

ABBREVED CURRICULUM VITAE (CVA) – maximum 4 PAGES

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Part A. PERSONAL INFORMATION

CV date

09/06/2024

First and Family name	Manuel Noguera García		
Researcher codes	Open Researcher and Contributor ID (ORCID*)	0000-0003-0503-6451	
	SCOPUS Author ID	15020955800	
	WoS Researcher ID	A-7073-2008	

A.1. Current position

Name of University/Institution	Universidad de Granada		
Department	Lenguajes y Sistemas Informáticos		
	E-mail	mnoguera@ugr.es	
Current position	Catedrático de Universidad	From	09/10/2023
Key words	Business processes, CSCW, ontologies, service computing		

A.2. Education

PhD	University	Year
Computer Science	Granada	2009

A.3. General indicators of quality of scientific production

- (6-year research periods) Sexenios de investigación: 4 (3+1 technology transfer). Last period evaluated 2018-2023.
- Thesis supervised in the last 10 years: 5.
- Citations: 1180 (Google Scholar).
- Average citations per year in the last 5 years: 110.6.
- Number of publications in the first quartile (Q1): 12. Total ISI-JCR contributions: 30
- H-index: 7 (Thomson), 9 (Scopus), 17 (Google Scholar).
- +80 publications in Web of Science.

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

I am currently a full professor of Computer Science and Software Engineering (Lenguajes y Sistemas Informáticos) at the University of Granada.

My pre-doctoral training was developed in the context of an FPI grant from the Spanish Ministry of Education. My work consisted in the design and implementation of group awareness mechanisms in distributed systems based on the Linda coordination model, and in the formal specification of models to represent collaborative systems using the OWL ontology language. An important result of this research was the definition of a systematic method for the specification of CSCW (Computer-supported Cooperative Work) systems and framework to represent business processes in OWL that allowed knowledge through reasoning and logical inferences to be derived. Likewise, the design techniques defined were the basis for building the Violet-OWL visual editing tool for ontologies. The doctoral thesis obtained the mention of International Doctorate and maximum mark of cum laude.

As for my teaching duties, I'm responsible of business process modelling, digital twins and simulation courses at master degree level and I teach distributed systems at graduate level.

In recent years, I have continued my research work on formal systems specification and knowledge representation, being the supervisor of three doctoral theses in this line and

studying its application to the domains of model-driven business processes development, patents and nutritional recommendation systems.

Also, from several projects of local calls of the University of Granada and calls for young researchers, I have opened a new interdisciplinary line of research in architectures and efficient systems for mobile computing and sensors with special application to the fields of Ambient Assisted Living (AAL), health (ehealth, mhealth) and sports practice. I am currently a principal investigator of an R + D + i project of the national programme related to these issues.

I would also highlight the internationalization of research through research mobilities (8 and a half months in total) and regular collaborations with professors from other universities in the United States, Europe and Latin America, materialized in various publications and organization of scientific events. Among others, I would highlight the collaborations with doctors Joseph Barjis (Delft University of Technology, Holland), Lawrence Chung (University of Texas at Dallas, USA) and Sergio Ochoa (University of Chile). In Spain I also collaborate with professors from different universities.

Other research merits summarized in a quantitative way:

- 30 ISI-JCR contributions (12 Q1 and 16 T1).
- 9 contributions in conferences indexed in relevant positions or categories of CORE and / or Conference Ranking, with blind peer review (in some cases "double-blind"), periodicals, moving sites.
- Member of the Management Committee of three COST Actions of the European framework programs.
- 4 times principal investigator of research projects.
- 4 scientific visits (9.5 months).
- >20 review panels of international conferences and journals.

Part C. RELEVANT MERITS

C.1. Publications (including books)

