MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

CV date	05/05/2022

Part A. PERSONAL INFORMATION

First name	Amalia		
Family name	Luque Sendra		
Gender (*)		Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail		URL Web	
Open Researcher and Contributor ID (ORCID) (*)			

(*) Mandatory

A.1. Current position

Position	Senior Lecturer (Profesora Titular de Universidad)		
Initial date	28/05/2021		
Institution	University of Seville		
Department/Center	Design Engineering	Higher Polytechnic School	
Country	Spain	Teleph. number	
Key words	Industry 4.0., Industrial sustainability, agri-food industry, machine learning, extraction of characteristics and intelligence artificial.		

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
28/05/2021-today	Senior Lecturer/University of Seville/Spain
29/09/2020-27/05/2021	Lecturer/University of Seville/Spain
01/04/2020-28/09/2020	Interim lecturer/University of Seville/Spain
23/03/2015-31/03/2020	Doctor Assistant Professor/University of Seville/Spain
01-10-2014-22/03/2015	Higher degree/University of Seville/Spain
01/12/2009-05/07/2014	Researcher in training/University of Seville/Spain
01/10/2009-30/11/2009	Higher degree/University of Seville/Spain
17/11/2008-30/09/2009	Interim associate/University of Seville/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Master's Degree in Compulsory Secondary Education and Baccalaureate Teaching, Professional Training and Language Teaching	University of Seville/Spain	2016
Doctor from the University of Seville (with international mention)	University of Seville/Spain	2014
Master's Degree in Automation, Robotics and Telematics	University of Seville/Spain	2010
Higher degree. Industrial engineering	University of Seville/Spain	2007

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Amalia Luque Sendra, Doctor in Industrial Engineering, Master in Robotics Automation and Telematics, Master in Secondary Education Teaching from the University of Seville and industrial engineer.

Member of the University of Seville since 2008, where she has held various positions in the Systems Engineering and Automation and Design Engineering departments. Member of the Department of Design Engineering, Engineering Projects Area and member of the Research group TEP022: Industrial Design and Project Engineering and Innovation since 2015.

She is the author of more than 120 contributions, 23 of which are journals indexed in JCR (18 Q1-Q2 and 5 Q3-Q4), a book in a prestigious publisher and numerous book chapters, with total citations 886 (775 since 2016), average citations / year in the last 5 years of 155 and a h-index of 12 (11 since 2016).

She has continued participation in research projects since 2008, having participated in more than 12 projects, in private, regional, national and European calls, two of them as principal investigator.

She is the inventor of one patent, and has been supervisor of three Ph.D. thesis. She is actively involved in scientific committees of congresses, international industrial committees (Meters & More); she is also reviewer in several journals indexed in JCR.

She has a research experience in various disciplines, due to her education in industrial engineering, which allows her to interact with different fields of knowledge: Automatics, Mathematics, Electronics, Project Engineering and Design Engineering.

Her main research areas are Industry 4.0., Industrial sustainability, agri-food industry, machine learning, extraction of characteristics and artificial intelligence. She has worked on several lines of research with researchers from other universities both Spanish (Málaga, Castellón, Huelva, Extremadura…) and international (Torino, Bergamo, Tetuán,…).

She participates in the doctoral program Installations and Systems for Industry; currently she is supervising four doctoral theses. She participates in official postgraduate studies in University Masters, and she is coordinator of the Master's Degree in Design and Engineering of Industrial Products and Installations in PLM and BIM Environments.

She has made a stay at the “Politecnico de Torino” (Italy) and she is preparing her next stay at University of Bergamo. She has participated in a transfer project of knowledge and technology, and she is currently in close relationship with GOYA Spain (a company in the agri-food sector) to formalize a research and transfer project, as well as to create a university-business chair.

Her research experience is proven with a six-year research period (2013-2018).

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. **Publications** *(see instructions)*

For reasons of space, not all of the journal publications appear, only the most recent ones related to the subject of the project.

