



CURRICULUM VITAE (CVA)

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

Part A. PERSONAL INFORMATION

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| CV date | 02/02/2023 |
|----------------|------------|

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|-------------|------------------------|
| First name | Manuel |
| Family name | Resinas Arias de Reyna |
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(*) *Mandatory*

A.1. Current position

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|--------------------|--|
| Position | Prof. Titular de Universidad |
| Initial date | 30/10/2018 |
| Institution | Universidad de Sevilla |
| Departament/Center | Lenguajes y Sistemas Informáticos / ETS Ing. Informática |
| Country | Spain |
| Key words | Business process management, Service engineering, Software engineering |

A.2. Previous positions (research activity interruptions, art. 45.2.c))

| Period | Position/Institution/Country/Interruption cause |
|-------------|--|
| 2011 – 2018 | Profesor Contratado Doctor / Univ. Sevilla / Spain |
| 2006 – 2011 | Profesor Colaborador / Univ. Sevilla / Spain |
| 2004 – 2006 | Pre-doctoral Research Contract / Univ. Sevilla / Spain |

A.3. Education

| PhD, Licensed, Graduate | University/Country | Year |
|--------------------------|------------------------|------|
| Doctor Ing. Informática | Universidad de Sevilla | 2008 |
| Ingeniero en Informática | Universidad de Sevilla | 2004 |

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

Manuel Resinas is Prof. Titular de Universidad at the Universidad de Sevilla (US), where he graduated with the Third National End of Degree Award (2004) and obtained his PhD (2008). He is one of the *garantes* (guarantors) of the Unit of Excellence “Smart Computer systems Research and Engineering” of the US, and a member of the "Applied Software Engineering" research group, where he leads the research line on business process management (BPM).

In the last 10 years, his research interests have revolved around both service computing and BPM. Concerning service computing, the key idea behind his work has been to consider the service level agreement (SLA) as a first-class citizen within a service infrastructure that can be used as a specification to increase the automation of many stages of the service lifecycle. This has led to numerous contributions to the automatic analysis, creation, diagnosis and monitoring of SLAs (e.g., Section C.1 – 3.7). In 2010, he started to lead a new research line on BPM, where he has made significant contributions in three different areas. First, Manuel and his team have gained international recognition by their work on



process performance management. His work has aimed at providing models (like PPINOT), techniques, and tools to make the definition, analysis, and computation of process performance indicators easier to process analysts. To this end, he has used techniques from statistical analysis, description logics, natural language processing, or process mining amongst others (e.g., Section C.1 – 4,5,8,10). This work has also been expanded to the predictive monitoring of business processes, where he is co-author of one of the most cited surveys in the topic (Section C.1 – 6). A second research direction has focused on providing comprehensive support for the assignment and allocation of human resources to process activities (e.g., Section C.1 – 9). More recently, this research has been extended to knowledge-intensive processes and the productivity of knowledge workers that participate in them (e.g., Section C.1 – 1). Finally, he has also developed techniques for defining and analysing the compliance of business processes (e.g., Section C.1 – 2). His research has been published in journals like IEEE TSC(x5), BISE(x2), IS(x3), or ACM Trans. Int Techn. and he regularly publishes in conferences like: CAiSE(x8), ICSOC(x7), CoopIS(x4), or BPM(x2). According to Google Scholar, he has an h-index of 26, and his field-weighted citation impact in the last ten years (2012-2021) according to SCOPUS is 1.64. He has been recognized two research *sexenios* (2005-2016).

Manuel is or has been (co-)PI of seven projects, including one H2020 RISE project and four national projects, with a total budget over 900K. He represents the US at the European Research Center for Information Systems (ERCIS) network. He has collaborated with more than 50 international researchers through joint publications, research stays and event organization. More than 40% of his publications in the last 10 years have been co-authored with an international collaborator. He has been General Co-Chair of the BPM conference in 2020 and has organized two workshops at ICSOC and BPM about resource management. He is a PC member of some of the main conferences on his topic: BPM, ICPM, ICSOC and received the best reviewer award at ICPM 2021. From January 2022, he is Associate Editor of the BISE journal.

