Part A. PERSONAL INFORMATION

		CV date	22-09-2021

First and Family name	Juan Garbajosa Sopeña		
Social Security, Passport, ID number	02702443N	Age	62
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0003-0161-3485	
	SCOPUS Author ID (*)	24449926400	
	WoS Researcher ID (*)	B-5818-2012	

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	Universidad Politécnica de Madrid (UPM)		
Department	ETSISI / CITSEM / ITD		
Address and Country	Calle Alan Turing S/N, 28031 Madrid		
Phone number	9106 73575	E-mail	juan.garbajosa@upm.es
Current position	Catedrático de Escuela Universitaria (Tenured Professor)	From	17/04/2002
Key words	Software Systems Engineering; Cyber Physical Systems Architecture; Innovation and Agility, Collective Intelligence		

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD in Informatics	Deusto University	1992
Master in Chemistry	U. Complutense de Madrid	1980

A.3. General indicators of quality of scientific production

Research Period (10 years): 2. Last period Date 2013 (Call 2012)
Knowledge Transfer and Innovation Period:1. Last Period Date 2019 (Call 2018)
Number of PhD thesis supervised: 7 in total (4 with European/International Accreditation, 1 co-supervised in Oulu University/Finland, 1 with UPM Award)

Publications in Journals   Q1:5, Q2:6, Q3:3
Publications in Conferences GII-GRIN-SCIE (GGS) A+ and CORE A+/A: 7
WOS. Number of citations: 387 excluding self references H-Index: 14, (February 2024),
Scopus. Number of citations 1,106, H-Index: 18 excluding self citations (February 2024)
Google Scholar. Citations. 2182 (February 2024). H-Index: 26.   (February 2024)

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

He started his Academic career at UPM in 1993, full time in 1997, and it has continued until today. He also served in Industry and Government as a software engineer for almost 16 years. In the beginning, his activity was focused on IT but it changed to R&D when he joined GMV, an aerospace company, at the time a Spanish start-up having the European Space Agency as its main customer, and nowadays a multinational company, priming challenging projects such as maintenance, development and upgrading of Galileo's Ground Control Segment (Galileo is the Europe's own global navigation satellite system). At GMV he often led international R&D projects.

At UPM, Juan currently teaches undergraduate courses in Software Project Management and Software Quality. Past years, he taught Cyber-Physical Systems Modeling, Innovation for Software Intensive Systems, IPR for Software Systems, Systems Integration and Validation (postgraduate), and Software Architecture and Design, Software Engineering (undergraduate).

Juan has supervised 7 doctoral thesis, one co-supervised with Prof Oivo in University of Oulu (Finland).

Also at UPM, in 1998 he started a research group, a few years later named as System and Software Technology Group. This Group has always worked hand-in-hand with Industry, and, usually, collaborating in international projects. The activity of the group has frequently supported Innovation efforts in Industry. At the present moment, part of the efforts, still emerging, address the integration of Collective Intelligence with Cyber Physical Systems. A sample of publications can be seen below. Some of the international projects led at UPM are CPSELabs(EU H2020), XNETMOD (EU FP V), several EU ITEA2 (FLEXI, IMPONET y NEMO&CODED), and also the ESA/ESTEC DOBERTSEE. He is now leading the Sustainability-Aware IoT Systems Driven by Social Communities (SIoTCom) funded by the Spanish Research Agency (PID2020-118969RB-I00)

Since 1998, Leader of the System and Software Tech Group, Research Group at UPM. Convenor de ISO/IEC JTC1 SC7/ WG20 (2001-2015), and co-editor of the IEEE Software Engineering Body of Knowledge (SWEBOK V3). Steering Committee Chair of the International Conference on Agile Software Development (XP) 2015-2023. He was Program Co-Chair of XP2011, 12th Intl. Conf. on Agile Software Development and XP2018 and XP2023 Research Track Chair. ECSA 2018 Doctoral Symposium Co-Chair, TechDebt-2021 Local co-Organizer. At UPM he has been Deputy Director of the CITSEM Research Center (2012-16), Deputy Vice-Rector for Quality Systems and Competitiveness (2016-20), and Director for Corporate Relations (2020-).

Member of the European Cooperation in Science and Technology (COST) ICT Domain Committee, representing Spain (2009-14), assessing proposals, and defining strategy.

