



CURRICULUM VITAE (CVA)

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		CV date	17/01/2022
Part A. PERSONAL INFORMATION			
First name	Jesús		
Family name	Lozano Rogado		
Gender (*)	Male	Birth date (dd/mm/yyyy)	06/07/1975
ID number	9199533Q		
e-mail	jesuslozano@unex.es	URL Web: www.unex.es	
Open Research and Contributor ID (ORCID)(*)	0000-0003-0905-9546		

(*) Mandatory

A.1. Current position

Position	Full Professor (Catedrático de Universidad)		
Initial date	06/11/2020		
Institution	University of Extremadura/Industrial Engineering School		
Department/Center			
Country	Spain	Teleph. number	+34924289300
Key words	Artificial olfaction, gas sensors, machine learning		

A.2. Previous positions (research activity interruptions, art. 45.2.c))

Period	Position/Institution/Country/Interruption cause
1999-2002	Predoctoral fellowship / Universidad Complutense de Madrid/Spain
2002-2005	Predoctoral fellowship / Consejo Superior de Investigaciones Científicas/Spain
2005-2007	Assistant profesor / Universidad Politécnica de Madrid / Spain
2007-2020	Associate Professor / Universidad de Extremadura / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	Universidad Complutense de Madrid / Spain	2005
Electronic Engineering	Universidad Complutense de Madrid / Spain	2001
Industrial Engineering	Universidad de Extremadura / Spain	1998

Part B. CV SUMMARY

Jesus Lozano received the degree in Industrial Engineering from the University of Extremadura (UEX) in 1998 and the degree in Electronic Engineering and Ph.D. from the Universidad Complutense de Madrid (UCM) in 2001 and 2005 respectively. He has also completed the Master of Science in Artificial Intelligence in 2009.

He has been a research fellow in the Dept. of Electronics of the Faculty of Physics at the UCM from November 1999 to December 2002, research fellow at the Institute of Applied Physics of the Spanish Council for Scientific Research (CSIC) from December 2002 to December 2005. Later, he was a lecturer in the Dept. of Ocean and Naval Systems School of Naval Engineering at the Polytechnic University of Madrid from December 2005 to October 2007. At the moment he is full professor in the Electrical Engineering, Electronics and Automation Department at the Industrial Engineering School of the University of Extremadura.

He has participated as a researcher in a total of 3 European projects 8 national, 5 regional and 12 with companies. He has been Principal Investigator of two regional project, three national research projects of the Spanish ministry of science, one international project of the European Union and 8 contract with companies.

He is author or coauthor of more than 70 papers in scientific prestigious journals such as IEEE Sensors Journal, Sensors, Food Chemistry, Talanta, Sensors & Actuators B: Chemical, etc., 8 books and 10 book chapters. He has more than 150 communications to scientific conferences (IEEE Sensors, ISOEN, NOSE, Eurosensors, etc.). He is owner of two patents related to gas sensors and artificial olfactory systems. He made a stay in the Technological and Nuclear Institute in Lisbon (Portugal), Tokyo Institute of Technology (Japan) and in the ENEA in Portici (Italy).

He has organized several seminars (Control and Simulation with Labview, industrial communications, etc.), informative workshops (The brain and the sensations of smell and taste in 2013) and scientific conferences such as the Annual Seminar of Automation, Industrial Electronics and Instrumentation in Badajoz in July 2011, the Workshop on Micro and Nanotechnology in Badajoz in November 2013, the Intelligent Control Symposium in June 2015, the congress of innovation in technical education in September 2017, congress on automation in September 2018 and Ágora symposium in 2019.

He is a member of the TC 264/WG 41 committee of "Electronic sensors for odorant monitoring" of CEN, IEEE P2520.2.1 committee of "Machine Olfaction Devices and Systems used for General Outdoor Odor Monitoring" and the Committee of expert evaluators of research projects of the National evaluation and Foresight Agency (ANEP).

