

## Appendix B: Peer Reviewed Publications

### Publications Books

1. M. Jiménez, R. Palomera, and I. Couvertier, "INTRODUCTION TO EMBEDDED SYSTEMS: Using Microcontrollers and the MSP430" Springer, New York, NY 2014

### Publications 2012-2013

1. Wang Liui, Kejie Lu, Jianping Wang, Guoliang Xing and Liusheng Huang, "Performance Analysis of Wireless Sensor Networks with Mobile Sinks," IEEE Transactions on Vehicular Technology, Vol. 61, No. 6, pp. 2777-2788, Jul 2012.
2. Wang Liu, Kejie Lu, Jianping Wans, Liusheng Huang, and Dapeng Oliver Wu, "On the Throughout Capacity of Wireless Sensor Networks With Mobile Relays," IEEE Transactions on Vehicular Technology, Vol. 61, No. 4, pp. 1801-1809, May 2012.
3. Zeyu Zheng, Shengli Fu, Kejie Lu, Jianping Wang, Biao Chen, "On the relay selection for cooperative wireless networks with physical-layer network coding," Published online, Springer Wireless Networks, Mar, 2012.
4. Tao Zhang, Kejie Lu, Shengli Fu, Yi Qian, Wang Liu, and Jianping Wang, "Improving the Capacity of Large-Scale Wireless Networks with Network-Assisted Coding Schemes," IEEE Transactions on Wireless Communicatins, Vol. 11, No. 1, pp. 88-96, Jan. 2012.
5. Wang Liu Kejie Lu, Jianping Wang, Yi Qian, Tao Zhang, and Liusheng Huang, "Capacity of Distributed Content Delivery in Large-Scale Wireless Ad Hoc Networks," in Proc. IEEE INFOCOM 2012, Mar. 2012.
6. E. O'Neill-Carrillo, H.R. Zamot, M. Hernández, A. A. Irizarry Rivera "Beyond Traditional Power Systems: Energy Externalities Ethics and Society", ISSST Conference, May 2012
7. A. Irizarry Rivera, E. O'Neill-Carrillo and E. Jiménez-Toribio, "Puerto Rico Small Hydro Report", World Small Hydropower Report, International Network for Small Hydropower, Lara Jin Qiu-ting Esser (Editor), In Press.
8. Soto-Quirós, Juan Pablo; Rodríguez, Domingo, "A Computational Signal Algebra Framework for a General Class of Discrete Cohen Distribution, IEEE 46th Annual Conference on Information Sciences and Systems, Princeton, March 2012.
9. Soto-Quirós, Juan Pablo; Rodríguez, Domingo, "Un Nuevo Enfoque a la Criptografía Matemática utilizando Representaciones Armónicas Bidimensionales", International Symposium of Mathematical Methods Applied to the Sciences, San José, Costa Rica, February 2012.

