MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

CV date	09/01/2023

Part A. PERSONAL INFORMATION

First and Family name	Luisa María Gil Martín		
Social Security, Passport, ID number		Age	
Researcher numbers	Researcher ID	K-5791-2014	
	Scopus Author ID	6506539981	
	Orcid code	0000-0001-8339-7290	

A.1. Current position

Name of University/Institution	University of Granada		
Department	Structural Mechanics		
Address and Country	ETSICCyP. Campus Universitario de Fuentenueva. Granada.Spain		
Phone number		E-mail	mlgil@ugr.es
Current position	Professor (Full)	From	2015
Espec. cód. UNESCO	330505- Technology of concrete, 330506- Civil engineering, 330521- Metallic constructions, 330532- Structural engineering 531203- Construction		
Palabras clave	Civil engineering, Construction , Structural Concrete, Structural Steel		

A.2. Education

PhD	University	Year
PhD Civil Engineering	Granada	1997
Master Civil Engineering	Granada	1992

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

Co-author of 100 JCR papers relevant in the topic of my research and with an h-index of 16 (according to Scopus). Nowadays, I have 4 granted periods of research –sexenios- (the last evaluated year was 2019).

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

When I finished my PhD studies there was no tradition at the University of Granada regarding Civil Engineering faculty, this is why my first research was mainly theoretical and about basic concepts. Nowadays I am the head of the laboratory of structural ingenieering of my faculty, which allow me also do both applied and experimental research. I have participated in public and private financing projects, in the last years I has been involved in one national project (RTI2018-101841-B-C21) and in another H2020 European one (H2020-LC-CLA-2018-2019-2020). The results of my research have been published in high impact journals. My contributions can mainly be included in the areas of STRUCTURAL ENGINEERING-CONCRETE AND STEEL (STRUCTURAL) and TENSEGRITIES. My research topics are very diversified. Related with structural concrete I have been working on design, optimization, durability, seismic behavior and optimization of earth retaining systems and in tensegrity structures, among other topics. We developed a procedure of design of long-life structures based on topological mapping which has been extended to several typologies of structures: tension structures, compression structures with inner ribs and/or with cables. This last research derived in the study of tensegrities, new interesting topics has been studied and new tensegrities were discovered. I have published scientific 100 papers, some of them presents relevant results and have an important number of citations. I am also coauthor of another papers relative to my teaching activity and ethic in the professional activity and since 2006 I

have been concerned about the rational consumption of electrical energy in road tunnels and the use of the sunlight in the lighting in tunnels as a way to save energy. I am coauthor of several patents and I have presented conference papers in congresses. I was also member of the Technical Program Committee and Reviewer of several Congresses and JCR journals. I was invited to write, as coauthor, two book chapters (one of them in ”STUDIES AND RESEARCHES” of the polytechnic of Milano and the other one in “Special Publication ACI STRUCTURAL JOURNAL”).I have been visiting researcher in several universities, with which I have established collaborations (Polytechnic of Milan, University of San Francisco, Stanford University, Illinois University, Santa Clara University -CA-, University of Montenegro and Ireland University at Galway). I was supervisor of a total of 5 PhD thesis and several Master thesis.I have reviewer of several journals and evaluator of several Spanish Agencies (Projects, ANECA, etc).

Part C. RELEVANT MERITS

C.1. Publications (including books)

C.1.1- Scientific paper. Hernández-Montes, E.; Jalón, M.L.; Chiachio, J. Gil-Martín, L.M. 2022. “Yield Displacement Charts for performance-based seismic design”. https://doi.org/10.1007/s10518-022-01534-5. Bulletin of Earthquake ENGINEERING.

C.1.2- Scientific paper. Fernández-Ruíz, M. A.; Hernández-Montes, E.; Gil-Martín, L.M. 2022. ”From octagonal connection graphs belonging to the Z-Octahedron family to new tensegrity structures “. International Journal of Solids and Structures. 254–255 (2022) 111901.

