

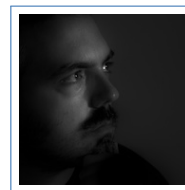
David F. Barrero

Curriculum Vitæ

Departamento de Automática
Escuela Politécnica Superior
Alcalá de Henares, Spain

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📄 <https://atc1.aut.uah.es/~david>



Education

- 2011 **PhD in Computer Science**, *Universidad de Alcalá*.
- 2007 **Advanced Studies Certificate**, *Universidad de Alcalá*, program in Computer Architecture and Signal Processing.
- 2004 **Telecommunications Engineering**, *Universidad de Alcalá*, major in Telematics Engineering.

PhD thesis

- Title *Reliability of Performance Measures in Tree-Based Genetic Programming: A study on Kozas Computational Effort*.
- Calification Outstanding *cum laude* (10). European mention.

Skills

Development

- | | | | |
|------------------|--|--------------|--|
| Languages | C, C++, Java, R, Python, JavaScript, Shell/Bash, PHP | Web | HTML/XHTML, JQuery, Ajax, Bootstrap, CSS, Jekyll, Elgg |
| Formats | XML, YAML, JSON | IDEs | Vim, NetBeans, Eclipse |
| VCS | SVN, Git | Tools | GitHub, Redmine |

Artificial Intelligence

- | | | | |
|---------------------|---|-----------------|---|
| Optimization | Metaheuristics, multiobjective optimization | EAs | Genetic Algorithms, Genetic Programming, Evolution Strategies |
| ML | ANN, classification, clustering, feature selection, reinforcement learning, deep learning, anomaly detection, time series | Tools | ECJ, Weka, Inspyred, PyBrain, NumPy, Pandas, Matplotlib, Seaborn, Jupyter, Anaconda, Knime, Keras, TensorFlow |
| Robotics | ROS | Big Data | Big Data architectures |

Systems Administration

- | | | | |
|--------------------------|------------------------|-----------------------|--------------------------|
| Operating Systems | Linux, Windows, Mac OS | Web | Apache, Tomcat |
| Mail | Postfix, Cyrus, ClamAV | Virtualization | Virtual Box, VMWare, KVM |
| Databases | MySQL | | |

Office tools
Office OpenOffice

Other \LaTeX , TikZ, BibTeX, Markdown

Languages

Spanish Native
English Fluent
French Basic

Positions

- 2012 Associate professor, *Universidad de Alcalá*, Madrid, Spain
Main duties:
 - Teaching Robotics, Intelligent Systems, Videogames Programming;
 - Research on Evolutionary Computation and Machine Learning;
 - Management;
- 2006 2012 Lecturer, *Universidad de Alcalá*, Alcalá de Henares, Madrid, Spain
Main duties:
 - Teaching Operating Systems;
 - Research on Evolutionary Computation;
- 2005 2006 System administrator, *RedIRIS-Red.es*, Madrid, Spain
Citius Stage in RedIRIS (organized by Fundación Universidad-Empresa) with responsibilities as sysadmin and developer.
Main duties:
 - Admin RedIRIS services (rsync, FTP and repositories);
 - Implement a distributed search engine;
- 2001 Antenna engineer, *Centre National d'Etudes Spatiales*, Toulouse, France
Undergraduate research stage in CNES.
Main duties:
 - Onboard microstrip antenna modelization;
 - Application of finite-difference time-domain numerical analysis to antenna design;
 - Modelization of antennas with axial symmetry;
- 1999 Self-employed instructor, Alcalá de Henares, Madrid, Spain
Instructor in specialization courses for the unemployed.
Main Duties:
 - Teaching web design, HTML and JavaScript;

Journal publications

- 2021 Barrero, David F., Oscar Fontenla-Romero, Francisco Lamas-López, David Novoa-Paradela, Maria D. R-Moreno, and David Sanz (2021). "SOPRENE: Assessment of the Spanish Armadas Predictive Maintenance Tool for Naval Assets". In: *Applied Sciences* 11.16.

