MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

Part A. PERSONAL INFORMATION

CV date	27-09-2021

First and Family name	Esther Guerra Sánchez		
ID number		Age	
Researcher numbers	Researcher ID	B-4977-2014	
	Orcid code	0000-0002-2818-2278	

A.1. Current position

University/Institution	Universidad Autónoma of Madrid		
Department	Departamento de Ing. Informática , Escuela Politécnica Superior		
Address and Country	Ciudad Universitaria de Cantoblanco C/ Francisco Tomás y Valiente 11 28049 Madrid		
Phone number	914977476	E-mail	esther.guerra@uam.es
Current position	Profesor Titular	From	13-04-2012
Research areas (UNESCO codes)	1203.99		
Keywords	Software Engineering, Model-Driven Development		

A.2. Education

PhD	University	Year
Computer Science	Universidad Autónoma of Madrid (UAM)	1998
PhD in Computer Science	Universidad Autónoma of Madrid (UAM)	2007

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

Number of 6-year periods of research (sexenios):[redacted]
Last recognized 6-year period of research:[redacted]
Supervised PhD theses in the last 10 years: 3 completed, 4 ongoing
Total number of citations: 1042 (web of science) – 2127 (scopus) – 4137 (google scholar)
Citations per year in the last 5 years: 120 (web of science) – 232 (scopus) – 394 (google sch)
Publications in first quartile (Q1): 11
Publications with impact factor JCR: 45 (11 Q1, 14 Q2)
H index: 18 (web of science) – 27 (scopus) – 34 (google scholar)

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

I'm Engineer in Computer Science (1998, UAM) and PhD in Computer Science (2007, UAM). I worked for some software companies in 1998-04. Then, I was assistant professor at UC3M (2004-10) and UAM (2010-11), and associate professor at UAM ("*contratado doctor*", 2011-12). Since 2012, I am associate professor ("*titular*") at the Computer Science Dept. of UAM.

I lead the Modelling & Software Engineering research group (miso.es) together with J. de Lara. I do research in model-driven development, with a special focus on flexible modelling, meta-modelling, domain-specific languages and model transformation.

I accumulate 102 weeks of research stays, visiting top researchers in my area. Some stays were funded by competitive grants from the Spanish Ministry. Specifically, I was pre-doctoral researcher at the Technical Univ. of Berlin (9 weeks, 2005, H. Ehrig) and Sapienza Univ. di Roma (7 weeks, 2006, P. Bottoni), in both cases funded by European research training networks. In 2007, 2008, 2009 and 2012, I made short visits (1 to 4 weeks) to Sapienza Univ. di Roma. In 2009, I made a research stay at the Univ. of York hosted by R. Paige (39 weeks, funded by a mobility grant "*José Castillejo*" from the Spanish Ministry). There, I developed novel concepts (transformation engineering, inter-modelling) and tools (PAMOMO, transML) which resulted in 3 papers in the conference MODELS'10 (21% acceptance rate, 1 paper got a distinguished paper award), 3 papers in VL/HCC'10 (core A), and 2 articles in the SOSYM journal. More recently, I visited the Univ. of L'Aquila (1 week, 2016, A. Pierantonio), Univ. of

Toronto (17 weeks, 2017, M. Chechik, funded by a mobility grant "*Salvador Madariaga*" from the Spanish Ministry), and McGill Univ. (21 weeks, 2018, J. Kienzle).

I was program co-chair of FASE'21, ICGT'19, ICMT'17 and the posters track at MODELS'17. I was co-organizer of the workshops VFfP 2009 and 2010 at VL/HCC. I have been a member of the PC of prominent conferences in my area (e.g., AVI, ER, FASE, ICSE, ICECCS, ICMT, MODELS, SAC, SLE, VL/HCC…) and reviewer of premier journals (e.g., JSS, IST, SOSYM, STVR, JVLC, COMLAN…). I'm associate editor of the journal Software and Systems Modeling since 2014 (JCR 2020 1.91, Q3).

I have co-authored more than 150 publications: 52 journal articles (45 with JCR – 11 Q1, 14 Q2), 7 book chapters, 45 LNCS/ENTCS, and 68 papers in peer-reviewed conferences and workshops. My latest works have been published in journals like IEEE TSE, ACM TOSEM, IEEE Software, IST and SOSYM; and in conferences like MODELS, ICSE, ASE, ER, FASE and SLE. 10 of the papers I co-author received the best paper award of the conference.

I have supervised 3 PhD, and have 4 ongoing ones.

