

Date of the CVA	08/02/2021
-----------------	------------

Section A. PERSONAL DATA

Name and Surname	Lluís Gil Espert		
DNI	36569320X	Age	54
Researcher's identification number	Researcher ID		
	Scopus Author ID		
	ORCID	0000-0002-2007-4846	

* Obligatorio

A.1. Current professional situation

Institution	Universitat Politècnica de Catalunya		
Dpt. / Centre	Department of Strength of Materials and Structural Engineering / The School of Industrial, Aerospace and Audiovisual Engineering of Terrassa (ESEIAAT)		
Address	EDIFICI TR45 (ETSEIAT), PLANTA 1DESPATX 127, C. COLOM, 11, 08222, TERRASSA		
Phone	667 257 387	Email	LLUIS.GIL@UPC.EDU
Professional category	Full professor	Start date	2017
Keywords	Civil engineering		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Doctor Enginyer de Camins	Universitat Politècnica de Catalunya	1997
Enginyer de Camins, Canals i Ports	UPC	1992

A.3. General quality indicators of scientific production

Six-year research periods (sexenios): 3

Date of last granted: 01/01/2018

Number of thesis supervised in the last ten years: 7

Number of citations: 542

Average number of citations in the last five years: 53.4

Number of publications in the first quartile (Q1): 35

h Index: 15.0

Section B. SUMMARY OF THE CURRICULUM

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondència; (nº x / nº y): posició firma sol·licitant / total autors

- Scientific paper.** Bernat, E.; Mercedes; Gil, L.(3/3). 2020. Analytical and simplified numerical approaches of FRCM pipes Construction and building materials. Elsevier. 247-118560, pp.118560-1-118560-11. ISSN 0950-0618.
- Scientific paper.** G. Sellés, A.; Marcé, J.; Vila, B.; Pérez, M.; Gil, L.; Galobart, À.; Fortuny, J.(5/7). 2019. Computational approach to evaluating the strength of eggs: implications for laying in organic egg production Biosystems engineering. Elsevier. 186, pp.146-155. ISSN 1537-5110.
- Scientific paper.** Bernat, E.; Gil, L.(2/2). 2019. Assessing the performance of CFRP strengthening on masonry walls using experimental modal analysis Engineering structures. Elsevier. 193, pp.184-193. ISSN 1873-7323.

