

**PUBLICACIONES DERIVADAS DE LAS TESIS DEFENDIDAS EN EL PROGRAMA DE  
DOCTORADO EN “SISTEMAS ELECTRÓNICOS AVANZADOS. SISTEMAS  
INTELIGENTES” EN EL AÑO 2013**

Doctorando	José Manuel Villadangos Carrizo
Fecha lectura	25/01/2013
<ul style="list-style-type: none"> <li>- J.A. Paredes, F.J. Álvarez, T. Aguilera, J.M. Villadangos. “3D Indoor Positioning of UAVs with Spread Spectrum Ultrasound and Time-of-Flight Cameras”. Sensors (Basel). 2017 Dec 30;18(1).</li> <li>- C. De Marziani, J. Ureña, Á. Hernández, J.J. García, F.J. Álvarez, A. Jiménez, M.C. Pérez, J.M. Villadangos, J. Aparicio, R. Alcoleas. “Simultaneous Round-Trip Time-of-Flight Measurements with Encoded Acoustic Signals”. IEEE Sensors, Volumen: 12(10) Páginas 2931- 2940, (2012)</li> <li>- J. M. Villadangos, J. Ureña, J. J. García, M. Mazo, A. Hernández, A. Jiménez, D. Ruíz, and C. De Marziani, “Measuring time-of-flight in an ultrasonic LPS system using generalized cross-correlation”, Sensors, vol. 11, no. 11, pp. 10326–10342 (2011).</li> <li>- J. Urena, A. Hernandez, A. Jimenez, J.M. Villadangos, M. Mazo, J.C. Garcia, J.J. Garcia, F.J. Alvarez, C. De Marziani, M.C. Perez, J.A. Jimenez, A.R. Jimenez, and F. Seco. “Advanced Sensorial System for an Acoustic LPS”. Microprocessors and Microsystems, vol. 31, no. 6, pp. 393-401, July 2007.</li> </ul>	

Doctorando	Juan Manuel Miguel Jiménez
Fecha lectura	1/02/2013
<ul style="list-style-type: none"> <li>- J.M. Miguel-Jiménez, S. Ortega, L. Boquete, J.M. Rodríguez-Ascariz, R. Blanco, “Multifocal electroretinography: structural pattern analysis and early glaucoma detection” (2009) Electronics Letters, 45(22), pp. 1113-1115.</li> <li>- J.M. Miguel-Jiménez, L. Boquete, S. Ortega, J.M. Rodríguez-Ascariz, R. Blanco, “Glaucoma detection by wavelet-based analysis of the global flash multifocal electroretinogram” (2010) Medical engineering &amp; physics, 32(6), pp. 617-622.</li> <li>- J.M. Miguel-Jiménez, S. Ortega, L. Boquete, J.M. Rodríguez-Ascariz, R. Blanco, “Multifocal ERG wavelet packet decomposition applied to glaucoma diagnosis” (2011) Biomedical engineering online, 10(1), 37.</li> <li>- J.M. Miguel, L. Boquete, S. Ortega, C.A. Cordero, R. Barea, R. Blanco, “mfERG_LAB: Software for processing multifocal electroretinography signals,” (2012) Computer methods and programs in biomedicine, 108(1), pp. 377-387.</li> <li>- L. Boquete, J.M.R. Ascariz, J. Cantos, R. Barea, J.M. Miguel, S. Ortega, N. Peixoto, “A portable</li> </ul>	

*wireless biometric multi-channel system,”* (2012). *Measurement*, 45(6), pp. 1587-1598.