10. Lugo-Cordero, Héctor M; Guha, Ratan K; Lu Kejie; Rodríguez, Domingo, "Secure Service Distribution for Versatile Service-Oriented Wireless Mesh Networks," 2011 6th IEEE International Conference on Malicious and Unwanted Software, October 2011.
11. Tafur J., Herrera A., Rinaldi C., Juan, E.J., *Development and Validation of a 10kHz-1MHz Magnetic Susceptometer with Constant Excitation Field*, Journal of Applied Physics, vol. 111, 2012.
12. (Best ECCD Paper Award-2<sup>nd</sup> Place), J. Colucci, M. Fontalvo, E. O'Neill-Carrillo, "CHEM E Sustainable Energy Demos, Workshops, Town Hall Meetings and Other stakeholder Engagement: Working the Pipeline, *Proceedings of the 2012 ASEE Annual Conference*, San Antonio, TX, June 2012.
13. E. O'Neill-Carrillo, R. Zamot, M. Hernández, A. Irizarry, "Beyond Traditional Power Systems: Energy Externatitics, Ethics and Society, *Proceedings of the IEEE 2012 International Symposium on Sustainable jSystems and Technology (ISSST)*, May 2012, Boston MA
14. Manuel Rodríguez-Martínez, Harold Valdivia, José Rivera, Jaime Seguel, and Melvin Greer, "MedBook: A Cloud-based Healthcare Billing and Record Management System" in *Proc. Of 2012 IEEE International Conference on Cloud Computing*, Honolulu, HI, USA
15. Frey, William; Papadopoulos, Christopher, Castro-Sitiriche, Marcel; Zevallos, Fátima; Echevarría, Denisse; "On Integrating Appropriate Technology Responsive to Community Capabilities: A Case Study from Haiti", *Proceedings of the ASEE Annual Conference and Exposition*, San Antonio, TX, June 2012. [PDF](#)
16. Toro-Vazquez, Jonathan; Rodríguez-Solís, Rafael; Padilla, Ingrid; 'Estimation of Electromagnetic Properties in Soil Testbeds Using Frequency and Time Domain Modeling' IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, vol. 5, no. 3., June 2012, pp. 984-999
17. Sharma, Pallavi; Rodríguez-Solís Rafael A. "Linear Array of 2x2 Dual-Polarized X-Band Microstrip Patch Sub Arrays for off-the-Grid Radar Array Antenna," accepted for publication at the 2012 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting in Chicago, IL, USA, July 8-13, 2012
18. Rodríguez-Solís, Rafael A.; Pacheco, Héctor, "Reconfigurable Slotted Microstrip Patch Using VO2", accepted for publication at the 2012 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting in Chicago, IL, USA, July 8-13, 2012
19. Trabal, Jorge, Colom-Ustariz, Sandra Cruz-Pol, Gianni Pablos-Vega, José Ortiz, Wilson Castellanos, Leyda León, Rafael Rodríguez Solís, Michael Zink, David J. McLaughlin, and V. Chandrasekar, "Off-the-Grid Weather Radar Network for Precipitation Monitoring in Western Puerto Rico; Concept, Design, and Initial Results", TGARS, Submitted 2011, 2012 Accepted for publication

20. Gabriel Ramírez and V. Manian, "Hyperspectral image classification using compressed sensing methods," Proc. SPIE defense and security symposium, Baltimore, 2012.
21. D. Rodríguez, "A Computational Signal Algebra Framework for a General Class of Discrete Cohen Distributions, Princeton School of Engineering and Applied Science, March 2012.
22. González R., Ward M., Albors G., Irazoqui P., Juan E. J., "Vagus Nerve Modulation Using Focused Ultrasound" 12<sup>th</sup> International Symposium on Therapeutic Ultrasound, Heidelberg, Germany, June 2012.
23. Visbal-Onufrak, M., Torres-Lugo M., Rinaldi C., Juan E., *Protein Denaturation During Magnetic Fluid Hyperthermia at a Constant Thermal Dose: Does it Matter How the Magnetic Field is Applied*" 9<sup>th</sup> International Conference on the Scientific and Clinical Applications of Magnetic Carriers, Minneapolis, May 2012.
24. E. O'Neill-Carrillo "Beyond Traditional Power Systems: Energy Externalities, Ethics and Society," *Proceedings of the IEEE 2012 International Symposium on Sustainable Systems and Technology (ISSST)*, May 2012, Boston, MA
25. M. Llubes, J. Seguel, J. Ramírez-Vick "Markov Model Checking of Probabilistic Boolean Network Representations of Genes" *Proceedings of the 2011 International Conference on Bioinformatics and Computational Biology*, Vol. I, pp 63-67 (2011)
26. E.M. Rivera, M.L. Sanchez-Pena, C.E. Isaza, J. Seguel, M. Cabrera "Linear Models and Biomarker Search with Microarray Data" *Proceedings of the 2011 International Conference on Bioinformatics and Computational Biology*, Vol I, pp 126-130 (2011)
27. J. Seguel, C. Torres "Parallelization of Needleman-Wunsch String Alignment Method" *Proceedings of the 2011 International Conference on Bioinformatics and Computational Biology*, Vol I, pp 239-244 (2011)
28. M. Rodríguez, H. Valdivia, J. Seguel, M. Greer "Estimating Power/Energy Consumption in Database Servers" *Elsevier Procedia Computer Sciences* 6, Vol i, pp 112-117 (2011).
29. M. Rodríguez, H. Valdivia, J. Rivera, J. Seguel, M. Greer "A Cloud-based Healthcare Billing and Record Management System 5<sup>th</sup> International Conference on Cloud Computing, IEEE Cloud 2012, Hawaii (June 2012)
30. José Díaz and Víctor Romo. "Biometric Access Control for Privacy Preservation in Remote EHR Access during pre Hospital Emergency Care". Accepted to be presented in PAIS 2013 in Italy.
31. L.O. Jiménez-Rodríguez, "Epistemological and Semantic Foundations for a Dialogue Between Natural Sciences and Religious Beliefs: The Contributions of Jean Ladriere and Xavier Zubiri" in *Ciencia, Humanismo y Creencia en una Sociedad Plural*, Proceedings published in December 2012 by the Editorial de la Universidad de Oviedo (Peer Reviewed).
32. Castro-Sitiriche, Marcel J., Mandoye Ndoeye; "Subjective Wellbeing and Sustainability: A Data Driven Look at Global Electric Energy Consumption", *Proceeding of the 5<sup>th</sup>*