-
- 2021 • Hernández-Castro, Carlos Javier, David F. Barrero, and Maria D. R-Moreno (2021). "BASECASS: A methodology for CAPTCHAs security assurance". In: *Journal of Information Security and Applications* 63, p. 103018.
-
- 2021 • Vaquerizo-Hdez, Daniel, Pablo Muñoz, David F. Barrero, and Maria D. R-Moreno (2021). "Continuous energy consumption measure approach using a DMA double-buffering technique". In: *EURASIP Journal on Wireless Communications and Networking* 1, p. 172.
-
- 2020 • Collado-Villaverde, Armando, Mario Cobos, Pablo Muñoz, and David F. Barrero (Nov. 2020). "A Simulator to Support Machine Learning-Based Wearable Fall Detection Systems". In: *Electronics* 9.11, p. 1831.
-
- 2019 • Muñoz, Pablo, María D. R-Moreno, David F. Barrero, and Fernando Roperro (June 2019). "MoBAR: a Hierarchical Action-Oriented Autonomous Control Architecture". In: *Journal of Intelligent & Robotic Systems* 94.3, pp. 745–760.
-
- 2019 • Roperro, Fernando, Daniel Vaquerizo-Hdez, Pablo Muñoz, David F. Barrero, and Maria D. R-Moreno (2019). "LARES: An AI-based teleassistance system for emergency home monitoring". In: *Cognitive Systems Research* 56, pp. 213–222.
-
- 2017 • Barrero, David F., María D. R-Moreno, and David Camacho (2017). "Improving experimental methods on success rates in evolutionary computation". In: *Journal of Experimental & Theoretical Artificial Intelligence* 29.4, pp. 695–716.
-
- 2017 • Hernández-Castro, Carlos Javier, María D. R-Moreno, David F. Barrero, and Stuart Gibson (2017). "Using Machine Learning to identify common flaws in CAPTCHA design: FunCAPTCHA case analysis". In: *Computers & Security* 70, pp. 744–756.
-
- 2017 • Vaquerizo-Hernández, Daniel, Pablo Muñoz, María D. Rodríguez Moreno, and David F. Barrero (Oct. 2017). "A Low Power Consumption Algorithm for Efficient Energy Consumption in ZigBee Motes". In: *Sensors Special Issue Energy Harvesting Sensors for Long Term Applications in the IoT Era* 17.10, pp. 2179–2201.
-
- 2016 • Hernández-Castro, Carlos Javier, David F. Barrero, and María D. R-Moreno (Mar. 2016). "Machine learning and empathy: the Civil Rights CAPTCHA". In: *Concurrency and Computation: Practice and Experience* 28.4, pp. 1310–1323.
-
- 2016 • Muñoz, Pablo, Mara D. R-Moreno, and David F. Barrero (Aug. 2016). "Unified Framework for Path-planning and Task-planning for Autonomous Robots". In: *Robotics and Autonomous Systems* 82.C, pp. 1–14.

2015

Barrero, David F., Bonifacio Castaño, María D. R-Moreno, and David Camacho (2015). "A study on Koza's performance measures". In: *Genetic Programming and Evolvable Machines* 16.3, pp. 327–349.

2015

Barrero, David F., Pablo Muñoz, David Camacho, and María D. R-Moreno (2015). "On the Statistical Distribution of the expected Run-Time in Population-Based Search Algorithms". In: *Soft Computing* 19.10, pp. 2717–2734.

2015

Hernandez-Castro, C.J., M.D. R-Moreno, and D.F. Barrero (Nov. 2015). "Using JPEG to Measure Image Continuity and Break Copy and Other Puzzle CAPTCHAs". In: *IEEE Internet Computing* 19.6, pp. 46–53.

2015

Muñoz, Pablo, David F. Barrero, and María D. R-Moreno (2015). "A Statistically Rigorous Analysis of 2D Path-Planning Algorithms". In: *The Computer Journal* 58.11, pp. 2876–2891.

