CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – *The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.*

Part A. PERSONAL INFORMATION

First name	ADOLFO		
Family name	CRESPO MÁRQUEZ		
Gender (*)		Birth date	
Social Security, Passport, ID number			
e-mail	adolfo@us.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-2027-7096	

(*) Mandatory

A.1. Current position

Position	Full Professor
Initial date	2009
Institution	University of Seville
Department/Center	School of Engineering
Country	Spain / Teleph. number +34 954487215
Key words	Maintenance, Asset Management, Intelligent Maintenance, Supply Chain.

A.2. Previous positions (research activity interuptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
xxxx-xxxx	
yyyy-yyyy	

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
BsC, Industrial Engineering	University of Seville	1988
PhD, Industrial Engineering	University of Seville	1992

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

I can summarize my CV with the following achievements.:

− Number of accredited research periods: 4 (1998-2003; 2004-2009, 2010-2016)
− Total number of citations (since 2017): 36668 (Google Scholar)
− h Index (since 2017): 26; h Index (Total): 39
− i10 Index (since 2017): 84; i10 Index (Total): 117
− Since 2010: 98 publications in journals: 25 Q1-JCR, 20 Q2-JCR, 15 Q3-Q4-JCR, 45 Non-JCR Journals. A total of 52 JCR papers within the last 10 years.
− Stanford University list of world top-scientists. Ioannidis, John P.A. (2022), "September 2022 data-update for "Updated science-wide author databases of standardized citation indicators"", Mendeley Data, V5, doi: 10.17632/btchxktzyw.5

Adolfo Crespo Márquez is currently Full Professor at the School of Engineering of the University of Seville, and recently Head of the Department of Industrial Management. He received the Spanish Maintenance Award 2020 from the Spanish Maintenance Association (AEM). He holds a Ph.D. with Honors in Industrial Engineering from this same University. His research works have been published in journals such as Reliability Engineering and System Safety, International Journal of Production Research, International Journal of Production Economics, European Journal of Operations Research, Omega, Decision Support Systems and Computers in Industry, among others. Prof. Crespo is the author of 8 books and Editor of 5 books with Springer, Aenor, IGI Global and INGEMAN, about maintenance, warranty, supply

chain and assets management. Professor Crespo is Fellow Director of ISEAM (International Society of Engineering Assets Management) and leads the Spanish Research Network on Assets Management and the Spanish Committee for Maintenance Standardization (1995-2003). He also leads the SIM (Sistemas Inteligentes de Mantenimiento) research group related to maintenance and dependability management and has extensively participated in many engineering and consulting projects for different companies, for the Spanish Departments of Defense, Science and Education as well as for the European Commission (IPTS). He is the President of INGEMAN (a National Association for the Development of Maintenance Engineering in Spain) since 2002.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

1. **Scientific paper.** Martínez-Galan Fernandez Fernández, P. ; Guillén López, A. J. ; Crespo Marquez, A.; Fernandez, JFG; Marcos, JA. 2022. Dynamic Risk Assessment for CBM-based adaptation of maintenance planning. Reliability Engineering and System Safety. Vol.223. Art.108359. DOI: 10.1016/j.ress.2022.108359

2. **Scientific paper.** Sánchez Herguedas, Antonio; Crespo Márquez, Adolfo; Rodrigo Muñoz, Francisco. Optimizing preventive maintenance over a finite planning horizon in a semi-Markov framework. IMA Journal of Management Mathematics. 33 (1): 75-79.