He is a regular reviewer for international journals: American Journal on Enology and Viticulture, Food Chemistry, Food Research International, IEEE Sensors Journal, IEEE Transactions on Instrumentation and Measurements, Measurement, Iberoamerican Journal of Automation and Industrial Informatics, Journal of Sensors, Sensors & Actuators B: Chemical, Talanta among others. He is editor of international journals: Sensors, Biosensors, Gases, Journal of Food Quality and Journal of Sensors. In addition, he is a member of the IEEE, the Iberian Micro and Nanotechnology Network (Ibernam), the Spanish Committee of Automation (CEA), the Spanish Olfactory Network and president of the Digital Olfaction Society

Finally, in terms of management positions, he has been deputy director of the Industrial Engineering School at the UEX and he is currently Director of Academic Planning of the UEX.

The main interest in the incoming years in his research line is to develop low cost, low size and consumption electronic devices that allow the creation of large and ubiquitous sensor networks for air quality monitoring.

Part C. RELEVANT MERITS

C.1. Publications (last 10)

- P Arroyo, J Gómez, JL Herrero, J Lozano; Electrochemical gas sensing module combined with Unmanned Aerial Vehicles for air quality monitoring; Sensors and Actuators B: Chemical, 131815 (2022)
- R Sánchez, E Martín-Tornero, J Lozano, A Fernández, P Arroyo; Electronic nose

application for the discrimination of sterilization treatments applied to Californian-style black olive varieties. *Journal of the Science of Food and Agriculture* 102 (2022), 2232-2241

- A Khorramifar, H Karami, AD Wilson, AHA Sayyah, A Shuba, J Lozano; Grape Cultivar Identification and Classification by Machine Olfaction Analysis of Leaf Volatiles. *Chemosensors* 10 (2022), 125
- J Gómez-Suárez, P Arroyo, R Alfonso, JI Suárez, E Pinilla-Gil, J Lozano; A Novel Bike-Mounted Sensing Device with Cloud Connectivity for Dynamic Air-Quality Monitoring by Urban Cyclists. *Sensors* 22 (2022), 1272
- Martín-Tornero, Elisabet; Sánchez, Ramiro; Lozano, Jesús; Martínez, Manuel; Arroyo, Patricia; Martín-Vertedor, Daniel; Characterization of Polyphenol and Volatile Fractions of Californian-Style Black Olives and Innovative Application of E-nose for Acrylamide Determination. *Foods* 10, (2021), 2973.
- Arroyo, Patricia; Gómez-Suárez, Jaime; Suárez, José Ignacio; Lozano, Jesús; Low-Cost Air Quality Measurement System Based on Electrochemical and PM Sensors with Cloud Connection. *Sensors* 21 (2021), 6228.
- Rosales, Alicia; Talaverano, M Inmaculada; Lozano, Jesús; Sánchez-Vicente, Carlos; Santamaría, Óscar; García-Latorre, Carlos; Rodrigo, Sara; Craft beer vs industrial beer: chemical and sensory differences. *British Food Journal* (2021)
- Sánchez, Ramiro; Martín-Tornero, Elisabet; Lozano, Jesús; Boselli, Emanuele; Arroyo, Patricia; Meléndez, Félix; Martín-Vertedor, Daniel; E-Nose discrimination of abnormal fermentations in Spanish-Style Green Olives *Molecules* 26 (2021), 5353
- Sánchez-Vicente, Carlos; Santos, José Pedro; Lozano, Jesús; Sayago, Isabel; Sanjurjo, José Luis; Azabal, Alfredo; Ruiz-Valdepeñas, Santiago; Graphene-Doped Tin Oxide Nanofibers and Nanoribbons as Gas Sensors to Detect Biomarkers of Different Diseases through the Breath. *Sensors* 20 (2020), 7223
- Arroyo, Patricia; Meléndez, Félix; Suárez, José Ignacio; Herrero, José Luis; Rodríguez, Sergio; Lozano, Jesús; Electronic Nose with Digital Gas Sensors Connected via Bluetooth to a Smartphone for Air Quality Measurements. *Sensors* 20 (2020)

C.2. Congress (Last 10 oral conferences)

- 9th IWA Odour & VOC/Air Emission Conference
- IEEE SENSORS 2021
- 13th Spanish Conference on Electronic Devices (CDE2021)
- IEEE ZINC 2021 conference
- 7th International Electronic Conference on Sensors and Applications (ECSA2020)
- IEEE International Symposium on Circuits and Systems (ISCAS)
- 6th International Conference on Sensors and Electronic Instrumentation Advances (SEIA 2020)
- AIR POLLUTION 2020
- Experiment@ International conference (exp.at'19)
- GOSPEL Workshop