Since 2004, I have participated in more than 25 research projects and contracts, most of them, especially the latest ones, focused on model-driven development.

Part C. RELEVANT MERITS

C.1. Publications (including books)

[Full list at http://dblp.uni-trier.de/pers/hy/g/Guerra:Esther]

- *"Property satisfiability analysis for product lines of modelling languages"*. 2020. E. Guerra, J. de Lara, M. Chechik, R. Salay. IEEE Transactions on Software Engineering. In press. IEEE Computer Society. (JCR 2020: 6.226, **Q1** in SE)
- "*Choosing a chatbot development tool*". 2020. S. Pérez-Soler, S. Juárez-Puerta, E. Guerra, J. de Lara. IEEE Software 38(4): 94-103. IEEE. (JCR 2020: 2.967, **Q1** in SE)
- "*Quick fixing ATL transformations with speculative analysis*". 2018. J. Sánchez Cuadrado, E. Guerra, J. de Lara. Software and Systems Modeling 17(3): 779-813. Springer. (JCR 2018: 2.66, **Q1** in SE)
- "*A-posteriori typing for model-driven engineering: concepts, analysis and applications*". 2017. J. de Lara, E. Guerra. ACM Transactions on Software Engineering and Methodology 25(4), Article 31. 60 pages. ACM. (JCR 2017: 1.946, **Q1** in SE)
- "*Static analysis of model transformations*". 2017. J. Sánchez Cuadrado, E. Guerra, J. de Lara. IEEE Transactions on Software Engineering 43(9): 868-897. IEEE Computer Society. (JCR 2017: 3.331, **Q1** in SE)
- "*Verification and validation of declarative model-to-model transformations through invariants*". 2010. J. Cabot, R. Clarisó, E. Guerra, J. de Lara. Journal of Systems and Software 83(2): 283-302. Elsevier. (JCR 2010: 1.293, **Q1** in SE)

C.2. Research projects and grants

Principal investigator of 1 research project:

Project: *Models for the masses: engineering adaptive software by and for the people in a highly connected world* (RTI2018-095255-B-I00)
Financing entity: Spanish Ministry
Principal investigator: Juan de Lara, Esther Guerra
Duration: from 01/2019 to 12/2021
Amount: 101.519€

Participant in 16 research projects, the most recent ones are the following:

Project: *Lowcomote: training the next generation of experts in scalable low-code engineering platforms* (Innovative training network, ITN)

Financing entity: European Comission, H2020 EU
Principal investigator: Masimo Tisi (coordinator), Juan de Lara (UAM group)
Participants: UAM, Ecole Mines Nantes, U. York, U. L'Aquila, TU Viena, BritishTelecom, Intecs, B2TConcepts, CLMS, IncQuery, Open Group, MetaDev, Parallels, Sparx Systems
Duration: from 01/2019 to 12/2022
Amount: 4.057.637€ (501.809€ UAM group)

Project: *FORTE: formal methods and technologies for emerging applications* (S2018/TCS-4314)
Financing entity: Madrid region
Principal investigator: Manuel Núñez (coordinator), Juan de Lara (UAM group)
Participants: 4 research groups from UAM, Complutense, Politécnica, Rey Juan Carlos
Duration: from 01/2019 to 12/2022
Amount: 731.400€ (157.850€ UAM group)

Project: *FLEXOR: flexible MDE for mobile, open, dynamic data systems* (TIN2014-52129-R)
Financing entity: Spanish Ministry
Principal investigator: Juan de Lara
Participants: UAM, University of York, University of L'Aquila
Duration: from 01/2015 to 12/2018
Amount: 145.800€

Project: *MONDO: scalable modelling and model management on the cloud* (FP7-ICT-2013-10, project number 611125)
Financing entity: European Comission, 7th framework programme (FP7-ICT-2013-10)
Principal investigator: Dimitrios S. Kolovos (University of York), Juan de Lara (UAM group)
Participants: UAM, U. York, Open Group, ARMINES, Ikerlan, Soft-Maint, Softeam, Uninova
Duration: from 01/11/2013 to 30/04/2016
Amount: 2.670.000€ (286.510€ UAM group)

C.3. Contracts

Participation in 11 contracts of R+D, among them:

Title: PCCI-SAM
Funding agency: CDTI (MEC)
Principal investigator: Juan de Lara Jaramillo, Jesús Sánchez Cuadrado
Participating entities: CAF signallling, UAM
Duration: from 01/05/2012 to 06/12/2013
Amount: 60.000€