2015

Orgaz, Gema Bello, David F. Barrero, María D. R-Moreno, and David Camacho (2015). "Acquisition of business intelligence from human experience in route planning". In: *Enterprise Information Systems* 9.3, pp. 303–323.

2014

Barrero, David F., Julio César Hernández-Castro, Pedro Peris-Lopez, David Camacho, and María D. R-Moreno (2014). "A genetic tango attack against the David-Prasad RFID ultra-lightweight authentication protocol". In: *Expert Systems* 31.1, pp. 9–19.

2014

Cuesta, Álvaro, Barrero F. David, and Mara D. R-Moreno (2014). "A Framework for massive Twitter data extraction and analysis". In: *Malaysian Journal of Computer Science* 27.1, pp. 50–67.

2014

Menéndez, Héctor D, David F Barrero, and David Camacho (2014). "A genetic graph-based approach for partitional clustering". In: *International Journal of Neural Systems* 24.03, p. 1430008.

2014

R-Moreno, María D., Bonifacio Castaño, David F. Barrero, and Agustín M. Hellín (2014). "Efficient Services Management in Libraries using AI and Wireless techniques". In: *Expert Systems with Applications* 41.17, pp. 7904–7913.

2013

Muñoz, Pablo, David F. Barrero, and María D. R-Moreno (2013). "Statistic Methods for Path-Planning Algorithms Comparison". In: *KI - Künstliche Intelligenz* 27.3, pp. 201–211.

- 2012 Barrero, David F., María D. R-Moreno, and David Camacho (2012). "Adapting Searchy to extract data using evolved wrappers". In: *Expert Systems with Applications* 39.3, pp. 3061–3070.
- 2011 R-Moreno, María D., Bonifacio Castaño, Melquiades Carbajo, Ángel Moreno, David F. Barrero, and Pablo Muñoz (Jan. 2011). "Multi-agent intelligent planning architecture for people location and orientation using RFID". In: *Cybernetics and Systems* 42.1, pp. 16–32.
- 2010 Barrero, David F., Antonio González-Pardo, David Camacho, and María D. R-Moreno (June 2010). "Distributed Parameter Tuning for Genetic Algorithms". In: *Computer Science and Information Systems (ComSIS)* 7.3, pp. 661–677.
- 2010 Barrero, David F., María D. R-Moreno, and Diego R. López (2010). "Information Integration in Searchy: an Ontology and Web Services Approach". In: *International Journal of Computer Science and Applications (IJCSA)* 7.2, pp. 14–29.
- 2008 Camacho, David, María D. R-Moreno, David F. Barrero, and Rajendra Akerkar (Dec. 2008). "Semantic Wrappers for Semi-Structured Data". In: *Computing Letters (Cole)* 4.1-4. Ed. by Brill Academia Publishers, pp. 21–34.
- 2007 Barrero, David F. and J. Ignacio Criado (2007). "Investigando la Web Semántica, los servicios web y la integración organizacional en el sector público". In: *De Audit* 1, pp. 122–136.
- 2004 Barrero, David F., Diego R. López, and Oscar García (Dec. 2004). "Federación de servicios de búsqueda mediante un sistema semántico multiagente". In: *Boletín RedIRIS* 43, pp. 52–56.
- 2002 Barrero, David F. and J. Ignacio Criado (2002). "Internet y Unix: 30 años de vidas paralelas". In: *Mundo Linux* 43, pp. 60–64.
- 2001 Barrero, David F. (2001). "Internacionalización con Gettext". In: *Sólo Programadores Mundo Linux* 36.

Conference publications

- 2021 Álvarez-Chaves, Hugo, David F. Barrero, Mario Cobos, and Maria D. R-Moreno (2021). "Patients Forecasting in Emergency Services by Using Machine Learning and Exogenous Variables". In: *Artificial Intelligence XXXVIII*. Ed. by Max Bramer and Richard Ellis. Cham: Springer International Publishing, pp. 167–180.