- International Conference of Appropriate Technology, Pretoria, South Africa, November 2012. PDF Selected for best papers session – PDF
33. Meador, Mary Ann B; Wright, Sarah; Sandberg, Anna; Nguyen, Baochau N.; Van Keuls, Frederick W.; Mueller, Carl H; Rodríguez-Solís, Rafael; Miranda, Félix A., “Low Dielectric Polyimide Aerogels as Substrates for Lightweight Patch Antennas,”ACS Applied Materials & Interfaces, 2012, 4(11), pp 6346-6353, Nov. 2012;
  34. Rodríguez-Solís, Rafael A.; Pacheco, Héctor; Miranda, Félix; Meador, Mary Ann B.; “Slotted Polyimide-Aerogel-Filled Waveguide Arrays”, submitted to the 2013 IEEE International Symposium on Antennas and Propagation and USN/URSI National Radio Science Meeting
  35. Rodríguez-Solís, Rafael A.; Saadé, Youssef; “Cavity Backed Annular Slot Ring Antenna with Reconfigurable Slots Using VO<sub>2</sub>”, “submitted to the 2013 IEEE International Symposium on Antennas and Propagation and USN/URSI National Radio Science Meeting
  36. J.A. Rodríguez Latorre, M. Jiménez, R. Palomera: “Automated wafer-level measurement of LDMOS reverse recovery parameters,”Proc. MWSCAS-2012, Aug. 2012, pp. 10072-1075
  37. IEEE Trans. On Geoscience and Remote Sensing (TGARS), “Radio Frequencies: Policy and Management”, several authors (CORF), submitted fall 2012
  38. 2. First Observations Of The Initial Radar Node In The Puerto Rico Tropinet X-Band Polarimetric Doppler Weather Testbed-Submitted IGARSS 2013, Australia; Miguel Galvez, José Colom Ustáriz, Chandra Chandrasakar, Sandra Cruz-Pol, Leyda León, José Joito Rosario Colón, Benjamín De Jesús, José Ortíz
  39. 3. Attenuation Correction Procedure For Casa Off The Grid X-Band Radar Network, Keyla M. Mora Navarro, Leyda V. León-Colón, Sandra I. Cruz Pol, 93<sup>rd</sup> American Meteorological Society (AMS) Annual Meeting, Jan 5-10, 2013, Austin, TX.
  40. 4. Polarization Effects On A Single Polarized Radar Off-The Grid X-Band Radar Network, Keyla Mora, Leyda León, Sandra Cruz Pol
  41. José Nieves, Hamed Parsiani, “UPRM BOUNDARY LAYER DATA IMPROVEMENTS IMPLEMENTING VARIABLE OVERLAP CORRECTION”, 14<sup>th</sup> IASTED International Conference on Signal & Image Processing, Hawaii, Aug. 20-23, 2012.
  42. G. Beauchamp, M. Jiménez, R. Mulero, A. Ortiz, “Tradeoffs Implementing Digital Control Systems for Electrical Engineering Course Projects”, sent to Frontiers in Education, FIE-2012, Seattle, WA, Nov. 2012
  43. J.A. Rodríguez, M. Jiménez, R. Palomera, “Automated Wafer-Level Measurement of LDMOS Reverse Recovery Parameters”, sent to the 55<sup>th</sup> IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2012), Boise, ID, Aug. 2012
  44. A. Polo, M. Jiménez, D. Márquez and D. Rodríguez, “An Address Generator Approach to the Hardware Implementation of a Scalable Pease PFT Core”, sent to the 55<sup>th</sup> IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2012). Boise, ID, Aug. 2012