- L. Boquete, J.M. Miguel-Jiménez, S. Ortega, J.M. Rodríguez-Ascariz, C. Pérez-Rico, R. Blanco, *“Multifocal electroretinogram diagnosis of glaucoma applying neural networks and structural pattern analysis”* (2012) *Expert Systems with Applications*, 39(1), pp. 234-238.
- L. De Santiago, A. Fernández, R. Blanco, C. Pérez-Rico, J.M. Rodríguez-Ascariz, R. Barea, J.M. Miguel-Jiménez and L. Boquete, *“Improved measurement of intersession latency in mfVEPs”* (2014) *Documenta Ophthalmologica*, 129(1), pp. 65-69.
- J.M. Miguel-Jiménez, R. Blanco, L. De-Santiago, A. Fernandez-Rodríguez, J.M. Rodriguez-Ascariz, R. Barea, J.L. Martín-Sánchez, C. Amo, E. Sánchez-Morla, L. Boquete, *“Continuous-wavelet-transform analysis of the multifocal ERG waveform in glaucoma diagnosis”* (2015) *Medical & biological engineering & computing*, 53(9), pp. 771-780.
- L. De Santiago, A. Klistorner, M. Ortiz, A.J. Fernández-Rodríguez, J.R. Ascariz, R. Barea, J.M. Miguel-Jiménez, Boquete, *“Software for analysing multifocal visual evoked potential signal latency progression”* (2015) *Computers in biology and medicine*, 59, pp. 134-141.
- A. Fernández, L. De Santiago, R. Blanco, C. Pérez-Rico, J.M. Rodríguez-Ascariz, R. Barea, J.M. Miguel-Jiménez, J.R. García-Luque, M. Ortiz del Castillo, E.M. Sánchez-Morla, L. Boquete, *“Filtering multifocal VEP signals using Prony’s method”* (2015) *Computers in biology and medicine*, 56, pp. 13-19.
- L. De Santiago, M.O. del Castillo, R. Blanco, R. Barea, J.M. Rodríguez-Ascariz, J. M., Miguel-Jiménez, E.M. Sánchez-Morla, L. Boquete *“A signal-to-noise-ratio-based analysis of multifocal visual-evoked potentials in multiple sclerosis risk assessment”* (2016) *Clinical Neurophysiology*, 127(2), pp. 1574-1580.

Doctorando	Álvaro González Arroyo
Fecha lectura	22/02/2013
<ul style="list-style-type: none"> <li>- Á. González, Luis M. Bergasa, Javier Yebes, <i>“Text Detection and Recognition on Traffic Panels from Street-level Imagery Using Visual Appearance”</i>, <i>IEEE Transactions on Intelligent Transportation Systems</i> (ISSN: 1524-9050), Vol: 15, Nº: 1, pp: 228-238, 2014</li> <li>- Á. González, L. M. Bergasa, <i>“A Text Reading Algorithm for both Natural and Born-Digital Images”</i>, <i>Image and Vision Computing</i> (ISSN: 0262-8856), Vol: 31, Nº: 3, pp: 255-274, 2013</li> <li>- Á. González, M. A. Garrido, D. F. Llorca, M. Gavilán, J. Pablo Fernández, I. Parra, P. F. Alcantarilla, F. Herranz, L. M. Bergasa, M. A. Sotelo and P. Revenga, <i>“Automatic Traffic Signs and Panels Inspection System using Computer Vision”</i>, <i>IEEE Transactions on Intelligent Transportation Systems</i> (ISSN: 1524-9050), Vol: 12, Nº 2, pp: 485-499, 2011</li> </ul>	

Doctorando	Enrique García Núñez
Fecha lectura	14/04/2013
<ul style="list-style-type: none"> <li>- E. García, J. A. Paredes, F.J. Álvarez, M.C. Pérez, J. J. García, “<i>Spreading sequences in active sensing: A review</i>”, Signal Processing. Vol. 106, pp: 88-105, 2014</li> <li>- E. García, J. Ureña, J. J. García, “<i>Generation and correlation architectures of multilevel complementary sets of sequences</i>,” IEEE Transactions on Signal Processing. Vol. 61, nº 64, pp: 6333 - 6343, (2013)</li> <li>- E. García, J. Ureña, J. J. García, M. C. Pérez, “<i>Efficient architectures for the generation and correlation of CSS derived from different kernel lengths</i>”, IEEE Transactions on Signal Processing. Vol. 61, nº 19, pp: 4717 - 4728, 2013.</li> <li>- E. García, J. Ureña, J. J. García, D. Ruiz, M. C. Pérez, J. C. García, “<i>Efficient filter for the generation/correlation of Golay binary sequence pairs</i>” International Journal of Circuit Theory and Applications, (2013).</li> <li>- E. García, J. Ureña, J. J. García, M. C. Pérez, D. Ruiz, “<i>Efficient generator/correlator of GPC sequences for QS-CDMA</i>” IEEE Communications Letters, vol. 16, no.10, pp. 1676-1679, (2012).</li> <li>- E. García, J. J. García, J. Ureña, M. C. Pérez, A. Hernández, “<i>Generation algorithm for multilevel LS codes</i>” Electronics Letters, vol. 46, no. 21, pp. 1465-1467 (2010).</li> </ul>	

