



Part A. PERSONAL INFORMATION		CV date		03/12/2019	
First and Family name	José Manuel García-Manrique Ocaña				
Social Security, Passport, ID number	74819990R	Age	42		
Posoarchor codos	WoS Researcher ID (*)	AAF-8	AAF-8799-2019		
	SCOPUS Author ID(*)	57191	57191421653		
Researcher codes	Open Researcher and Contributor ID (ORCID) **	en Researcher and htributor ID (ORCID) ** 0000-0001-9072-7139			

) At least one of these is mandatory

(\*\*) Mandatory

#### A.1. Current position

Name of University/Institution	University of Malaga					
Department	Department of Civil, Materials and Manufacturing Engineering ("Ingeniería civil, de materiales y fabricación")					
Address and Country	C/ Doctor Ortiz Ramos, s/n					
Phone number	951952441	E-mail	josegmo@uma.es			
Current position	Associate Professor ("Profesor Ayudante Doctor")		From	15/06/2016		
Key words	Mechanical, Numerical simulations, Finite elements, Materials, Dinamic					

### A.2. Education

PhD	University	Year
Ingeniero Industrial	University of Malaga	2012

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

Thesis supervised:

PhD Student: Francisca Perez Garcia

Title: Use of siderurgical waste for design and dosage of different types of cementing material in sustainable structures.

Date: November 2015 to June 2019. Grade: Cum Laude

In progress:

- PhD Antonia Maria Lima Rodriguez
  - Title: Develop a methodology for determination of mechanical properties in film materials from a vibroacoustic test. Date: May 2017 to the present
- PhD Lenin Lenin Abatta Jacome Title: Analysis of the plastic deformation in cylindrical specimens under load mode i and comparative with the response in ct specimens. Date: November 2017 to the present

JCR articles: 7Q1, 5Q2, 1Q3.

Cited: 96 (Web of Science). 104 (scopus) H-index: 5 (Web of Science). 6 (scopus)

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

From 2003 to the present: Teaching and Research experience at the Department of Civil, Materials and Manufacturing Engineering in University of Malaga (UMA), Spain. From 2003 to 2016, I was adjunct professor while I was self-employment as professional engineer. In June 2016, I obtained a full-time position as Associate Professor.

I have taught classes in subjects as Mechanic of Solids, Theory of Structures, Structural Mechanics, Steel structures or Numerical Methods in Civil Engineering. This means more than 2000 lecture hours, both in Bachelor and Master of several engineering degrees of the UMA.



- From 2005 to the present: Membership and Research experience at Materials Behaviour and Process Research Group, TEP-183 (2005-2019).
- From 2008 to 2015, technical director and founding partner of GOES engineering solutions ("GOES soluciones de ingenieria"), company oriented to the integrated management of singular engineering projects. Carrying out tasks of representation and administration of the company. Project planning and coordination.
- From 2003 to 2016, Senior Consultant at Engineering Projects. With experience in design and supervise structural and installation projects.
- From 2009 to 2017, member of the Governing Board of the Official Association of Industrial Engineers in Andalucia (Spain). Its functions are the organization and defense of the profession of industrial engineering, which covers the mechanical, electrical and organization engineer's activities.
- Experience on the following research areas: Fracture Mechanics, Fatigue of Material and Structural Dynamics. On numerical simulations. Also in metallic and concrete structure calculations, both building and civil structures.
- Reviewer of the international journal Engineering Fracture Mechanics and Fatigue and Fracture of Engineering Materials and Structures.
- Languages: English: Fluent. Spanish: Native.
- Science and Engineering Software: ANSYS, ABAQUS, Matlab, Autocad, Cype.

## Part C. RELEVANT MERITS

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

- Camas, D; Garcia-Manrique, J; Perez-Garcia, F; Gonzalez-Herrera, A. Numerical modelling of three-dimensional fatigue crack closure: Plastic wake simulation. International Journal of Fatigue (IJF), in press. 2019. https://doi.org/10.1016/j.ijfatigue.2019.105344 (Q1) (Engineering, Mechanical) (JCR-2018) Impact factor: 3.673
- Lima-Rodriguez, A; Gonzalez-Herrera, A; Garcia-Manrique, J. Study of the Dynamic Behaviour of Circular Membranes with Low Tension. Applied Sciences. 9 -4716, 2019. DOI:10.3390/app9214716

(Q2) (Physics applied) (JCR-2018) Impact factor: 2.217.

