MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

CV date	11/2018

Part A. PERSONAL INFORMATION

First and Family name	David Benavides Cuevas		
DNI/passport	77585613N	Age	42
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	From	27/12/2010
Espec. cód. UNESCO	120317, 120318, 120311		
Palabras clave	Software engineering, software product lines, variability, customization, configurability		

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…

- 2 *sexenios* of research: 2002-2007 and 2008-2013.
- 3 theses supervised in 5 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 4897 citations, its H index is 30 and its i-10 is 55.
- According to GS since 2013 he has received more than 2882 citations with H index of 27 and i-10 of 42 (https://goo.gl/6MBIKl).
- In Web of Science (WoS) has received 720 citations, its h index of 10, has 36 citations/article on average.
- 20 articles published in JCR indexed journals. According to GS, 6 of the articles have more than 50 citations. One of them appears as the most cited (630 citations) in Spain since 2010 in the area of software engineering, the 14th most cited in Computer Science according to SCOPUS and 6th according to ISI (http://goo.gl/EKmqw) and was the most cited journal in the 2010-2015 range.
- 17 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 700 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.
- Editor of 2 special issues in journals, both indexed in JCR (Q1 and Q2).
- Participation in 14 R&D Projects since 2002 obtained in competitive calls: 3 Junta de Andalucía, 6 Plan Nacional, 2 European, 3 national networks.

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

He 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 the applicant 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 7).
In technology transfer, he has leaded the development of FaMa (www.isa.us.es/fama), 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 700 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" 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. He has collaborated with more than 40 external authors 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 indifferent 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 six international doctoral theses (3 in Belgium, 2 in Colombia and 1 in Luxembourg), 1 in the Autonomous University of Barcelona and 1 in the Rey Juan Carlos University, 1 in the University of Basque Country. He coordinates the line of research on variability within his research group. He is currently directing four doctoral theses of Latin American students. 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/

Part C. RELEVANT MERITS

C.1. Publications (including books)

Journals indexed in ISI –JCR (selection of 10)

1. Amador Durán, David Benavides, Sergio Segura, Pablo Trinidad and Antonio Ruiz-Cortés FLAME: a Formal Framework for the Automated Analysis of Software Product Lines Validated by Automated Specification Testing. Software and System Modeling.(2017) doi:10.1007/s10270-015-0503-z
2. 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
3. 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
4. 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
5. 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
6. 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]
7. 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]
8. 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]
9. P. Trinidad, D. Benavides, A. Durán, A. Ruiz-Cortés, M. Toro, "Automated Error Analysis for the Agilization of Feature Modeling", Journal of Systems and Software, 81(6): 883-896, June, 2008. doi:j.jss.2007.10.030
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. 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)**
2. 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**
3. TAPAS. Tecnologías Avanzadas para Procesos como Servicios. Ministerio de Economía y Competitividad.TIN2012-32273. 01/01/13-31/12/15. 216.711 €. IP: **ARC**
4. 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**
5. 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.**

6. 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
7. 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)

- VaMoS 2009-2019. International Workshop on Variability Modelling of Software-intensive Systems.(PC member/ PC chair)
- SPLC 2009-2019. International Software Product Line Conference. (PC member, Doctoral Symposium panel member, Publicity co-chair, PC chair, General chair, SC chair)
- FMSPLE 2016/2015/2013/2012. International Workshop on Formal Methods and Analysis in Software Product Line Engineering (PC member, PC chair)
- EUROMICRO DSD/SEAA 2016/2015/2014. 42nd Euromicro Conference on Software Engineering and Advanced Applications (PC member)
- QRS 2017/2016. IEEE International Conference on Software Quality, Reliability & Security (PC member)
- JISBD 2017/2016/2015/2014/2013. 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)
- PLEASE 2015/2013 @ ICSE 2015. Product Line Approaches in Software Engineering. (PC member)
- SPLat 2014. 1st International Workshop on Software Product Line Analysis Tools (PC member)
- ConfWS 2014. 16th Workshop on Configuration. (PC member)