Doctorando	Félix Rodríguez Barrios
Fecha lectura	28/06/2013
<ul style="list-style-type: none"> <li>- F. Rodríguez-Barrios, S. Martín-López, A. Carrasco-Sanz, P. Corredera, J. D. Ania-Castañón, L. Thévenaz, and M. González-Herráez, “<i>Distributed Brillouin fiber sensor assisted by first-order Raman amplification</i>,” 2010, J. Lightwave Technol., vol. 28, no. 15, pp. 2162–2172.</li> <li>- S. Martín-López, M. Alcón-Camas, F. Rodríguez-Barrios, P. Corredera, J. D. Ania-Castañón, L. Thévenaz, and M. González-Herráez, “<i>Brillouin optical timedomain analysis assisted by second-order Raman amplification</i>,” 2010, Optics Express, vol. 18, pp. 18 769–18 778.</li> <li>- S.M. Foaleng, F. Rodríguez-Barrios, S. Martin-Lopez, M. González-Herráez, Luc Thévenaz, “<i>Detrimental effect of self-phase modulation on the performance of Brillouin distributed fiber sensors</i>”, 2011, Optics letters, 36, n 2, pp. 97-99.</li> </ul>	

Doctorando	Ana Rodríguez Monter
Fecha lectura	9/07/2013
<ul style="list-style-type: none"> <li>- A.Rodríguez, F.Huerta, E.Bueno, and F.J.Rodríguez, “<i>Analysis and Performance Comparison of Different Power Conditioning Systems for SMES-Based Energy Systems in Wind Turbines</i>”. Energies, vol. 6, Mar. 2013, pp. 1527-1553.</li> <li>- A. Rodríguez, Emilio J.Bueno, A. Mayor, F.J. Rodríguez, A.García-Cerrada, “<i>Voltage support Provided by STATCOM in Unbalanced Power Systems</i>”, Energies 2014, 7(2), 1003-1026</li> <li>- A. Rodríguez, Emilio J. Bueno, A. García-Cerrada, F.J. Rodríguez, F.M. Sánchez, “<i>Detailed Analysis of the implementation of frequency-adaptive resonant and repetitive current controllers for grid-connected converters</i>”. Electric Power System Research 116 (2014) 231-242.</li> </ul>	

Doctorando	Ahmed M. Wefky
Fecha lectura	9/09/2013
<ul style="list-style-type: none"> <li>- A. Wefky, F. Espinosa, J.A. Jiménez, E. Santiso, J.M. Rodríguez, A. J. Fernández. “<i>Alternative Sensor System and MLP Neural Network for Vehicle Pedal Activity Estimation</i>” (2010). Sensors-Basel 2010, 10(4), 3798-3814.</li> <li>- A. Wefky, F. Espinosa, A. Prieto, J.J. García and C. Barrios. “<i>Comparison of neural classifiers for vehicles gear estimation</i>” (2011). Applied Soft Computing, 11(4), 3580-3599 (2011).</li> <li>- A. Wefky, F. Espinosa, L. de Santiago, P. Revenga, J.L. Lázaro and M. Martínez. “<i>Electrical drive radiated emissions estimation in terms of input control using extreme learning machines</i>” (2012). Mathematical problems in engineering. Hindawi, 2012</li> <li>- A. Wefky, F. Espinosa, L. de Santiago, A. Gardel, P. Revenga and M. Martínez. “<i>Modeling Radiated Electromagnetic Emissions of Electric Motorcycles in terms of Driving Profile using MLP Neural Network</i>” (2013). Progress in Electromagnetics Research –PIER- vol. 135, 231-244.</li> <li>- Wefky, F. Espinosa, F. Leferink, A. Gardel and R. Vogt-Ardatjew. “<i>On-road Magnetic Emissions Prediction of Electrical Cars in Terms of Driving Dynamics Using Neural Network</i>” (2013). Progress in Electromagnetics Research –PIER, vol. 139, 671-687.</li> </ul>	