- 2020 Cobos, Mario, María D. R-Moreno, and David F. Barrero (2020). "R2P2: Un simulador robótico para la enseñanza de Inteligencia Artificial". In: *XXVI Jornadas sobre la Enseñanza Universitaria de la Informática (JENUI)*. Vol. 5, pp. 285–292.
- 2019 Cobos, Mario, Armando Collado-Villaverde, Daniel Rodríguez, and David F. Barrero (Nov. 2019). "Principal Component Analysis of data complexity measures for breast cancer prediction". In: *4th Bilbao Data Science Workshop*. Bilbao, Spain, p. 16.
- 2017 Collado-Villaverde, Armando, María D. R-Moreno, David F. Barrero, and Daniel Rodríguez (June 2017). "Machine Learning Approach to Detect Falls on Elderly People Using Sound". In: *30th International Conference on Industrial Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE 2017)*. Arras, France: Springer, pp. 149–159.
- 2017 Hernandez-Castro, Julio and David F. Barrero (June 2017). "Evolutionary generation and degeneration of randomness to assess the independence of the Ent test battery". In: *2017 IEEE Congress on Evolutionary Computation (CEC 2017)*. IEEE Computational Intelligence Society. San Sebastián, Spain, pp. 1420–1427.
- 2017 Ropero, F., P. Muñoz, M. D. R-Moreno, and D. F. Barrero (Sept. 2017). "A Virtual Reality Mission Planner for Mars Rovers". In: *2017 6th International Conference on Space Mission Challenges for Information Technology (SMC-IT)*, pp. 142–146.
- 2016 Collado Villaverde, Armando, María D. R-Moreno, David F. Barrero, and Daniel Rodríguez (Sept. 2016a). "Detección de caídas mediante un acelerómetro de tres ejes ubicado en la muñeca en personas de tercera edad". In: *Actas de la XVII Conferencia de la Asociación Española para la Inteligencia Artificial (CAEPIA 2016)*. CAEPIA 2016. Salamanca, Spain: Ediciones Universidad Salamanca, pp. 29–38.
- 2016 Collado Villaverde, Armando, María D. R-Moreno, David F. Barrero, and Daniel Rodríguez (Oct. 2016b). "Triaxial Accelerometer Located on the Wrist for Elderly People's Fall Detection". In: *Intelligent Data Engineering and Automated Learning (IDEAL 2016)*. IDEAL 2016. Yangzhou, China: Springer-Verlag, pp. 523–532.
- 2015 Hernández-Castro, Carlos Javier, David F. Barrero, and Mará D. R-Moreno (2015). "A Machine Learning Attack against the Civil Rights CAPTCHA". In: *Intelligent Distributed Computing VIII*. Studies in Computational Intelligence. Madrid, Spain: Springer International Publishing, pp. 239–248.

2015

Luengo, Sergio, Stephan Winkler, David F. Barrero, and Bonifacio Castaño (2015). "Optimization of Trading Rules for the Spanish Stock Market by Genetic Programming". In: *Current Approaches in Applied Artificial Intelligence: 28th International Conference on Industrial, Engineering and Other Applications of Applied Intelligent Systems, IEA/AIE 2015*. Seoul, Korea: Springer International Publishing, pp. 623–634.

2014

Hernández-Castro, Carlos Javier, María D. R-Moreno, and David F. Barrero (2014). "Side-Channel Attack Against the Copy HIP". In: *2014 International Conference on Emergent Security Technologies (EST 2014)*. EST 2014. Alcalá de Henares, Spain: IEEE, pp. 99–104.

2013

Barrero, David F., María R. R-Moreno, Bonifacio Castano, and David Camacho (20-23 Junio 2013). "Effects of the Lack of Selective Pressure on the Expected Run-Time Distribution in Genetic Programming". In: *2013 IEEE Congress on Evolutionary Computation (CEC 2013)*. Vol. 1. IEEE Computational Intelligence Society. Cancún, México, pp. 1748–1755.

