MINISTERIO DE CIENCIA E INNOVACIÓN

CURRICULUM VITAE (maximum 4 pages)

AGENCIA ESTATAL DE INVESTIGACIÓN

CV date	06/10/2022

Part A. PERSONAL INFORMATION

First and Family name	EUGENIO GINER MARAVILLA		

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	Universitat Politècnica de València – UPV		
Department	Dept. of Mechanical Engineering and Materials		
Address and Country	Camino de Vera s/n, 46022, Valencia		
Current position	Professor	Date:	07/04/2016
Key words	Mechanical engineering, composite materials, fatigue and structural integrity, fracture mechanics, biomechanics, numerical methods, finite element method		

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD Industrial Engineering (finalist of the extraordinary final PhD award)	Universitat Politècnica de València	2001
Industrial Engineering, Mechanical mention (extraordinary final degree award)	Universitat Politècnica de València	1993
B.Eng. in Combined Engng (1st class Honors)	Coventry Polytechnic, UK	1990

A.3. General indicators of quality of scientific production *(see instructions)*

a) **4** six-year term of investigation (1997-2002, 2003-2008, 2009-2014, 2015-2020),
1 six-year term of knowledge transfer (2010-2015).
b) Thesis supervised since 2010: **11**.
c) Total number of citations: **1382** (Web of Science), **1618** (Scopus). Average number of citations during the last five years: **157** per year (Web of Science), **184** (Scopus).
d) Publications: **71** in Web of Science, **66** in JCR journals, **83** in Scopus.
e) Publications in first quartile Q1 / first tertile T1 in JCR: **52/60**.
f) *h*-Index: **22** (Web of Science), **22** (Scopus).

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

PhD in Industrial Engineering (2001), Industrial Engineer (Mechanical mention) graduated at Polytechnical University of Valencia in 1993, extraordinary final degree award of 20th promotion. Professor at Department of Mechanical Engineering and Materials, UPV since 07.04.16. Within the general context of Mechanical Engineering, my research lines focus on numerical methods, finite element method, fracture mechanics, XFEM, fatigue, fretting-fatigue, composite materials and biomechanics. I am currently leading the research team in structural integrity, belonging to the Research Centre in Mechanical Engineering (CIIM), UPV. The main objectives of the team are the state-of-the-art research combined with significant technological transfer to industry, together with young researchers training,

support of career development and collaboration with relevant national and international research teams.

I have led as principal investigator (PI) 8 competitive projects in National Plan in Spain and 3 regional projects, being investigator in other 16 competitive projects, one of them financed in an international program FP7-ITN. I have also developed an intense work with industry leading more than 60 contracts and provision of services with companies.

My research activities result in 66 articles in journals indexed in ISI-JCR (52 Q1, 60 T1). I have reviewed more than 120 manuscripts for about 30 relevant journals focused on numerical methods, solid mechanics, fatigue, fracture mechanics and biomechanics. I have contributed with 165 at scientific conferences (76 international, 89 national).

I have supervised 11 doctoral theses since 2010 (3 more in progress) and more than 100 degree and master projects. I have been invited to participate as a member of committee for the evaluation of more than 30 doctoral theses out of my university, including U. Oxford and INSA-Lyon.

My research works have received 10 awards in conferences and I was finalist of the extraordinary final PhD award with my doctoral thesis. I have performed research stays at University of Oxford (Prof. David Hills, 2002), University of de California-Davis (Prof. Sukumar, 2005) and University of Porto (Prof. Camanho, 2015).

Finally, I have extensive experience in research management in national agencies for more than 12 years, including ANEP coordinator of the IME area (Mechanical, Naval and Aeronautical Engineering) and in university management as Head of Department for more than 5 years.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. **Publications** *(see instructions)*

10 articles in JCR journals included in the first quartile are listed:

Marco M, Giner E, Miguélez H, González, D. (2021) On the effect of geometrical fiber arrangement on damage initiation in CFRPs under transverse tension and compression. Composite Structures, 274, 114360.