3. **Scientific paper.** Hidalgo-Mompeán, Fernando; Gómez Fernández, Juan Francisco; Cerruela-García, Gonzalo; Crespo Márquez, Adolfo 2021.Dimensionality analysis in machine learning failure detection models. A case study with LNG compressors. Computers in industry. Col. 128. Art. 103434. DOI. **10.1016/j.compind.2021.103434**

4. **Scientific paper.** Crespo Márquez, Adolfo ; Serra Parajes, Javier; de la Fuente Carmona, Antonio; Sola Rosique, Antonio. 2021. Integrating complex asset health modelling techniques with continuous time simulation modelling: A practical tool for maintenance and capital investments analysis. Vol.133. Art. 103507. DOI. 10.1016/j.compind.2021.103507

5. **Scientific paper.** Crespo Márquez, A. ; Crespo del Castillo, A.; Gómez Fernández, J. F. 2020. Integrating artificial intelligent techniques and continuous time simulation modelling. Practical predictive analytics for energy efficiency and failure detection. COmputers in Industry. Vol 115. Art.103164. DOI. 10.1016/j.compind.2019.103164

6. **Scientific paper.** Izquierdo -tomas, Juan; Crespo-Márquez, Adolfo; Uribetxebarria,Jone; Erguido-ruiz, Asier. 2020. On the importance of assessing the operational context impact on maintenance management for life cycle cost of wind energy projects.Renewable Energy. 153, pp. 1100-1110.

7. **Scientific paper.** Erguido, Asier; Crespo-Márquez, Adolfo; Castellano, Eduardo; Flores, José Luis; Gómez-Fernández, Juan Francisco. 2020. Reliability-based advanced maintenance modelling to enhance rolling stock manufacturers' objectives. Computers & Industrial Engineering. 144, pp. 1-18.

8. **Scientific paper.** Crespo-Márquez, Adolfo; De La Fuente, Antonio; Marcos-alberca, Jose Antonio; Navarro, Javier . 2020. Designing CBM Plans, Based on Predictive Analytics and Big Data Tools for Train Axle Bearings. Computers in Industry. 122(1-13).

9. **Scientific paper.**. Crespo-Márquez, Adolfo; Gómez-Fernández, Juan Francisco; Martínez-galán-fernández , Pablo; Guillen-Lopez, Antonio Jesus. 2020. Maintenance Management through Intelligent Asset Management Platforms (IAMP). Emerging Factors, Key Impact Areas and Data Models. Energies. 13, pp. 1-19.

10. **Scientific paper.** Gómez-Fernández, Juan Francisco; Martínez-galán, Pablo; Guillen-Lopez, Antonio Jesus; Crespo-Márquez, Adolfo. 2019. Risk-Based Criticality for Network Utilities Asset Management. IEEE Transactions on Network and Service Management. 16, pp. 755-768.

11. **Scientific paper.** Izquierdo, Juan; Crespo-Márquez, Adolfo; Uribetxeberria, Jone. 2019. Dynamic Artificial Neural Network-based reliability considering operational context of assets. Reliability Engineering & System Safety. 188, pp. 483-493.

12. **Scientific paper.** Izquierdo, Juan; Crespo-Márquez, Adolfo; Uribetxeberria, Jone; Erguido, Asier. 2019. Framework for Managing Maintenance of Wind Farms Based on a Clustering Approach. Energies. 12, pp. 2036-

13. **Scientific paper.** Crespo-Márquez, Adolfo; De La Fuente, Antonio; Antomarioni, Sara. 2019. A Process to Implement ANN and Association Rules Techniques to Improve Assets Performance and Energy efficiency. Energies. 12, pp. 1-25.

14. **Scientific paper.** Guillen-Lopez, Antonio Jesus; Crespo-Márquez, Adolfo; Gómez-Fernández, Juan Francisco; Sanz, Maria Dolores. 2016. A Framework for Effective Management of Condition Based Maintenance Programs in the context of industrial development of E-Maintenance strategies.. Computers in Industry. pp. 170-185.

15. **Scientific paper.**. Gómez-Fernández, Juan Francisco; Crespo-Márquez, Adolfo; López-Campos, Mónica Alejandra. 2016. Customer-oriented risk assessment in network utilities. Reliability Engineering & System Safety. 147, pp. 72-83.

16. **Scientific paper.** Guillen-Lopez, Antonio Jesus; Crespo-Márquez, Adolfo; Macchi, Marco. 2016. On the role of Prognosis and Health Management in advanced maintenance systems. Production Planning & Control. pp. 1-13.. Guillen-Lopez, Antonio Jesus; Crespo-Márquez, Adolfo; Macchi, M; Gómez-Fernández, Juan Francisco. 2016. On the role of Prognostics and Health Management in advanced maintenance systems. Production Planning & Control.