Manuel has been involved in 8 technology transfer contracts, two of them as a PI. He is co-author of 3 registered software tools: ADA, PPINOT and CRISTAL related to the management of SLAs, PPIs and human resources in business processes, respectively. They have been used by organizations like the Andalusian Health Service, and the Conserjería de Hacienda y Administración Pública. The cost of licensing and adaptation of these tools by 4 companies in 5 R&D contracts amounts to more than 95,000€. He has developed in collaboration with the Dutch start-up company Cupenya¹ during a one-month research stay the KPIShare platform, which proposed a pioneering approach to the collaborative definition of PPIs. The research on compliance management was embodied in an R&D contract with ENEL ENERGY EUROPE, and in an application of an international patent in collaboration with UNIDASH, based in California. He has been granted a technology transfer sexenio (2010-2016).

Manuel has supervised 4 PhD theses and has been able to grow the number of people working on the BPM research line, which he started, to 5 doctors and 4 PhD students. After their PhD, all of his students were offered post-doc positions in relevant international universities like WU Vienna or the University of Tartu. Currently, one of them is working at the University of Linz (Austria), and the other three are at the University of Seville as Prof. Titular de Universidad, PI of a JIN project, and PSI. He is an AEI (formerly ANEP) evaluator since 2014.

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

C.1. Publications (*see instructions*)

1. D. Beverungen, J. C. A. M. Buijs, J. Becker, [...], Verena Wolf: Seven Paradoxes of Business Process Management in a Hyper-Connected World. *Bus. Inf. Syst. Eng.* 63(2): 145-156 (2021) [Authors sorted alphabetically. [Position 15/24](#)]. [[link](#)]
2. C. Cabanillas, M. Resinas, A. Ruiz-Cortés: A Mashup-based Framework for Business Process Compliance Checking. *IEEE Trans. Services Computing* (Early Access) 2020. DOI: 10.1109/TSC.2020.3001292 [[link](#)]

¹ Unfortunately, Cupenya was sold to another company and it does not exist anymore.

3. C. Muller, A.M. Gutierrez, P. Fernández, O. Martín-Díaz, M. Resinas, A. Ruiz-Cortés: Automated Validation of Compensable SLAs. *IEEE Trans. Serv. Comput.* 14(5): 1306-1319 (2021). [[link](#)]
4. A. del-Río-Ortega, M. Resinas, A. Durán, B. Bernárdez, A. Ruiz-Cortés, M. Toro: Visual ppinot: A Graphical Notation for Process Performance Indicators. *Bus. Inf. Syst. Eng.* 61(2): 137-161 (2019). [[link](#)]
5. B. Estrada-Torres, P.H. Piccoli Richetti, A. del-Río-Ortega, F. Araujo Baião, M. Resinas, F.M. Santoro, A. Ruiz-Cortés: Measuring Performance in Knowledge-intensive Processes. *ACM Trans. Internet Techn.* 19(1): 15:1-15:26 (2019). [[link](#)]
6. A.E. Márquez-Chamorro, M. Resinas, A. Ruiz-Cortés: Predictive Monitoring of Business Processes: A Survey. *IEEE Trans. Services Computing* 11(6): 962-977 (2018). [[link](#)]
7. J.M. García, P. Fernandez, C. Pedrinaci, M. Resinas, J.S. Cardoso, A. Ruiz Cortés: Modeling Service Level Agreements with Linked USDL Agreement. *IEEE Trans. Services Computing* 10(1): 52-65 (2017). [[link](#)]
8. H. van der Aa, H. Leopold, A. del-Río-Ortega, M. Resinas, H.A. Reijers: Transforming unstructured natural language descriptions into measurable process performance indicators using Hidden Markov Models. *Inf. Syst.* 71: 27-39 (2017). [[link](#)]
9. C. Cabanillas, M. Resinas, A. del-Río-Ortega, A. Ruiz Cortés: Specification and automated design-time analysis of the business process human resource perspective. *Inf. Syst.* 52: 55-82 (2015). [[link](#)]
10. A. del-Río-Ortega, M. Resinas, C. Cabanillas, A. Ruiz Cortés: On the definition and design-time analysis of process performance indicators. *Inf. Syst.* 38(4): 470-490 (2013). [[link](#)]