Belda R, Palomar M, Marco M, Vercher-Martínez A, Giner E. (2021) Open cell polyurethane foam compression failure characterization and its relationship to morphometry, Materials Science & Engineering - C, 120, 111754.

Marco M, Belda R, Miguélez H, Giner E. (2021) Numerical analysis of mechanical behaviour of lattice and porous structures. Composite Structures, 261, 113292.

Marco M, Infante-García D, Belda R, Giner E. (2020) A comparison between some fracture modelling approaches in 2D LEFM using finite elements. International Journal of Fracture, 223, 151-171.

Infante-García D, Giner E, Miguélez H, Abdel Wahab M. (2019) Numerical analysis of the influence of micro-voids on fretting fatigue crack initiation lifetime. Tribology International, pp. 121-129.

Infante-García D, Qian G, Miguélez H, Giner E. (2019) Analysis of the effect of out-of-phase biaxial fatigue loads on crack paths in cruciform specimens using XFEM. International Journal of Fatigue, 123, pp. 87-95.

Marco M, Infante-García D, Díaz-Álvarez J, Giner E. (2019) Relevant factors affecting the direction of crack propagation in complete contact problems under fretting fatigue. Tribology International (131) 343-352.

Palomar M, Lozano-Mínguez E, Rodríguez-Millán M, Miguélez MH, Giner E. (2018) Relevant factors in the design of composite ballistic helmets. Composite Structures (201) 49-61.

Marco M, Belda R, Miguélez MH, Giner E. (2018) A heterogeneous orientation criterion for crack modelling in cortical bone using a phantom-node approach. Finite Elements in Analysis and Design (146) 107-117.

Giner E, Vercher A, Marco M, Arango C. (2015) Estimation of the reinforcement factor ξ for calculating the transverse stiffness E2 with the Halpin-Tsai equations using the finite element method. Composite Structures (124)402 - 408.

C.2. Research projects

The list includes 5 competitive projects since 2010 with E. Giner as principal investigator.

1. Análisis de defectos en laminados reforzados con fibras debidos a procesos de fabricación y efecto en el comportamiento a fatiga. Subpr.1. Ministerio de Ciencia e Innovación (PID2020-118480RB-C21). 2021-2024. PI: E. Giner. Budget: 132.132 €

2. Taladrado de componentes híbridos CFRPs/Ti y tolerancia al daño debido a mecanizado durante el comportamiento en servicio. Ministerio de Economía y Competitividad (DPI2017-89197-C2-2-R). 2018-2020. PI: E. Giner. Budget: 88.330 €

3. Diseño avanzado y fabricación de protecciones personales integrales de uso militar y para fuerzas y cuerpos de seguridad del estado (PROTEC_DAF). Program Retos-Colaboración (RTC-2015-3887-8). Ministerio de Economía y Competitividad. 2015-2018. PI: E. Giner (PI at UPV). Budget: 128.384 €

4. Desarrollo de modelos microestructurales de tejido óseo y aplicación a procedimientos de evaluación del riesgo de fractura. Ministerio de Economía y Competitividad (DPI2013-46641-R). 2014-2017. PI: E. Giner. Budget: 74.000 €

5. Aplicación del método de elementos finitos extendido y modelos de zona cohesiva al modelado microestructural del daño en hueso cortical. Ministerio de Ciencia y Tecnología. (DPI2010-20990). 2011-2014. PI: E. Giner. Budget: 47.000 €.

C.3. Contracts, technological or transfer merits

The list includes 6 contracts since 2010 with E. Giner as principal investigator in the first five:

1. Diseño y fabricación de protecciones avanzadas de cabeza y torso teniendo en cuenta efectos biomecánicos y perspectiva de género (PROTECT BIO GEN). Program COINCIDENTE. Ministerio de Defensa. 2020-2021. PI: E. Giner (PI in UPV in consortium FECSA and UC3M). Budget UPV: 109218 €

2. Análisis de uniones adhesivas para plataformas estructurales en la industria aeroespacial fabricadas en materiales compuestos prepreg. Company: COMET INGENIERÍA S.L. 03/10-01/11. PI: E. Giner. Budget: 6000 euros.

