branding images using CNN and SVM classification. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 19-32.
47. Carrión, Pilar, et al. "Knowledge Management with an Agent Network." *LANOMS*. 1999.
48. Casado-Vara, R., Martín del Rey, A., Pérez-Palau, D., de-la-Fuente-Valentín, L., & Corchado, J. M.: Web Traffic Time Series Forecasting Using LSTM Neural Networks with Distributed Asynchronous Training. *Mathematics*, 9(4), 421 (2021)
49. Casado-Vara, R., Martín del Rey, A., Pérez-Palau, D., de-la-Fuente-Valentín, L., & Corchado, J. M.: Web Traffic Time Series Forecasting Using LSTM Neural Networks with Distributed Asynchronous Training. *Mathematics*, 9(4), 421
50. Castillo Ossa, L. F., Chamoso, P., Arango-López, J., Pinto-Santos, F., Isaza, G. A., Santa-Cruz-González, C., ... & Corchado, J. M.: A Hybrid Model for COVID-19 Monitoring and Prediction. *Electronics*, 10(7), 799 (2021)
51. Castillo Ossa, L. F., Chamoso, P., Arango-López, J., Pinto-Santos, F., Isaza, G. A., Santa-Cruz-González, C., ... & Corchado, J. M. (2021) A Hybrid Model for COVID-19 Monitoring and Prediction. *Electronics*, 10(7), 799
52. Chamoso, Pablo, et al. "Social computing in currency exchange." *Knowledge and Information Systems* 61.2 (2019): 733-753.
53. Chamoso, Pablo, et al. "Tendencies of technologies and platforms in smart cities: a state-of-the-art review." *Wireless Communications and Mobile Computing* 2018 (2018).
54. Cho, Y., Fall, M. M., Hajaiej, H., Markowich, P. A., & Trabelsi, S. (2017). Orbital stability of standing waves of a class of fractional Schrödinger equations with Hartree-type nonlinearity. *Analysis and Applications*, 15(05), 699-729.
55. Cho, Y., Fall, M. M., Hajaiej, H., Markowich, P. A., & Trabelsi, S. (2013). Orbital stability of standing waves of a class of fractional Schrodinger equations with a general Hartree-type integrand. *arXiv preprint arXiv:1307.5523*.
56. Choon, Yee Wen, et al. "Differential bees flux balance analysis with OptKnock for in silico microbial strains optimization." *PloS one* 9.7 (2014): e102744.
57. Corchado, E. S., Juan M. Corchado, and Jim Aiken. "Ibr retrieval method based on topology preserving mappings." *Journal of Experimental & Theoretical Artificial Intelligence* 16.3 (2004): 145-160.
58. Corchado, Emilio S., et al. "A beta-cooperative cbr system for constructing a business management model." *Industrial Conference on Data Mining*. Springer, Berlin, Heidelberg, 2004.
59. Corchado, Emilio, et al. "Constructing a global and integral model of business management using a cbr system." *International Conference on Cooperative Design, Visualization and Engineering*. Springer, Berlin, Heidelberg, 2004.
60. Corchado, J. "Cbr systems, an overview." *International Conference on Intelligent Systems. London, England, Uk*. 1995.
61. Corchado, J. "Real time forecast with intelligent systems." *Conference on Knowledge Discovery. IEE, Savoy Place, London*. 1998.
62. Corchado, J. M. "A distributed recommendation system assos." *IEEE COLLOQUIUM ON KNOWLEDGE DISCOVERY. IEE, LONDON, UK*. 1995.
63. Corchado, J. M. "Artificial intelligence models: composed systems as a solution." *IEEE COLLOQUIUM ON KNOWLEDGE DISCOVERY. LONDON ENGLAND, UK*. 1996.
64. Corchado, J. M. "Bdi multiagent hybrid architecture for project management." *IEEE Colloquium On Knowledge Discovery And Data Mining. London England*. 1997.
65. Corchado, J. M. "Case based reasoning systems: automatic construction." *INTERNATIONAL CONFERENCE ON INTELLIGENT SYSTEMS. LONDON ENGLAND UK*. 1995.

66. Corchado, J. M. "Hybrid cbr system for real-time temperature forecasting in the ocean." *IEEE COLLOQUIUM ON KNOWLEDGE DISCOVERY. LONDON, UK.* 1995.
67. Corchado, J. M. "Models for integrating artificial intelligence approaches." *Doctoral Consortium On Knowledge Discovery And Data Mining. Paisley, UK* (1998).
68. Corchado, J. M. "Multi agent tools: a case study." *IEEE COLLOQUIUM ON KNOWLEDGE DISCOVERY. LONDON ENGLAND, UK.* 1995.
69. Corchado, J. M. "Neuro-symbolic reasoning-a solution for complex problemas." *INTERNATIONAL CONFERENCE ON INTELLIGENT SYSTEMS. LONDON, UK.* 1995.
70. Corchado, J. M. "Real time forecast with intelligent systems: Cbrs and anns." *Workshop On Artificial Neural Networks. Aberdeen.* 1997.
71. Corchado, J. M. "System for decision making: a practical case." *Conference On Knowledge Discovery And Data Mining. Iee, London, UK.* 1997.
72. Corchado, J. M. "The use of kernel methods in cbr systems." *INTERNATIONAL CONFERENCE ON INTELLIGENT SYSTEMS. LONDON ENGLAND UK.* 1995.
73. Corchado, J. M., and B. Lees. "Case-base reasoning recommendation system." *IEEE COLLOQUIUM ON KNOWLEDGE DISCOVERY. LONDON, UK.* 1996.
74. Corchado, J. M., and B. Lees. "Cognitive models for integrating artificial intelligence approaches." *All Workshop On Knowledge Discovery. Glasgow, UK.* 1998.
75. Corchado, J. M., and B. Lees. "Integration ai models." *Workshop On Knowledge Discovery And Data Mining. Pml-Nerc, Plymouthlondon, UK.* 1998.
76. Corchado, J. M., and B. Lees. "Probis: Modelling intelligence with hybrid systems." *Workshop On Data Mining. University of Glasgow, Scotland, UK.* 1998.
77. Corchado, J. M., and J. Aiken. "Expert system for modelling water masses." *Workshop On Data Mining. Glasgow, Scotland.* 1998.
78. Corchado, J. M., and J. Aiken. "Neuro-symbolic reasoning for real time oceanographic problems." *Conference On Data Mining. IEE, Savoy Place, London.* 1998.
79. Corchado, J. M., B. Lees, and C. Fyfe. "Project monitoring intelligent agent system." (1997): 4-4.
80. Corchado, J. M., et al. "Data mining using example-based methods in oceanographic forecast models." (1998): 7-7.
81. Corchado, J., and B. Lees. "An overview of intelligent frameworks." *Colloquium On Intelligent Systems. Iee, London, UK.* 1998.
82. Corchado, J., and B. Lees. "Artificial neural networks in pattern recognition: multicollinearity and heterocedasticity." *Colloquium On Knowledge Discovery. LONDON, UK.* 1998.
83. Corchado, J., and B. Lees. "Case based reasoning opportunities and technologies." *Conference On Knowledge Discovery. IEE, Savoy Place, London.* 1998.
84. Corchado, J., Colin Fyfe, and Brian Lees. "Unsupervised learning for financial forecasting." *Proceedings of the IEEE/IAFE/INFORMS 1998 Conference on Computational Intelligence for Financial Engineering (CIFER)(Cat. No. 98TH8367).* IEEE, 1998.
85. Corchado, Juan M. "Adaptive hybrid system architecture for forecasting." *Proceedings of the fourteenth national conference on artificial intelligence and ninth conference on Innovative applications of artificial intelligence.* 1997.
86. Corchado, Juan M., and Brian Lees. "A hybrid case-based model for forecasting." *Applied Artificial Intelligence* 15.2 (2001): 105-127.
