

**Part A. PERSONAL INFORMATION**

**CV date** 2021-04-23

First and Family name	José Antonio Sánchez Galíndez		
Social Security, Passport, ID number	DNI 16044277Y	Age	53
Researcher numbers	Web of Science Researcher ID	U-7240-2019	
	Orcid code	0000-0003-1187-0207	

**A.1. Current position**

Name of University/Institution	University of the Basque Country UPV/EHU		
Department	Faculty of Engineering of Bilbao (EIB of Bilbao) Department of Mechanical Engineering Center for Advanced Aerospace Manufacturing (CFAA)		
Address and Country	Alameda de Urquijo s/n 48013-Bilbao (Spain)		
Phone number	+34 946014068	E-mail	<a href="mailto:joseantonio.sanchez@ehu.eus">joseantonio.sanchez@ehu.eus</a>
Current position	Professor Mechanical Engineering	From	2009
UNESCO Code	3313.14, 3316.07, 3316.08		
Keywords	Grinding, EDM, Machine-Tools, Manufacturing Engineering		

**A.2. Education**

Studies	University	Year
PhD in Mechanical Engineering	Faculty of Engineering of Bilbao, University of the Basque Country (Spain)	1998
Master in Advanced Manufacturing Technologies	University of Manchester (Institute of Science and Technology – Manchester, UK)	1992
Industrial Engineering (major in Mechanical Eng.)	Faculty of Engineering of Bilbao, University of the Basque Country (Spain)	1991

**A.3. JCR articles, h Index, thesis supervised...**

**h-index: 29** (Data from Web of Science - Publons);

**h-index: 32** (Data from ResearchGate, excluding self citations)

**Total number of Web of Science publications: 115**

**Total number of cites: 2542**

**Average citations per item: 21.9**

**Number of supervised PhD Thesis: 15** (2 more currently being supervised)

**Part B. CV SUMMARY** (max. 3500 characters, including spaces)

Professor of Mechanical Engineering since 2009, the main research field being **Machine-Tools and precision machining processes**. He is currently the **Head of the Department of Mechanical Engineering** of the University of the Basque Country (UPV/EHU). He has led, and currently does, a large number of **competitive Research Projects, funded both by Spanish Ministries and the European Union**, as well as **private Research Projects for Industry, mainly in the Machine-Tool sector**. In this field, works about precision and non-conventional machining of high-added value components manufactured in low-machinability materials for **turbine production and wind energy generation** must be mentioned. For more than 25 years he has been collaborating with the **Machine-Tool industry**, with companies such as **ONA-Electroerosion S.A., DANOBAT, UNESA, EKIN**, etc.

He has been **responsible for the team of evaluation of Spanish Research Projects** in the Ministry of Economy (MINECO) until December 2016. Since September 2017, **Responsible for follow-up actions for funding research positions at MINECO**. He has been member of the Scientific Committee of various ISEM (International Symposium for Electrical Machining, sponsored by CIRP), MESIC (Manufacturing Engineering Society International Congress), reviewer for JCR-Sci Journals in the field of Mechanical and Manufacturing

Engineering and co-chairperson of ISEM XIX (sponsored by CIRP) held in Bilbao in 2018, amongst others

He has been **Vice-Dean of the Master and Doctoral School of the University of the Basque Country** from 2013 to 2017, where he was in charge of doctoral training activities, soft-skills and quality standards. He is also member of the Steering Committee of **the Institute for Machine Tools of Elgoibar** (Spain). He has taken part in the **set-up of the Center for Advanced Aerospace Manufacturing (CFAA)**, where he is member of the **Technological Committee** of the Center. The main objective is to develop applied Research Projects (TRL 6-7) for aerospace companies.

