MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

CV date	07/2021

Part A. PERSONAL INFORMATION

First and Family name	David Benavides Cuevas		
DNI/passport		Age	
Researcher numbers	Researcher ID	K-2791-2014	
	Orcid code	0000-0002-8449-3273	

A.1. Current position

Name of University/Institution	Universidad de Sevilla			
Department	Lenguajes y Sistemas Informáticos. ETS Ingeniería Informática			
Address and Country	Avda. Reina Mercedes s/n, Spain			
Phone number	954553866	E-mail	benavides@us.es	
Current position	Titular Universidad (acreditado a CU)	From	27/12/2010	
Espec. cód. UNESCO	120317, 120318, 120311			
Palabras clave	Customization, configurability, variability, software engineering, software product lines			

A.2. Education

PhD	University	Year
Ingeniero en Informática	Ingeniero en Informática	2001
Doctor Ingeniero en Informática	Universidad de Sevilla	2007

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

- 3 *sexenios* of research: 2002-2007, 2008-2013 and 2014-2019
- 1 *sexenio* of technology transfer
- 6 theses supervised in the last 10 years. 2 with extraordinary prize and one with national prize to the best doctoral thesis in the area.
- According to Google Scholar (GS) he has received 6.453 citations, its H index is 35 and its i-10 is 67.
- According to GS since 2016 he has received more than 2.535 citations with H index of 26 and i-10 of 47 (https://goo.gl/6MBIKl).
- In Web of Science (WoS) has received 1.247 citations, its h index of 15, has 26 citations/article on average.
- 28 articles published in JCR indexed journals. According to GS, 10 of the articles have more than 50 citations. One of them has more than 1.400 citations.
- 11 articles in prestigious international congresses, with selection criteria with a level of rigour similar to JCR journals, which occupy very relevant positions in indexes such as CORE, CITESEER, ISI, MAS (Microsoft Academic Search) and GII-GRIN-SCIE. The work in CAISE in 2005 has more than 860 citations according to GS. This work has been selected as a chapter of a book edited by Springer as one of the seminal contributions in area of Information Systems of the first 25 editions of CAiSE, there is only another contribution from Spanish groups. He was also awarded the "Most Influential Paper Award" in the area of software product lines. A paper in VaMoS also received the “Most Influential Paper Award”. A paper in SPLC received the best paper award.
- Editor of 2 special issues in journals, both indexed in JCR.
- Participation in 16 R&D Projects since 2002 (1 as PI in a national project) obtained in competitive calls: 4 Junta de Andalucía, 7 Plan Nacional, 2 European, 3 national networks.

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

David Benavides began his professional career in 2002 at Telvent/Abengoa. His first research steps focused on Software Product Lines (SPLs) and Feature Models (FM) which are models that represent an abstraction of an SPL. FMs were presented in 1990 by Kang *et al*. The main contribution of Benavides has been to interpret an FM in terms of logical clauses to carry out analysis operations. This contribution has opened a new line of research: Automated Analysis of Feature Models (AAFM) which has been recognized as one of the most influential in the area in recent decades. He wrote and defended his doctoral thesis in English, with the highest qualification, mention of European doctorate and extraordinary doctorate award. During the development of the doctoral thesis he visited 3 research centres: CIMAT, Mexico (year 2001); 4C in Ireland (3 months, year 2005); U. of Oxford (year 2008). In the postdoctoral stage, he visited Ecuador (2013) for 4 months where he combined the university with a stay in a large public software company, the equivalent of the Tax Agency. He opened agreements with Universities that have allowed him to attract doctoral students to his school's program (currently 6 and 3 already graduated).
In technology transfer, he has leaded the development of FaMa (https://github.com/famaw), a registered software tool for the AAFM that is very well known in the area. FaMa is used by different companies, universities and public administrations both in Spain and in countries such as the USA and France. It is also part of the development team of BeTTy and TESALIA, results of the doctoral theses of Sergio Segura and José A. Galindo, former PhD students of the applicant.
One of the works (CAISE, 2005) can be considered as the contribution that generated the research line of AAFM. In this work it was exposed how an FM could be interpreted as a constraint programming problem which opened the door to the AAFM research field. This work has been cited more than 800 times, being this publication the most influential, i.e., the one that has received more citations of that edition of this conference. It has also been awarded the "Most Influential Paper Award" (MIP) which is an award for impact over time[1]. Another paper received the best article award at the SPLC 2008 conference, the main conference in its area. Also, a paper at VaMoS has been awarded as the MIP in the area of configurability[2]. He has collaborated with more than 40 external authors of different Universities in prestigious conferences and journals.
He is one of the pioneering researchers in SPLs at a national level and has prestige at a European and global level. He has been chair of the program committee of the SPLC'12 conferences (conference of reference in his area) and general chair of VaMoS '09 and SPLC'17. From September 2018, he has been elected as chair of the steering committee of the SPLC. He also has participated in different committees of more than 50 international events. He participates in review committees of more than 10 JCR journals; He has participated in the board of seven international doctoral theses (3 in Belgium, 2 in Colombia 1 in Austria, and 1 in Luxembourg), 1 in the Autonomous University of Barcelona and 1 in the Rey Juan Carlos University, 2 in the University of Basque Country. He coordinates the research lab on variability and configurability within his research group. He is currently directing three doctoral theses of Latin American students as well as another one in the modality of “industrial PhD”. He has attracted 2 Juan de la Cierva fellows. One already finished and one started in 2021. He got the *acreditación* as *Catedrático de Universidad* in June 2021. His teaching and research trajectory have always been in ascending progression in terms of results obtained.