2013

Menéndez, Héctor, David F. Barrero, and David Camacho (20-23 Junio 2013). "A Multi-Objective Genetic Graph-based Clustering Algorithm with Memory Optimization". In: *2013 IEEE Congress on Evolutionary Computation (CEC 2013)*. Vol. 1. IEEE Computational Intelligence Society. Cancún, México, pp. 3174–3181.

2013

R-Moreno, Mara D., Álvaro Cuesta, and David F. Barrero (2013). "Twitter stream analysis in Spanish". In: *Proceedings of the 3rd International Conference on Web Intelligence, Mining and Semantics (WIMS 2013)*. WIMS '13. Madrid, Spain: ACM, 34:1–34:6.

2013

Stoica, A., David F. Barrero, and Klaus McDonald-Maier (20-24 Mayo 2013). "Improved Targeting through Collaborative Decision-Making and Brain Computer Interfaces". In: *2013 International Conference on Collaboration Technologies and Systems (CTS 2013)*. San Diego, CA, USA: IEEE, pp. 435–442.

2013

Stoica, A., Theo Theodoridis, Housheng Hu, Klaus McDonald-Maier, and David F. Barrero (20-24 Mayo 2013). "Towards Human-Friendly Efficient Control of Multi-Robot Teams". In: *2013 4th International Workshop on Collaborative Robots and Human Robot Interaction (CTS 2013)*. San Diego, CA, USA: IEEE, pp. 226–231.

2012

Muñoz, Pablo, David F. Barrero, and María D. R-Moreno (2012). "Run-Time Analysis of Classical Path-Planning Algorithms". In: *Procs. of the Thirty-second SGAI International Conference on Artificial Intelligence (SGAI 2012)*. Ed. by Max Bramer and Miltos Petridis. Springer London, pp. 137–148.

2012

Orgaz, Gema Bello, Mara D. R-Moreno, David Camacho, and David F. Barrero (2012). "Clustering avatars behaviours from virtual worlds interactions". In: *Proceedings of the 4th International Workshop on Web Intelligence & Communities (WIC 2012)*. WI&C '12. Lyon, France: ACM, 4:1–4:7.

2011

Barrero, David F., Bonifacio Castaño, Maria D. R-Moreno, and David Camacho (27-29 4 2011). "Statistical Distribution of Generation-to-Success in GP: Application to Model Accumulated Success Probability". In: *Proceedings of the 14th European Conference on Genetic Programming (EuroGP 2011)*. Ed. by Sara Silva, James A. Foster, Miguel Nicolau, Mario Giacobini, and Penousal Machado. Vol. 6621. LNCS. EuroGP 2011. Turín, Italy: Springer-Verlag, pp. 155–166.

2011

Barrero, David F., Maria R-Moreno, Bonifacio Castano, and David Camacho (May 2011). "An Empirical Study on the Accuracy of Computational Effort in Genetic Programming". In: *Proceedings of the 2011 IEEE Congress on Evolutionary Computation (CEC 2011)*. Ed. by Alice E. Smith. IEEE CEC 2011. New Orleans, LA, USA: IEEE Press, pp. 1169–1176.

2011

R-Moreno, María Dolores, David Camacho, David F. Barrero, and Bonifacio Castaño (2011). "Human Drivers Knowledge Integration in a Logistics Decision Support Tool". In: *Intelligent Distributed Computing (IDC 2011)*. Ed. by Frances M. T. Brazier, Kees Nieuwenhuis, Gregor Pavlin, Martijn Warnier, and Costin Badica. Vol. 382. Studies in Computational Intelligence. IDC 2011. Ámsterdam, Países Bajos: Springer-Verlag, pp. 227–236.