C.2. Congress

1. [Paper presentation] C. Capitán-Agudo, M. Salas-Urbano, C. Cabanillas, M. Resinas: Analyzing How Process Mining Reports Answer Time Performance Questions. *BPM 2022*: 234-250 [[link](#)]. **Best student paper award**
2. [Paper presentation] A. del-Río-Ortega, J. Peña, M. Resinas, A. Ruiz-Cortés: Productivity Challenges in Digital Transformation and its Implications for Workstream Collaboration Tools. *HICSS 2021*: 1-10 [[link](#)]
3. [Paper presentation] C. Cabanillas, D. Knuplesch, M. Resinas, M. Reichert, J. Mendling, A. Ruiz Cortés: RALph: A Graphical Notation for Resource Assignments in Business Processes. *CAiSE 2015*: 53-68 [[link](#)]
4. [Paper presentation] A. del-Río-Ortega, A.M. Gutiérrez, A. Durán Toro, M. Resinas, A. Ruiz Cortés: Modelling Service Level Agreements for Business Process Outsourcing Services. *CAiSE 2015*: 485-500 [[link](#)]

C.3. Research projects

1. ORCHID. Digital Transformation of the Public Administration driven by Intelligent Contracts (TED2021-131023B-C22). 01/12/22 – 31/11/24. 206.655€ *Proyectos Estratégicos orientados a la transición ecológica y la transición digital (Plan Estatal)*. IP: Manuel Resinas and Adela del Río.
2. PERSEO. Bots and human collaboration for improving the operation and continuous improvement of processes in digital services (PID2021-126227NB-C21). *Proyectos de generación de conocimiento (Plan Estatal)*. 01/09/22-31/08/25. 202.191€ IP: Manuel Resinas and Antonio Ruiz.
3. EKIPMENT+. Mejora del rendimiento de procesos basados en conocimiento: Un enfoque empírico multidisciplinar basado en personas, equipos, software y datos (P18-FR-2895). *Proyectos frontera. Conserjería de Conocimiento, Invstigación y Universidad (Junta de Andalucía)*. 01/01/20-31/12/22. 120.625€ IP: Manuel Resinas and Amador Durán.
4. OPHELIA. Optimización de Servicios Basados en Conocimiento Usando Aplicaciones Basadas en Servicios (RTI2018-101204-B-C22). *Proyectos I+D+i orientado a Retos de la sociedad*. 01/01/19-31/12/21. 147.136€ IP: Manuel Resinas and David Benavides. Part of project HAMLET.
5. RISE_BPM. Propelling Business Process Management by Research and Innovation Staff Exchange. *H2020 Marie Skłodowska-Curie Research and Innovation Staff Exchange*. 01/05/2014 – 01/05/2018. 855.000€(94.500€for Universidad de Sevilla). PI: Manuel Resinas and Antonio Ruiz