C.1.3- Scientific paper. Gil-Martín, L.M.; Fernández-Ruíz, M. A.; Hernández-Montes, E. 2022. “Effective moment of inertia of reinforced concrete piles.
ACI Structural/Materials Journal. September, pp. 167-178

C.1.4- Scientific paper. Fernández-Ruíz, M. A.; Hernández-Montes, E.; Gil-Martín, L.M. 2022. “Topological Design of the Octahedron Tensegrity Family”. ENGINEERING STRUCTURES. 259 (2022) 114211

C.1.5- Scientific paper. Fernández-Ruíz, M. A.; Hernández-Montes, E.; Gil-Martín, L.M. 2021. “The Octahedron family as a source of tensegrity families: the X-Octahedron family”. DOI: https://doi.org/10.1016/j.ijsolstr.2020.10.019. ENGINEERING STRUCTURES. 208-209, pp. 1-12

C.1.6- Scientific paper. Fernández-Ruíz, M. A.; Hernández-Montes, E.; Gil-Martín, L.M. 2020. “ The Z-octahedron family: a new tensegrity family”. ENGINEERING STRUCTURES 222 (Article Number: 111151)

C.1.7- Scientific paper. Hernández-Montes, E.; Fernández-Ruiz, M.A.; Gil-Martín, L.M.; Merino, L.; Jara, P. 2017. “Full and Folded Forms, a compact review of the formulation of tensegrity structures“. Mathematics and Mechanics of Solids, pp: 1-6. DOI: 10.1177/1081286517697372.

C.1.8- Scientific paper. Fernández-Ruíz M.A.; Moskaleva A.; Gil-Martín L.M.; Palomares A.; Hernández-Montes E. 2019. “Design and Form-Finding of Compression Structures with Prestressing Tendons”. https://doi.org/10.1016/j.engstruct.2019. Engineering Structures 109394. 197, pp.1-10

C.1.9- Scientific paper. Moskaleva A.; Fernández-Ruíz M.A.; Gil-Martín L.M.; Frolovskaia A.; Gerashchenko S.; Hernández-Montes E. 2019. “Form-finding of Bionic Structures Using

the Force Density Method and Topological Mapping (http://www.hrpub.org/download/20190530/CEA1-14813157.pdf). Civil Engineering and Architecture. 7(3), pp. 65-74.

C.1.10- Scientific paper. Fernández-Ruíz M.A.; Hernández-Montes E.; Carbonell-Márquez J.F.; Gil-Martín L.M. 2019. "Octahedron family: the double-expanded octahedron tensegrity". International Journal of Solids and Structures. 165, pp. 1-13.

C.1.11- Scientific paper. Hernández-Montes, E.; Fernández-Ruiz, M.A.; Gil-Martín, L.M.; Merino, L.; Jara, P. 2018. "Full and Folded Forms, a compact review of the formulation of tensegrity structures". DOI: 10.1177/1081286517697372. Mathematics and Mechanics of Solids. 23(6), pp. 944-949.

C.1.12- Scientific paper. Fernández-Ruiz, M.A.; Hernández-Montes, E.;Carbonell-Márquez, J.F.; Gil-Martín, L.M. 2017. "Patterns of force:length ratios for the design of compression structures with inner ribs". Engineering Structures. 148, pp. 878-889.

C.1.13- Scientific paper. Gil-Martín, L.M.; Fernández-Ruiz, M.A.; Hernández-Montes E. 2017. " A discussion on the stiffness matrices used in tensegrity structures". Journal of Applied Engineering Science.15(3), pp. 387-392.

C.1.14- Scientific paper. Carbonell-Márquez, Juan Francisco; et al. 2016. "Topological design of compression structures". Archive of Applied Mechanics. 86-8, pp.1495-1508.

C.1.15- Scientific paper. Hernández-Montes, Enrique; Aschheim, Mark; Gil-Martin, Luisa María. 2015. "Energy Components in Nonlinear Dynamic Response of SDOF Systems". Nonlinear Dynamics. 82-1-2, pp.933-945. Q1 in Mechanical Engineering.

C.1.16- Scientific paper. Hernández-Montes, Enrique; Carbonell-Márquez, Juan Francisco; Gil-Martin, Luisa María. 2014. "Limits to the strength design of reinforced concrete shells and slabs". Engineering Structures". 61-3, pp.184-194. *Q1 in Civil Engineering*.

C.1.17- Chapter of Book. Gil-Martín, L.M.; Hernández-Montes, E.; Aschheim, M.; Pantazopoulou S. 2011." A Simpler Compression Field Theory for Structural Concrete". Vol: 31,pp.11-41. STUDIES AND RESEARCHES, ISSN: 9788896225400.

C.1.18- Chapter of Book. Gil-Martín, L.M.; Hernández-Montes, E.; Aschheim, M.; Pantazopoulou S. 2010. "Refinements to Compression Field Theory with Application to Wall-Type Structures". Special Publication ACI STRUCTURAL JOURNAL. ISSN: 0889-3241