2010

Barrero, David F., David Camacho, and M. Dolores R-Moreno (July 2010). "Confidence Intervals of Success Rates in Evolutionary Computation". In: *Proceedings of Genetic and Evolutionary Computation Conference (GECCO-2010)*. Genetic and Evolutionary Computation Conference (GECCO-2010). Portland, OR, USA: ACM, pp. 975–976.

2010

Barrero, David F., Antonio González, María D. R-Moreno, and David Camacho (Apr. 2010). "Variable Length-Based Genetic Representation to Automatically Evolve Wrappers". In: *Proceedings of 8th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS 2010). Special Session on Bio-Inspired and Multi-Agents Systems: Applications to Languages*. Vol. 2. Advances in Intelligent and Soft-Computing series of Springer. Salamanca, Spain: Springer-Verlag, pp. 371–379.

2010

González, Antonio, David F. Barrero, María D. R-Moreno, and David Camacho (Apr. 2010). "A Case Study on Grammatical-based Representation for Regular Expression Evolution". In: *Proceedings of 8th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS 2010). Special Session on Bio-Inspired and Multi-Agents Systems: Applications to Languages*. Vol. 2. Advances in Intelligent and Soft-Computing series of Springer. Salamanca, Spain: Springer-Verlag, pp. 379–386.

2010

R-Moreno, M. Dolores, David Camacho, David F. Barrero, and Miguel Gutiérrez (June 2010). "A Decision Support System for Logistics Operations". In: *Proceedings of International Workshop on Soft Computing Models in Industrial Applications (SOCO 2010)*. Vol. 73. Advances in Intelligent and Soft-Computing. Guimarães, Portugal: Springer-Verlag, pp. 103–110.

2009

Barrero, David F., David Camacho, and Maria D. R-Moreno (13-14 octubre 2009a). "A Framework for Agent-Based Evaluation of Genetic Algorithms". In: *Proceedings of the 3rd International Symposium on Intelligent Distributed Computing (IDC 2009)*. Ed. by Springer-Verlag. Vol. 237. Studies in Computational Intelligence. Ayia Napa, Chipre: Springer-Verlag, pp. 31–41.

2006

Barrero, David F. and J. Ignacio Criado (2006). "Investigando la Web Semántica, los Servicios Web y la Integración Organizacional en el Sector Público: Searchy como Aplicación para la Gestión del Conocimiento en Entornos Complejos". In: *I Congreso Internacional de Investigación y Posgrado en el Siglo XXI*. Caracas, Venezuela.

2006

Criado, J. Ignacio and David F. Barrero (30 mayo - 2 junio 2006). "Barreras para la Integración de la Calidad de los Servicios Públicos en la eAdministración". In: *IX Jornadas sobre Tecnologías de la Información para la Modernización de las Administraciones Públicas (TECNIMAP 2006)*. Seville, Spain.

2006

Criado, J. Ignacio, David F. Barrero, and M. Carmen Ramilo (2006). "Política y Web 2.0". In: *III Congreso Online del Observatorio de la Cibersociedad*. III Congreso Online del Observatorio de la Cibersociedad. En línea.

2005

Barrero, David F., Diego R. López, M. Dolores R-Moreno, and Oscar García (13-14 Septiembre 2005). "Federación distribuida de fuentes de información heterogéneas basadas en servicios web y ontologías". In: *I Jornadas Científico-Técnicas de Servicios Web*. I Jornadas Científico-Técnicas de Servicios Web. Granada, Spain, pp. 205–212.

2005

Barrero, David F., M. Dolores R-Moreno, Oscar García, and Angel Moreno (Dec. 2005). "SEARCHY: a metasearch engine for heterogeneous sources in distributed environments". In: *DCMI '05: Proceedings of the 2005 International Conference on Dublin Core and Metadata Applications*. 2005 International Conference on Dublin Core and Metadata Applications. Madrid, Spain: Dublin Core Metadata Initiative, pp. 261–268.