C.3. Research projects (Last 5)

- Nanosensores para la monitorización simultánea eléctrica y óptica de gases de cambio climático (NEOGAS). Funding entity: Ministerio de Ciencia e Innovación (Plan Nacional de I+D+i) PID2019-107697RB-C44. Participants: Universidad de Extremadura, Consejo Superior de Investigaciones Científicas, Centro Nacional de Microelectrónica,

Universitat de Barcelona. Duration, from: 2020 to: 2023. Funds: 156937€. Principal Researcher: Jesús Lozano Rogado

- Desarrollo de sistema automático para la detección en línea del TCA en tapones de corcho. Funding entity: Junta de Extremadura (Plan Regional de Investigación) PRI18A049. Participants: Universidad de Extremadura e Instituto de la Madera, el Corcho y el Carbón Vegetal. Duration, from: 2019 to: 2022. Funds: 149217,20€
Principal Researcher: Jesús Lozano Rogado
- Desarrollo y validación en campo de un sistema de nanosensores de bajo consumo y bajo coste para la monitorización en tiempo real de la calidad del aire ambiente (NanoSen-AQM). Funding entity: Unión Europea Interreg SUDOE
Participants: CSIC, Universidad de Extremadura, Junta de Extremadura, Diputación de Ávila, Área Metropolitana de Barcelona, Aiguasol, Universidade de Évora, Universidade de Coimbra, CNRS, Ray Ingeniería Electrónica. Duration, from: 2018 to: 2021. Funds: 243.000 €. Principal Researcher: Esther Hontañón (Project). Jesús Lozano (UEx Subproject)
- Innovación tecnológica en micro y nanosensores para monitorización de la calidad del aire y control medioambiental.
Funding entity: Ministerio de Economía y Competitividad (Plan Nacional de I+D+i) TEC2013-48147-C6-5-R
Participants: Universidad de Extremadura
Duration, from: 2014 to: 2016. Funds: 100914€
Principal Researcher: Jesús Lozano Rogado
Number of participant researchers: 5
- Desarrollo de sistemas de instrumentación y reconocimiento de patrones para microsensores avanzados en aplicaciones de seguridad y calidad de aire
Funding entity: Ministerio de Educación y Ciencia (Plan Nacional de I+D+i) TEC2010-21357-C05-02. Participants: Universidad de Extremadura, Consejo Superior de Investigaciones Científicas, Centro Nacional de Microelectrónica, Universitat de Barcelona, CEIT. Duration, from: 2010 to: 2013. Funds: 30492€. Principal Researcher: Jesús Lozano Rogado

C.4. Contracts, technological or transfer merits

- DESARROLLO DE SISTEMAS OLFATIVOS ARTIFICIALES PARA EL CONTROL DE CALIDAD DE FRUTAS Y HORTALIZAS. Company: Alianza Nanotecnología Diagnóstica (2020-21). Principal Researcher: Jesús Lozano Rogado. Price: 48158€
- Desarrollo de un sistema de localización autónoma de fuentes de emisión y contaminación con UAVs en entornos 3D exteriores. Company: RAMEM (2020-2021). Principal Researcher: Jesús Lozano Rogado. Price: 15000 €
- Investigación de un sistema olfativo artificial para la detección de fugas y control medioambiental de H₂F en plantas termosolares. Company: DUCTOLUX (2020-2021). Principal Researcher: Jesús Lozano Rogado. Price: 22500 €
- Patent: Sistema automático de análisis en continuo de la evolución del vino. Inventors: Jesús Lozano Rogado, José Pedro Santos Blanco, Javier Gutierrez Monreal, Manuel Aleixandre Herrero, M^a Carmen Horrillo Güemes, Teresa Arroyo Casado, Juan Mariano Cabellos Caballero, Mar Gil Díaz. Number: P200501247. Country: Spain. Date: 23/05/2005
- Patent: Sistema portátil de análisis para la elaboración de mapas de contaminantes y olores. Inventor: José Pedro Santos Blanco, Jesús Lozano Rogado, Javier Gutierrez Monreal, Manuel Aleixandre Herrero, M^a Carmen Horrillo Güemes. Number: P200402292 Country: Spain. Date: 4/09/2004