45. D. Marquez, A. Polo, D. Rodríguez, M. Jiménez, "FPGA-based Discrete Ambiguity Function for Stochastic Linear Time-variant Channels", sent to the 55<sup>th</sup> IEEE International Midwest Symposium on Circuits and Systems (mwscas 2012), Boise, ID, Aug. 2012
46. G. Beauchanp, M. Jiménez, R. Mulero, A. Ortíz, "Tradeoffs Implementing Digital Control Systems for Electrical Engineering Course Projects", In Proc. Of Frontiers in Education, FIE-2012, Seattle, WA, Nov. 2012
47. J.A. Rodriguez, M. Jiménez, R. Palomera, "Automated Wafer-Level Measurement of LDMOS Reverse Recovery Parameters", In Proc. of the 55th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2012), Boise, ID , Aug. 2012
48. A. Polo, M. Jiménez, D. Marquez, and D. Rodriguez, "An Address Generator Approach to the Hardware Implementation of a Scalable Pease FFT Core", In Proc. of the 55th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2012), Boise, ID , Aug. 2012
49. D. Marquez, A. Polo, D. Rodriguez, M. Jiménez, "FPGA-based Discrete Ambiguity Function for Stochastic Linear Time-variant Channels", In Proc. of the 55th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2012), Boise, ID , Aug. 2012
50. J.A. Rodriguez, M. Jiménez, W. Morales, F.C. Hou, L. Millan, and R. Palomera, "Parametric DC and Noise Measurements in a Unified Test & Characterization Software Tool Framework", In Proc. Of 2012 Latin-American Test Workshop (LATW2012), Quito, Ecuador, April 2012
51. J. Peña, L. Malavé, L. Morales, M. Jimenez, R. Palomera, "Automated Characterization of Transient Threshold Voltage Shifts in Integrated MOSFETs", Poster at 2012 National Conference of the Society for Advancement of Chicanos and Native Americans in Science, SACNAS 2012, Oct. 2012.

#### **Publications 2013 - 2014**

1. Trabal, J.M. ; Colom Ustáriz, J.G. ; Cruz Pol, S.L. ; Pablos Vega, G.A. ; McLaughlin, D.J. (2013). Remote Sensing of Weather Hazards Using a Low-Cost and Minimal Infrastructure Off-the- Grid Weather Radar Network. IEEE Transactions on Geoscience and Remote Sensing, Volume: 51, Issue: 5; pgs. 2541 – 2555.
2. De Boer, D.R.; Cruz Pol, S.L.; Davis, M. M.; Gaier, T.; Feldman, P.; Judge, J.; Kellermann, K.I.; Long, D.G.; Magnani, L.; McKague, D.S.; Pearson, T.J.; Rogers, A.E.E.; Reising, S.C.; Taylor, G.; Thompson, A.R.; Van Zee, L. (Feb 2013). IEEE Transactions on Geoscience and Remote Sensing, Vol.: 51, Issue: 10; pgs. 4918 - 4927.
3. Cordero Lugo, H.M.; Guha, R.K.; Ortiz Rivera, E.I. (2013). An Adaptive Cognition System for Smart Grids with Context Awareness and Fault Tolerance. IEEE Transactions on Smart Grid, 2013.

