
Datos personales

Nombre: Óscar Pastor López **Nacido en:** Valencia (Spain) **NIF:**
Organización: Facultad de Informática. Dept. Sistemas Informáticos y Computación. Universidad Politécnica de Valencia.
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Formación: Licenciado en Física, Doctor en Informática
Puesto: Catedrático de Universidad

Áreas de -interés

Conceptual Modelling, Model Driven Development, Web Engineering, Requirements Engineering and Business Process Modelling, Bioinformatics.

Proyectos de investigación – Últimos cinco años

a) Proyectos Europeos e Internacionales

- COST MAUSE (Towards the MATuration of Information Technology USability Evaluation, <http://www.cost294.org/>). European Union COST Action. IP: Effie Lai-Chong Law, ETH, Zurich. 2004-2007
- WEE-NET: Web Engineering Network of Excellence, Web: <http://cosy.ted.unipi.gr/weenet/>. Alfa European Union Project. IP: Symeon Retalis (University of Pyreus, Greece). 2004-2007
- OSIRIS (<http://www.itea-osiris.org/>). ITEA2 EU Project. Project Lead: TELVENT Spain. 2006-2008
- Integración de Técnicas de Modelado de Negocios a un entorno de Generación Automática de Código (ref.PHB2007-0065-PC). Programa Cooperación Internacional con Brasil (AECI). IP: Óscar Pastor. 2008-2011.
- SALUS – Qualidade em sites na área da saúde (ref.P507RT0532). CYTED Project. Project lead: Brasil 2008-2011.
- Future Internet Testing, FP7- European Union Comission. 2010-2013
- CaaS – Capabilities as a Service, FP7, European Union Comission, 2014-2016.
- MUSIC 360: A 360 degrees perspective on the value of music. IP: Oscar Pastor, European Union Comission, 2023-2025, 287.261,25 €

b) Proyectos Nacionales (Plan I+D)

- TIN2007-62894. **Construcción de Servicios Software a partir de Modelos (SESAMO)**. September 2007-September 2010. Funded by MEC (285K €). IP: **Vicente Pelechano**.
- TIN2004-03534. **Desarrollo de E-Servicios para la Nueva Sociedad Digital (DESTINO)**. 2005-2007. Funded by MEC (218K €). IP: **Vicente Pelechano**.
- TIC2001-3530-C02-01. **Tecnología Software Avanzada para la Ingeniería del Software de la Sociedad de la Información. TAISSI . Subproject “INGENIERÍA DE AMBIENTES WEB”**. 2001-2004. Funded by MEC (110K €). IP: **Oscar Pastor**.
- FIT-340000-2007-110. **Producción Industrial de Software en ambientes MDA (PISA)**. 2007-2008. Funded by MITYC (996K € CARE Technologies + Integranova and 300K € UPV). IP: **Oscar Pastor**.
- FIT-340503-2006. **ATENEA, ARQUITECTURA MIDDLEWARE Y HERRAMIENTAS**. 2006-2008. Funded by MITYC (2006) 23.000€, (2007) 20.000 € and (2008) 20.000 €. IP: **Vicente Pelechano**.
- **PROS-REQ: Producción de Software Orientado a Servicios Basada en Requisitos Funcionales**, MCIN, 100100 Euros, IP: **Oscar Pastor**, 2012-2014
- **DISEÑO Y DESARROLLO DE UN SISTEMA DE INFORMACION PARA LA GESTION EFICIENTE DE LOS DATOS REFERENTES AL CANCER DE MAMA EN MUJERES JOVENES**. Funded by INSTITUTO DE SALUD CARLOS III, 15125 Euros, 2014-2016,
- **UN METODO DE PRODUCCION DE SOFTWARE DIRIGIDO POR MODELOS PARA EL DESARROLLO DE APLICACIONES BIG DATA**. Funded by MINISTERIO DE ECONOMIA, INDUSTRIA Y PRODUCTIVIDAD. 99.099,00 €, 30/12/2016 AL 29/12/2020
- **DESARROLLO ÁGIL DE SISTEMAS DESDE REQUISITOS A CÓDIGO (PID2021-123824OB-I00)**; AGENCIA ESTATAL DE INVESTIGACION; IP Oscar Pastor 2022-2024, 149.556 €

c) National Projects (PETRI, FEDER, Research Networks, etc)