17. **Scientific paper.** Crespo-Márquez, Adolfo; Moreu-De Leon, Pedro; Sola-rosique, Antonio; Gómez-Fernández, Juan Francisco. 2016. Criticality Analysis for Maintenance Purposes: A Study for Complex In-service Engineering Assets. Quality and Reliability Engineering International. pp. 519-533.

18. **Scientific paper.** Erguido -ruiz, Asier; Crespo-Márquez, Adolfo; Castellano, Eduardo; Parlikad, Ajith. 2019. Asset management framework and tools for facing challenges in the adoption of Product Service Systems. IEEE Transactions on Engineering Management. pp. 1-13.

19. **Scientific paper.** Viveros, Pablo; Nikulin, Christopher; López-Campos, Mónica Alejandra; Villalón, Roberto; Crespo-Márquez, Adolfo. 2018. Resolution of reliability problems based on failure mode analysis: an integrated proposal applied to a mining case study. Production Planning & Control. 29, pp. 1225-1237.

20. **Scientific paper.** Kristjanpoller, Fredy; Crespo-Márquez, Adolfo; Barberá-Martínez, Luis; Viveros, Pablo. 2017. Biomethanation plant assessment based on reliability impact on operational effectiveness.. Renewable Energy. 101, pp. 301-310.

21. **Scientific paper.** Erguido-ruiz, Asier; Crespo-Márquez, Adolfo; Castellano, Eduardo; Gómez-Fernández, Juan Francisco. 2017. A dynamic opportunistic maintenance model to maximize energy-based availability while reducing the life cycle cost of wind farms. Renewable Energy. 114 , pp. 843-856.

22. **Scientific paper.** Muller-,Alexandre; Crespo-Márquez, Adolfo; Iung-, Benoit. 2008. On the concept of e-maintenance: review and current research. Reliability Engineering & System Safety. 93, pp. 1165-1187. (**MOST CITED PAPER**)

23. **Book.** Crespo-Márquez, Adolfo; 2022. Digital Maintenance Management. Guiding Digital Transformation in Maintenance. Springer.

24. **Book**. Crespo-Márquez, Adolfo; Macchi, Marco; Parlikad, Ajith Kumar. 2019. Value-based and Intelligent Asset Management. Springer.

25. **Book**. Crespo-Márquez, Adolfo; Gonzalez-Prida-Diaz, Vicente; Gómez-Fernández, Juan Francisco. 2017. Advanced Maintenance Modelling for Asset Management Techniques and Methods for Complex Industrial Systems. Springer.

26. **Book**. Crespo-Márquez, Adolfo. 2007. The Maintenance Management Framework. Springer (traducido al árabe, farsi y chino). (**MOST CITED BOOK**)

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. GEMINHI. GEmelo digital para el Mantenimiento INteligente basado en modelos de prognosis HÍbridos (data-driven & simulación). Desarrollo y prueba de concepto aplicada al mantenimiento predictivo en ferrocarril de alta velocidad (US-1381456)

2. EIN2019-103326. Ayuda a la presentación de propuestas europeas en el campo del modelado AIM para la transformación digital de la gestión de activos. MICINN. Crespo-

Márquez, Adolfo (Universidad de Sevilla). 2019. Responsable.

3. DPI2015-70842-R. Desarrollo de Procesos Avanzados de Operación y Mantenimiento Sobre Sistemas Cibero Físicos (Cps) en el Ámbito de la Industria 4.0. Ministerio De Economía Y Competitividad. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2016-2018. 151250 EUR. Responsable.

4. PI1546/06/2016. Diseño y desarrollo de un prototipo de laboratorio de alta eficiencia para AGP (A2 FACTORY). AGQ Technological Corporate. 2016-2016. Coordinador.