87. Corchado, Juan M., and Brian Lees. "Adaptation of cases for case based forecasting with neural network support." *Soft computing in case based reasoning.* Springer, London, 2001. 293-319.
88. Corchado, Juan M., and Colin Fyfe. "Unsupervised neural method for temperature forecasting." *Artificial Intelligence in Engineering* 13.4 (1999): 351-357.
89. Corchado, Juan M., and Jim Aiken. "Hybrid artificial intelligence methods in oceanographic forecast models." *IEEE Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews)* 32.4 (2002): 307-313.
90. Corchado, Juan M., and Rosalía Laza. "Constructing deliberative agents with case-based reasoning technology." *International Journal of Intelligent Systems* 18.12 (2003): 1227-1241.
91. Corchado, Juan M., Brian Lees, and N. Rees. "A multi-agent system "test bed" for evaluating autonomous agents." *Proceedings of the first international conference on Autonomous agents.* 1997.

92. Corchado, Juan M., Emilio S. Corchado, and María A. Pellicer. "Design of cooperative agents for mobile devices." *International Conference on Cooperative Design, Visualization and Engineering*. Springer, Berlin, Heidelberg, 2004.
93. Corchado, Juan M., et al. "Agent-based web engineering." *International Conference on Web Engineering*. Springer, Berlin, Heidelberg, 2003.
94. Corchado, Juan M., et al. "Development of CBR-BDI agents: a tourist guide application." *European Conference on Case-based Reasoning*. Springer, Berlin, Heidelberg, 2004.
95. Corchado, Juan M., et al. "Evaluating the air-sea interactions and fluxes using an instance-based reasoning system." *AI Communications* 18.4 (2005): 247-256.
96. Corchado, Juan M., et al. "Maximum likelihood hebbian learning based retrieval method for cbr systems." *International Conference on Case-Based Reasoning*. Springer, Berlin, Heidelberg, 2003.
97. Corchado, Juan M., et al. "Neuro-symbolic system for business internal control." *Industrial Conference on Data Mining*. Springer, Berlin, Heidelberg, 2004.
98. Corchado, Juan M., et al. "Quantifying the ocean's co2 budget with a cohel-ibr system." *European Conference on Case-Based Reasoning*. Springer, Berlin, Heidelberg, 2004.
99. Corchado, Juan M., et al. "Study and comparison of multilayer perceptron nn and radial basis function nn in oceanographic forecasting." *Applications and Science of Artificial Neural Networks III*. Vol. 3077. International Society for Optics and Photonics, 1997.
100. Coria, José A. García, José A. Castellanos-Garzón, and Juan M. Corchado. "Intelligent business processes composition based on multi-agent systems." *Expert Systems with Applications* 41.4 (2014): 1189-1205.
101. Costa, Angelo, et al. "Increased performance and better patient attendance in an hospital with the use of smart agendas." *Logic Journal of IGPL* 20.4 (2012): 689-698.
102. Daniel López Sánchez, Angélica González Arrieta, Juan M. Corchado (2020) Compact bilinear pooling via kernelized random projection for fine-grained image categorization on low computational power devices. *Neurocomputing* 398: 411-421
103. David Berrocal-Macías, Zakieh Alizadeh-Sani, Francisco Pinto-Santos, Alfonso González-Briones, Pablo Chamoso, Juan M. Corchado: Services Extraction for Integration in Software Projects via an Agent-Based Negotiation System. *PAAMS (Workshops) 2021*: 241-252
104. David Berrocal-Macías, Zakieh Alizadeh-Sani, Francisco Pinto-Santos, Alfonso González-Briones, Pablo Chamoso, Juan M. Corchado (2021) Services Extraction for Integration in Software Projects via an Agent-Based Negotiation System. *PAAMS (Workshops) 2021*: 241-252
105. David García-Retuerta, Álvaro Bartolomé, Pablo Chamoso, Juan M. Corchado, Alfonso González-Briones (2019) Original Content Verification Using Hash-Based Video Analysis. *ISAmI 2019*: 120-127
106. David García-Retuerta, Angel Canal-Alonso, Roberto Casado-Vara, Ángel Martín del Rey, Gabriella Panuccio, Juan M. Corchado (2020) Bidirectional-Pass Algorithm for Interictal Event Detection. *PACBB 2020*: 197-204
107. David García-Retuerta, Juan M. Corchado (2021) Gamification Proposal of an Improved Energy Saving System for Smart Homes. *SSCT 2021*: 315-317
108. David García-Retuerta, Juan M. Corchado: Gamification Proposal of an Improved Energy Saving System for Smart Homes. *SSCT 2021*: 315-317
109. David García-Retuerta, Roberto Casado-Vara, Ángel Martín del Rey, Fernando de la Prieta, Javier Prieto, Juan M. Corchado (2020) Quaternion Neural Networks: State-of-the-Art and Research Challenges. *IDEAL (2) 2020*: 456-467
110. David García-Retuerta, Roberto Casado-Vara, Diego Valdeolmillos, Juan M. Corchado: A Reputation Score Proposal for Online Video Platforms. *EPIA 2021*: 255-265
111. David García-Retuerta, Roberto Casado-Vara, Diego Valdeolmillos, Juan M. Corchado (2021) A Reputation Score Proposal for Online Video Platforms. *EPIA 2021*: 255-265
112. De Blas, J. C., et al. "Effect of diet on feed intake and growth of rabbits from weaning to slaughter at different ages and weights." *Journal of Animal Science* 52.6 (1981): 1225-1232.
113. Denisa Reshef Kera, Petr Sourek, Mateusz Krainski, Yair Reshef, Juan Manuel Corchado Rodríguez, Iva Magdalena Knobloch (2019) Lithopia: Prototyping Blockchain Futures. *CHI Extended Abstracts 2019*

114. Díaz, Fernando, et al. "Using fuzzy patterns for gene selection and data reduction on microarray data." *International Conference on Intelligent Data Engineering and Automated Learning*. Springer, Berlin, Heidelberg, 2006.
115. Díaz, Fernando, Florentino Fdez-Riverola, and Juan M. Corchado. "gene-CBR: A CASE-BASED REASONING TOOL FOR CANCER DIAGNOSIS USING MICROARRAY DATA SETS." *Computational Intelligence* 22.3-4 (2006): 254-268.
116. Diego Valdeolmillos, Roberto Casado-Vara, Juan M. Corchado (2020) EdgeChain to provide security in organization-based multi-agent systems. *Blockchains for Network Security 2020*: 175-187
117. Diego Valdeolmillos, Yeray Mezquita Martín, Alfonso González-Briones, Javier Prieto, Juan Manuel Corchado (2019) Blockchain Technology: A Review of the Current Challenges of Cryptocurrency. *BLOCKCHAIN 2019*: 153-160
118. Diego Vergara, Jamil Extremera, Manuel Pablo Rubio, Lilian P. Dávila (2020) The proliferation of virtual laboratories in educational fields. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 85-97.
119. Diogo Martinho, João Carneiro, José Neves, Paulo Novais, Juan M. Corchado, Goreti Marreiros: A Reinforcement Learning Approach to Improve User Achievement of Health-Related Goals. *EPIA 2021*: 266-277
120. Diogo Martinho, João Carneiro, José Neves, Paulo Novais, Juan M. Corchado, Goreti Marreiros (2021) A Reinforcement Learning Approach to Improve User Achievement of Health-Related Goals. *EPIA 2021*: 266-277
121. Diogo Martinho, João Carneiro, Juan M. Corchado, Goreti Marreiros (2020) A systematic review of gamification techniques applied to elderly care. *Artif. Intell. Rev.* 53(7): 4863-4901
122. Diogo Martinho, João Carneiro, Paulo Novais, José Neves, Juan M. Corchado, Goreti Marreiros (2019) A Conceptual Approach to Enhance the Well-Being of Elderly People. *EPIA (2) 2019*: 50-61
123. Duygu Sinanc, Umut Demirezen, Şeref Sağıroğlu (2021) Explainable Credit Card Fraud Detection with Image Conversion. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 63-76.