- F. Perez-Garcia; M.E. Parrón-Rubio; J.M. Garcia-Manrique; M.D. Rubio-Cintas. Study of the suitability of different types of slag and its influence on the quality of green grouts obtained by partial replacement of cement. Materials. 12 - 7, 2019. DOI: 10.3390/ma12071166

(Q2) (Materials Science, Multidisciplinary) (JCR-2018) Impact factor: 2.972.

- Gonzalez-Herrera, A, Garcia-Manrique, J. Numerical study of the mechano-acoustic coupled resonance of a tube-membrane system. Meccanica, 53(13), 3189-3207, 2018. DOI:10.1007/s11012-018-0882-7

(Q2) (Mechanics) (JCR-2018) Impact factor: 2.316

- Garcia-Manrique, J. Camas, Parron-Rubio,M.E., J. Gonzalez-Herrera, A. Corrections in numerical methodology to evaluate plasticity induced crack closure along the thickness. Theoretical and Applied Fracture Mechanics, 97, 2018. DOI: 10.1016/j.tafmec.2018.08.004.

(Q1) (Mechanics) (JCR-2018). Impact factor: 2.848

- Garcia-Manrique, J. Camas, D. Lopez-Martinez, J. Gonzalez-Herrera, A. Analysis of the stress intensity factor along the thickness: The concept of pivot node on straight crack fronts. Fatigue & Fracture of Engineering Materials & Structures (FFEMS), 51, 869-880, 2018. DOI: 10.1111/ffe.12734.

(Q2) (Engineering, Mechanical) (JCR-2018) Impact factor: 2.555

- L. Caminos, J. Garcia-Manrique, A. Lima-Rodriguez, A. Gonzalez-Herrera. Analysis of the Mechanical Properties of the Human Tympanic Membrane and Its Influence on the Dynamic Behaviour of the Human Hearing System. Applied Bionics and Biomechanics, 2018, Article ID 1736957, DOI: 10.1155/2018/1736957.

(Q3) (Engineering, Biomedical / Robotics) (JCR-2018). Impact factor: 1.525



 Lopez-Martinez, J. Garcia-Vallejo, D., Arrabal-Campos, F. Garcia-Manrique J. Design of three new cam based constant-force mechanisms. Journal of Mechanical Design, 2018, DOI: 10.1115/1.4040174.

(Q2) (Engineering, Mechanical) (JCR-2018) Impact factor: 2.828

- Camas, D. Garcia-Manrique, J. Moreno, B. Gonzalez-Herrera, A. Numerical modelling of three-dimensional fatigue crack closure: Mesh refinement. International Journal of Fatigue (IJF), 113, 193-203, 2018. DOI: 10.1016/j.ijfatigue.2018.03.035.

(Q1) (Engineering, Mechanical) (JCR-2018) Impact factor: 3.673

- Garcia-Manrique, J. Camas, D. Gonzalez-Herrera, A. Study of the stress intensity factor analysis through thickness: methodological aspects. Fatigue & Fracture of Engineering Materials & Structures (FFEMS), 40, 1295-2695, 2017. DOI: 10.1111/ffe.12574.

(Q1) (Engineering, Mechanical) (JCR-2017) Impact factor: 2.533

- Garcia-Manrique, J., Camas, D., Lopez-Crespo, P., Gonzalez-Herrera, A., Stress intensity factor analysis of through thickness effects. International Journal of Fatigue, 46, 58-66, 2013. DOI: 10.1016/j.ijfatigue.2011.12.012

(Q1) (Engineering, Mechanical) (JCR-2013) Impact factor: 1.694.

- D. Camas; J. Garcia-Manrique; A. Gonzalez-Herrera. Three-dimensional effects in the fracture mechanics of bi-dimensional specimens. Fatigue Crack Growth: Mechanisms, Behavior and Analysis. pp. 161 189. 2012. Book.
- Camas, D.; Garcia-Manrique, J.; Gonzalez-Herrera, A.. Crack front curvature: Influence and effects on the crack tip fields in bi-dimensional specimens. International Journal of Fatigue. 44, pp. 41 50. 2012. DOI: 10.1016/j.ijfatigue.2012.05.012.

(Q1) (Engineering, Mechanical) (JCR-2013) Impact factor: 1.694.

- Camas, D.; Garcia-Manrique, J.; Gonzalez-Herrera, A. Numerical study of the thickness transition in bi-dimensional specimen cracks. International Journal of Fatigue. 33, pp. 921-928. 2011. DOI: 10.1016/j.ijfatigue.2011.02.006.

