MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

Part A. PERSONAL INFORMATION

CV date	14/11/2022

First and Family name	Jordi Romeu Garbí		
		Age	54
Researcher numbers	Researcher ID	55363922500	
	Orcid code	http://orcid.org/0000-0002-9075-6877	

A.1. Current position

Name of University/Institution	Universitat Politècnica de Catalunya			
Department	Mechanical Engineering			
Address and Country	C/ Colon, 11			
Phone number	+34937398061	E-mail	Jordi.romeu@upc.edu	
Current position	Full Professor		From	23/5/2017
Espec. cód. UNESCO				
Palabras clave	Noise, vibration			

A.2. Education

PhD	Universitat Politècnica de Catalunya	1999
Industrial Engineer (Ms)	Universitat Politècnica de Catalunya	1994

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

Number of six-year research accreditation: 4, consecutive + 1 of technology transfer.
Date of effect of the last one (research): 2020
PhD theses directed (last 10 years): 7
Articles JCR (53) in Q1: 17; Q2: 22; First tercile: 28.
Total cites: 513 (Scopus) 794 (Google)
Index h: 12 (Scopus) 15 (Google)
Annual citing rate for the last 5 years: 80.6 (Google)

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

Upon entering the university as an assistant professor, the candidate joins the line of research "Acoustic Pollution", led by his thesis supervisor, focused exclusively on environmental acoustics with some technology transfer activity. In this framework, and on the proposal of the thesis supervisor, he develops the doctoral thesis on active noise control (1999). From this moment the role of the researcher in the group is increased until in 2002, and under the responsibility of the researcher, the research group is integrated into the "Technological Innovation Network" of the Generalitat de Catalunya. This network is constituted by research groups with accredited technology transfer capacity and access through competitive call. Under the direction of the researcher, the group (from that moment on Acoustic and Mechanical Engineering Laboratoy) increases the activity and spectrum of the research in order to address more complex issues always in the vibroacoustic environment, such as the location of noise sources and the propagation of vibrations. The candidate proposes, participates and directs these lines until the younger researchers can assume their leadership. In 2009 the group's activity was split by focusing the transfer activity on a spinoff of the group (AV Ingenieros) formed by researchers hired from the group. The summary of the candidate's main achievements is as follows:
Author of 51 articles in JCR magazine of which 28 are T1 (the standard criteria for evaluating research performance in Spain). It is necessary to observe that the most impacting journals in the field of "Acoustics" come from the field of health sciences (in 2011, of a total of 30 journals, the first seven are in this field), which alters the distribution of the quartiles.

The researcher participates in a total of 27 research projects, of which IP is in 17 of them, and in 27 research contracts (IP in 14). Eight of the project/contracts correspond to competitive calls to finance the research carried out by companies in collaboration with research centers, such as the old PROFIT or PETRI calls or the current ones of the CDTI and its regional equivalents (CIDEM). Participation in 55 technology transfer contracts and 60 technical services.
From a qualitative perspective, the candidate's main achievements are the demonstration of the feasibility of performing active noise control in openings; the conception of a modelling tool for prediction of railway induced vibrations, combining different numerical approaches and innovative experimental test, the establishment of a sampling methodology in environmental acoustics, which allows us to dimension the sample of points to be measured in an urban environment and to know the error associated with this sample and the prediction of failure in mechanical stress test specimens by acoustic emission. The candidate's line of research is now focused on the development of these achievements.
Teaching activity includes participation in 12 different subjects, advising 63 final degree project, authoring two academic books and participating in two founded innovation projects for teaching.
The researcher assumes management duties of the university, being Chairman of the Mechanical Engineering department and being involved in several management commissions of the university (as being member of the government council) or the school (member of School council).

Part C. RELEVANT MERITS

C.1. Publications (including books, max. 10 items)

G. Quintero, A. Balastegui, J. Romeu, J. Traffic noise assessment based on mobile measurements. Environmental Impact Assessment Review 86, 106488, 2021.

Victor Ordoñez; Arcos, R.; Romeu, J.; Josefsson, A. Investigation on electromagnetic vibration energy harvesting in water distribution control valves. IEEE sensors journal, Vol. 21, num. 3, p. 2734-2741, 2021

Reina, S.; Arcos, R.; Clot, A.; Romeu, J. An Efficient Experimental Methodology for the Assessment of the Dynamic Behaviour of Resilient Elements. Materials, Vol. 13, 2889, 2020.

Ghangale, D.; Arcos, R.; Clot, A.; Cayero J., Romeu, J. A methodology based on 2.5D FEM-BEM for the evaluation of the vibration energy flow radiated by underground railway infrastructures. Tunnelling and Underground Space Technology 101, 103392, 2020.

Noori, B.; Arcos, R.; Clot, A.; Romeu, J. Control of ground-borne underground railway-induced vibration from double-deck tunnel infrastructures by means of dynamic vibration absorbers. Journal of sound and vibration, Vol. 461, 11914, 2019.

Arnau Clot, Robert Arcos, Jordi Romeu, efficient three-dimensional building-soil model for the prediction of ground-borne vibrations in buildings. Journal of Structural Engineering, 143, 04017098-1-13, 2017.

Jordi Romeu, J. Ignacio Palacios, Andreu Balastegui, Teresa Pamies, Optimization of the Active Control of Turboprop Cabin Noise, Journal of Aircraft, 52, 1386-1393, 2016.

E. Martínez, G. Ramirez, J. Romeu, D. Casellas. Damage induced by a spherical indentation test in tool steels detected by using acoustic emission technique. Experimental Mechanics, 55, 449-458, 2015

Sara R. Martin, Meritxell Genesca, Jordi Romeu, Robert Arcos, Passive Acoustic Method for Aircraft States Estimation Based on the Doppler effect. IEEE Transactions on Aerospace and Electronic Systems, 50, 1330-1346, 2014.