3. Análisis de uniones adhesivas para plataformas estructurales en la industria aeroespacial fabricadas en materiales compuestos prepreg (Renovación IMPIVA 2011). Company: COMET INGENIERÍA S.L. 01/11-01/12. PI: E. Giner. Budget: 4000 euros.

4. Modelado numérico de laminados de material compuesto con ondulaciones. Company: GAMESA INNOVATION AND TECHNOLOGY, S.L. 09/11-12/11. PI: E. Giner. Budget:15000 euros.

5. Análisis estructural y mejoras en el diseño mecánico de prototipos de máquinas de energía undimotriz. Company: ROTARY WAVE, S.L. 01/15-09/15. PI: E. Giner. Budget: 3300 euros.

6. Sistema de medida de fuerzas de interacción pantógrafo-catenaria. Company: PATENTES TALGO S.L.U. 04/14-04/16. PI: F.J. Fuenmayor. Budget: 220000 euros.

C.4. Patents

C.5 Conferences

165 publications in conferences (76 international, 89 national).

C.6 Research management

1. 12 years of expertise in public management of research (since 2008). Coordinator of the Mechanical, Naval and Aeronautical Engineering Area (IME) in Evaluation and Prospective National Agency in Spain (ANEP) 2011-2016, previously sub-coordinator between 2008-2011.
2. President of the committee for evaluation of Ramón y Cajal and Juan de la Cierva programs and ex post evaluation of the program (2011-2016).
3. Collaborator and co-coordinator of several calls in Production and Construction Area in DEVA (Andalucía) 2016-2022.
4. Member of committee for ex post evaluation in Plan Estatal (DPI2010, DPI2011, DPI2012, TRA2012, 2013-2015).
5. Evaluator of ACADEMIA program (since 2014) ANECA.
6. Evaluator of research projects in international agencies, (Belgium and Poland) between 2013-2016.
7. Evaluation of training programs Fundación la Caixa (2014, 2015, 2017, 2019, 2022).
8. Member of the evaluation committee of program Leonardo Fundación BBVA (2018, 2019, 2020, 2021, 2022).
9. Evaluator in Agencia para la Calidad del Sistema Universitario de Castilla y León, ACSUCYL (since 2018).
10. Evaluator committee in Technology Area in UNIBASQ, Gobierno Vasco (since 2019).
11. Vice president of Grupo Español de Fractura and Sociedad Española de Integridad Estructural. Member of steering committee (2011-2022).
12. Member of editorial committee of the journal Fracture and Structural Integrity.
13. Coordinator of evaluation for the awards to the best predoc work and the best PhD in the Grupo Español de Fractura (2009-2022).
14. Member of scientific committee of several conferences: International Conference of Fracture, International Conference of Multiaxial Fatigue and Fracture, Iberian Conference on Fracture and Structural Integrity, Congreso Nacional de Ingeniería Mecánica, Reunión del Capítulo Español Biomecánica, Congreso Iberoamericano de Ingeniería Mecánica, etc.

C.7 University management

1. Currently, Head of the Department of Mechanical Engineering and Materials at UPV, (since 2016).
2. Elected member of Governing Board (Consejo de Gobierno) at UPV (since 2021).
3. Member of committee for assessment of positions at UPV (since 2019).
4. President/member of academic committees: Máster Universitario en Ingeniería Aeronáutica, Grado en Ingeniería Aeroespacial, Máster Universitario en Ingeniería Mecánica (since 2008).
5. Academic Secretary of Department of Mechanical Engineering and Materials at UPV, (2011-2012).