- TIN2005-25866-E. “Red Nacional de Desarrollo de software dirigido por modelos (DSDM)”. 06/07/06-06/01/08. Funded by MEC (40K€). IP: **Antonio Vallecillo**.
- TIC 2002-10628-E. SPARCIM (Spanish Research Consortium for Informatics and Mathematics. 2003-2004. Funded by MEC (78K€). IP: Esperanza Marcos, R. López de Mántaras, M. Alpuente, I. Ramos, E. Pimentel, M. Hermenegildo, J.J. Moreno, J. Larrosa, F. Orejas, R. San José.

d) Regional Projects

- **Combining Explainable Artificial Intelligence and Conceptual Modelling for Data Intensive Domains Management (CIPROM/2021/023)**; IP Oscar Pastor; GENERALITAT VALENCIANA, 2022-2025, 598.430€

- **GISPRO-GENOMIC INFORMATION SYSTEMS PRODUCTION**, GENERALITAT VALENCIANA, PROMETEO/2018/176, 259.015,06€, IP: **Oscar Pastor**, 2018-2021
- **IDEO: Innovative services for Digital Enterprises with ORCA (Servicios Innovadores para Empresas Digitales con ORCA)**, GV, PROMETEOII/2014/039; 60080 Euros: IP: **Oscar Pastor**, 2014-2017.
- **Métodos de Desarrollo Orientados a la Calidad de las Tecnologías de la Información**, GV, 110.500 Euros, IP: **Oscar Pastor**, 2009-2011
- **DESARROLLO DE E-SERVICIOS PARA LA NUEVA SOCIEDAD DIGITAL**. 2006-2007. Funded by: CONSELLERÍA D'EMPRESA, UNIVERSITAT I CIÈNCIA. DIRECCIÓ GENERAL D'INVESTIGACIÓ I TRANSFERÈNCIA TECNOLÒGICA. AYUDAS COMPLEMENTARIAS PARA PROYECTOS DE I+D+i (15,5K€). IP: **Vicente Pelechano**.
- **AYUDA AL GRUPO DE PROGRAMACION LOGICA E INGENIERIA DEL SOFTWARE**. 2003-2005 . Funded by: AGENCIA VALENCIANA DE CIENCIA Y TECNOLOGIA - Otras acciones de I+D competitivas (100K €). IP: **Isidro Ramos**.

Publicaciones (Últimos 10 años)