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

#### JCR-Sci papers (only more relevant papers in the last 5 years)

*Characterization of vitrified alumina grinding wheel topography using 3D roughness parameters: influence of crystalline structure of abrasive grains*

L. Godino, I.Pombo, J.A. Sánchez, Izquierdo, B.

**Journal of Advanced Manufacturing Technologies**, 2021, 113 (1-4); doi:10.1007/s00170-021-06721-3

*Modelling the wear evolution of a single alumina abrasive grain: analyzing the influence of crystalline structure*

L. Godino, I.Pombo, J.Girardot, J.A. Sánchez, I.Iordanoff

**J. of Materials Processing Technology**, 2020, 277; doi:10.1016/j.jmatprotec.2019.116464

*On the development and evolution of wear flats in microcrystalline sintered alumina grinding wheels*

L. Godino, I. Pombo, J.A. Sánchez, J. Álvarez

**Journal of Manufacturing Processes**, 32 (2018) 494–505

*Improvement of EDM performance in high-aspect ratio slot machining using multi-holed electrodes*

O. Flaño, I. Ayesta, B. Izquierdo, J.A. Sánchez, Y. Zhao, M. Kunieda

**Precision Engineering**, Volume 51, January 2018, Pages 223-231

*High-accuracy wire Electrical Discharge Machining using Artificial Neural Networks and optimization techniques*

A. Conde, A. Arriandiaga, J.A. Sánchez, E. Portillo, S. Plaza, I. Cabanes

**Robotics and Computer Integrated Manufacturing**, Vol. 49, pp. 24-38, February 2018

*Downsizing training data with weighted FCM for predicting the evolution of specific grinding energy with RNNs*

A. Arriandiaga, E. Portillo, J.A. Sánchez, I. Cabanes, A. Zubizarreta.

**Applied Soft Computing**, 2017, 61: 211–221, doi: 10.1016/j.asoc.2017.07.048

*Experimental and numerical analysis of thermal phenomena in the wear of single point diamond dressing tools*

I. Pombo, X. Cearsolo, J.A. Sánchez, I. Cabanes

**Journal of Manufacturing Processes**, Volume 27, pp.145–157, June 2017

*Influence of the WEDM process on the fatigue behavior of Inconel® 718*

Ayesta, I.; Izquierdo, B.; Flaño, O.; Sánchez, J.,A., Albizuri, J.; Avilés, R.

**International Journal of Fatigue**, , Vol. 92, part 1, pp. 220-233, July 2016

*Discrete-element modelling of the grinding contact length combining the wheel-body structure and the surface-topography models*

Osa, J.; Sánchez, J.A.; Ortega, N.; Iordanoff, I.; Charles, J.L.

**International Journal of Machine Tools & Manufacture**, Vol. 110, pp. 43-54, July 2016

*Dry-dressing for ecological grinding*

Cearsolo, X.; Sánchez, J., A., Pombo, I.; Cabanes, I.; Portillo, E.

**Journal of Cleaner Production**, Vol. 135, pp. 633-643, 2016, June 2016

*Grinding with controlled kinematics and chip removal*

Barrenetxea, D.; Alvarez, J.; Marquinez, J.I.; Sanchez, J.A.

**CIRP Annals - Manufacturing Technology**, Vol. 65, Issue 1, pp- 341–344, 2016

## C.2. Research projects and grants

### Director of Research projects (only more recent)

**Title:** Joint Action Towards Digital Transformation - JANO

**Funds:** **CIEN-CDTI**, subcontracted by ONA-Electroerosión S.A.

**Period:** 2019-2021

**Amount:** 95.000€ for the group of UPV/EHU

**Title:** Scientific models and machine-tool advanced sensing techniques for efficient machining of precision components of Low pressure Turbines (DPI2017-82239-P)

**Funds:** Spanish Ministry of Economy, **DPI2017-82239-P**

**Period:** 2018-2020

**Amount:** 150.000€ for the group of UPV/EHU

**Title:** Tecnologías de Materiales y Fabricación Avanzada para la Nueva Generación de Turbinas de Alta Velocidad (FUTURALVE)