- [1] Ruiz-Zafra, Á., Pigueiras-del-Real, J., Noguera, M., Chung, L., Barres, D. G., & Benghazi, K. "Servitization of Customized 3D Assets and Performance Comparison of Services and Microservices Implementations." *IEEE Transactions on Services Computing* (2023). JCR: 8.1 (4/108 Q1, Computer Science, Software Engineering; 13/158 Q1, Computer Science, Information Systems), doi: <https://doi.org/10.1109/TSC.2023.3339991>
- [2] Silega, N., Noguera, M., Rogozov, Y. I., Lapshin, V. S., & González, T. (2022). Transformation From CIM to PIM: a Systematic Mapping. *IEEE Access*, 10, 90857-90872. JCR: 3.9 (72/158 Q2, Computer Science, Information Systems; 100/275, Q2, engineering, electrical & electronic), doi: <https://doi.org/10.1109/ACCESS.2022.3201556>
- [3] Ruiz-Zafra, A., Benghazi, K. & Noguera, M. (2022): "IFC+: Towards the integration of IoT into early stages of building design". *Automation in Construction*, Vol. 136, April 2022, 17 páginas, ISSN: 0926-5805. JCR: 10.517 (3/68, Q1, Construction & Building Technology; 1/138, Q1, Engineering, Civil), doi: <https://doi.org/10.1016/j.autcon.2022.104129>
- [4] Benítez-Guijarro, A., Callejas, Z., Benghazi, K., & Noguera, M. (2019): "Architecting Dietary Intake Monitoring as a Service Combining NLP and IoT". *Journal of Ambient Intelligence and Humanized Computing*, JCR: 4.594 (27/156, Q1, categoría: Computer Science, Information Systems), doi: 10.1007/s12652-019-01553-2
- [5] Paris-Garcia, F., Ruiz-Zafra, A., Noguera, M., & Barroso-Caro, A. (2019). FLEXOR: A support tool for efficient and seamless experiment data processing to evaluate musculo-articular stiffness. *Computer methods and programs in biomedicine*, 182, 105048, JCR (último publicado): 3.424 (15/105, Q1, categoría: Computer Science, Theory & Methods), doi: <https://doi.org/10.1016/j.cmpb.2019.105048>
- [6] Benítez-Guijarro, A., Ruiz-Zafra, Á., Callejas, Z., Medina-Medina, N., Benghazi, K., & Noguera, M. (2019). "General Architecture for Development of Virtual Coaches for Healthy Habits Monitoring and Encouragement". *Sensors*, 19(1), 108, ISSN: 1424-8220, JCR (último publicado): 2.475 (9/57, Q1, categoría: Instruments & Instrumentation), doi: 10.3390/s19010108

- [7] Ruiz-Zafra, A., Benghazi, K., Mavromoustakis, C., & Noguera, M. (2018, October). An IoT-aware architectural model for smart habitats. In 2018 IEEE 16th International Conference on Embedded and Ubiquitous Computing (EUC) (pp. 103-110). IEEE.
- [8] Espín, V., Hurtado, M.V., Noguera, M.: "NutEICare: A Nutritional Semantic Recommender System for the Elderly". Expert Systems, Taylor & Francis, Vol. 33, nº2, 201-210, 2016, ISSN: 1468-0394, JCR: 1.180 (59/104, Q3, categoría: Computer Science Theory & Methods), doi: 10.1111/exsy.12143
- [9] Ruiz-Zafra, Á., Orantes, E., Noguera, M., Benghazi, K., Heredia, J.M.: "A comparative study on the suitability of smartphones and IMU for mobile, unsupervised energy expenditure calculi". Sensors, nº15 vol. (8), 18270-18286 (2015), ISSN: 1424-8220, JCR (último publicado): 2.245 (9/57, Q1, categoría: Instruments & Instrumentation), doi:10.3390/s150818270
- [10] Ruiz-Zafra, Á., Noguera, M., Benghazi, K., Ochoa F. Sergio: "A Model-Driven Approach for Wearable Systems Developments". International Journal of Distributed Sensor Networks. (2016), Sage Publishing, ISSN: 1550-1329, JCR 2015: 0.906 (95/143, Q3, categoría: Computer Science, Information Systems), doi:http://dx.doi.org/10.1155/2015/637130

C.2. Research projects and grants

National calls

- [1] PDC2022-133457-I00, Plantillas Sensorizadas Auto-Recargables para la Monitorización Continuada y a Largo Plazo de la Marcha Humana. Ministerio de Ciencia e Innovación (Convocatoria de "Pruebas de Concepto"). Principal researchers: Ramón Hervás y José Bravo. Budget: 94.760 euros. Dates: 28/10/2022-27/10/2024
- [2] Project: PID2020-118112RB-C21, Goal-driven multimodal interaction based on microservice orchestration for socio-affective conversational AI - (GOMINOLA). Ministerio de Ciencia e Innovación. Principal researchers: Zoraida Callejas, Kawtar Benghazi. Budget: 53.119 euros. Dates: 01/09/2021-31/08/2024
- [3] Bon-App-petit: Creación de ecosistemas basados en tecnologías móviles y lúdicas para el fomento de hábitos alimentarios y actividad física saludables entre el alumnado andaluz de educación primaria (P18-RT-4550). Proyectos de Excelencia (Junta de Andalucía). Budget: 116.042,00. IP's: Zoraida Callejas and María Dolores Ruiz-López
- [4] DEP2015-70980-R, Monitorización y fomento de hábitos saludables, mediante una plataforma basada en sensores portables y asesores virtuales, para la promoción del envejecimiento activo en población adulta y mayor. Ministerio de Educación y Ciencia. Principal investigators: Víctor Manuel Soto Hermoso y Manuel Noguera García. Proyecto nacional evaluado por la ANEP. Budget: 102.850 euros. Dates: 01/01/2016-31/12/2018
- [5] CEI-BioTic I+D+i Granada 20F12/36, Infraestructura Tecnológica para Monitorización Remota e Integral de Pacientes. Investigadores Principales: Manuel Noguera García, José Luis Garrido Bullejos e Inmaculada García Montes. Budget: 20.000 euros. Dates: 10/04/2012-31/12/2012
- [6] CEI-BioTIC I+D+i Granada V14-2015, Informatización de Máquina Patentada para la Medición de Propiedades Viscoelásticas del Tríceps Sural. Investigadores Principales: Manuel Noguera y Federico París. Budget: 2.000 euros. Dates: 28/05/15-31/12/15

