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Part A. PERSONAL INFORMATION

Part A. PERSONAL INFORMATION			CV date		2023-09-06	
First and Family name		Luis Llana				
Social Security, Passport, ID number		50828860x		Age	54	
Researcher numbers			Researcher ID			
			Orcid code			

A.1. Current position

Name of University/Institution	Universidad Complutense de Madrid		
Department	Sistemas Informáticos y Computación		
Address and Country	C/ Prof. José García Santesmases 9, 28040, Madrid. Spain		
Phone number	+34913947552	E-mail	llana@ucm.es
Current position	Associate Professor	From	1997-11-11
Espec. cód. UNESCO	120317		
Palabras clave	Formal methods, process algebra, testing semantics		

A.2. Education

PhD	University	Year
Mathematics	Universidad Complutense de Madrid	1996

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

I have 4 consecutive 'sexenios' (six-year period of positive research evaluation). The last evaluated period has been 2007-2012. I have supervised 3 Ph.D. theses.

I have published 11 papers published in Thomson-JCR indexed journals, 4 of them are in the Q1 percentile, 2 in Q2 percentile, 2 in Q2 percentile, and 3 in Q3 percentile.

The following bibliometric data are taken from scholar google. I have 252 citations. My h-index is equal to 8. My i-10 index is equal to 6.

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

My research career began in 1992 when I joined the then Department of Computing and Automation at the Complutense University. In 1996, I presented my PhD thesis. Its subject was about formal semantics of computer languages, which since then has been my main line of research.

I have 3 consecutive six-year research terms. The last one that has been granted is 2007-2012. I have published almost 34 research papers in journals and congresses with an anonymous peer review process.

Throughout my research career, I have participated in research projects funded by competitive public calls. I have also been responsible for 3 research contracts under Article 83 of the L.O.U. I am currently the co-director of a UCM project.

I have supervised 3 PhD theses. All of them have a similar formal basis: the definition of a formal semantics for a specific language.

I have been teaching at the university for more than 25 years at all levels. In addition, I have usually participated in educational innovation projects. I have also published a book of a teaching nature. I have 4 consecutive five-year periods of teaching positive evaluations, the last period has been 2012-2016.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Papers in JCR indexed journals

Carlos Camacho, Pablo C. Cañizares, Luis Llana, Alberto Núñez:
Chaos as a Software Product Line - A platform for improving open hybrid-cloud systems resiliency.
Softw. Pract. Exp. 52(7): 1581-1614 (2022). Q2

Pablo C. Cañizares, Alberto Núñez, Juan de Lara, Luis Llana: MT-EA4Cloud: A Methodology For testing and optimising energy-aware cloud systems. J. Syst. Softw. 163: 110522 (2020). Q1

Jose Luis Brita-Paja, Carlos Gregorio-Rodríguez, Luis Llana, Cristóbal Pareja, Adrián Riesco:
Introducing MOOC-like methodologies in a face-to-face undergraduate course: a detailed case study.
Interactive Learning Environments 27(1): 15-32 (2019). Q1

Carlos Camacho, Luis Llana, Alberto Núñez, Mario Bravetti:
Probabilistic software product lines. J. Log. Algebr. Meth. Program. 107: 54-78 (2019). Q2

J. L. Brita-Paja, C. Gregorio, L. Llana, C. Pareja & A. Riesco Introducing MOOC-like methodologies in a face-to-face undergraduate course: a detailed case study, Interactive Learning Environments (2019), DOI: 10.1080/10494820.2018.1451345. Q1

Carlos Gregorio-Rodríguez, Luis Llana, Rafael Martínez, An axiomatic semantics for iocos_ conformance relation, Journal of Logical and Algebraic Methods in Programming. 100: 152-184. (2018). Q2

María-Emilia Cambronero, Luis Llana, Gordon J. Pace:
A Calculus Supporting Contract Reasoning and Monitoring. IEEE Access 5: 6735-6745 (2017). Q1

Carlos Camacho, Luis Llana, Alberto Núñez:
Cost-related interface for software product lines. J. Log. Algebr. Meth. Program. 85(1): 227-244. Q2 (2016).

Luis Llana, Enrique Martin-Martin, Cristóbal Pareja-Flores, J. Ángel Velázquez-Iturbide:
FLOP: A User-Friendly System for Automated Program Assessment. J. UCS 20(9): 1304-1326 (2014). Q4

Ismael Rodríguez, Luis Llana, Pablo Rabanal:
A General Testability Theory: Classes, Properties, Complexity, and Testing Reductions.
IEEE Trans. Software Eng. 40(9): 862-894 (2014). Q1

César Andrés, Carlos Camacho, Luis Llana:
A formal framework for software product lines. Information & Software Technology 55(11): 1925-1947 (2013). Q1

Luis Fernando Llana Díaz, Manuel Núñez:
Testing Semantics for RTPA. Fundam. Inform. 90(3): 305-335 (2009). Q3

César Andrés, Luis Fernando Llana Díaz, Ismael Rodríguez:
Formally transforming user-model testing problems into implementer-model testing problems and viceversa. J. Log. Algebr. Program. 78(6): 425-453 (2009). Q3

Alberto de la Encina, Luis Llana, Fernando Rubio:

A Debugging System Based on Natural Semantics. J. UCS 15(14): 2836-2880 (2009). Q4

Articles in relevant conferences

Carlos Gregorio-Rodríguez, Luis Llana, Rafael Martínez-Torres:

Extending mCRL2 with ready simulation and iocos input-output conformance simulation. SAC 2015: 1781-1788.