- 4 **Scientific paper.** Gil, L.; Bernat, E.; Escrig, C.(1/3). 2019. Experimental and analytical flexural performances of reinforced concrete beams strengthened with post-tensioned near surface mounted basalt composite laminates Composites part B: engineering. Elsevier. 157, pp.45-57. ISSN 1359-8368.
- 5 **Scientific paper.** Bernat, E.; Gil, L.; Mercedes; Escrig, C.(2/4). 2018. Mechanical properties of pre-stressed fabric-reinforced cementitious matrix composite (PFRCM) Construction and building materials. Elsevier. 191, pp.228-241. ISSN 0950-0618.
- 6 **Scientific paper.** Zahid, M.; Shafiq, N.; Hasnain, M.; Gil, L.(4/4). 2018. Statistical modeling and mix design optimization of fly ash based engineered geopolymer composite using response surface methodology Journal of cleaner production. 194, pp.483-498. ISSN 0959-6526.
- 7 **Scientific paper.** Mercedes; Gil, L.; Bernat, E.(2/3). 2018. Mechanical performance of vegetal fabric reinforced cementitious matrix (FRCM) composites Construction and building materials. Elsevier. 175, pp.161-173. ISSN 0950-0618.
- 8 **Scientific paper.** Bernat, E.; Gil, L.; Escrig, C.; Barbé, J.; Cortés, P.(2/5). 2018. Effect of Sporosarcina Pasteurii on the strength properties of compressed earth specimens Materiales de construcción (Madrid). Instituto Técnico de la Construcción y del Cemento. 68-369, pp.1-13. ISSN 0465-2746.
- 9 **Scientific paper.** Bernat, E.; Puigvert, F.; Abdelmoulac, H.; Gil, L.(4/4). 2018. Additioning alfa fibres in cement mortar Revista de la construcción. Universidad Católica de Chile (UC). 17-1, pp.72-84. ISSN 0718-915X.
- 10 **Scientific paper.** Bernat, E.; Ivanova Teneva, E.; Escrig, C.; Gil, L.(4/4). 2017. Ultrasound transmission method to assess raw earthen materials Construction and building materials. Elsevier. 156, pp.555-564. ISSN 0950-0618.
- 11 **Scientific paper.** Escrig, C.; Gil, L.; Bernat, E.(2/3). 2017. Experimental comparison of reinforced concrete beams strengthened against bending with different types of cementitious-matrix composite materials Construction and building materials. Elsevier. 137, pp.317-329. ISSN 0950-0618.
- 12 **Scientific paper.** Sarrablo, V.; Roviras, J.; Sanchez, F.; Gil, L.(4/4). 2016. Envolvente del Centro de Arte Botín en Santander. Estudio de viabilidad de la solución con discos cerámicos roscados sobre chapa de aluminio Informes de la construcción. 68-544, pp.1-11. ISSN 0020-0883.
- 13 **Scientific paper.** Marcé, J.; de Esteban-Trivigno, S.; Escrig, C.; Gil, L.(4/4). 2016. Accounting for differences in element size and homogeneity when comparing Finite Element models: Armadillos as a case study Palaeontologia electronica. 19.2.2T, pp.1-22. ISSN 1935-3952.
- 14 **Scientific paper.** Fortuny, J.; Marcé-Nogué, J.; Steyer, J.; Esteban, S.; Mujal, E.; Gil, L.(6/6). 2016. Comparative 3D analyses and palaeoecology of giant early amphibians (Temnospondyli: Stereospondyli) Scientific reports. Nature. 6, pp.1-10. ISSN 2045-2322.
- 15 **Scientific paper.** Bernat, E.; Escrig, C.; Gil, L.(3/3). 2016. Comparison between TRM and FRP strengthening systems at preventing buckling failure of brick masonry walls Informes de la construcción. 68-543, pp.1-10. ISSN 0020-0883.
- 16 **Scientific paper.** Bernat, E.; Gil, L.; Escrig, C.(2/3). 2016. Textile-reinforced rammed earth : experimental characterisation of flexural strength and toughness Construction and building materials. Elsevier. 106, pp.470-479. ISSN 0950-0618.
- 17 **Scientific paper.** Bernat, E.; Gil, L.; Escrig, C.(2/3). 2015. Analysis of brick masonry walls strengthened with fibre reinforced polymers and subjected to eccentric compressive loads Construction and building materials. Elsevier. 84, pp.169-183. ISSN 0950-0618.
- 18 **Scientific paper.** Bernat, E.; Gil, L.; Roca, P.(2/3). 2015. Numerical analysis of the load-bearing capacity of brick masonry walls strengthened with textile reinforced mortar and subjected to eccentric compressive loading Engineering structures. Elsevier. 91, pp.96-111. ISSN 0141-0296.
- 19 **Scientific paper.** Bernat, E.; Gil, L.; Roca, P.(2/3). 2014. Analytical method for the assessment of unreinforced brick masonry walls subjected to eccentric compressive loads Construction and building materials. Elsevier. 73, pp.180-186. ISSN 0950-0618.

- 20 **Scientific paper.** Bernat, E.; Escrig, C.; Aranha, C.; Gil, L.(4/4). 2014. Experimental assessment of Textile Reinforced Sprayed Mortar strengthening system for brickwork wall. Construction and building materials. Elsevier. 50, pp.226-236. ISSN 0950-0618.
- 21 **Scientific paper.** Bernat, E.; Gil, L.; Roca, P.; Escrig, C.(2/4). 2013. Experimental and analytical study of TRM strengthened brickwork walls under eccentric compressive loading. Construction and building materials. Elsevier. 44, pp.35-47. ISSN 0950-0618.
- 22 **Scientific paper.** Bernat, E.; Gil, L.; Roca, P.; Sandoval, C.(2/4). 2013. Experimental and numerical analysis of bending-buckling mixed failure of brickwork walls. Construction and building materials. Elsevier. 43, pp.1-13. ISSN 0950-0618.
- 23 **Scientific paper.** Bernat, E.; Gil, L.; Marcé-Nogué, J.(2/3). 2012. The structural performance of arches made of few voussoirs with dry-joints. Structural engineering and mechanics. 44-6, pp.775-799. ISSN 1225-4568.
- 24 **Scientific paper.** Sandoval, C.; Roca, P.; Bernat, E.; Gil, L.(4/4). 2011. Testing and numerical modelling of buckling failure of masonry walls. Construction and building materials. Elsevier. 25-12, pp.4394-4402. ISSN 0950-0618.