Doctorando	Fernando Herranz Cabrilla
Fecha lectura	23/09/2013
<ul style="list-style-type: none"> <li>- F. Herranz, A. Llamazares, E. Molinos, M. Ocaña and M. A. Sotelo, “<i>WiFi SLAM algorithms: an experimental comparison</i>”, Robotica, (2014)</li> <li>- F. Herranz, M. Ocaña, L. M. Bergasa, N. Hernández, Á. Llamazares, C. Fernández, “<i>Mapping</i></li> </ul>	

*Based on a Noisy Range-Only Sensor*”, Computer Aided Systems Theory – EUROCAST 2011 Lecture Notes in Computer Science Volume 6928, pp 420-425, (2012)

- J. Alonso, M. Ocaña, N. Hernández, F. Herranz, Á. Llamazares, M.A. Sotelo, L.M. Bergasa, L. Magdalena, “*Enhanced WiFi localization system based on Soft Computing techniques to deal with small-scale variations in wireless sensors*”, Applied Soft Computing, Volume 11, Issue 8, Pages 4677-4691, (2011)

Doctorando	Mario Rizo Morente
Fecha lectura	24/10/2013
<ul style="list-style-type: none"> <li>- F.A.S. Neves, H.E.P. de Souza, F. Bradaschia, M.C. Cavalcanti, M. Rizo and F.J. Rodriguez, “<i>A space-vector discrete fourier transform for unbalanced and distorted three-phase signals</i>”. IEEE Transactions on Industrial Electronics, vol. 57, no. 8, 2010.</li> <li>- F.A.S. Neves, M.C. Cavalcanti, H.E.P de Souza, F. Bradaschia, E.J. Bueno, M. Rizo, “<i>A Generalized Delayed Signal Cancellation Method for Detecting Fundamental-Frequency Positive-Sequence Three-Phase Signals</i>”. IEEE Trans. On Power Delivery, vol. 25, no. 3, July 2010, pp. 1816-1825.</li> <li>- M. Rizo, M. Liserre, E. Bueno, F.J. Rodríguez, F. Huerta, “<i>Universal wind turbine working in grid-connected and island operation modes</i>”. Mathematics and Computers in Simulation 91 (2013) 41-51.</li> <li>- M. Rizo, M. Liserre, E. Bueno, F.J. Rodríguez, C. Girón, “<i>Voltage Control Architectures for the Universal Operation of DPGS</i>”. IEEE Trans. On Industrial Informatics, vol. 11, no. 2, April 2015, pp. 313-321.</li> <li>- M. Rizo, M. Liserre, E. Bueno, F.J. Rodríguez, A. Rodríguez, “<i>Distorsion Free-Saturators for Power converters Under Unbalanced Conditions</i>”. IEEE Trans. on Power Electronics, vol. 30, no. 6, June 2015, pp. 3364-3375.</li> </ul>	

Doctorando	Massimo Leonardo Filograno
Fecha lectura	28/11/2013
<ul style="list-style-type: none"> <li>- M.L. Filograno, M. Pisco, A. Catalano, E. Forte, M. Aiello, C. Cavaliere, A. Soricelli, D. Davino, C. Visone, A. Cutolo, A. Cusano, “<i>Triaxial Fiber Optic Magnetic Field Sensor for Magnetic Resonance Imaging</i>”. Journal of Lightwave Technology, 35 (18), art. no. 7967648, pp. 3924-3933 (2017)</li> <li>- H.F. Martins, S. Martin-Lopez, P. Corredera, M.L. Filograno, O. Frazao, M. Gonzalez-Herraez, “<i>Phase-sensitive optical time domain reflectometer assisted by first-order raman amplification for distributed vibration sensing over &gt;100 km</i>”. Journal of Lightwave Technology, 32 (8), art.</li> </ul>	