Part C. RESEARCH RELEVANT MERITS (sorted by typology)
C.1. Publications (see instructions)

JCR Q1-Q3 Journals and conferences GII-GRIN-SCIE y CORE A++/A+/A

Bernardo Tabuenca, Manuel Uche-Soria, Wolfgang Greller, Davinia Hernández-Leo, Paula Balcells-Falgueras, Peter Gloor, Juan Garbajosa. Greening smart learning environments with Artificial Intelligence of Things. Internet of Things, Volume 25, 2024, 101051, ISSN 2542-6605

H. Hooshyar et al., "Impact in Software Engineering Activities After One Year of COVID-19 Restrictions for Startups and Established Companies," in *IEEE Access*, vol. 11, pp. 55178-55203, 2023,

Nguyen-Duc A, Khanna D, Le GH, et al. Work-from-home impacts on software project: A global study on software development practices and stakeholder perceptions. Softw Pract Exper. 2023; 1-31.

M. P. Lamela, J. Rodríguez-Molina, M. Martínez-Núñez and J. Garbajosa, "A Blockchain-Based Decentralized Marketplace for Trustworthy Trade in Developing Countries," in IEEE Access, vol. 10, pp. 79100-79123, 2022,

PM Royo, J Rodríguez-Molina, J Garbajosa, P Castillejo. *Towards Blockchain-Based Internet of Things Systems for Energy Smart Contracts With Constrained Hardware Devices and Cloud Infrastructure. IEEE Access 9, 77742-77757, (2021)*

C Fernández-Sánchez, J Garbajosa, A Yagüe, J Perez. *Identification and analysis of the elements required to manage technical debt by means of a systematic mapping study.* Journal of Systems and Software, 124, 22-38 (2017)

HM Chen, R Kazman, J Garbajosa, E Gonzalez. *Big Data Value Engineering for Business Model Innovation*. Hawaii International Conference on System Sciences (HICSS), 5921-5930 (2017)

A Mishra, J Garbajosa, X Wang, J Bosch, P Abrahamsson

Future directions in Agile research: Alignment and divergence between research and practice
Journal of Software: Evolution and Process 29 (6), e1884, 2017

A Yagüe, J Garbajosa, J Díaz, E González. *An exploratory study in communication in Agile Global Software Development*. Computer Standards & Interfaces 48, 184-197 (2016)

P Abrahamsson, A Nguyen-duc, GH Baltes, K Conboy, D Dennehy, ...
Software Startups-A Research Agenda. e-Informatica Softw. Eng. J 10 (1), 1-28 (2016)

Díaz, J., Pérez J., Garbajosa J. *A Model for Tracing Variability from Features to Product-Line Architectures: A Case Study in Smart Grids*. Req. Eng. Journal. (20, 3), pp 323-343 (2015)

J Díaz, J Pérez, J Garbajosa. *Agile product-line architecting in practice: A case study in smart grids*
Information and Software Technology 56 (7), 727-748 (2014)

Díaz, J., Pérez, J., Alarcón, P.P., Garbajosa, J.: Agile Product Line Engineering - A Systematic Literature Review. Software: Practice and Experience. (41,8), po 921–941, (2011)

Díaz J., Pérez J., Garbajosa J., and C. Fernández-Sánchez, "Modeling Product-Line Architectural Knowledge," 48th Hawaii Int. Conf. on System Sciences (HICSS), pp. 5383-5392. IEEE Comp. Soc. (2015).

A. Espinoza, J. Garbajosa. *A study to support agile methods more effectively through traceability.*
Innovations in Systems and Software Engineering 7 (1), 53-69 (2011)

C.2. Research projects

Type of Contract/Program: I&D&I State Plan I+D+I, Retos
Project Name/Contract : Sustainability-Aware IoT Systems Driven by Social Communities (SIoTCom)
Funding Agency: Spanish Research Agency **Reference**: (PID2020-118969RB-I00)
Amount: 30.000 USD (Total) 37.631,00 EUR (UPM)
Entidades participantes: UPM (coordinating UdG)
From: 2016 **To:** 2020
Research leader: Juan Garbajosa (UPM). **Number of researchers:** 6 (UPM)

Type of Contract/Program: COST
Project Name/Contract: CA19126 - Positive Energy Districts European Network
Agency: COST (European Cooperation in Science and Technology)
Participants: Organizations from 34 countries. **Project Reference:** CA19126
From: 2020 **to** 2024
Research Leader: Dr Vicky ALBERT-SEIFRIED (Fraunhofer, Germany) (Juan Garbajosa at UPM)