Projects with companies and other organizations

International calls

1. Project "MENHIR: Mental health monitoring through interactive conversations" (Grant agreement ID: 823907, <https://cordis.europa.eu/project/rcn/218542/factsheet/en>. Call: Marie Skłodowska-Curie Research and Innovation Staff Exchange (**H2020-MSCA-RISE-2018**), From: 01/02/2019 to 31/01/2023 (48 months). Budget: 749.800€. Responsibility: Member of the proponent group. Principal researcher: Zoraida Callejas.
2. COST Action DKG (Distributed Knowledge Graphs) - Action CA19134 Cost Programme (European Cooperation in Science and Technology). European Science Foundation. Investigador principal: Tobias Käfer. Presupuesto: 400.000 euros. Dates: 23/09/20 - 22/09/24. Puesto: Miembro del Comité de Gestión (Management Committee).

3. COST Action AAPELE (Algorithms, Architectures and Platforms for Enhanced Living Environments) - Action IC1303 of the Cost Programme (European Cooperation in Science and Technology). Budget: 400.000 euros. From: 13/11/2013 to: 12/11/2017. Puesto: Miembro del Comité de Gestión (Management Committee).
4. Project: COST Action IC0903 MOVE (Knowledge Discovery from Moving Objects). 7th Framework Programme. Comisión Europea. Principal investigator: Robert Weibel. Budget: 400.000 euros. Dates: 27/10/2009-26/10/2013. Puesto: Miembro del Comité de Gestión (Management Committee).

C.3. Contracts, technological and technology transference merits

Entrepreneurship

- Co-founder of the start-up company 'Everyware Technologies Ltd.'. CIF/VAT Number: B18989723
 - 2nd Concurso Emprendimiento award by the University of Granada in 2013.
- Co-founder of 'Aero Information Systems Ltd.', an Everyware Technologies spin-off company. CIF/VAT Number: B19681295.

Public and competitive calls

- Supply contract INNPLANTA, exp. number, "INNPLANTA 12 – 01/13, Lote nº3": "Plataforma móvil y funcional en cloud de monitorización de sensores biomédicos y biomecánicos para el análisis del deporte". Empresa adjudicataria: Everyware Technologies S.L. Main manager: Manuel Noguera García. Total amount: 108,900.00 €.

C.4. Patents

- Coordination Method and Software System Based on Multiparadigm Architectures. Publication date: 2012/12/14. Patent office: WO. Patent number: 2012168524. Patent code: H04L 29/08 (H- ELECTRICITY; 04- ELECTRIC COMMUNICATION TECHNIQUE; L- TRANSMISSION OF DIGITAL INFORMATION; 29- Arrangements, apparatus, circuits or systems; 08- Transmission control procedure).

C.5. Awards and merits

- Best Student Paper award conference Computer-supported Cooperative Work in Design (CSCWD 2015)
- Best senior degree project, year 2011-12: "Smart Transport Guide" (best entrepreneur expectatives)
- Best paper award at IV Enterprise Organization, Modeling and Simulation (EOMAS 2010)
- "Jesús Lorés" award to the best paper at conference Interacción 2008.

C.6. Consultancy

- DNV, project evaluator in 2021.
- Reference for Gartner's 2017 research program, including a Magic Quadrant, of Enterprise High Productivity Application Platform as a Service (aPaaS).
- UX evaluator for Unit4 in 2015.

C.7. Supervised Phds.

1. Title: Sistemas de Recomendación Semánticos para la Compartición de Conocimiento y la Explotación de Tesoros: Un Enfoque Práctico en el Ámbito de los Sistemas Nutricionales. Student: Vanesa Espín Martín. Date: 27-junio-2016
2. Title: E-MODE: A Framework to Support the Development of Mobile Telemonitoring Platforms. Student: Ángel Ruiz Zafra. Date: 27-julio-2016
3. Title: Multi-tenancy Multi-target (MT²): An Extension to Cloud Multi-tenant Architectures for Multi-service support in SaaS Enterprise Information Systems. Student: Antonio Rico Ortega. Date: 4-marzo-2016
4. Title: Transformación Automatizada de Modelos de Procesos de Negocio a Modelos de Componentes para Sistemas de Gestión Empresarial Dirigida por Ontologías. Student: Nemury Silega Martínez. Date: 16-diciembre-2014
5. Title: Una Aproximación al Análisis de la Innovación y los Procesos de Gestión Medioambiental: Gestión de Patentes Basada en Ontologías y estudio de Webs Corporativas. Student: María Bermúdez Edo. Date: 10-mayo-2013