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- M. Gonzalez-Herraez, M. Filograno, P. Corredera, A. Andres-Alguacil, M. Rodriguez-Plaza, "Fiber sensors for the high-speed railway environment".
- H.F. Martins, S. Martin-Lopez, P. Corredera, M.L. Filograno, O. Frazao, M. Gonzalez-Herraez, "Coherent noise reduction in high visibility phase-sensitive optical time domain reflectometer for distributed sensing of ultrasonic waves". *Journal of Lightwave Technology*, 31 (23), art. no. 6637057, pp. 3631-3637. (2013)
- M.L. Filograno, P. Corredera, M. Rodríguez-Plaza, A. Andrés-Alguacil, M. González-Herráez, "Wheel flat detection in high-speed railway systems using fiber bragg gratings". *IEEE Sensors Journal*, 13 (12), art. no. 6563101, pp. 4808-4816 (2013)
- M.L. Filograno, P. Corredera Guillén, A. Rodríguez-Barrios, S. Martín-López, M. Rodríguez-Plaza, A. Andrés-Alguacil, M. González-Herráez, "Real-time monitoring of railway traffic using fiber Bragg grating sensors". *IEEE Sensors Journal*, 12 (1), art. no. 5741703, pp. 85-92. (2012)

Doctorando	María Concepción Pulido de Torres
Fecha lectura	3/12/2013
<ul style="list-style-type: none"> <li>- C. Pulido, Ó. Esteban, "Improved fluorescence signal with tapered polymer optical fibers under side-illumination" (2010) <i>Sensors and Actuators B. Chemical</i> 146, pp. 190-194</li> <li>- C. Pulido, Ó. Esteban, "Multiple fluorescence sensing with side-pumped tapered polymer fiber" (2011) <i>Sensors and Actuators B. Chemical</i> 157, pp. 560-564</li> <li>- C. Pulido, Ó. Esteban, "Tapered polymer optical fiber oxygen sensor based on fluorescence-quenching of an embedded fluorophore" (2013) <i>Sensors and Actuators B. Chemical</i> 184, pp. 64-69</li> </ul>	

Doctorando	Daniel Cruz Cavalieri
Fecha lectura	5/12/2013
<ul style="list-style-type: none"> <li>- D. Cavalieri, M. Sarcinelli-Filho, T. Bastos-Filho, S.E. Palazuelos-Cagigas, "Combination of Language Models for Word Prediction: An Exponential Approach". <i>IEEE/ACM Transactions on Audio, Speech, and Language Processing</i>, v. 24, p. 1-1, (2016)</li> <li>- D.C. Cavalieri, T.F. Bastos-Filho, S.E. Palazuelos-Cagigas, M. Sarcinelli-Filho, "On Combining Language Models to Improve a Text-based Human-machine Interface". <i>International Journal of Advanced Robotic Systems</i> (ISSN 1729-8806), p. 1-14, 2015.</li> <li>- D.C. Cavalieri, T.F. Bastos-Filho, M. Sarcinelli-Filho, S.E. Palazuelos-Cagigas, J. Macías Guarasa, J.L. Martín-Sánchez, "A Part-of-Speech Tag Clustering for a Word Prediction System in</li> </ul>	

*Portuguese Language*". Procesamiento del Lenguaje Natural, v. 47, p. 197-205, 2011.

- D.C. Cavalieri, T.F. Bastos-Filho, S.E. Palazuelos-Cagigas, J. Macías Guarasa, J.L. Martín-Sánchez, "*Métodos de aprendizaje automático aplicados a la predicción de palabras para portugués de Brasil*". Procesamiento del Lenguaje Natural, (ISSN: 1135-5948) v. 45, p. 87-94, 2010