Luque, Amalia; Heras, Ana De Las; Ávila-Gutiérrez, María Jesús; Zamora-Polo, Francisco. ADAPTS: An intelligent sustainable conceptual framework for engineering projects. SENSORS. 20 - 6, 2020. ISSN 1424-8220. DOI: https://doi.org/10.3390/s20061553

de las Heras, Ana; Relinque-Medina, Fernando; Zamora-Polo, Francisco; Luque-Sendra, Amalia. Analysis of the evolution of the sharing economy towards sustainability. Trends and transformations of the concept. JOURNAL OF CLEANER PRODUCTION. 2020. ISSN 0959-6526. DOI: https://doi.org/10.1016/j.jclepro.2020.125227

Cruz-Rodríguez, Javier; Luque-Sendra, Amalia; de las Heras, Ana; Zamora-Polo, Francisco. Analysis of interurban mobility in university students: motivation and ecological impact. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH. 17 - 24, pp. 1 - 26. 2020. ISSN 1661-7827. DOI: https://doi.org/10.3390/ijerph17249348

de las Heras, Ana; Luque-Sendra, Amalia; Zamora-Polo, Francisco. Machine learning technologies for sustainability in smart cities in the post-COVID era. SUSTAINABILITY. 12 - 22, pp. 1 - 25. 2020. ISSN 2071-1050 DOI: https://doi.org/10.3390/su12229320

Martín-Gómez, Alejandro; Aguayo-González, Francisco; Luque, Amalia. A holonic framework for managing the sustainable supply chain in emerging economies with smart connected metabolism. RESOURCES CONSERVATION AND RECYCLING. 141, pp. 219 - 232. 2019. ISSN 0921-3449. DOI: https://doi.org/10.1016/j.resconrec.2018.10.035

Cabot, María Inés; Luque, Amalia; De Las Heras, Ana; Aguayo, Francisco. Aspects of sustainability and design engineering for the production of interconnected smart food packaging. PLOS ONE. 14 - 5, 2019. ISSN 1932-6203. DOI: https://doi.org/10.1371/journal.pone.0216555

Luque, Amalia; Carrasco, Alejandro; Martín, Alejandro; Lama Ruiz, Juan R. Exploring symmetry of binary classification performance metrics. SYMMETRY-BASEL. 11 - 1, 2019. ISSN 2073-8994. DOI: https://doi.org/10.3390/sym11010047

Luque, Amalia; Carrasco, Alejandro; Martín, Alejandro; de las Heras, Ana. The impact of class imbalance in classification performance metrics based on the binary confusion matrix. PATTERN RECOGNITION. 91, pp. 216 - 231. 2019. ISSN 0031-3203. DOI: https://doi.org/10.1016/j.patcog.2019.02.023

Luque, Amalia; Romero-Lemos, Javier; Carrasco, Alejandro; Barbancho, Julio. Improving Classification Algorithms by Considering Score Series in Wireless Acoustic Sensor Networks. SENSORS. 18 - 8, pp. 1 - 26. 2018. ISSN 1424-8220. DOI: https://doi.org/10.3390/s18082465

Vázquez-Vázquez, Teodoro; Luque-Sendra, Amalia; Gonzalez-Abril, Luis. Tourism industry project connected 4.0. at cruising speed. DYNA. 93 - 5, pp. 470 - 470. 2018. ISSN 0012-7361 DOI: https://doi.org/10.6036/8884

Luque, Amalia; Romero-Lemos, Javier; Carrasco, Alejandro; Barbancho, Julio. Non-sequential automatic classification of anuran sounds for the estimation of climate-change indicators. EXPERT SYSTEMS WITH APPLICATIONS. 95, pp. 248 - 260. 2018. ISSN 0957-4174. DOI: https://doi.org/10.1016/j.eswa.2017.11.016