a) Artículos de revisas indexados en JCR

1. O. Pastor, J.Gómez, E.Insfran, V.Pelechano. The OO Method Approach for Information Systems Modeling: From Object Oriented conceptual Modeling to Automatic Programming. Information Systems Journal, Elsevier Science, October 2001, Vol 26/7. [IF2001: 3.018, 1/73]
2. V.Pelechano, O.Pastor, E.Insfran, Automated Code Generation of Dynamic Specializations: An Approach Based on Design Patterns and Formal Techniques. Data & Knowledge Engineering Journal, North-Holland / Elsevier Science. 2002. Vol.40, Núm.3. [IF2002: 1.039, 25/77]
3. E.Insfran, V.Pelechano, O.Pastor Conceptual Modeling in the Extreme Information and Software Technology, Elsevier Science, Volume 44, Issue 11, 15 August 2002, Pages 659-669. [IF2002: 0.375, 51/77]
4. I.Díaz,A.Matteo, O.Pastor. A Specification Pattern for Use Cases. Information & Management, Elsevier Science Vol 41/8 pp 961-975, June 2004.
5. N.Condori-Fernández, S.Abrahao, O.Pastor. On the Estimation of Software Functional Size from Requirements Specifications. Journal of Computer Science and Technology (JCST), Special Issue on Advances in Software Metrics and Software Processes, ISSN: 1000-9000 (print version), ISSN: 1860-4749 (electronic version), Springer Verlag, 2007
6. Panach,I.;España,S.; Pederiva,P.;Pastor,O. Capturing Interaction Requirements in a Model Transformation Technology Based on MDA. Journal of Universal Computer Science – JUCS. Vol. 14(9):1480-1495 (2008).
7. Beatriz Marín, Oscar Pastor, Alain Abran: Towards an accurate functional size measurement procedure for conceptual models in an MDA environment. Data Knowl. Eng. 69(5): 472-490 (2010)
8. Esteban Robles Luna, José Ignacio Panach, Jose I. Grigera, Gustavo Rossi, Oscar Pastor: Incorporating Usability Requirements In a Test/Model-Driven Web Engineering Approach. J. Web Eng. 9(2): 132-156 (2010)
9. Juan Jose Cuadrado-Gallego, Borja Martín-Herrera, Oscar Pastor, Beatriz Marín: Applying Visual Learning in the Teaching of Software Measurement Concepts. International Journal of Software Engineering and Knowledge Engineering 21(3): 431-446 (2011)
10. Rafael Capilla, Muhammad Ali Babar, Oscar Pastor: Quality requirements engineering for systems and software architecting: methods, approaches, and tools. Requir. Eng. 17(4): 255-258 (2012)
11. Beatriz Marín, Giovanni Giachetti, Oscar Pastor, Tanja E. J. Vos, Alain Abran: Using a functional size measurement procedure to evaluate the quality of models in MDD environments. ACM Trans. Softw. Eng. Methodol. 22(3): 26 (2013)
12. Maya Daneva, Daniela Damian, Alessandro Marchetto, Oscar Pastor: Empirical research methodologies and studies in Requirements Engineering: How far did we come? Journal of Systems and Software 95: 1-9 (2014)
13. José Ignacio Panach, Natalia Juristo Juzgado, Francisco Valverde, Oscar Pastor: A framework to identify primitives that represent usability within Model-Driven Development methods. Information & Software Technology 58: 338-354 (2015)
14. José Ignacio Panach, Sergio España, Óscar Dieste Tubío, Oscar Pastor, Natalia Juristo Juzgado: In search of evidence for model-driven development claims: An experiment on quality, effort, productivity and satisfaction. Information & Software Technology 62: 164-186 (2015)
15. Marcela Ruiz, Dolores Costal, Sergio España, Xavier Franch, Oscar Pastor:GoBIS: An integrated framework to analyse the goal and business process perspectives in information systems. Inf. Syst. 53: 330-345 (2015)
16. Giovanni Giachetti, Beatriz Marín, Lidia López, Xavier Franch, Oscar Pastor: Verifying goal-oriented specifications used in model-driven development processes. Inf. Syst. 64: 41-62 (2017)
17. Fáber D. Giraldo, Sergio España, Oscar Pastor, William J. Giraldo: Considerations about quality in model-driven engineering - Current state and challenges. Software Quality Journal 26(2): 685-750 (2018)
18. Patricia Martín-Rodilla, José Ignacio Panach, Cesar Gonzalez-Perez, Oscar Pastor: Assessing data analysis performance in research contexts: An experiment on accuracy, efficiency, productivity and researchers' satisfaction. Data Knowl. Eng. 116: 177-204 (2018)
19. Michaël Verdonck, Frederik Gailly, Robert Pergl, Giancarlo Guizzardi, Beatriz Franco Martins, Oscar Pastor: Comparing traditional conceptual modeling with ontology-driven conceptual modeling: An empirical study. Inf. Syst. 81: 92-103 (2019)