E. Martínez, I. Picas, J. Romeu, D. Casellas. Filtering of acoustic emissions signals for the accurate identification of fracture mechanisms in bending tests. Materials Transactions, 54, 1087-1094, 2013

C.2. Research projects and grants (max 10 items)

2018 XARDI 00015 Fourth Industrial Revolution Network, RIS3CAT program, Generalitat de Catalunya. 2020- 2022. € 795 000, IP: Luis Romeral

001-P-001643, Looming Factory, RIS3CAT program, Generalitat de Catalunya. 2019- 2021. € 2 000 000, IP: Luis Romeral

RTI2018-096819-B-I00, Fast computational model of calculation of rail-induced vibrations and radiated noise, Ministry of Economy and Competitiveness (Call for Research Challenges). 2019- 2021. € 100,430, IP: Jordi Romeu.

EQC2018-005106-P Update of parallel computer cluster site at Campus of Terrassa, Spanish Subprogram for Research Infrastructures and Scientific-Technical Equipment, € 148 750, IP: Assensi Oliva, 2018-2021.

2014 DI 003 Innovative vibration abatement solutions for underground railway traffic, Generalitat de Catalunya, € 27 360, IP: Rpbert Arcos, 2015 - 2018.

DI-20151209, Active noise control applications in public Works environmental - active work noise. Research and Development Projects (ID) of CDTI, 2015 - 2017. € ND (confidential), IP: Jordi Romeu.

TRA2014-52718-R, Innovative solutions for railway induced vibration isolation. Ministry of Economy and Competitiveness (Call for Research Challenges). 2015- 2018. € 227,480, IP: Jordi Romeu.

LIFE 10 ENV ES 514. Elastomeric "eco-friendly" material based on end-of-life tires blended with organic bind. European Union. LIFE Program of 7 PM. 2011- 2015, € 728128. IP: Robert Arcos.

BIA2011-24633. Active window: active control of noise transmission through openings. Ministry of Science and Innovation, National Research Plan, 2012-2014, € 78 650, IP: Jordi Romeu.

Ref: 285848, MOSYCOUSIS. Intelligent Monitoring System based on Acoustic Emissions Sensing for Plant Condition, FP7, 2011 - 2013, € 1 243 199, José Luis Romeral

C.3. Contracts (max 10 items)

Research on Suitability of vibration energy harvesting in water supply installations, Funding Entity: SGAB, €: 43 375, 2018 - 2019, IP: Robert Arcos.

Suitability of DVA for railway vibration reduction at L9 underground of Barcelona. Funding entity: TMB, 2017 - 2016. IP: Robert Arcos. € 37 000.

Management of recreational noise, Funding Entity: Ayuntamiento de Sitges, 17.545 €, 2015-2016. IP: Santiago Jiménez

Sound reduction project in flexo printers. Funding entity: Comexi, 2015 -2016. IP: Jordi Romeu. € 9 125.

Active Control for Noise Cancellation, Funding Entity: TELSTAR, IP: Jordi Romeu, 2014. € 15 950.

Strategic Noise Map of Terrassa. Funding entity: Diputación de Barcelona, IP: Jordi Romeu, 2012 - 2013. € 20.945.

Development of a 2.5D numerical modeling for underground railway infrastructures. Funding entity: IDOM-AV Enginyers, IP: Robert Arcos, 01/01/2013 - 30/12/2013. € 49 432

Beca de doctorado de investigación en control de ruido y vibraciones, Funding entity: SENER, IP: Jordi Romeu; (€): 48 632, 2011-2015.

C.4. Patents

Rafael Torres, Jordi Romeu, Eva Martínez, P200601521, Plant for the axial and transversal dynamic characterization of springs and vibration isolators, Spain, 8/10/2009, UPC, VIBCON.

Meritxell Genescà, Jordi Romeu, Teresa Pamies, P200803189, Method of measurement of aircraft noise in overflight and automatic elimination of noise not coming from aircraft, Spain, 10/11/2010, UPC.

Meritxell Genescà, Jordi Romeu, Teresa Pamies, P200802769, System for the measurement of noise and location of a mobile source in the presence of background noise, Spain, 06/08/2011, UPC.

C.5, C.6, C.7… (e. g., Institutional responsibilities, memberships of scientific societies…)

Chairman of the Department of Mechanical Engineering 2012- present. Head of the Laboratory Research Group of Acoustic and Mechanical Engineering of the UPC, which has the mention of the Research Group Accredited by the UPC and of the Research Group Recognized by the Agency for the Management of University Aid of the Generalitat de Catalunya.

Review of 23 articles for JCR magazine and of 32 research projects for different agencies (ANEP, AIDIT, AGAUR etc.). Member of accreditation commissions for Mechanical Engineering degrees for the Portuguese agency A3ES. Member of the Governing Board of the Spanish Acoustic Society.

Founding member and partner of the Spinoff of the UPC "AV Ingenieros", dedicated to the advanced consultancy in noise and vibration control. Without labor dedication in the company.

Participation in the following committees for the organization of congresses: organizing committee of the National Acoustics Congress that was held at the ETSII of Terrassa in 2005, scientific committee of the International conference Trends in the Development of Machinery and Associated Technology (2012-16), scientific committee of the National Congress of Mechanical Engineering 2016 and 2018, organizing committee of the Acustic.cat 2016 and 2018 Conference, organizing committee of the Mechanical Engineering Professors Meeting 2019 (Barcelona), organizing committee of Internoise 2019 (Madrid).

Award from the Chamber of Commerce of Terrassa for the best business research project for the research contract "Design of a speaker acoustic characterization system according to the EASE procedure", carried out for AMATE Electroacoustics.