124. Ebru Pekel Özmen, Engin Pekel (2019) Estimation of Number of Flight Using Particle Swarm Optimization and Artificial Neural Network. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 27-33.
125. Eduardo Facchini, Eduardo Mario Dias (2019) The importance of development of control processes and methods for urban bus services. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 51-65.
126. Elena Hernández Nieves, Álvaro Bartolomé del Canto, Pablo Chamoso-Santos, Fernando de la Prieta Pintado, Juan M. Corchado Rodríguez (2020) A Machine Learning Platform for Stock Investment Recommendation Systems. *DCAI 2020*: 303-313
127. Elena Hernández Nieves, Guillermo Hernández, Ana B. Gil González, Sara Rodríguez-González, Juan M. Corchado: CEBRA: A Case-Based Reasoning Application to recommend banking products. *Eng. Appl. Artif. Intell.* 104: 104327 (2021)
128. Elena Hernández Nieves, Guillermo Hernández, Ana B. Gil González, Sara Rodríguez-González, Juan M. Corchado: CEBRA (2021) A Case-Based Reasoning Application to recommend banking products. *Eng. Appl. Artif. Intell.* 104: 104327
129. Elena Hernández Nieves, Guillermo Hernández, Ana Belén Gil González, Sara Rodríguez-González, Juan M. Corchado (2020) Fog computing architecture for personalized recommendation of banking products. *Expert Syst. Appl.* 140
130. Emilio J. Sánchez, Francisco Jaramago, Manuel López (2019) Virtual agent organizations to optimize energy consumption in households. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 37-47.
131. Emmanuel Savio Silva Freire, Mariela Inés Cortés, Robert Marinho Da Rocha Júnior, Ênyo José (2019) NorMAS-ML: Supporting the Modeling of Normative Multi-agent Systems. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 49-81.
132. Ersin Aytaç (2021) Forecasting Turkey's Hazelnut Export Quantities with Facebook's Prophet Algorithm and Box-Cox Transformation. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 33-47.

133. Faia, R., Lezama, F., & Corchado, J. M. . Local electricity markets—practical implementations. In *Local Electricity Markets* (pp. 127-140). Academic Press.
134. Faia, R., Lezama, F., & Corchado, J. M. (2021). Local electricity markets—practical implementations. In *Local Electricity Markets* (pp. 127-140). Academic Press.
135. Faia, R., Pinto, T., Lezama, F., Vale, Z., & Corchado, J. M. (2021) Optimisation for Coalitions Formation Considering the Fairness in Flexibility Market Participation. In *E3S Web of Conferences* (Vol. 239, p. 00016). EDP Sciences
136. Faia, R., Pinto, T., Lezama, F., Vale, Z., & Corchado, J. M.: Optimisation for Coalitions Formation Considering the Fairness in Flexibility Market Participation. In *E3S Web of Conferences* (Vol. 239, p. 00016). EDP Sciences (2021)
137. Faia, R., Pinto, T., Vale, Z., & Corchado, J. M. (2021) Portfolio optimization of electricity markets participation using forecasting error in risk formulation. *International Journal of Electrical Power & Energy Systems*, 129, 106739
138. Faia, R., Pinto, T., Vale, Z., & Corchado, J. M. (2021) Prosumer Community Portfolio Optimization via Aggregator: The Case of the Iberian Electricity Market and Portuguese Retail Market. *Energies*, 14(13), 3747.
139. Faia, R., Pinto, T., Vale, Z., & Corchado, J. M. (2021). Prosumer Community Portfolio Optimization via Aggregator: The Case of the Iberian Electricity Market and Portuguese Retail Market. *Energies*, 14(13), 3747.
140. Faia, R., Pinto, T., Vale, Z., & Corchado, J. M.: Portfolio optimization of electricity markets participation using forecasting error in risk formulation. *International Journal of Electrical Power & Energy Systems*, 129, 106739 (2021)
141. Faia, R., Soares, J., Vale, Z., & Corchado, J. M. (2021) An Optimization Model for Energy Community Costs Minimization Considering a Local Electricity Market between Prosumers and Electric Vehicles. *Electronics*, 10(2), 129
142. Faia, R., Soares, J., Vale, Z., & Corchado, J. M.: An Optimization Model for Energy Community Costs Minimization Considering a Local Electricity Market between Prosumers and Electric Vehicles. *Electronics*, 10(2), 129 (2021)
143. Farzaneh Zafary (2019) Ranking Factors Affecting Organizational Readiness to Implement Enterprise Resource Planning Systems Using Fuzzy-Dimensional Network Analysis. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 35-50.
144. Fatmah Assiri (2020) Methods for Assessing, Predicting, and Improving Data Veracity: A survey. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 5-30.
145. Fdez-Riverola, Florentino, and Juan M. Corchado. "CBR based system for forecasting red tides." *Applications and Innovations in Intelligent Systems X*. Springer, London, 2003. 179-192.
146. Fdez-Riverola, Florentino, and Juan M. Corchado. "Fsfrt: Forecasting system for red tides." *Applied Intelligence* 21.3 (2004): 251-264.
147. Fdez-Riverola, Florentino, and Juan M. Corchado. "Fsfrt: Forecasting system for red tides. a hybrid autonomous ai model." *Applied Artificial Intelligence* 17.10 (2003): 955-982.
148. Fdez-Riverola, Florentino, et al. "Applying lazy learning algorithms to tackle concept drift in spam filtering." *Expert Systems with Applications* 33.1 (2007): 36-48.
149. Fdez-Riverola, Florentino, et al. "Improving gene selection in microarray data analysis using fuzzy patterns inside a cbr system." *International Conference on Case-Based Reasoning*. Springer, Berlin, Heidelberg, 2005.
150. Fdez-Riverola, Florentino, et al. "SpamHunting: An instance-based reasoning system for spam labelling and filtering." *Decision Support Systems* 43.3 (2007): 722-736.
151. Fdez-Riverola, Florentino, Fernando Díaz, and Juan M. Corchado. "Applying rough sets reduction techniques to the construction of a fuzzy rule base for case based reasoning." *Ibero-American Conference on Artificial Intelligence*. Springer, Berlin, Heidelberg, 2004.
152. Fdez-Riverola, Florentino, Juan M. Corchado, and Jesús M. Torres. "An automated hybrid cbr system for forecasting." *European Conference on Case-Based Reasoning*. Springer, Berlin, Heidelberg, 2002.
153. Fdez-Riverola, F., and Juan M. Corchado. "Forecasting red tides using an hybrid neuro-symbolic system." *AI Communications* 16.4 (2003): 221-233.

154. Fernández-Riverola, Florentino, and Juan M. Corchado. "Employing tsk fuzzy models to automate the revision stage of a cbr system." *Conference on Technology Transfer*. Springer, Berlin, Heidelberg, 2003.
155. Fernandez-Riverola, Florentino, Fernando Díaz, and Juan M. Corchado. "Reducing the memory size of a fuzzy case-based reasoning system applying rough set techniques." *IEEE Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews)* 37.1 (2006): 138-146.