20. Ana C. Marcén, Raúl Lapeña, Oscar Pastor, Carlos Cetina: Traceability Link Recovery between Requirements and Models using an Evolutionary Algorithm Guided by a Learning to Rank Algorithm: Train control and management case. *J. Syst. Softw.* 163: 110519 (2020)
21. Daniel Blasco, Carlos Cetina, Oscar Pastor: A fine-grained requirement traceability evolutionary algorithm: Kromaia, a commercial video game case study. *Inf. Softw. Technol.* 119 (2020)
22. Carlos Iñiguez-Jarrín, José Ignacio Panach, Oscar Pastor: Improvement of usability in user interfaces for massive data analysis: an empirical study. *Multim. Tools Appl.* 79(17-18): 12257-12288(2020)
23. Ignacio Panach, Oscar Dieste, Beatriz Marín, Sergio España, Sira Vegas, Oscar Pastor, Natalia Juristo: Evaluating Model-Driven Development Claims with Respect to Quality: A Family of Experiments. *IEEE Trans. Software Eng.* 47(1): 130-145 (2021)
24. Oscar Pastor, Ana Palacio León, José Fabián Reyes Román, Alberto García Simón, Juan Carlos Casamayor Ródenas: Using conceptual modeling to improve genome data management. *Briefings Bioinform.* 22(1): 45-54 (2021)
25. Oscar Pastor, Alfonso Pierantonio, Gustavo Rossi: Teaching Modeling in the Time of Agile Development. *Computer* 55(6): 73-76 (2022)
26. Ignacio Panach, Oscar Pastor, Natalia Juristo: A Family of Experiments to Compare Two Model-Driven Development Tools vs a Traditional Development Method. *IEEE Trans. Software Eng.* 48(12): 4802-4817 (2022)

Congresos (alto impacto)

1. Nicolas Belloir, Wassila Ouerdane, Oscar Pastor: Characterizing Fake News: A Conceptual Modeling-based Approach; *ER 2022*: 115-129
2. Anna Bernasconi, Alberto García S., Stefano Ceri, Oscar Pastor: A Comprehensive Approach for the Conceptual Modeling of Genomic Data. *ER 2022*: 194-208
3. África Domingo, Jorge Echeverría, Oscar Pastor, Carlos Cetina: Evaluating the Benefits of Model-Driven Development - Empirical Evaluation Paper. *CAiSE 2020*: 353-367
4. Kristina Rosenthal, Stefan Strecker, Oscar Pastor: Modeling Difficulties in Data Modeling - Similarities and Differences Between Experienced and Non-experienced Modelers. *ER 2020*: 501-511
5. Lois Delcambre, Stephen W. Liddle, Oscar Pastor, Veda C. Storey: Characterizing Conceptual Modeling Research. *OTM Conferences 2019*: 40-57
6. Lois Delcambre, Stephen W. Liddle, Oscar Pastor, Veda C. Storey: A Reference Framework for Conceptual Modeling. *ER 2018*: 27-42
7. Raúl Lapeña, Francisca Pérez, Carlos Cetina, Oscar Pastor: Improving Traceability Links Recovery in Process Models Through an Ontological Expansion of Requirements. *CAiSE 2019*: 261-275
8. Carlos Iñiguez-Jarrín, José Ignacio Panach, Oscar Pastor: Defining Interaction Design Patterns to Extract Knowledge from Big Data. *CAiSE 2018*: 490-504
9. Jorge Echeverría, Francisca Pérez, José Ignacio Panach, Carlos Cetina, Oscar Pastor: The Influence of Requirements in Software Model Development in an Industrial Environment. *ESEM 2017*: 277-286
10. Jorge Echeverría, Francisca Pérez, Carlos Cetina, Oscar Pastor: Comprehensibility of Variability in Model Fragments for Product Configuration. *CAiSE 2016*: 476-490
11. Maria Fernanda Granda, Nelly Condori-Fernández, Tanja E. J. Vos, Oscar Pastor: Mutation Operators for UML Class Diagrams. *CAiSE 2016*: 325-341
12. Oscar Pastor: Conceptual Modeling of Life: Beyond the Homo Sapiens. *ER 2016*: 18-31
13. José Fabián Reyes Román, Oscar Pastor, Juan Carlos Casamayor, Francisco Valverde: Applying Conceptual Modeling to Better Understand the Human Genome. *ER 2016*: 404-412
14. Maria Fernanda Granda, Nelly Condori-Fernández, Tanja E. J. Vos, Oscar Pastor: What do we know about the defect types detected in conceptual models? *RCIS 2015*: 88-99
15. Marcela Ruiz, Dolores Costal, Sergio España, Xavier Franch, Oscar Pastor: Integrating the Goal and Business Process Perspectives in Information System Analysis. *CAiSE 2014*: 332-346
16. Ana M Martínez Ferrandis, Oscar Pastor, Giancarlo Guizzardi: Applying the Principles of an Ontology-Based Approach to a Conceptual Schema of Human Genome. *ER 2013*: 471-478
17. Robson do Nascimento Fidalgo, Elvis Maranhão De Souza, Sergio España, Jaelson Brelaz de Castro, Oscar Pastor: EERMM: A Metamodel for the Enhanced Entity-Relationship Model. *ER 2012*: 515-524
18. Roel Wieringa, Nelly Condori-Fernández, Maya Daneva, Bela Mutschler, Oscar Pastor: Lessons learned from evaluating a checklist for reporting experimental and observational research. *ESEM 2012*: 157-160
19. Hugo Estrada, Alicia Martínez, Oscar Pastor, John Mylopoulos, Paolo Giorgini: Extending Organizational Modeling with Business Services Concepts: An Overview of the Proposed Architecture. *ER 2010*: 483-488
20. G. Giachetti, B. Marin, O. Pastor, Using UML as a Domain-Specific Modeling Language: A Proposal for Automatic Generation of UML Profiles. *CAiSE 2009*: 110-124, SPRINGER.
21. O. Pastor. Conceptual Modeling Meets the Human Genome. *Conceptual Modeling - ER 2008*, Q. Li et al. (ed.); SPRINGER LNCS Volume 5231/2008, pp 1-11.
22. I. Panach, S. España, N. Moreno, O. Pastor. Dealing with Usability in Model Transformation Technologies. *Conceptual Modeling - ER 2008*, Q. Li et al. (ed.); SPRINGER LNCS Volume 5231/2008, pp 498-511,