4. Soto Quirós, J.P.; Rodríguez, D. (2013). A Matrix Formulation of Discrete Chirps Fourier Transform Algorithms. *Int. Journal of Electronic Sciences and Technology (JEST)*.
5. Santiago Rodríguez, L.; Montalvo Lafontaine, M.; Cristina Castro, C.; Méndez Vega, J.; Latorre Esteves, M.; Juan, E.; Mora, E.; Torres Lugo, M.; Rinaldi, C. (2013). Synthesis Stability, Cellular Uptake, and Blood Circulation Time of Carboxymethyl – Inulin Coated Magnetic Nanoparticles. *Journal of Materials Chemistry B*; Volume: 1, Number: 11; pgs. 2783 – 2886.
6. Medina, O.; Manian, V.; Chinea, J.D.; (2013). Biodiversity Assessment Using Hierarchical Clustering Over Hyperspectral Images. *Sensors, (Open Access Journal) 2013, Vol. 13, pp. 13949-13959.*
7. Amador, A; Canals, M.; Guerrero, G. \*; Cruz, J.; Ortiz, E. “Development of novel instrumented Lagrangian drifters to probe the internal structure of breaking surface waves” 2012 IEEE Oceans, Hampton Roads, VA, USA.
8. Manian, V.; “Biodiversity assessment using hierarchical clustering over hyperspectral images,” IEEE WHISPERS paper presented in June, 2013.
9. Manian, V.; “Biodiversity assessment using hierarchical agglomerative clustering over hyperspectral images-revision to be submitted to Sensors Journal.
10. Amador, A; Canals, M.; Guerrero, G.; Cruz, J.; Ortiz Rivera, E.I. (2012). Development of Novel Instrumented Lagrangian Drifters to Probe the Internal Structure of Breaking Surface Waves. 2012 IEEE Oceans, Hampton Roads, VA, USA.
11. Rodríguez Solís, R.A.; Pacheco, H.; Miranda, F.; Meador, M.A.B. (2013). Slotted Polyimide Aerogel Filled Waveguide Arrays. IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting.
12. Rodríguez Solís, R.A.; Saadé, Y. (2013). Cavity Backed Annular Slot Ring Antenna with Reconfigurable Slots Using. IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting.
13. Francisco, L.; Jiménez, M. (Dec. 2012). Parametric Model Calibration and Measurement Extraction for LFN Using Virtual Instrumentation. 2013 Latin-American Test Workshop (LATW2012), Buenos Aires, Argentina.
14. Seguel, J.; Llubes, M. (Oct. 2013). Semantics and Accuracy of Gene Expression Threshold Algorithms. ADVCOMP 2013: The Seventh International Conference on Advanced Engineering Computing and Applications in Sciences, IARIA – ELSEVIER’13.
15. Serrano, G.J. (Agosto 2013). A 1uA Band gap-Less Programmable Voltage Regulator. IEEE MIDWEST Symposium on Circuits and Systems.
16. Arzuaga, E. (2013). Smart Grid Security: Cyber Attacks and Possible Effects on Society. IEEE Technologies for Homeland Security, HST 2013.
17. Valera, J.; Soto Quirós, J.P.; Rodríguez, D. (Agosto 2013). Signal Algebra Computational Framework for the Acoustic Estimation of Doubly Dispersive Randomly Time-Variant Communication Channels. CLCAR 2013, San José, Costa Rica.

18. Díaz, J.; Romo, V.; Chinaei, A. (2013). Biomedic Access Control for Privacy Preservation in Remote EHR Access during Pre-Hospital Emergency Care. PAIS 2013, ITALY.
19. Lugo-Cordero, H.M.; Guha, R.K.; Ortiz Rivera, Eduardo I.; "An Adaptive Cognition System for Smart Grids with Context Awareness and Fault Tolerance" IEEE Transactions on Smart Grid, 2013 (Accepted for Publication)
20. Arzuaga, E.; "Introducing Research and Education on Cybersecurity to the Electrical and Computer Engineering Program at UPRM (IEEE Technologies for Homeland security, HST 2013).
21. Sarrano, G.; "A 1uA Bandgap-Less Programmable Voltage Regulator." IEEE Midwest Symposium on Circuits and Systems, August 4-7, 2013.
22. Castro-Sitiriche, Marcel J., Mandoye Ndoye; "On The Links Between Sustainable Wellbeing And Electric Energy Consumption", African Journal of Science, Technology, Innovation and Development (AJSTID), Taylor & Francis, 2013, weblink.
23. Castro-Sitiriche, Marcel J., Gerson Beauchamp-Báez, Luis Jiménez-Rodríguez; "Solar Microgrids and Energy Poverty: Conceptual Framework for Sustainable Wellbeing and Technology Justice Assessment." Proceedings of the 12 th World Wind Energy Conference & Renewable Energy Exhibition (WWEC), La Habana, Cuba, June 2013.
24. Wang Liu, Kejie Lu, Jianping Wang, Yi Qian, Liusheng Huang, Jun Liu and Dapeng Oliver Wu; "On the Throughput-Delay Trade-off in Large-Scale MANETs with A Generalized i.i.d. Mobility Model," in Proc. IEEE INFOCOM 2013, Apr. 2012.
25. Jin Wang, Kejie Lu, Jianping Wang, and Chunming Qiao, "Untraceability of Mobile Devices in Wireless Mesh Networks using Linear Network Coding," in Proc. IEEE INFOCOM 2013, Apr. 2012
26. Soto Quirós, J.P.; Rodríguez, D. (2013). Matrix Representation of Parallel Algorithms for the Discrete Fourier Transform, and the Discrete Cohen Distribution (In Spanish). LaGaceta (La Real Sociedad de la Matemática Española); Volume: 17, Number: 2.
27. Santiago-Rodríguez, L., Montalvo Lafontaine, M., Cristina Castro, C., Méndez-Vega, J. Latorre-Esteves, M., Juan E., Mora, E., Torres-Lugo, M., Rinaldi, C., Synthesis, stability, cellular uptake, and blood circulation time of carboxymethyl-inulin coated magnetic nanoparticles, Journal of Materials Chemistry B, vol. 1, no. 11, pp. 2783, 2013.
28. Juan, E., González, R., Albors, G., Ward M., Irazoqui, P., "Vagus Modulation Using Focused Ultrasound: Potential Applications and Preliminary Observation in a Real", International Journal of Imaging Systems and Technology (in press).
29. O. Medina, V. Manian and J. D. Chinaei, "Biodiversity assessment using hierarchical agglomerative clustering and spectral unmixing over hyperspectral images," Sensors Journal, 13 (10), 13949-13959, 2013.
- 30.