156. Fernando de la Prieta, Juan M. Corchado Rodríguez (2021) Neural networks and learning systems in distributed computing and artificial intelligence. *Neurocomputing* 423: 668-669
157. Fernando de la Prieta, Juan M. Corchado Rodríguez: Neural networks and learning systems in distributed computing and artificial intelligence. *Neurocomputing* 423: 668-669 (2021)
158. Francisco Lecumberri de Alba, Alfonso González-Briones, Pablo Chamoso, Tiago Pinto, Zita A. Vale, Juan M. Corchado (2020) A P2P Electricity Negotiation Agent Systems in Urban Smart Grids. *DCAI (Special Sessions) 2020*: 97-106
159. Francisco Pinto-Santos, Zakieh Alizadeh-Sani, David Alonso-Moro, Alfonso González-Briones, Pablo Chamoso, Juan M. Corchado: A Template-Based Approach to Code Generation Within an Agent Paradigm. *PAAMS (Workshops) 2021*: 296-307
160. Francisco Pinto-Santos, Zakieh Alizadeh-Sani, David Alonso-Moro, Alfonso González-Briones, Pablo Chamoso, Juan M. Corchado (2021) A Template-Based Approach to Code Generation Within an Agent Paradigm. *PAAMS (Workshops) 2021*: 296-307
161. Frank Dignum, Juan Manuel Corchado, Fernando de la Prieta (2021) Advances in Practical Applications of Agents, Multi-Agent Systems, and Social Good. The PAAMS Collection - 19th International Conference, PAAMS 2021, Salamanca, Spain, October 6-8, 2021, Proceedings. *Lecture Notes in Computer Science* 12946, Springer 2021, ISBN 978-3-030-85738-7
162. Frank Dignum, Juan Manuel Corchado, Fernando de la Prieta: Advances in Practical Applications of Agents, Multi-Agent Systems, and Social Good. The PAAMS Collection - 19th International Conference, PAAMS 2021, Salamanca, Spain, October 6-8, 2021, Proceedings. *Lecture Notes in Computer Science* 12946, Springer 2021, ISBN 978-3-030-85738-7
163. Fumiaki Eguchi, Kenji Matsui, Yoshihisa Nakatoh, Yumiko O. Kato, Alberto Rivas, Juan Manuel Corchado: Development of Mobile Device-Based Speech Enhancement System Using Lip-Reading. *DCAI (1) 2021*: 210-220
164. Fumiaki Eguchi, Kenji Matsui, Yoshihisa Nakatoh, Yumiko O. Kato, Alberto Rivas, Juan Manuel Corchado (2021) Development of Mobile Device-Based Speech Enhancement System Using Lip-Reading. *DCAI (1) 2021*: 210-220
165. Fyfe, Colin, and Juan Corchado. "A comparison of kernel methods for instantiating case based reasoning systems." *Advanced Engineering Informatics* 16.3 (2002): 165-178.
166. Fyfe, Colin, and Juan Corchado. "A comparison of kernel methods for instantiating case based reasoning systems." *Advanced Engineering Informatics* 16.3 (2002): 165-178.
167. Fyfe, Colin, and Juan M. Corchado. "Automating the construction of CBR Systems using Kernel Methods." *International Journal of Intelligent Systems* 16.4 (2001): 571-586.
168. Gabriel Santos, Alda Canito, Rui Carvalho, Tiago Pinto, Zita A. Vale, Goreti Marreiros, Juan M. Corchado: Semantic Services Catalog for Multiagent Systems Society. *PAAMS 2021*: 229-240
169. Gabriel Santos, Alda Canito, Rui Carvalho, Tiago Pinto, Zita A. Vale, Goreti Marreiros, Juan M. Corchado (2021) Semantic Services Catalog for Multiagent Systems Society. *PAAMS 2021*: 229-240
170. Gabriel Santos, Tiago Pinto, Zita A. Vale, Juan M. Corchado (2021) Semantic Interoperability for Multiagent Simulation and Decision Support in Power Systems. *PAAMS (Workshops) 2021*: 215-226
171. Gabriel Santos, Tiago Pinto, Zita A. Vale, Juan M. Corchado: Semantic Interoperability for Multiagent Simulation and Decision Support in Power Systems. *PAAMS (Workshops) 2021*: 215-226
172. Garcia-Retuerta, D., Chamoso, P., Hernández, G., Guzmán, A. S. R., Yigitcanlar, T., & Corchado, J. M.: An Efficient Management Platform for Developing Smart Cities: Solution for Real-Time and Future Crowd Detection. *Electronics*, 10(7), 765 (2021)
173. Garcia-Retuerta, D., Chamoso, P., Hernández, G., Guzmán, A. S. R., Yigitcanlar, T., & Corchado, J. M. (2021) An Efficient Management Platform for Developing Smart Cities: Solution for Real-Time and Future Crowd Detection. *Electronics*, 10(7), 765

174. George Katranas, Andreas Riel , Juan Manuel Corchado Rodríguez, Marta Plaza-Hernández (2020) The SMARTSEA Education Approach to Leveraging the Internet of Things in the Maritime Industry. EuroSPI 2020: 247-258
175. Giancarlo Souza De Freitas, Thiago Ângelo Gelaim, Rodrigo Rodrigues Pires De Mello, Ricardo Az (2019) Perception Policies for Intelligent Virtual Agents. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 87-95.
176. Girish Talmale, Urmila Shrawankar (2021) Cluster Based Real Time Scheduling for Distributed System. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
177. Glez-Bedia, M., et al. "Analytical model for constructing deliberative agents." *Engineering Intelligent Systems for Electrical Engineering and Communications* 10.3 (2002): 173-185.
178. Glez-Peña, Daniel, et al. "geneCBR: a translational tool for multiple-microarray analysis and integrative information retrieval for aiding diagnosis in cancer research." *BMC bioinformatics* 10.1 (2009): 1-8.
179. González Bedia, Manuel, and Juan Manuel Corchado Rodríguez. "A planning strategy based on variational calculus for deliberative agents." (2002).
180. González-Briones, Alfonso, et al. "Agreement technologies for energy optimization at home." *Sensors* 18.5 (2018): 1633.
181. González-Briones, Alfonso, et al. "Energy optimization using a case-based reasoning strategy." *Sensors* 18.3 (2018): 865.
182. González-Briones, Alfonso, et al. "GreenVMAS: virtual organization based platform for heating greenhouses using waste energy from power plants." *Sensors* 18.3 (2018): 861.
183. González-Briones, Alfonso, et al. "Multi-agent systems applications in energy optimization problems: A state-of-the-art review." *Energies* 11.8 (2018): 1928.
184. Gopal Sakarkar, Mahesh Kumar H Kolekar, Ketan Paithankar, Gaurav Patil, Prateek Dutta Ruchi Chaturvedi, Shivam Kumar (2021) Advance Approach for Detection of DNS Tunneling Attack from Network Packets Using Deep Learning Algorithms. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 241-266.
185. Guillermo Hernández, Sara Rodríguez, Angélica González, Juan Manuel Corchado Rodríguez, Javier Prieto (2020) Video Analysis System Using Deep Learning Algorithms. ISAmI 2020: 186-199
186. Gulchin Abdullayeva, Ulker Alizade (2019) An Information Recognition System for Complex Images. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 79-93.
187. Hanaa Al-Lohibi, Tahani Alkhamisi, Maha Assagran, Amal Aljohani, Asia Othaman Aljahdali (2020) Awjedni: A Reverse-Image-Search Application. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 49-68.
188. Hernández-Nieves, E., Parra-Domínguez, J., Chamoso, P., Rodríguez-González, S., & Corchado, J. M.: A Data Mining and Analysis Platform for Investment Recommendations. *Electronics*, 10(7), 859 (2021).
189. Hernández-Nieves, E., Parra-Domínguez, J., Chamoso, P., Rodríguez-González, S., & Corchado, J. M. (2021) A Data Mining and Analysis Platform for Investment Recommendations. *Electronics*, 10(7), 859 .
190. Iqtidar Ali, Tariq Hussain, Kamran Khan, Arshad Iqbal, Fatima Perviz (2020) The Impact of IEEE 802.11 Contention Window on The Performance of Transmission Control Protocol in Mobile Ad-Hoc Network. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 29-48.