23. J.L. de la Vara,J.;Sanchez,O.Pastor. Business Process Modelling and Purpose Analysis for Requirements Analysis of Information Systems. *Advanced Information Systems Engineering*. Z. Bellahsene and M. Léonard (Eds.): CAiSE 2008, SPRINGER LNCS 5074, pp. 213–227, 2008.
24. P. Valderas, V. Pelechano, O. Pastor. Introducing Graphic Designers in a Web Development Process. 19th Conference on Advanced Information Systems Engineering (CAiSE 2007). Trondheim, Norway. June 2007. SPRINGER LNCS 4495. pp 395-408. 2007.
25. S.España;J.I.Panach;I.Pederiva;O.Pastor. Towards a Holistic Conceptual Modelling-Based Software Development Process. D.Embley, A.Olivé (Eds.) *Conceptual Modeling – ER 2006*. Lecture Notes in Computer Science (Volume 4215/2006), pp: 437-450, Springer-Verlag, 2006
26. O.Pastor. From Extreme Programming to Extreme Non-Programming: Is It the Right Time for Model Transformation Technology? S.Bressan, J.Küng, R.Wagner (Eds.) *Database and Expert Systems Applications*. Lecture Notes in Computer Science (4080), pp: 64-73, Springer-Verlag, 2006
27. I.Díaz,I.;L.Moreno;O.Pastor,O.,A.Matteo,A. Interaction Transformation Patterns based on Semantic Roles. A.Montoyo ed.; *Computational Linguistics and Intelligent Text Processing: 10th International Conference on Application of Natural Language to Information Systems, NLDB 2005*, Alicante, Spain, June 15-17, 2005. LNCS 3513, Springer-Verlag
28. P. Valderas, V. Pelechano, O. Pastor. Towards an End-User Development Approach for Web Engineering Methods. 18th Conference on Advanced Information Systems Engineering (CAiSE 2006). Grand-Duchy of Luxembourg,June 2006. SPRINGER, LNCS 4001, pp 528-543.
29. J. Muñoz, P. Valderas, V. Pelechano, O. Pastor. Requirements Engineering for Pervasive Systems. A Transformational Approach. 14th IEEE International Requirements Engineering Conference (RE 2006), Minneapolis (USA) 11-15 September 2006.
30. V. Torres, V. Pelechano, O. Pastor. Building Semantic Web Services Based on a Model Driven Web Engineering Method. *Conceptual Modeling of Service-Oriented Software Systems (CoSS)*, Tucson, (USA) in conjunction with the 25th International Conference on Conceptual Modelling, ER 2006. 6-9 November 2006.
31. M. Albert, V. Pelechano, J.J. Fons, M. Ruiz, O. Pastor. Implementing UML Association, Aggregation and Composition. A particular interpretation based on a Multidimensional Framework. Michele Missikoff et al. (Eds.): *Advanced Information Systems Engineering, CAiSE 2003*, LNCS 2681, pp.143-159, 2003. Springer-Verlag Berlin Heidelberg 2003.
32. J. Fons, F. J. García, V. Pelechano, O. Pastor. User Profiling Capabilities in OOWS. J.M.Cueva et al. (Eds.), *Third Int. Conference on Web Engineering (ICWE 2003)*. Oviedo, Spain, July 2003, LNCS 2722, pp 486-496. Springer-Verlag 2003.
33. J. Fons, V.Pelechano, M. Albert, O. Pastor. Development of Web Applicationd from Web Enhanced Conceptual Schemas.ER 2003, (22nd Int. Conference on Conceptual Modeling, Chicago, IL, USA, October 2003), LNCS 2813, Springer-Verlag 2003. pp 232-245.
34. J. Fons, V. Pelechano, M. Albert, O. Pastor, P. Valderas. Extending an OO Method to Develop Web Applications using Web Services. In *Proc. of the World Wide Web, Twelfth International Conference*. Budapest, Hungary. 20-24 May, 2003.
35. M. Albert, V. Pelechano, J. Fons, M. Ruiz, O. Pastor. Implementing UML Association, Aggregation and Composition. A Particular Interpretation based on a Multidimensional Framework. *Proc. Of the Advanced Information Systems Engineering, 15th International Conference, CAiSE 2003*, Klagenfurt/Velden, June 16-20, 2003. pp 143-158.
36. V. Pelechano, J. Fons, M. Albert, O. Pastor. Developing Web Applications from Conceptual Models. A Web Services Approach. *Proc. Of the International Workshop on Conceptual Modeling Approaches for e-Business, 4th Edition. Dealing with Business Volatility* (in conjunction with the 22nd International conference on Conceptual Modeling ER 2003), eCOMO 2003. October 13-16, 2003, Chicago, Illinois
37. V. Pelechano, M. Albert, E. Campos, O. Pastor. Automating the Code Generation of Role Classes in OO Conceptual Schemas. *Proceedings of ICEIS 2002 - the Fourth Conference on Enterprise Information Systems*, Edited by Mario Piattini, Joaquim Filipe and José Braz, ICEIS Press, Ciudad Real, Spain; 3-6 April 2002. pp 658-666