Title: BENDER: Un nuevo concepto de tienda de aplicaciones para la industria móvil
Funding agency: Innocash 2011 (MICINN)
Principal investigator: Juan de Lara
Participating entities: Almiralabs S.L., UAM
Duration: from 01/01/2011 to 31/12/2012
Amount: 30.000€

C.4. Patents

C.5. PhD Thesis

- Jesús J. López Fernández: "*An agile process for the example-driven development of modelling languages and environments*". Co-supervised with Juan de Lara. 2017, UAM. Excellent (sobresaliente) cum laude, international mention.
- Antonio Garmendia Jorge: "*Scalable modelling language engineering*". Co-supervised with Juan de Lara. 2019, UAM. Excellent (sobresaliente) cum laude, international mention.
- Pablo Gómez Abajo: "*Un lenguaje de dominio específico para mutación de modelos*". Co-supervised with Mercedes G. Merayo. 2020, UAM. Excellent (sobresaliente) cum laude.
- *[ongoing]* Sara Pérez-Soler. Co-supervised with Juan de Lara. 3rd year.

- *[ongoing]* Lea Brunschwig. Co-supervised with Juan de Lara. 2nd year.
- *[ongoing]* Lissette Almonte. Co-supervised with Iván Cantador. 2nd year.
- *[ongoing]* Francisco Martínez Lasaca. Co-supervised with Juan de Lara. 1st year.

C.6. Experience in organization of R+D activities

- Co-chair of FASE'21 (24th Int. Conf. on Fundamental Approaches to Sw Eng., Luxembourg, with M. Stoelinga)
- Co-chair of ICGT'19 (12th Int. Conf. on Graph Transformation, Eindhoven, with F. Orejas)
- Co-chair of ICMT'17 (10th Int. Conf. on Model Transformation, Marburg, with M.v.d. Brand)
- Co-chair of Posters track at MODELS'17 (20th ACM/IEEE Int. Conf. on Model-Driven Engineering Languages and Systems, Austin, with M. Gogolla)
- Publicity chair of TOOLS Europe 2011 (Zurich)
- Co-chair of VFfP'09 and VFfP'10 (Int. Workshop on Visual Formalisms for Patterns, at VL/HCC, with P. Bottoni and J. de Lara)

C.7. Review/editing activities in journals

- Associate editor of the Software and Systems Journal (JCR 2020 1.91, Q3)
- Reviewer of prominent journals in my area: JSS, IST, SOSYM, STVR, JVLC, COMLAN…

C.8. Program committees

Member in more than 100 program committees of conferences and workshops, among them:

- AVI (Core B, Advanced Visual Interfaces): 2008, 2010, 2014, 2016, 2018, 2020
- ER (Core A, Conceptual Modelling): 2017, 2018, 2019, 2020, 2021
- ICECCS (Core A, Engineering of Complex Computer Systems): 2010 a 2017
- ICMT (Core B, Model Transformation): 2012, 2013, 2015, 2016, 2018, 2019
- ICSE (Core A*, Software Engineering): 2021
- MODELS (Core A/B, Model Driven Eng. Languages & Systems): 2009, 2010, 2017, 2019, 2021
- SAC (Core B, Applied Computing - Track on Programming Languages): 2017 to 2019
- SLE (Core B, Software Language Engineering): 2016 to 2019, 2021
- VL/HCC (Core B, Visual Languages and Human-Centric Computing): 2018

C.9. Research stays

- Technical University of Berlin (Germany): 2005 (9 weeks)
- Sapienza Uni. di Roma (Italy): 2006 (7 w), 2007 (1 w), 2008 (1 w), 2009 (4 w), 2012 (2 w)
- University of York (UK): 2009 (39 weeks)
- University of L'Aquila (Italy): 2016 (1 week)
- University of Toronto (Canada): 2017 (17 weeks)
- McGill University (Canada): 2018 (21 weeks)

C.10. Awards

- "EASST award for the best software science paper" in conferences ICGT'08 and ICGT'10
- "ACM/SIGSOFT distinguished paper award" in conference ACM/IEEE MODELS 2010
- "Springer best paper award" in conference ACM/IEEE MODELS 2012
- "Springer best foundation paper award" in conference ACM/IEEE MODELS 2015
- "Best tool paper award" in conference ICMT 2015
- "Best foundation paper award" in conference ICMT 2018
- "Distinguished paper award" in conferences SLE 2018 and SLE 2019
- "10 year most influential paper award" for SLE 2008 conference paper