191. Israel Campero-Jurado, Sergio Márquez Sánchez, Juan Quintanar Gomez, Sara Rodríguez, Juan M. Corchado (2020) Smart Helmet 5.0 for Industrial Internet of Things Using Artificial Intelligence. *Sensors* 20(21): 6241
192. Javier Parra Domínguez, Pedro Roseiro (2020) Blockchain: a brief review of Agri-Food Supply Chain Solutions and Opportunities. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 95-106.
193. Javier Prieto, Ashok Kumar Das, Stefano Ferretti, António Pinto, Juan Manuel Corchado (2020) Blockchain and Applications - International Congress, BLOCKCHAIN 2019, Avila, Spain, 26-28 June, 2019. *Advances in Intelligent Systems and Computing* 1010, Springer 2020, ISBN 978-3-030-23812-4

194. Jonas Queiroz, Paulo Leitão, Joseane Pontes, André Chaves, Javier Parra, María Eugenia Perez-Pons (2020) A Quality Innovation Strategy for an Inter-regional Digital Innovation Hub. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 31-45.
195. Jose A. Maderuelo-Fernandez, Angel Garcia-Garcia, Pablo Chamoso, José I. Recio-Rodríguez, Sara Rodríguez-González, Maria C. Patino-Alonso, Emiliano Rodriguez-Sanchez, Juan M. Corchado Rodríguez, Manuel A. Gómez-Marcos, Luis García-Ortiz (2020) Automatic image analyser to assess retinal vessel calibre (ALTAIR). A new tool to evaluate the thickness, area and length of the vessels of the retina. Int. J. Medical Informatics 136: 104090
196. José A. Maestro, Sara Rodríguez, R. Casado, Javier Prieto, Juan M. Corchado (2020) Comparison of Efficient Planning and Optimization Methods of Last Mile Delivery Resources. BROADNETS 2020: 163-173
197. Jose Alberto Maestro-Prieto, Sara Rodríguez, Roberto Casado, Juan Manuel Corchado (2020) Agent organisations: from independent agents to virtual organisations and societies of agents. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 55-70.
198. Juan M. Corchado, Francisco Pinto-Santos, Otman Aghmou, Saber Trabelsi: Intelligent Development of Smart Cities: Deepint.net Case Studies. SSCT 2021: 211-225
199. Juan M. Corchado, Francisco Pinto-Santos, Otman Aghmou, Saber Trabelsi (2021) Intelligent Development of Smart Cities: Deepint.net Case Studies. SSCT 2021: 211-225
200. Juan M. Corchado, Pablo Chamoso, Guillermo Hernández, Agustín San Roman Gutierrez, Alberto Rivas Camacho, Alfonso González-Briones, Francisco Pinto-Santos, Enrique Goyenechea, David García-Retuerta, María Alonso-Miguel, Beatriz Bellido Hernandez, Diego Valdeolmillos Villaverde, Manuel Sanchez-Verdejo, Pablo Plaza-Martínez, Manuel López-Pérez, Sergio Manzano-García, Ricardo S. Alonso, Roberto Casado-Vara, Javier Prieto Tejedor, Fernando de la Prieta, Sara Rodríguez-González, Javier Parra-Domínguez, Mohd Saberi Mohamad, Saber Trabelsi, Enrique Díaz-Plaza Sanz, José Alberto García Coria, Tan Yigitcanlar, Paulo Novais, Sigeru Omatu: Deepint.net: A Rapid Deployment Platform for Smart Territories. Sensors 21(1): 236 (2021)
201. Juan M. Corchado, Pablo Chamoso, Guillermo Hernández, Agustín San Roman Gutierrez, Alberto Rivas Camacho, Alfonso González-Briones, Francisco Pinto-Santos, Enrique Goyenechea, David García-Retuerta, María Alonso-Miguel, Beatriz Bellido Hernandez, Diego Valdeolmillos Villaverde, Manuel Sanchez-Verdejo, Pablo Plaza-Martínez, Manuel López-Pérez, Sergio Manzano-García, Ricardo S. Alonso, Roberto Casado-Vara, Javier Prieto Tejedor, Fernando de la Prieta, Sara Rodríguez-González, Javier Parra-Domínguez, Mohd Saberi Mohamad, Saber Trabelsi, Enrique Díaz-Plaza Sanz, José Alberto García Coria, Tan Yigitcanlar, Paulo Novais, Sigeru Omatu: Deepint.net: A Rapid Deployment Platform for Smart Territories. Sensors 21(1): 236
202. Juan Manuel Corchado (2020) AIoT for Smart territories. IoTSMS 2020: 1
203. Koetsier, Jos, et al. "Kernel maximum likelihood hebbian learning." *International Conference on Computational Science*. Springer, Berlin, Heidelberg, 2004.
204. Kohei Fukuyama, Kenji Matsui, Sigeru Omatsu, Alberto Rivas, Juan Manuel Corchado (2019) Feature Extraction and Classification of Odor Using Attention Based Neural Network. DCAI 2019: 142-149
205. Koji Hitomi, Kenji Matsui, Alberto Rivas, Juan Manuel Corchado (2019) Development of a Dangerous Driving Suppression System Using Inverse Reinforcement Learning and Blockchain. DCAI 2019: 3-9
206. Lanzarini, Laura. "Redes neuronales artificiales. Un enfoque práctico." *Journal of Computer Science & Technology* 4.2 (2004): 122-124.
207. Laura Pacheco, Naiara Sánchez, Antoni Tur, David Tellez De Meneses (2019) Algorithm Analysis in Multi-agent Systems. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 13-18.
208. Laza, Rosalía, Reyes Pavón, and Juan M. Corchado. "A reasoning model for CBR_BDI agents using an adaptable fuzzy inference system." *Conference on Technology Transfer*. Springer, Berlin, Heidelberg, 2003.
209. Lees, Brian, and Juan Corchado. "Integrated case-based neural network approach to problem solving." *German Conference on Knowledge-Based Systems*. Springer, Berlin, Heidelberg, 1999.

210. Li, Tiancheng, et al. "A particle dyeing approach for track continuity for the SMC-PHD filter." *17th International Conference on Information Fusion (FUSION)*. IEEE, 2014.
211. Li, Tiancheng, et al. "Algorithm design for parallel implementation of the SMC-PHD filter." *Signal Processing* 119 (2016): 115-127.
212. Li, Tiancheng, et al. "Fight sample degeneracy and impoverishment in particle filters: A review of intelligent approaches." *Expert Systems with applications* 41.8 (2014): 3944-3954.
213. Li, Tiancheng, et al. "Random finite set-based Bayesian filters using magnitude-adaptive target birth intensity." *17th International Conference on Information Fusion (FUSION)*. IEEE, 2014.
214. Li, Tiancheng, Juan M. Corchado, and Shudong Sun. "Partial consensus and conservative fusion of Gaussian mixtures for distributed PHD fusion." *IEEE Transactions on Aerospace and Electronic Systems* 55.5 (2018): 2150-2163.
215. Lima, Ana Carolina ES, Leandro Nunes de Castro, and Juan M. Corchado. "A polarity analysis framework for Twitter messages." *Applied Mathematics and Computation* 270 (2015): 756-767.
216. López-Sánchez, D., de Bodt, C., Lee, J. A., Arrieta, A. G., & Corchado, J. M. (2021). Tuning Database-Friendly Random Projection Matrices for Improved Distance Preservation on Specific Data. *Applied Intelligence*, 1-13.
217. López-Sánchez, D., de Bodt, C., Lee, J. A., Arrieta, A. G., & Corchado, J. M. (2021) Tuning Database-Friendly Random Projection Matrices for Improved Distance Preservation on Specific Data. *Applied Intelligence*, 1-13.
218. Lorna Uden, I-Hsien Ting, Juan Manuel Corchado (2019) Knowledge Management in Organizations - 14th International Conference, KMO 2019, Zamora, Spain, July 15-18, 2019, Proceedings. Communications in Computer and Information Science 1027, Springer 2019, ISBN 978-3-030-21450-0
219. Louaked, M., Seloula, N., & Trabelsi, S. (2017). Approximation of the unsteady Brinkman-Forchheimer equations by the pressure stabilization method. *Numerical Methods for Partial Differential Equations*, 33(6), 1949-1965.