5. Gestión de tecnologías de mantenimiento predictivo para el aumento de ciclo de vida útil de los activos (GESPREDICT). ASOCIACIÓN INGEMAN. 2016-2017. Coordinador.

6. 645733. SUSTAIN OWNER: Sustanaible design and management of industrial assets through total value and cost of ownership. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2017. Responsable. Cofinanciación de Proyecto Europeo de la JA.

7. 645733. Sustanaible design and management of industrial assets through total value and cost of ownership (SUSTAIN-OWNER). COMISIÓN EUROPEA. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2017. 117000 EUR. Responsable.

8. PI-1469/2015. Desarrollo de Prototipo de Sistema Experto-Inteligente de Control y dirección nutricional de cultivos tecnificados . AGQ Labs. 2015- 2017. Coordinador.

9. ITC-20151078. Optimización de la conservación de infraestructura ferroviaria para transporte urbano (OPTIRAIL). CDTI. 2015-2017. Coordinador.

10. PI-1496/06/2015. Optimización de la conservación de infraestructura ferroviaria para transporte urbano (OPTIRAIL). Soltel IT Software, S.L.U. 2015-2017. Coordinador.

11. DPI2014-56547-REDT. Red Temática de Gestión de Activos Físicos. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2014-2016. Responsable.

12. DPI2014-56547-REDT. Red Temática de Gestión de Activos Físicos . Ministerio De Economía Y Competitividad. 2014-2016. Coordinador.

13. P11-TEP-7303. Confiabilidad y Ecoeficiencia en Sistemas de Generación Eólica (Coneol). JUNTA DE ANDALUCÍA - CONSEJERÍA DE INNOVACIÓN, CIENCIA Y EMPRESAS. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2013-2016. 101947,5 EUR. Responsable.

C.4. Contracts, technological or transfer merits,

1. PARKLIFE. Optimización del Mantenimiento de Instalaciones Fotovoltaicas basado en Técnicas de Machine Learning (PI-2085/44/2021). AICIA- Universidad de Sevilla.

2. TD MGM-Gas. Transformación Digital del Modelo de Gestión de Activos en la Industria del Gas Natural (PI-1953/44/2019). AICIA- Universidad de Sevilla.

3. Asistencia Técnica para la Definición del Modelo General de Gestión de Activos y Mantenimiento de ADIF y Propuesta para su Implantación.. ADMINISTRADOR DE INFRAESTRUCTURAS FERROVIARIAS (ADIF). Crespo-Márquez, Adolfo (Universidad de Sevilla). 2018.

4. Adaptación de infraestructuras de obra civil ante el cambio climático. Azvi, S.A..Crespo-Márquez, Adolfo (Universidad de Sevilla). 2017-2023. 125000,00 EUR.

5. Gestión de tecnologías de mantenimiento predictivo para el aumento de ciclo de vida útil de los activos (GESPREDICT). Crespo-Márquez, Adolfo. 2016-2017. 16942 EUR.

6. OPTIRAIL-SOLTEL. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2017. OPTIRAIL-AZVI. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2017.

7. Plataforma de apoyo a los sistemas OSS/BSS de operadores de Telecomunicaciones FTTH. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2015. 55955,56 EUR.

8. Optimización de la conservación de infraestructura ferroviaria para transporte urbano (OPTIRAIL). Crespo-Márquez, Adolfo (Universidad de Sevilla). 2015-2017. 150220 €.

9. SEAMAR: Soluciones Eólicas Andaluzas para el Mar . Crespo-Márquez, Adolfo (Universidad de Sevilla). 2012-2015.

10. CANOPUS: Mejora de confiabilidad de equipos empleados para generar energía. Crespo- Márquez, Adolfo (Universidad de Sevilla). 2011-2014.

11. e-IM:Aplicaciones TICS avanzadas para la mejora de la ecoeficiencia en procesos industriales a través de la gestión inteligente del ciclo de vida de los activos de producción.. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2011-2014.

12. SG2 SUBESTACIONES PARA UNA SMART GRID. Crespo-Márquez, Adolfo (Universidad de Sevilla). 2009-2011. 112824 EUR.