[1] http://canalciencia.us.es/un-trabajo-de-la-us-elegido-como-el-articulo-mas-influyente-en-el-area-de-ingenieria-de-lineas-de-producto-software/
[2] http://canalciencia.us.es/un-trabajo-de-la-us-galardonado-como-el-articulo-mas-influyente-en-el-area-de-configurabilidad-del-software/

Part C. RELEVANT MERITS

C.1. Publications (including books)

Journals indexed in ISI –JCR (selection of 10, a bigger list available here)

1. Belén Ramos-Gutiérrez, Ángel J. Varela-Vaca, José A. Galindo, María Teresa Gómez López, David Benavides: Discovering configuration workflows from existing logs using process mining. Empir. Softw. Eng. 26(1): 11 (2021) doi: 10.1007/s10664-020-09911-x
2. Mauricio Alférez, Mathieu Acher, José A. Galindo, Benoit Baudry, David Benavides: Modeling variability in the video domain: language and experience report. Software Quality Journal 27(1): 307-347 (2019) doi: 10.1007/s11219-017-9400-8
3. José A. Galindo, Hamilton A. Turner, David Benavides, Jules White:Testing variability-intensive systems using automated analysis: an application to Android. Software Quality Journal 24(2): 365-405 (2016) doi:10.1007/s11219-014-9258-y
4. José A. Galindo, D. Dhungana, R. Rabiser, D. Benavides, G. Botterweck , P. Grünbacher. Supporting distributed product configuration by integrating heterogeneous variability modeling approaches. Information and Software Technology 62: 78-100 (2015) doi:10.1016/j.infsof.2015.02.002
5. R. Lopez-Herrejon, L. Linsbauer, J. Galindo, J. Parejo, D. Benavides, S. Segura, A. Egyed. An assessment of search-based techniques for reverse engineering feature models. Journal of Systems and Software 103: 353-369 (2015) doi:10.1016/j.jss.2014.10.037
6. Sergio Segura, José A. Parejo, Robert M. Hierons, David Benavides and Antonio Ruiz Cortés. Automated Generation of Hard Feature Models using Evolutionary Algorithms. Expert Syst. Appl. 41(8): 3975-3992 (2014) doi:10.1016/j.eswa.2013.12.028
7. S. Segura, R. M. Hierons, D. Benavides, A. Ruiz-Cortés, "Automated Metamorphic Testing on the Analyses of Feature Models". Information and Software Technology. 2011;53:245-58. doi: 10.1016/j.infsof.2010.11.002 . [JCR FI: 1.82 TOP: 20% CS/SE]
8. J. White, D. Benavides, D. Schmidt, P. Trinidad, B. Dougherty, A. Ruiz-Cortés, "Automated Diagnosis of Product-line Configurations", Journal of Systems and Software, 83(7): 2010. doi:10.1016/j.jss.2010.02.017 2010. [JCR FI: 1.241 TOP: 40% CS/TM, FI-5años: 1.312]
9. D. Benavides, S. Segura, A. Ruiz-Cortés, "Automated Analysis of Feature Models after 20 years: A Literature Review", Information Systems, 35(2010): 615-636, 2010. doi:10.1016/j.is.2010.01.001 [JCR FI: 1.96 TOP: 26% CS/IS, FI-5años: 2.3]
10. D. Batory, D. Benavides, A. Ruiz-Cortés, "Automated Analysis of Feature Models: Challenges Ahead", Communications of the ACM, 49(12): 45-47, December, 2006. doi:10.1145/1183236.1183264 [JCR FI: 2,346 TOP: 10% CS/SE, FI-5años: 3.050]