220. Louaked, M., Seloula, N., Sun, S., & Trabelsi, S. (2015). A pseudocompressibility method for the incompressible Brinkman-Forchheimer equations. *Differential and Integral Equations*, 28(3/4), 361-382.
221. Luis Gomes, Zita A. Vale, Juan Manuel Corchado Rodríguez (2020) Multi-Agent Microgrid Management System for Single-Board Computers: A Case Study on Peer-to-Peer Energy Trading. *IEEE Access* 8: 64169-64183
222. M. Naveenkumar, S. Domnic (2019) Learning Representations from Spatio-Temporal Distance Maps for 3D Action Recognition with Convolutional Neural Networks. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 5-18.
223. Maestro-Prieto, J. A., Rodríguez, S., Casado, R., & Corchado, J. M. (2020) Agent organisations: from independent agents to virtual organisations and societies of agents. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal*, 9(4), 55-70
224. Mahdi Jemmali (2021) Projects Distribution Algorithms for Regional Development. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 293-305.
225. Mahesh S Patil, Satyadhyan Chickerur, Anand Meti, Priyanka M Nabapure, Sunaina Mahindrakar, Sonali Na (2019) LSTM Based Lip Reading Approach for Devanagiri Script. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 13-26.
226. Malika Amari, Faouzi Didi, Benyoucef Khalili, Foudil Benzerfa, Mohammed Salim Hadjidj (2021) Comparative analysis of the management of the results of the modeling and the simulation of the evaluation of the thermal energy of the greenhouse by a fuzzy logic controller between a wet region and an arid region. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 77-97.
227. Manuel Pérez-Moríñigo, Víctor Merchán-Montero, José Luis Martín-Pérez (2019) Learning process: Multi-Agent Tutoring System. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 5-12.
228. Marcos de Oliveira, Robson Teixeira, Roberta Sousa, Enyo Gonçalves (2021) An Agent-Based Simulation to Explore Communication in a System to Control Urban Traffic with Smart Traffic Lights. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 209-225.

229. María E. Pérez-Pons, Ricardo S. Alonso, Óscar García, Goreti Marreiros, Juan Manuel Corchado: Deep Q-Learning and Preference Based Multi-Agent System for Sustainable Agricultural Market. *Sensors* 21(16): 5276 (2021)
230. María E. Pérez-Pons, Ricardo S. Alonso, Óscar García, Goreti Marreiros, Juan Manuel Corchado (2021) Deep Q-Learning and Preference Based Multi-Agent System for Sustainable Agricultural Market. *Sensors* 21(16): 5276
231. Marta Fernandes, Alda Canito, Daniel Mota, Juan M. Corchado, Goreti Marreiros: Service-Oriented Architecture for Data-Driven Fault Detection. *DCAI* (1) 2021: 179-189
232. Marta Fernandes, Alda Canito, Daniel Mota, Juan M. Corchado, Goreti Marreiros (2021) Service-Oriented Architecture for Data-Driven Fault Detection. *DCAI* (1) 2021: 179-189
233. Marta Fernandes, Alda Canito, Juan Manuel Corchado, Goreti Marreiros (2019) Fault Detection Mechanism of a Predictive Maintenance System Based on Autoregressive Integrated Moving Average Models. *DCAI* 2019: 171-180
234. Marta Plaza-Hernández, Ana Belén Gil González, Sara Rodríguez-González, Javier Prieto Tejedor, Juan Manuel Corchado Rodríguez (2020) Integration of IoT Technologies in the Maritime Industry. *DCAI (Special Sessions)* 2020: 107-115
235. Marta Plaza-Hernández, Juan Manuel Corchado Rodríguez (2021) Smart-Heritage: An Intelligent Platform for the Monitoring of Cultural Heritage in Smart Cities. *SSCT* 2021: 324-327
236. Marta Plaza-Hernández, Juan Manuel Corchado Rodríguez: Smart-Heritage: An Intelligent Platform for the Monitoring of Cultural Heritage in Smart Cities. *SSCT* 2021: 324-327
237. Mata, Aitor, and Juan Manuel Corchado. "Forecasting the probability of finding oil slicks using a CBR system." *Expert Systems with Applications* 36.4 (2009): 8239-8246.
238. Mauser, N. J., & Trabelsi, S. (2010). L2 analysis of the multi-configuration time-dependent hartree–fock equations. *Mathematical Models and Methods in Applied Sciences*, 20(11), 2053-2073.
239. Méndez, José Ramon, et al. "A comparative performance study of feature selection methods for the anti-spam filtering domain." *Industrial Conference on Data Mining*. Springer, Berlin, Heidelberg, 2006.
240. Méndez, José Ramon, et al. "Tokenising, stemming and stopword removal on anti-spam filtering domain." *Conference of the Spanish Association for Artificial Intelligence*. Springer, Berlin, Heidelberg, 2005.
241. Méndez, José Ramon, et al. "Tracking concept drift at feature selection stage in spamhunting: An anti-spam instance-based reasoning system." *European conference on case-based reasoning*. Springer, Berlin, Heidelberg, 2006.
242. Morente-Molinera, Juan Antonio, et al. "Solving multi-criteria group decision making problems under environments with a high number of alternatives using fuzzy ontologies and multi-granular linguistic modelling methods." *Knowledge-Based Systems* 137 (2017): 54-64.
243. Muadh Abdo Mohammed Ahmed AL sabri (2021) Hybrid Measuring the Similarity Value Based on Genetic Algorithm for Improving Prediction in A Collaborative Filtering Recommendation System. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
244. Muhammad Muzammul (2019) Education System re-engineering with AI (artificial intelligence) for Quality Im-provements with proposed model. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 51-60.
245. Muhammad Umer, Muhammad Awais, Muhammad Muzammul (2019) Stock Market Prediction Using Machine Learning (ML) Algorithms. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 97-116.
246. Muhammet Sinan Basarslan, Fatih Kayaalp (2020) Sentiment Analysis with Machine Learning Methods on Social Media. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 5-15.
247. Nahla Aljojo (2020) Digital Information Needs for Understanding Cell Divisions in the Human Body. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 5-22.
248. Nahla Aljojo (2020) Kids' Atlas application to Learn about Geography and Maps. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 33-48.

249. Naveed Hussain, Hamid Turab Mirza, Ibrar Hussain (2019) Detecting Spam Review through Spammer's Behavior Analysis. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 61-71.
250. Neha Kailash Nawandar, Vishal Satpute (2019) IoT based intelligent irrigation support system for smart farming applications. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 75-85.
251. Nibeth Mena Mamani (2020) Machine Learning techniques and Polygenic Risk Score application to prediction genetic diseases. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 5-14.
252. Niloufar Shoeibi, Alberto Martín Mateos, Alberto Rivas Camacho, Juan M. Corchado (2020) A Feature Based Approach on Behavior Analysis of the Users on Twitter: A Case Study of AusOpen Tennis Championship. DCAI 2020: 284-294
253. Niloufar Shoeibi, Farrokh Karimi, Juan Manuel Corchado (2019) Artificial Intelligence as a Way of Overcoming Visual Disorders: Damages Related to Visual Cortex, Optic Nerves and Eyes. DCAI (Special Sessions) 2019: 183-187
254. Noor Fatima (2020) Enhancing Performance of a Deep Neural Network by Comparing Optimizers Experimentally. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 79-90.
255. Nuria Mateos García (2019) Multi-agent system for anomaly detection in Industry 4.0 using Machine Learning techniques. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 33-40.