Luque, Amalia; Gómez-Bellido, Jesús; Carrasco, Alejandro; Barbancho, Julio. Optimal Representation of Anuran Call Spectrum in Environmental Monitoring Systems Using Wireless Sensor Networks. SENSORS. 18 - 6, pp. 1 - 31. 2018. ISSN 1424-8220. DOI: https://doi.org/10.3390/s18061803

Luque, Amalia; Romero-Lemos, Javier; Carrasco, Alejandro; Gonzalez-Abril, Luis. Temporally-aware algorithms for the classification of anuran sounds. PEERJ. 6 - 5, 2018. ISSN 2167-8359. DOI: https://doi.org/10.7717/peerj.4732

C.2. Congress

Numerous and continuous participation in national and international congresses. For reasons of space, the detailed list of participation in congresses is omitted. Many of them can be consulted here: https://investigacion.us.es/sisius/sis_showpub.php?idpers=14666

C.3. Research projects

Wireless Smart System for Analysis and Monitoring of Underground Power Lines in Smart Grids State Plan 2013-2016 Challenges - R + D + i Projects, Duration: 01/01/2014 to 12/31/2017, Reference: TEC2013-40767- R, Dedication: Partial, Amount: € 131 890.00

Pharmacontrol Projects of Excellence of the Junta de Andalucía, Duration: 01/30/2014 to 01/29/2016, Reference: P12-TIC-2400, Amount: € 43,790.00 Optimal Management of Zero Energy Buildings Projects of Excellence of the Junta de Andalucía, Duration: 03/26/2013 to 03/25/2017, Reference: P11-TEP-8129, Dedication: Complete, Amount: 197432.00 €

Predictive Control Techniques for the Efficient Management of Micro-Networks of Renewable Energy National Plan 2010, Duration: 01/01/2011 to 12/31/2014, Reference: DPI2010-21589-C05-01, Dedication: Complete, Amount : 203 280.00 €

Highly-complex and networked control systems (HYCON2) 7th Framework Program of the EU, Duration: 09/01/2010 to 11/30/2014, Reference: FP7-ICT 2009-5-257462, Amount: € 226200.00

Predictive control of interconnected processes with different modes of operation National Plan 2007, Duration: 10/01/2007 to 09/30/2010, Reference: DPI2007-66718-C04-01, Dedication: Complete, Amount: € 277 090.00

Control and optimization of hybrid renewable energy systems Excellence Projects of the Andalusian Government, Duration: 01/31/2008 to 12/31/2012, Reference: P07-TEP-02720, Dedication: Complete, Amount: € 375133.00

Predictive control of hybrid systems National Plan 2005, Duration: 12/31/2005 to 12/31/2008, Reference: DPI2005-04568, Amount: € 182784.00

Hybrid Control: taming heterogeneity and complexity of networked embedded systems (HYCON) 6th Framework Program of the EU, Duration: 09/15/2004 to 03/14/2009, Reference: FP6-511368, Amount: € 176000.00

Business intelligence in inventory management (BIGSTOCKS), Telephone Chair (2015). € 6000. IP: Amalia Luque Sendra

Business intelligence in inventory management II (BIGSTOCKS II), Telephone Chair (2016). € 6000. IP: Amalia Luque Sendra

Social integration of communication and information technologies from the paradigm of the network actor. Telefónica Chair (2016). € 3000. IP Juan Ramón Lama Ruiz

Bigdata Analitycs and cyberphysical instrumentation to support distribution operations in the SmartGrid RTI2018-094917-B-100. 2019-2022. 2018 State R + D + I Program aimed at the challenges of society. IP. Carlos Leon de Mora.

C.4. Contracts, technological or transfer merits

Luque-Sendra, Amalia; Carrasco, Alejandro; Barbancho-Concejero, Julio; Romero, Javier; Trujillo, Sara. Sound identification system by parametric classification of derived series. Patent number ES2667626. Date 03/21/2019.