**Funds:** **CIEN-CDTI**, subcontracted by ONA-Electroerosión S.A.

**Period:** 2016-2019

**Amount:** 120.000€ for the group of UPV/EHU

**Title:** Instrumentación y analítica avanzada en bienes de equipo para la operación eficiente de la próxima generación de máquinas y procesos 4.0

**Funds:** **Programa Hazitek Gobierno Vasco**, subcontracted by ONA-Electroerosión S.A.

**Period:** 2016-2018

**Amount:** 90.000€ for UPV/EHU

## C.3. International Congresses (only most relevant in the last two years)

**Title:** Observation of debris composition and size distribution in WEDM

**Authors:** Wang, J.; Sánchez, J.A.; Wang, Z.; Izquierdo, B.

**Congress:** 20th CIRP Conference on Electro Physical and Chemical Machining (ISEM 2020) – *to be held in 2021 due to the pandemics*

**Date:** Zurich (Suiza), January 2021

**Title:** The influence of rotary dresser design on dresser wear and ground surfaces

**Authors:** Muñoz, A.; Pombo, I.; Alvarez, J.; Godino, L.; Sánchez, J.A.; Barrenetxea, D.

**Congress:** The 22nd Int. Symposium on Advances in Abrasive Technology (IOSAAT 2019)

**Date:** Shenzhen (China), December 2019

**Title:** Experimental study on the influence of electrode geometry and electrode path on the wear pattern in EDM

**Authors:** Flaño, O.; Ayesta, I.; Izquierdo, B.; Sánchez, J.A.; Ramos, J.M.

**Congress:** 19th CIRP Conference on Electro Physical and Chemical Machining (ISEM XVIII)

**Date:** Bilbao (Spain), April 2018

#### C.4. PhD Thesis supervised and Doctoral Training

Total: 15 PhD Thesis supervised, 2 more in progress

Some **International Thesis** are listed below:

**Title:** Experimental and numerical analysis of wear flat generation and growth in alumina grinding wheels  
**Dra.:** Leire Godino Fernández  
**Supervisors:** Dr. Íñigo Pombo and Dr. José A. Sánchez  
**Defended:** March 2019  
Colaboration with ENSAM Bordeaux (France)

**Title:** Approaches for improvement of EDM performance and for the understanding of electrode wear phenomena  
**Dra.:** Olatz Flaño Alaña  
**Supervisors:** Dr. Borja Izquierdo and Dr. José A. Sánchez  
**Defended:** April 2018  
Colaboration with The University of Tokyo (Japan)

**Title:** On the numerical modelling of contact in grinding  
**Dr.:** Juan Luis Osa Amilibia  
**Supervisors:** Dr. Naiara Ortega and Dr. José A. Sánchez  
**Defended:** January 2017  
Colaboration with WZL-Aachen (Germany)

**Title:** Recurrent neural network-based approach for estimating the dynamic evolution of grinding process variables  
**Dr.:** Ander Arriandiaga Laresgoiti  
**Supervisors:** Dr. Eva Portillo and Dr. José A. Sánchez  
**Defended:** December 2016  
Colaboration with University Auckland (New Zealand)

#### C.5. Other merits

i) Reviewer for JCR Journals: Precision Engineering, Int. J. Machine Tool and Manufacture, Int. Journal of Advanced Manufacturing Technologies, ...; ii) Member of the Scientific Committee of International Congresses; iii) Responsible for the Double Degree Agreement (Master of Mechanical Engineering) between the University of the Basque Country (UPV/EHU) and Tianjin University of Science and Technology (TUST); iv) Advisor for the Spanish Research Agency since 2010; v) Member of the Steering Committee of the Machine Tool Institute (IHM-Elgoibar); vi) Member of the Technology Committee of the Aeronautics Advanced Manufacturing Center (CFAA – UPV/EHU); vii) 4 positive research evaluations (*sexenio de investigación*) and 1 positive transference evaluation (*sexenio de transferencia*).