2004

Barrero, David F. and J. Ignacio Criado (28 septiembre - 1 octubre 2004). "Integrando la Información de las Administraciones Públicas en la Gestión del Conocimiento. Una solución desde la Web Semántica y los Servicios Web". In: *VIII Jornadas sobre Tecnologías de la Información para la Modernización de las Administraciones Públicas (TECNIMAP 2004)*. Murcia, Spain.

2004

Barrero, David F., Diego R. López, and Óscar Garca Población (July 2004). In: *VII Trans-European Research and Education Networking Association Networking Conference (TNC 2004)*. VII Trans-European Research and Education Networking Association Networking Conference (TNC 2004). Rhodes, Greece.

2004

Barrero, David F. and M. Carmen Ramilo (2004). "Mitos y Realidades del Software Libre en la Administración Pública". In: *II Congreso Internacional Online del Observatorio para la Cibersociedad*. II Congreso Internacional Online del Observatorio para la Cibersociedad. En línea.

Books and books chapters

2014

Criado, J. Ignacio and David F. Barrero (2014). "Measuring E-government Efficiency. The Opinions of Public Administrators and Other Stakeholders". In: ed. by Manuel Pedro Rodríguez-Bolívar. Springer-Verlag. Chap. Digital Divide and the Study of Electronic Government Demand. An Empirical Analysis of Spain, pp. 213–232.

2009

Barrero, David F., David Camacho, and Maria D. R-Moreno (Aug. 2009b). "Data Mining and Multiagent Integration". In: ed. by Longbing Cao. University of Technology Sydney, Australia: Springer-Verlag. Chap. Automatic Web Data Extraction based on Genetic Algorithms and Regular Expressions, pp. 143–154.

2007

Barrero, David F., J. Ignacio Criado, and M. Carmen Ramilo (49-60 2007). "Hizuntza, komunikazioaren eta teknologiaren garaian". In: Vitoria, Spain: Instituto Vasco de Administración Pública. Chap. Lankidetzatresnak I: Web 2.0, Web Semantikoa eta wiki-ak, pp. 49–60.

2007

Barrero, David F., M. Carmen Ramilo, and J. Ignacio Criado (61-74 2007). "Hizuntza, komunikazioaren eta teknologiaren garaian". In: Vitoria, Spain: Instituto Vasco de Administración Pública. Chap. Lankidetzeta-tresnak II: Blogak, herritarrak, gobernuak eta administrazio publikoak, pp. 61–74.

2004

Criado, J. Ignacio and David F. Barrero (2004). *Construyendo la Administración Electrónica Local. Las Tecnologías de la Información y la Comunicación e Internet en los Ayuntamientos de la Comunidad de Madrid*. Madrid, Spain: EuroGestión Pública.

2001

Criado, J. Ignacio and David F. Barrero (2001). *Internet en los municipios de la Comunidad de Madrid: Un estudio comparativo*. Internal Report of the Comunidad de Madrid.

Projects

Competitive projects

Research contracts with industry

Supervised thesis

2017

"Where do CAPTCHAS fail: A study in common pitfalls in Captcha design and how to avoid them" (Dec. 2017). PhD thesis. Universidad de Alcalá.

2014

"Genetic graph-based in clustering applied to static and streaming data analysis" (Dec. 2014). PhD thesis. Universidad Autónoma de Madrid.

Training

Technical training

Teaching training

Other training

Teaching experience

Graduate and postgraduate courses

Other courses

Supervised bachelor thesis

Education innovation projects

Other teaching merits

- Four experience triennia ("trienios") recognized.

- Two teaching quinquennia ("quinquenios") recognized.