(Q1). (Engineering, Mechanical) (JCR-2011)

## C.2. Research projects and grants

## Funding (Research projects)

- Agency: FEDER PROJECT. CONSEJERIA DE INNOVACION, CIENCIA Y EMPRESA. JUNTA DE ANDALUCIA

Project Title: STUDY OF THE MECHANO-ACOUSTIC COUPLED RESONANCE OF MEMBRANE

Dates: 12/11/2019 – in progress.

Role: PI (CO-PI: Antonio Gonzalez-Herrera). The main objective is the study of the mechano-acoustic coupling of membranes through numerical models. Grant: 53.915,02 €

- Agency: CONSEJERIA DE INNOVACION, CIENCIA Y EMPRESA. JUNTA DE ANDALUCIA

Project Title: THREE-DIMENSIONAL STUDY OF FATIGUE CRACKS: CORRELATION OF IMAGES, TOMOGRAPHY, X-RAY DISFRACTION AND MODELING OF FINITE ELEMENTS.

Dates: 09/01/2014 - 09/01/2018

Role: Researcher (PI: Pablo Lopez-Crespo): Numerical modeling of specimens subjected to fracture and fatigue processes, both in Mode I and in a biaxial load state. Grant: 120.000 €

- Agency: CDTI. FEDER-INTERCONECTA (2013) (BOE-A-2014-485) Project Title: V.I.C.T.O.R.I.A. - VEHICLE INITIATIVE CONSORTIUM FOR TRANSPORT OPERATION AND ROAD INDUCTIVE APPLICATIONS. Dates: 01/04/2013 – 01/04/2015 Role: Researcher (PI: Fernandez-Lozano). Design and development of an induction load system for an urban bus Grant: 3.774.935 €
- Agency: CONSEJERIA DE INNOVACION, CIENCIA Y EMPRESA. JUNTA DE ANDALUCIA. EXCELENT PROJECT MODALITY



Project Title: NUMERICAL MODELING OF BEHAVIOR OF HEALTHY HUMAN EAR AND WITH AN ARTIFICIAL AUDIOPROTESIS. Dates: 26/03/2012 – 26/03/2014 Role: Researcher (PI: Antonio Gonzalez-Herrera). Grant: 12.000 €

## Grants

- Agency: Ministry of Science, Innovation and Universities from Spain. Grant: José Castillejo Mobility Grant for young doctors
   Title: EXPERIMENTAL VALIDATION OF NUMERICAL MODELS OF THE BEHAVIOR OF THE TYMPANIC MEMBRANE THROUGH DIGITAL HOLOGRAPHY TECHNIQUES
   Dates: 01/03/2020 – 31/08/2020. Destination: MEEI/HMS Eaton-Peabody Laboratories
   Grant: 19.309 €
- Agency: University of Malaga (Spain).
  Grant: Mobility Grant for PDI (research personal of the university)
  Title: advances in the waste valorization of the steel industry,
  Dates: 09/07/2018 03/09/2018. Destination: Departamento de Engenharia Civil (DEC).
  UNIVERSIDADE DO ALGARVE. Faro. Portugal
  Grant: 1.200 €

## C.3. Contracts

- Name of the project: Establish the collaboration for the realization of works of technical advice and investigation in matters related to engineering.
  Project scope: Autonomic
  Responsible researcher: José Manuel García-Manrique Ocaña
  No. Code according to financing company: 8.06 / 5.63.4679
  Start date: 09/20/2016 Project duration: 1094 days
- As Structural designer for 12 years and CEO of GOES SOLUCIONES DE INGENIERIA SL, I have worked in more than 30 engineering contracts.

### C.4. Patents

Inventors: J. Garcia-Manrique Ocaña, J. López Martínez
 Title of the result of the investigation: BICYCLE SADDLE WITH SUSPENSION MEDIUM
 Brief description of its content: Bicycle saddle of the type that incorporates some means of suspension.

PATENT DATA:

- Patent application number: P201531423
- Date of patent application. 10/02/2015
- Country of priority: Spain
- Patent number: ES2559112 A1
- Date of concession. 11/24/2016
- Entity holder: ZAYIN TECHNOLOGY, S.L.

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

- From 2009 to 2017, member of the Governing Board of the Official Association of Industrial Engineers in Andalucia (Spain).
- From 2003, Member of the Research Group TEP 183: Behavior and Processing of Materials.

December 3rd, 2019 Jose Manuel García-Manrique