Indicadores de calidad y otros méritos

- 5 Sexenios de investigación 1997-2002, 2003-2008, 2009-2014, 2015-2020. +Transferencia
- 5 Sexenios de docencia
- **H-index**: 53 (Google Scholars, 2024), 12530 cites
- **Premio de doctorado** Universidad Politécnica de Valencia (2001-2002)
- **Keynote Speaker** in SBES 2005, CADUI 2006, DEXA 2006, IDEAS 2007, ER 2008, RCIS 2009, DEXA 2010, KMIS 2010, INFORSID 2010, ICISOFT 2011, LACREST 2012, MODELSWARD 2013, RCIS 2014, MEDI 2015, ER 2016, SBQS 2016, SOFSEM 2017, WIMS 2017, iStar 2018, ER 2018 (DC) WEBIST 2018. BIR 2018, ESEM (2019), CibSE 2019 (DC), Interaccion 2019, EROSS 2020, DAMDID 2020, CibSE 2020, CIIS 2020, CONISOFT 2022, WER 2022, WEBIST 2024
- **PhD Supervisor** of 40 Thesis
- **Supervisor** of 56 Master Thesis.
- **Supervisor** of 110 PFCs (Degree Projects)
- **Head of Department** (2001-2008)
- **Head of Research Center** (2009-now)
- **ER FELLOW Award** – granted 2010.
- **Int. Peter Chen Award on Conceptual Modeling** - granted 2016
- **Member of the Academia Europaea** – since 2022
- **Fellow of Asia-Pacific Artificial Intelligence Association** – since 2022