31. Gonzalez-Llorente, J.; Ortiz-Rivera, Eduardo I.; “Comparison of Maximum Power Point Techniques in Electrical Power System of CubeStarts” 27<sup>th</sup> Annual AIAA/USU Conference on Small Satellites, Logan, Utha, August 10-15, 2013.
32. Effects of Dynamics and PDS on Precipitation over Western Puerto Rico, Observations and a Modelin Nathan Hosonnah<sup>1</sup>, Jorge E. González<sup>1</sup>, Hamed Pasiani<sup>2</sup>, Daniel Comazarazamy<sup>1</sup>, Susanna C.G. Llantín<sup>2</sup>. A paper to be presented and publish in AMS conference – Feb. 2014.
33. M. Jimenez, G. Beauchanp, R. Mukero, M. Gonzalez, “Integrating Control Concepts in a EmbeddedSystems Desing Course”, In Proc. Of Frontiers in Education, FIE-2013, Oklahoma City, OK, Oct. 2013.
34. E. Valentin, R.A. Rodriguez, Solis; Characterization of a Cavity-Blacked Capacitively-Fed Folded Slot Antenna using DOE Techniques; submitted to 2014 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting.
35. J. Maldonado-Vargas, R.A. Rodríguez, Solís; Analysis of a Cavity Back Annular Slot Ring Antenna using Design of Experiment Techniques; submitted to 2014 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting.
36. R. Rodríguez-Solís, J. Colom-Ustariz, S. Cruz-Pol, L. Leon-Colon, Microwave Research at the University of Puerto Rico at Mayagüez; submitted o 2014 IEEE International Microwave Symposium.
37. I. M. Saldana, J. Rivera and V. Manian, “A data –delivery system using technology and wireless devices for port security,” accepted to SPIE Intl. Conf. Defense, Security and Sensing, Baltimore, 2014.
38. J. Santos, D. Gonzalez and V. Manian. “Photorealistic image synthesis ans camera validation from 2D images,” accepted to SPIE into. Conf. Defense, Security and Sensing, Baltimore, 2014.
39. L. Francisco and M. Jiménez, “Parametric model Calibration and Measurement Extraction for LFN Using Virtual Instrumentation” In Proc. of 2013 Latin-American Test Workshop (LATW2013), Buenos Aires, Argentina, April 2013
40. F. Minotta and M. Jiménez: “Methods for Scalable Levels of Parallelism in Higher Radix FFTs for FPGA Synthesis”, Poster presented at the 2014 SACNAS National Conference – Los Angeles, CA, Oct. 2014
41. W. Schmidt, M. Jimenez, A. Vega-Ortiz, and J. Torrado-Dias, "Exploration of the Puerto Rico Trench and Muertos Trough with Untethered Free-Vehicles ", In Proc. Of Geological Society of America Abstracts with Programs. Vol. 45, No. 2, p.56, March 2013.