C.2. Research projects and grants

1. OPHELIA. Optimización de Servicios Basados en Conocimiento Usando Aplicaciones Basadas en Servicios. Ministerio de Ciencia, Innovación y Universidades (RTI2018-101204-B-C22). 01/01/2019-31/12/2021. 147.136 € IP: **David Benavides** and Manuel Resinas
2. BELI. Tecnologias para Servicios Cloud Híbridos, Altamente Configurables y Regulados por ANS Ministerio de Economía y Competitividad. TIN2015-70560-R. 01/01/2016-31/12/2018. 101.800 €. IP: Antonio Ruiz Cortés (ARC)
3. COPAS. eCosystems for Optimized Process As a Service. Consejería Innovación, Ciencia y Empresa, Junta de Andalucía (Proyectos de Excelencia Motriz, P12-TIC-1867). 30/01/14-29/01/18. 297.571 €. IP: ARC
4. TAPAS. Tecnologías Avanzadas para Procesos como Servicios. Ministerio de Economía y Competitividad.TIN2012-32273. 01/01/13-31/12/15. 216.711 €. IP: ARC
5. THEOS. Tecnologías Habilitadoras para EcOsistemas Software. Consejería Innovación, Ciencia y Empresa, Junta de Andalucía (Proyectos de Excelencia, TIC-5906). 15/03/11-14/03/15. 260.621 €. IP: ARC

6. SETI. reSearching on intElligent Tools for the Internet of services. Ministerio de Ciencia e Innovación (TIN2009-07366). 01/10/09-30/09/12. 176.902 €. IP: ARC**.**
7. ISABEL. Ingeniería de Sistemas Abiertos Basada en LínEas de productos. Consejería Innovación, Ciencia y Empresa, Junta de Andalucía (Proyectos de Excelencia, TIC-2533). 01/02/07-31/12/12. 410.421€. IP: ARC
8. WEB-FACTORIES. Fábricas Software para Sistemas con Arquitectura Orientada a Servicios Web. Ministerio de Ciencia y Tecnología (TIN2006-00472). 01/10/06-30/09/09. 229.200 €. IP: ARC

C.3. Contracts

1. “FAMILIES” (Ref. FIT-070000-2003-289), Programa PROFIT e ITEA a través de la fundación Fidetia, Empresa: Telvent Interactiva. Duración: Sep 2003 - Aug 2005, IP. David Benavides por la US, cuantía: 23.309 €.
2. “FRADA” (Ref. FIT-070000-2003-401), Programa PROFIT a través de la fundación Fidetia, Empresa: Telvent Interactiva. Duración: Dec 2003 - Nov 2004, IP. David Benavides por la US, cuantía: 12.020 €.
3. “WERBPLUS” (Ref. FIT-150100-2001-7), Programa PROFIT a través de la fundación Fidetia, Empresa: Telvent Interactiva. Duración: Feb 2001 - Feb 2003, IP. David Benavides por la US, cuantía: 12.020 €.

C.4. Patents

1. “FAMA Tool Suite – SPL reasoner” (Ref. 2007-12-21), Programa de software registrado a través del servicio de investigación de la universidad, Empresas. Autores: Benavides Cuevas, David, Segura Rueda, Sergio, Trinidad Martín-Arroyo, Pablo, Ruiz Cortés, Antonio.
2. “Betty framework” (Ref. 2011-01-24), Programa de software registrado a través del servicio de investigación de la universidad, Empresas. Autores: Segura Rueda, Sergio, Galindo Duarte, José Ángel, Trinidad Martín-Arroyo, Pablo, Benavides Cuevas, David, Ruiz Cortés, Antonio
3. “TESALIA” (Ref. 2017-04-18), Programa de software registrado a través del servicio de investigación de la universidad, Empresas. Autores: Galindo Duarte, José Ángel, Benavides Cuevas, David.

C.5 Community service (selection)

- SPLC 2009-2022. International Software Product Line Conference. (PC member, Doctoral Symposium panel member, Publicity co-chair, PC chair, General chair, Steering Committee chair)
- VaMoS 2009-2022. International Workshop on Variability Modelling of Software-intensive Systems.(PC member/ PC chair)
- EUROMICRO DSD/SEAA 2016/2015/2014. 42nd Euromicro Conference on Software Engineering and Advanced Applications (PC member)
- QRS 2017/2020. IEEE International Conference on Software Quality, Reliability & Security (PC member)
- JISBD 2013-2021. XXI Jornadas de Ingeniería del Software y Bases de Datos (Track chair, PC member)
- FASE 2015. 18th International Conference on Fundamental Approaches to Software Engineering. (PC member)