C.4. Contracts, technological or transfer merits

Contracts

1. TIRSO: Trustworthy Infrastructures regulated by service level objectives. Funding organisation: *Junta de Andalucía*. PI:Pablo Fernández. 2022-2023 (18 months). 148,450€ (Pending confirmation)
2. GALIBO: Soporte en la elaboración de la propuesta Técnica para el Contrato de Servicios para la Integración y Normalización de los Sistemas de Información de la Consejería de Hacienda y Administración Pública. 30/10/2019 – 31/12/2021. *Everis*. PI: Pablo Fernández y Antonio Ruiz
3. GAUSS: Soporte en la elaboración de la propuesta técnica para el contrato de Servicios para la Integración y Normalización de los Sistemas de Información de la Consejería de Hacienda y Administraciones Públicas. 21/11/2016 – 31/12/2017. 35.000€ IP: P. Fernández y Antonio Ruiz
4. MARCOS: soporte en la investigación, desarrollo y soporte de arquitecturas MARCO orientadas a Servicios para el Servicio Andaluz de Salud. Funding organisation: *ISOTROL*. PIs: Sergio Segura y Pablo Fernández. 15/11/2015 - 15/05/2016 (6 months). 9,500€
5. PROSAS: Investigación y Desarrollo en el área de procesos de los Servicios Horizontales de Tecnologías de la Información y las Comunicaciones del Servicio Andaluz de Salud. *Accenture*. 23/02/2015 – 23/03/2016. 43.560€ PI: Manuel Resinas y Antonio Ruiz
6. BPCMS. Desarrollo e implantación de un sistema de gestión de la conformidad de procesos de negocio. *ENEL ENERGY EUROPE*. 15/02/2012- 30/09/2013. 60.000 € PI: Antonio Ruiz Cortés
7. Solución SaaS integral para el diagnóstico automático en lenguaje natural de problemas IT y resolución semi-automática de los mismos, en base a políticas de seguridad de cortafuegos. *OPN – INNPACTO* (*Ministerio de Economía y Competitividad*). 17/07/2012 – 31/12/2015. PI: Antonio Ruiz Cortés
8. URBANHEALTH. *ICINETIC*. 30/03/2011 – 15/11/2011. 8.260€ PI: Manuel Resinas

Patents. International patent requested in collaboration with the company UNIDASH, based in California: System and Method for compliance event and incident management (CEIM). P. Fernández, M. Resinas, A. Ruiz Cortés, Arushi Sood Joshi. Application No: 13602291. March 2014. <http://www.google.com/patents/US20140067448>. The patent process could not finish because UNIDASH closed.

Registered tools. Intellectual property on 3 software tools that have been the core of its participation in the different R&D contracts. Specifically, the cost of licensing and adaptation of these tools by 4 companies in 5 R&D contracts amounts to more than 95,000€

1. C. Müller, M. Resinas, A. Ruiz-Cortés, O. Martín Díaz. ADA (Agreement Document Analyzer) 1.0. 16/06/2010. 201099900606408. Expediente: SE-738-10. Indicios de calidad: Usado en 4 contratos de I+D por 3 empresas distintas (Ayesa, ISOTROL y SADESI). La licencia de uso y el know-how de su adaptación a los proyectos se han valorado en un total de 73.900 € <http://www.isa.us.es/ada>
2. Adela del Río-Ortega, Cristina Cabanillas, M. Resinas, Antonio Ruiz-Cortés. PPINOT. 27/01/2012. 201099900606408. Expediente: SE-738-10. Indicios de calidad: Usado en 2 contratos de I+D por ISOTROL e ICINETIC con una valoración económica de 22.700 €. Implantado en un prototipo por parte del Servicio Andaluz de Salud para calcular PPI (indicadores de rendimiento de procesos) asociados a cuerdos de nivel de servicio. También está siendo implantado en la Consejería de Hacienda y Administraciones Públicas de la Junta de Andalucía con el mismo fin. Usado en la docencia por las Universidades de Tilburg (Holanda) y UNIST (Corea del Sur). <http://www.isa.us.es/ppinot>
3. C. Cabanillas, A. del Río-Ortega, M. Resinas, A. Ruiz-Cortés. CRISTAL (Herramienta para el análisis de la gestión de recursos humanos en los procesos de negocio). 27/01/2012, 201099900606408. Expediente: SE-738-10 . Indicios de calidad: Ha sido el núcleo de la solución dada al departamento de compliance de ENEL ENERGY EUROPE (antes ENDESA) en el proyecto BPCMS. También ha sido utilizado en un proyecto de transferencia de tecnología realizado por la WU Viena con Siemens. <http://www.isa.us.es/cristal>