- Coordinator of the teaching innovation group *Inteligencia Artificial para el Aprendizaje*. From 2013.
- Positive evaluation of the *Docentia* program (“muy favorable”). Year 2016/17.
- Member of the teaching innovation group *Mentoring, Coaching y Mundos Virtuales*. 2012/2013.
- Positive evaluation given by the *Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)* for the position *Profesor Titular de Universidad*. 2014.
- Positive evaluation given by the *Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)* for the position *Profesor Contratado Doctor*. 2013.
- Positive evaluation given by the *Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)* for the position *Profesor de Universidad Privada*. 2013.
- Positive evaluation given by the *Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)* for the position *Profesor Ayudante Doctor*. 2013.
- Positive evaluation given by the *Agencia de Calidad, Acreditación y Prospectiva de las Universidades de Madrid (ACAP)* for the position *Profesor Contratado Doctor*. 2012.
- Positive evaluation given by the *Agencia de Calidad, Acreditación y Prospectiva de las Universidades de Madrid (ACAP)* for the position *Profesor de Universidad Privada*. 2012.
- Positive evaluation given by the *Agencia de Calidad, Acreditación y Prospectiva de las Universidades de Madrid (ACAP)* for the position *Profesor Ayudante Doctor*. 2012.
- Muñoz Martínez, Pablo; Pereira González, Emiliano; Prieto Mateo, Manuel; Estriégana Valdehita, Rosa María; Gil Jiménez, Pedro; Jurado Morón, Francisco Antonio; Siegmann, Philip; Alén Cordero, Cristina and Barrero, David F. *Transición digital por la COVID-19: perspectiva de los alumnos de la docencia semipresencial*. In XIII Encuentro de Innovación en Docencia Universitaria. On-line. 2021.
- Barrero, David F.; Muñoz, Pablo; Rodríguez García, Daniel; R-Moreno, María D.; Ropero, Fernando and Vaquerizo Hernández, Daniel. *Desarrollo de competencias de trabajo cooperativo por medio de redes sociales profesionales*. In X Encuentro de Innovación en Docencia Universitaria. Guadalajara, Spain. 2018.
- Barrero, David F.; R-Moreno, María D.; Muñoz, Pablo y Camacho, David. *La heterogeneidad en el aula como fortaleza: Aprendizaje Basado en Proyectos con Videojuegos*. In XX Congreso Internacional de Tecnologías para la Educación y el Conocimiento y VII Pizarra Digital: Diversidad, Estrategias y Tecnologías, Diálogo Entre Culturas (InterESTRATIC 2015). Madrid, Spain. 2015.

Visits

Research visits

Educational and cooperation visits

Management

Research management

University management

Miscellaneous

Grants

Entrepreneurship

- Founder and partner of *Red Social NovaGob, S.L.*, a spin-off of the Universidad Autónoma de Madrid. The enterprise is dedicated to create a vertical social network for civil servants in the latin-hispanic area and provide high-level consulting to the public sector.

Awards

- Awarded with the **second prize** (*accésit*) in the 8th edition of the Award for Innovative Ideas of the Universidad de Alcalá to the proposal entitled "Lares Robotics Solutions: Sistema de teleasistencia avanzada no intrusivo". 2015.
- **Best paper award** in the 2014 International Conference on Emerging Security Technologies Conference (EST 2014). 2014.
- Awarded with the **second prize** (*accésit*) in the category of Social Sciences of the CIADE (*Centro de Iniciativas Emprendedoras de la Universidad Autónoma de Madrid*) award for innovative initiatives. 2014.
- Awarded with the **second prize** of the *Nuevas Aplicaciones para Internet* given by the *Cátedra Telefónica para Internet de Nueva Generación* in the UPM for the proposal entitled *Searchy: Un sistema distribuido para la Gestión del Conocimiento*. 2004.
- Technical coordinator of the book *Construyendo la Administración Electrónica (e-Administración) local. Las tecnologías de la información y la comunicación en los ayuntamientos de la Comunidad de Madrid*, awarded with **Mención Especial (única)** in *III Premio Fermín Abella y Blave para trabajos de investigación sobre la reforma administrativa en la Administración Local*, given by the *Instituto Nacional de la Administración Pública, Ministerio de Administraciones Públicas*, Spain, 2004.