Type of Contract/Program MIT/ MISTI funding seed
Project Name/Contract Empowering Collective Intelligence with Artificial Intelligence To Enhance And Scale Sustainable Development (Sustainable Cities)
Funding Agency: MIT-MIST Spain
Participants: MIT y UPM
From: 2019 **to:** 2021
Amount: 30.000 USD (Total)
Research Leader: Thomas Malone (MIT), Juan Garbajosa (UPM)

Type of Contract/Program EU Horizon 2020
Project Name/Contract CPSELabs /European Commission/H2020)
Participants: fortiss (DE), KTH (SE), ONERA, LAAS-CNRS (FR), Newcastle University (UK), OFFIS (DE), Indra Sistemas (ES), UPM (ES), STZ (DE)
Funding Agency: European Commission **/ Reference** Grant agreement no: 644400
Amount 388.625.00 EUR (UPM), 7.654.030 EUR (TOTAL)
From: 2015 **to:** 2018
Research leader: Juan Garbajosa (at UPM), Holger Pfeiffer (overall project) **Members at UPM:** 4

Type of Contract/Program: I&D&I State Plan I+D+I, Retos
Project Name/Contract : Adaptive Architecture for Crowdsensing in Efficient Communities
(Crowdsaving)
Funding Agency: MINECO **Reference**: TIN2016-79726-C2-1-R
Amount: 30.000 USD (Total) 37.631,00 EUR (UPM)
Entidades participantes: UPM (coordinando a UdG)
From: 2016 **To:** 2020
Research leader: Juan Garbajosa (UPM) **Number of researchers:** 6 (UPM)

Type of Contract/Program: EUREKA ITEA 2
Project Name: NEtworked MOnitoring & COntrol, Diagnostic for Electrical Distribution.
Project reference: ITEA2 08022. CDT IDI-20110864 . PCD120010108, PCD120010107, PCD120010106.
(Contracts with Indra Software Labs, AnswareTech e Indra Sistemas)
Funding Agency: CDTI IDI-20110864 under Eureka ITEA2 label
From 2011 **to** 2013
Amount: 4.535.000 EUR (UPM: 41.800+135.647,3+31.732,95 EUR)
Research leader: Juan Garbajosa (UPM), Eloy González (overall project) **Number of researchers:** 2

Type of Contract/Program: Eureka ITEA 2. ITEA2 09030.
Project Name: IMPONET- Intelligent Monitoring of Power Net Works
Funding Agency/Reference : MITYC under Eureka ITEA2 label . ITEA2 09030.. TSI-020400-2010-103.
From : 23/12/2010 **to** 2012
Amount: 7.538.000 (UPM 129.112)
Research leader: Jenifer Perez Benedi (UPM), Eloy Gonzalez (overall project) **Number researchers:** 4

C.5 Research Management

COST ICT DC member defining policies and strategy for the DC. European Intergovernmental
Framework for Cooperation in Science and Technology (through MINECO). **From** 2009 **to** 2014
Deputy Head. The Research Center on Software Technologies and Multimedia Systems for
Sustainability (CITSEM) (CITSEM/UPM). **From:** 2012 **To** 2016
Research Group Leader de Tecnologias de Software y Sistemas (SYST) de la UPM. Official group at
UPM. **From** 1998-

C.6 Research Assessment

Expert assessing proposals ANEP (National Agency for Research Evaluation).
COST ICT DC member evaluating and making decisions about proposals to be selected. European
Intergovernmental Framework for Cooperation in Science and Technology (through MINECO). **From**
2009 **to** 2014
Referee Q1 Journals: IEEE Transactions on Industrial Informatics, Information and Software
Technology, IEEE Transactions on Software Engineering, Journal of Systems and Software

C.8. National and International Commitees member

Managing Board member: Spanish Platform for Smart Grids (FUTURED)**. From** 2015 -
Managing Board member: Spanish Platform for Information, Communication and Electronic
Technologies (PLANETIC) **From**: 2014 -
Convenor ISO IEC JTC1 SC7 WG20 Software and Systems bodies of Knowledge. **From**: 2001 To 2014
Chair International Conference on Agile Software Development (XP) Steering Committee. **From** 2015-
Program Co-Chair of XP2011, International Conference on Agile Software Development (XP)
Research Track co-Chair of XP2018 International Conference on Agile Software Development (XP)
Doctoral Symposium Co-Chair ECSA 2018 Doctoral Symposium Co-Chair.