256. Oelz, D., & Trabelsi, S. (2014). Analysis of a relaxation scheme for a nonlinear Schrödinger equation occurring in plasma physics. *Mathematical Modelling and Analysis*, 19(2), 257-274.
257. Pablo Chamoso, Alfonso González-Briones, Fernando de la Prieta, Kumar G. Venyagamoorthy, Juan M. Corchado: Smart city as a distributed platform: Toward a system for citizen-oriented management. *Comput. Commun.* 152: 323-332
258. Pavón, Juan, and J. Corchado. "Agents for the web." *International journal of Web engineering and technology* 1.4 (2004): 393-396.
259. Pavón, Juan, et al. "Mobile tourist guide services with software agents." *International Workshop on Mobile Agents for Telecommunication Applications*. Springer, Berlin, Heidelberg, 2004.
260. Pedro Sánchez, Denis Pato, Gabriel Martín (2019) CTRANSPORT: Multi-agent-based simulation. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 1, 19-26.
261. Pervez Ahmad (2021) A Review on Blockchain's Applications and Implementations. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
262. Rafi Ullah, Ayaz H. Khan, S.M. Emaduddin (2019) ck-NN: A Clustered k-Nearest Neighbours Approach for Large-Scale Classification. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 8, n. 3, 67-77.
263. Raneem Nono, Rawan Alsudais, Raghad Alshmrani, Sumayyah Alamoudi, Asia Othaman Aljahdali (2020) Intelligent Traffic Light for Ambulance Clearance. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 89-104.
264. Ricardo Faia, João P. Soares, Tiago Pinto, Fernando Lezama, Zita A. Vale, Juan M. Corchado: Optimal Model for Local Energy Community Scheduling Considering Peer to Peer Electricity Transactions. *IEEE Access* 9: 12420-12430 (2021)
265. Ricardo Faia, João P. Soares, Tiago Pinto, Fernando Lezama, Zita A. Vale, Juan M. Corchado (2021) Optimal Model for Local Energy Community Scheduling Considering Peer to Peer Electricity Transactions. *IEEE Access* 9: 12420-12430
266. Ricardo S. Alonso, Inés Sittón-Candanedo, Roberto Casado-Vara, Javier Prieto, Juan M. Corchado (2020) Deep Reinforcement Learning for the management of Software-Defined Networks in Smart Farming. *COINS* 2020: 1-6
267. Rishi Kumar Srivastav, Devendra Agrawal, Anurag Shrivastava (2020) A Survey on Vulnerabilities and Performance Evaluation Criteria in Blockchain Technology. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 2, 91-105.

268. Rivas, A., González-Briones, A., Cea-Morán, J. J., Prat-Pérez, A., & Corchado, J. M. (2021). My-Trac: System for Recommendation of Points of Interest on the Basis of Twitter Profiles. *Electronics*, 10(11), 1263.
269. Rivas, A., González-Briones, A., Cea-Morán, J. J., Prat-Pérez, A., & Corchado, J. M. . My-Trac: System for Recommendation of Points of Interest on the Basis of Twitter Profiles. *Electronics*, 10(11), 1263.
270. Rivas, Alberto, et al. "Detection of cattle using drones and convolutional neural networks." *Sensors* 18.7 (2018): 2048.
271. Roberto Casado-Vara, Ángel Martín del Rey, Soffiene Affes, Javier Prieto, Juan M. Corchado (2020) IoT network slicing on virtual layers of homogeneous data for improved algorithm operation in smart buildings. *Future Gener. Comput. Syst.* 102: 965-977
272. Roberto Casado-Vara, David García-Retuerta, Álvaro Bartolomé, Esteban Jove, José Luis Calvo-Rolle, Ángel Martín del Rey, Juan M. Corchado (2020) Demand Control Ventilation Strategy by Tracing the Radon Concentration in Smart Buildings. *SOCO 2020*: 374-382
273. Roberto Casado-Vara, Fernando de la Prieta, Javier Prieto, Juan M. Corchado (2019) Improving Temperature Control in Smart Buildings Based in IoT Network Slicing Technique. *GLOBECOM 2019*: 1-6
274. Rodríguez Oconitrillo, L. R., Vargas, J. J., Camacho, A., Burgos, Á., & Corchado, J. M. (2021). RYEL: An Experimental Study in the Behavioral Response of Judges Using a Novel Technique for Acquiring Higher-Order Thinking Based on Explainable Artificial Intelligence and Case-Based Reasoning. *Electronics*, 10(12), 1500.
275. Rodríguez, Juan Manuel Corchado, Jim Aiken, and Nigel Rees. *Artificial Intelligence Models for Oceanographic Forecasting*. Plymouth Marine Laboratory.
276. Rodríguez, S., et al. "People detection and stereoscopic analysis using MAS." *2010 IEEE 14th International Conference on Intelligent Engineering Systems*. IEEE, 2010.
277. Rodríguez, Sara, et al. "Agents and computer vision for processing stereoscopic images." *International Conference on Hybrid Artificial Intelligence Systems*. Springer, Berlin, Heidelberg, 2010.
278. Ruba Khan, Shadab Siddiqui, Abhishek Rastogi (2021) Crime Detection Using Sentiment Analysis. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 281-291.
279. Satya Bhushan Verma, Abhay Kumar Yadav (2019) Detection of Hard Exudates in Retinopathy Images. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 41-48.
280. Satya Bhushan Verma, Shashi Bhushan Verma (2020) Secure Data Transmission in BPEL (Business Process Execution Language). *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 105-117.
281. Sergio Márquez Sánchez (2020) Doll and robot use as innovative components in therapy. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 1, 99-112.
282. Sergio Márquez Sánchez (2020) Integral Support Predictive Platform for Industry 4.0. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 4, 71-82.
283. Sergio Márquez Sánchez, Francisco Lecumberri, Vishwani Sati, Ashish Arora, Niloufar Shoeibi, Sara Rodríguez, Juan M. Corchado Rodríguez (2020) Edge Computing Driven Smart Personal Protective System Deployed on NVIDIA Jetson and Integrated with ROS. *PAAMS (Workshops) 2020*: 385-393
284. Sergio Márquez Sánchez, Israel Campero-Jurado, Daniel Robles-Camarillo, Sara Rodríguez, Juan M. Corchado Rodríguez: BeSafe B2.0 Smart Multisensory Platform for Safety in Workplaces. *Sensors* 21(10): 3372 (2021)
285. Sergio Márquez Sánchez, Israel Campero-Jurado, Daniel Robles-Camarillo, Sara Rodríguez, Juan M. Corchado Rodríguez (2021) BeSafe B2.0 Smart Multisensory Platform for Safety in Workplaces. *Sensors* 21(10): 3372
286. Sergio Márquez Sánchez, Israel Campero-Jurado, Jorge Herrera-Santos, Sara Rodríguez, Juan M. Corchado: Intelligent Platform Based on Smart PPE for Safety in Workplaces. *Sensors* 21(14): 4652 (2021)

287. Sergio Márquez Sánchez, Israel Campero-Jurado, Jorge Herrera-Santos, Sara Rodríguez, Juan M. Corchado: Intelligent Platform Based on Smart PPE for Safety in Workplaces. *Sensors* 21(14): 4652
288. Sergio Márquez Sánchez, Roberto Casado-Vara, Francisco Javier García Criado, Sara Rodríguez-González, Javier Prieto Tejedor, Juan Manuel Corchado (2019) Smart PPE and CPE Platform for Electric Industry Workforce. *SOCO* 2019: 422-431
289. Sergio Miguel Tomé (2019) Towards a model-theoretic framework for describing the semantic aspects of cognitive processes. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 4, 83-96.
290. SHADAB Siddiqui, MANUJ Darbari, Diwakar Yagyasen (2020) Modelling and Simulation of Queuing Models through the concept of Petri Nets. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 17-28.