Carlos Gregorio-Rodríguez, Luis Llana, Rafael Martínez-Torres:

Effectiveness for Input Output Conformance Simulation iocos. FORTE 2014: 100-116

Carlos Gregorio-Rodríguez, Luis Llana, Rafael Martínez-Torres:

Input-Output Conformance Simulation (iocos) for Model Based Testing. FMOODS/FORTE 2013: 114-129

F. Javier Crespo, Alberto de la Encina, Luis Llana:

Fuzzy-Timed Automata. FMOODS/FORTE 2010: 140-154

Rafael García, Luis Llana, Constantino Malagón, Jesús Pancorbo:

Event Prediction in Network Monitoring Systems: Performing Sequential Pattern Mining in Osmius Monitoring Tool. ICDM 2010: 632-642

Alberto de la Encina, Luis Llana, Fernando Rubio, Mercedes Hidalgo-Herrero:

Observing intermediate structures in a parallel lazy functional language. PPDP 2007: 109-120

Luis Fernando Llana Díaz, Manuel Núñez:

Testing Semantics for Unbounded Nondeterminism. Euro-Par 1997: 538-545

David de Frutos-Escrig, Luis Fernando Llana Díaz, Manuel Núñez:

Friendly Testing as a Conformance Relation. FORTE 1997: 283-298

Manuel Núñez, David de Frutos-Escrig, Luis Fernando Llana Díaz:

Acceptance Trees for Probabilistic Processes. CONCUR 1995: 249-263

Books

Luis Llana, Carlos Gregorio, Raquel Martínez, Pedro Palao y C. Pareja, "Ejercicios creativos y recreativos en C++", Ed. Prentice-Hall, 2002. ISBN 84-205-3211-8.

C.2. Research projects and grants

- **FAME:** Modelado formal y métodos avanzados de testing. Aplicaciones a medicina y sistemas computacionales (RTI2018-093608-B-C31). Ministerio de Ciencia, Innovación y Universidades. Plan Nacional I+D+i.
Funds: 95.106€.
January 2019 - December 2021.
Research group member.
- **DarDOS:** Desarrollo y Análisis formal de sistemas complejos en contextos DistribuidOS: fundamentos, herramientas y aplicaciones. Ministerio de Economía y Competitividad. Dirección General de Investigación Científica y Técnica (ref. **TIN2015-65845-C3-1-R**).
Funds: 100.430€.
January 2016 - December 2018.
- **SICOMORo-CM:** Desarrollo de Sistemas CONfiables mediante MOdelos y heRRamientas avanzadas (**S2013/ICE-3006**). Comunidad de Madrid. Convocatoria Tecnologías 2013.
Funds: 635.088,65 €
October 2014 - September 2018.
Research group member.
- **ESTuDIO:** ESpecificación y Testing de sistemas altamente DistribuidOs (**TIN2012-36812-C02-01**). Ministerio de Economía y Competitividad. Plan Nacional I+D+i.
Funds: 42.108€.
January 2013 - December 2015.

Research group member.

- **TESIS**: advanced methodologies and tools for TESTing and web Services (**TIN2009-14312-C02-01**). *Ministerio de Ciencia e Innovación. Plan Nacional I+D+i.*

Funds: 279.510,01€.

Januar Sonia Estévez Martín, María-Emilia Cambroneró, Yolanda García-Ruiz, Luis Llana:y
2010 - June 2014.

Research group member.

- **WEST**: WEb Services y Testing: fundamentos y aplicaciones (**TIN2006-15578-C02-01**). *Ministerio de Educación y Ciencia. Plan Nacional de I+D+i.*

Funds: 197.109€.

October 2006 - June 2010.

Research group member.

C.3. Contracts

- Diseño y verificación de workflows de documentos. *Mediform Plus.*

Funds: 5800€.

June 2010 - December 2010

Leader of the project.

- Verificación de requisitos de sistemas mediante máquinas de estados finitas utilizando un software de monitorización. *Peopleware S.L.*

Funds: 8120€.

December 2008 - October 2009.

Leader of the project (together Prof. Manuel Núñez).

- Predicciones secuenciales y temporales de alarmas en las monitorizaciones de sistemas. *Peopleware S.L.*

Funds: 15080€. Sonia Estévez Martín, María-Emilia Cambroneró, Yolanda García-Ruiz, Luis Llana:

Mobile Applications for People with Parkinson's Disease: A Systematic Search in App Stores and Content Review. J. UCS 25(7): 740-763 (2019). Q4

Carlos Camacho, Luis Llana, Alberto Núñez, Mario Bravetti:

Probabilistic software product lines. J. Log. Algebr. Meth. Program. 107: 54-78 (2019). Q2

October 2008 - July 2009.

Leader of the project (together Prof. Manuel Núñez).

C.3 Thesis supervisedas

- José Javier Paulet González: Speeding up search algorithms with quantum computing. 2024.
- Carlos Camacho: Métodos formales para la representación de líneas de productos software: junio 2016.
- Rafael Martínez Torres: Semánticas de simulación para relaciones de conformidad. septiembre 2015
- Alberto de la Encina Vara: Formalizando el proceso de depuración en programación funcional paralela y perezosa. 2008.

C.4 Institutional responsibilities

Secretary of 'Sistemas Informáticos y Computación' department at Universidad Complutense de Madrid. Mach 2002 – April 2004.

Vicehead of 'Sistemas Informáticos y Computación' department. October 2010 – September 2012, October 2013 – September 2014.

C.5 Memberships of scientific societies

Secretary of the 'Sociedad de Computación Concurrente y Distribuida'. June 2012 – June 2014