C.2. Participation in R&D and Innovation projects

- 1 REDUVE, REDUVE Refuerzo de estructuras frente a acciones dinámicas con compuestos de malla vegetal AZVI, S.A.. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 12/07/2019-12/01/2022. 43.200 €.
- 2 COMPOSITO (CDTI), COMPOSITO (CDTI) AZVI, S.A.. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 01/10/2017-30/03/2020. 63.000 €.
- 3 2019-C001, Desenvolupament d'activitats de recerca i formació per a la millora de la seguretat de les edificacions enfront de sisme a la regió de chiapas, mèxic Centre Cooperació per al Desenvolupament. Lluís Gil Espert. (Universitat Politècnica de Catalunya). 01/06/2019-31/12/2019. 3.500 €.
- 4 BIA2015-63882-P, Multiscale techniques for the experimental and numerical analysis of the reliability of masonry structures MIN DE ECONOMIA Y COMPETITIVIDAD. Pedro Roca Fabregat. (INGINYERIA CIVIL I AMBIENTAL). 01/01/2016-31/12/2018. 124.509 €.
- 5 TUBOTEX (CDTI), TUBOTEX (CDTI) SORIGUE, S.A.. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 30/05/2017-30/11/2018. 41.250,08 €.
- 6 REVALORIZACIÓN DE RESIDUOS SECUNDARIOS DE NFU's Ministerio de Economía y Competitividad. Lluís Gil Espert. (LITEM - Materials and Structures Laboratory of Innovation Technology). 01/01/2013-31/12/2015. 113,51 €.
- 7 BIA2012-32234, Identificación de parámetros mecánico-resistentes en obra de fábrica estructural mediante métodos experimentales y micromodelización numérica MIN DE ECONOMIA Y COMPETITIVIDAD. Pedro Roca Fabregat. (INGINYERIA CIVIL I AMBIENTAL). 01/01/2013-31/12/2015. 109.836,84 €.
- 8 IPT-2012-0990-310000, REVALORIZACIÓN DE RESIDUOS SECUNDARIOS DE NFU's MIN DE ECONOMIA Y COMPETITIVIDAD. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 01/01/2013-31/12/2015. 113.506,27 €.
- 9 IPT-2011-1765-920000, SISTEMA DE INSPECCION A DISTANCIA PARA TORRES ELECTRICAS MIN DE ECONOMIA Y COMPETITIVIDAD. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 01/01/2012-30/06/2014. 207.771 €.
- 10 SISTEMA DE INSPECCIÓN A DISTANCIA PARA TORRES ELÉCTRICAS -SIDTE MICINN. Lluís Gil Espert. (MICINN). 24/10/2011-31/12/2013. 207,77 €.
- 11 FP7-244123-Niker, New Integrated Knowledge Based Approaches to the protection of cultural heritage from earthquake induced risk Commission of European Communities. Pedro Roca Fabregat. (INGINYERIA CIVIL I AMBIENTAL). 01/01/2010-31/12/2012. 212.449,31 €.
- 12 HORMIGÓN SOSTENIBLE CON FIBRAS VEGETALES Agencia Española de Cooperación Internacional para el Desarrollo (AECID). Carlos Romea Rosas. (Universitat Politècnica de Catalunya). 13/12/2011-12/12/2012. 35.900 €.
- 13 2011ACDC 00120, ACDC2011-00120 GENCAT-COMISS UNIVERSITAT I RECERCA. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 12/12/2011-31/12/2011. 1.200 €.

- 14 PCI - AECID A/026492/09, RED IBEROAMERICANA PARA LA EVALUACIÓN DEL RIESGO Y LA REPARACIÓN SOSTENIBLE DE LAS CONSTRUCCIONES EXISTENTES Agencia Española de Cooperación Internacional (AECI); Universitat Politècnica de Catalunya. Lluís Gil Espert. (Universitat Politècnica de Catalunya). 01/09/2010-01/09/2011. 25.000 €.
- 15 Proyecto de colaboración sobre el estudio experimental y numérico del comportamiento de muros de mampostería Agencia Española de Cooperación Internacional (AECI). Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 17/01/2010-17/01/2011. 23.000 €.

C.3. Participation in R&D and Innovation contracts

- 1 Desarrollo de una tecnología de integración de marcadores magnéticos en la calzada para permitir el guiado de los vehículos autónomos SORIGUE, S.A.. Lluís Gil Espert. (MSLIT - Materials and Structures Laboratory of Innovation Technology). 20/11/2019-21/11/2021. 80.000 €.
- 2 DESARROLLO DE NUEVAS TECNOLOGÍAS DE REFUERZO DE MUROS DE MAMPOSTERÍA Centro para el Desarrollo Tecnológico Industrial (CDTI). Lluís Gil Espert. (COMSA). 24/05/2012-P2Y. 106.000 €.

C.4. Patents

- 1 Marco Antonio Pérez Martínez; Lluís Gil Espert. PCT/IB2014/002078. Method and system for evaluating the structural integrity of lattice or reticulated towers Unknown. 18/09/2014. COMSA. COMSA.
- 2 Francesc Puigvert Cobos; Lluís Gil Espert. P201230865. Anclaje, sistema de fijación y procedimiento para postensar armaduras activas de material compuesto Spain. 05/06/2012. Universitat Politècnica de Catalunya.