291. Shefali Dhingra, Poonam Bansal (2019) An Intelligent Multi-Resolutional and Rotational Invariant Texture Descriptor for Image Retrieval Systems. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 8, n. 2, 33-49.
292. Sittón-Candanedo, Inés, et al. "A review of edge computing reference architectures and a new global edge proposal." *Future Generation Computer Systems* 99 (2019): 278-294.
293. Takeda, Fumiaki, and Sigeru Omatu. "High speed paper currency recognition by neural networks." *IEEE Transactions on Neural Networks* 6.1 (1995): 73-77.
294. Tan Yigitcanlar, Luke Butler, Emily Windle, Kevin C. Desouza, Rashid Mehmood, Juan M. Corchado (2020) Can Building "Artificially Intelligent Cities" Safeguard Humanity from Natural Disasters, Pandemics, and Other Catastrophes? An Urban Scholar's Perspective. *Sensors* 20(10): 2988
295. Tapia, Dante I., and Juan M. Corchado. "An ambient intelligence based multi-agent system for alzheimer health care." *International Journal of Ambient Computing and Intelligence (IJACI)* 1.1 (2009): 15-26.
296. Tapia, Dante I., et al. "Agents and ambient intelligence: case studies." *Journal of Ambient Intelligence and Humanized Computing* 1.2 (2010): 85-93.
297. Tapia, Dante I., et al. "Integrating hardware agents into an enhanced multi-agent architecture for Ambient Intelligence systems." *Information Sciences* 222 (2013): 47-65.
298. Tiago Pinto, Ricardo Faia, María Navarro-Cáceres, Gabriel Santos, Juan Manuel Corchado, Zita A. Vale (2019) Multi-Agent-Based CBR Recommender System for Intelligent Energy Management in Buildings. *IEEE Syst. J.* 13(1): 1084-1095
299. Tiancheng Li, Hongqi Fan, Jesús García Herrero, Juan M. Corchado (2019) Second Order Statistics Analysis and Comparison between Arithmetic and Geometric Average Fusion. *CoRR* abs/1901.08015
300. Titi, E. S., & Trabelsi, S. (2018). Global well-posedness of a 3D MHD model in porous media. *arXiv preprint arXiv:1805.10661*.
301. Tomonori Nakahara, Kohei Fukuyama, Mitsuru Hamada, Kenji Matsui, Yoshihisa Nakatoh, Yumiko O. Kato, Alberto Rivas, Juan Manuel Corchado: Mobile Device-Based Speech Enhancement System Using Lip-Reading. *DCAI* 2020: 159-167
302. Trabelsi, S. (2007). Solutions of the multi-configuration time-dependent equations in quantum chemistry. *CR Math. Acad. Sci. Paris*, 345(3), 145-150.
303. Vicente-Gabriel, J., Gil-González, A. B., Luis-Reboredo, A., Chamoso, P., & Corchado, J. M.: LSTM Networks for Overcoming the Challenges Associated with Photovoltaic Module Maintenance in Smart Cities. *Electronics*, 10(1), 78 (2021)
304. Vicente-Gabriel, J., Gil-González, A. B., Luis-Reboredo, A., Chamoso, P., & Corchado, J. M. (2021) LSTM Networks for Overcoming the Challenges Associated with Photovoltaic Module Maintenance in Smart Cities. *Electronics*, 10(1), 78
305. Vinay priy Mishra (2021) Texture Analysis using wavelet Transform. *ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal* (ISSN: 2255-2863), Salamanca, v. 10, n. 1, 5-13.
306. Vishwani Sati, Sergio Márquez Sánchez, Niloufar Shoeibi, Ashish Arora, Juan M. Corchado (2020) Face Detection and Recognition, Face Emotion Recognition Through NVIDIA Jetson Nano. *ISAmI* 2020: 177-185
307. Wang, Xuedong, et al. "A survey of recent advances in particle filters and remaining challenges for multitarget tracking." *Sensors* 17.12 (2017): 2707.

308. Wirawan Istiono (2021) Analysis Performance Of Conventional Algorithm And HMS Algorithm For Four-Way Intersection With Modified Round Robin. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
309. Yagnik A Rathod (2020) An access control and authorization model with Open stack cloud for Smart Grid. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 9, n. 3, 69-87.
310. Yaser AbdulAali Jasim (2021) High-Performance Deep learning to Detection and Tracking Tomato Plant Leaf Predict Disease and Expert Systems. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
311. Yeray Mezquita Martín , Javier Parra , Eugenia Pérez , Javier Prieto , Juan Manuel Corchado (2020) Blockchain-Based Systems in Land Registry, A Survey of Their Use and Economic Implications. CISIS 2020: 13-22
312. Yeray Mezquita Martín, Alfonso González-Briones, Roberto Casado-Vara, Pablo Chamoso, Javier Prieto, Juan Manuel Corchado (2019) Blockchain-Based Architecture: A MAS Proposal for Efficient Agri-Food Supply Chains. ISAmI 2019: 89-96
313. Yeray Mezquita Martín, Amin Shokri Gazafrudi, Juan M. Corchado, Miadreza Shafie-Khah, Hannu Laaksonen, Aida Kamisalic (2019) Multi-Agent Architecture for Peer-to-Peer Electricity Trading based on Blockchain Technology. ICAT 2019 (2019) 1-6
314. Yeray Mezquita Martín, Diego Valdeolmillos, Alfonso González-Briones, Javier Prieto, Juan Manuel Corchado (2019) Legal Aspects and Emerging Risks in the Use of Smart Contracts Based on Blockchain. KMO 2019: 525-535
315. Yeray Mezquita Martín, Ricardo S. Alonso, Roberto Casado-Vara , Javier Prieto , Juan Manuel Corchado (2020) A Review of k-NN Algorithm Based on Classical and Quantum Machine Learning. DCAI (Special Sessions) 2020: 189-198
316. Yeray Mezquita, Ana Belén Gil González, Javier Prieto, Juan Manuel Corchado: Cryptocurrencies and Price Prediction: A Survey. BLOCKCHAIN 2021: 339-346
317. Yigitcanlar, T., Corchado, J. M., Mehmood, R., Li, R. Y. M., Mossberger, K., & Desouza, K.: Responsible urban innovation with local government artificial intelligence (AI): A conceptual framework and research agenda. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), 71
318. Yves Demazeau, Eric Matson, Juan Manuel Corchado, Fernando de la Prieta (2019) Advances in Practical Applications of Survivable Agents and Multi-Agent Systems: The PAAMS Collection - 17th International Conference, PAAMS 2019, Ávila, Spain, June 26-28, 2019, Proceedings. Lecture Notes in Computer Science 11523, Springer 2019, ISBN 978-3-030-24208-4
319. Yves Demazeau, Tom Holvoet, Juan M. Corchado, Stefania Costantini (2020) Advances in Practical Applications of Agents, Multi-Agent Systems, and Trustworthiness. The PAAMS Collection - 18th International Conference, PAAMS 2020, L'Aquila, Italy, October 7-9, 2020, Proceedings. Lecture Notes in Computer Science 12092, Springer 2020, ISBN 978-3-030-49777-4
320. Zakieh Alizadeh-Sani, Pablo Plaza-Martínez, Guillermo Hernández González, Alfonso González-Briones, Pablo Chamoso, Juan M. Corchado (2021) A Hybrid Supervised/Unsupervised Machine Learning Approach to Classify Web Services. PAAMS (Workshops) 2021: 93-103
321. Zehra Karapinar Senturk, Melahat Sevgul Bakay (2021) Machine Learning Based Hand Gesture Recognition via EMG Data. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 2.
322. Zulfiqar Ali, Israr ur Rehman, Zahoor Jaan (2021) An Empirical Analysis on Software Development Efforts Estimation in Machine Learning Perspective. ADCAIJ: Advances in Distributed Computing and Artificial Intelligence Journal (ISSN: 2255-2863), Salamanca, v. 10, n. 3, 227-240.