## Publications 2015 - 2016

1. Agustín Irizarry Rivera. "Basic Power Course Part 2". Train the Trainers Workshop, EPRI Offices, Dallas, TX, April 24-26, 2016.
2. Agustín Irizarry Rivera. "INEL 5406 Design of Transmission and Distribution Power Systems with Renewables, Train the Trainers Workshop, EPRI Offices, Dallas, TX, April 24-26, 2016.
3. C. Aceros, J. Valera, E. Anaya, D. Rodríguez "Continuous and Multiple Target Tracking in Underwater MIMO Communication Channels", Submitted to the Journal of Sensor and Actuator Networks, August 2016.
4. E. O'Neill-Carrillo, A.A. Irizarry-Rivera, Cecilio Ortiz, Marla Pérez-Lugo. "The Role of Engineers as Policy Entrepreneurs toward Energy Transformations," *Proceedings of the ASEE 123<sup>rd</sup> Annual Conference*, Junio 2016, New Orleans.
5. Christopher Lebrón, and Fabio Andrade, "An Intelligent Battery Management System Based on Fuzzy Controller for Home Microgrid Working in Grid-connected and Island Mode," 2016 IEEE Andescon Andean Council International Conference. Arequipa, Perú. Oct. 19-21. (Submitted and Accepted).
6. Konstantinos Kampouropoulos and Fabio Andrade, "Energy Hub Optimization Applied on Car Manufacturing Plants", 2016 IEEE Andescon Andean Council International Conference. Arequipa, Perú, October 19-21 (Submitted and Accepted).
7. C.J. Bernal and M. Jiménez, "A Virtual Instrument Environment to Characterize Reverse Recovery Parameters in LDMOS Devices", In Proc. Of the 2016 XIV LACCEI International Multi-Conference for Engineering, Education, and Technology, San José, Costa Rica, July 2016.
8. A Comparative Study on the Parametrization of a Block-Based Compressive Sensing Algorithm for Hyperspectral Imaging Applications, XIV LACCEI International Multi Conference For Engineering Education and Technology, San José, Costa Rica, July 2016.
9. Subsurface Linear Unmixing on a Controlled Underwater Environment, IEEE WHISPERS Conference, Los Angeles, CA, August 2016.
10. "Optimal DNA Local Alignments on a Reduced Search Space" (with Wilfredo Lugo)- submitted to Journal of Bioinformatics
11. Jin Wang, Kejie Lu, Jianping Wang, and Chunming Qiao, Optimal Local Data Exchange in Fiber-Wireless Access Network: A Joint Network Coding and Device Association Design," in Proc. IEEE INFOCOM 2016, April 2016.
12. Juntao Wang, Xun Xiao, Jianping Wang, Kejie Lu, Xiaotie Deng, Ashwin A Gumaste, "When Group-buying Meets Cloud Computing", in Proc. IEEE INFOCOM 2016, April 2016.
13. Elaboración y presentación de poster "Analysis, Development and Enhancement of Linear Unmixing Algorithms for Underwater Object Detection" para el XXI Sigma XI Poster Day, presentado el 21 de abril de 2016.

14. Artículo sometido y aceptado "Subsurface Linear Unmixing on a Controlled Underwater Environment" para IEEE WHISPERS 2016.
15. Towards Composition of Cloud Services in Smart Power Grids, IEEE IGST Asia 2016.
16. Carlos Mulero-Hernández and Rafael Rodríguez Solís; "Design of V-Band Substrate Integrated Waveguide Fed Aperture Coupled Microstrip Patch Array with Beam-Switching Capabilities", presented at the 2016 IEEE International Symposium on Antennas and Propagation in Fajardo, PR, 26 June-1 July 2016
17. Carlos Mulero -Hernández and Rafael Rodríguez Solís; "Design of V-Band SIW Fed Cavity Backed Aperture Coupled Microstrip Patch Array Element for Application in Body Área Networks", presented at the 2016 IEEE International Symposium on Aantennas and Propagation in Fajardo, PR 26 June – 1 July 2016.
18. Rubén Delgado, Carlos Mulero-Hernández and Rafael Rodríguez Solís: "Applying Design of Experiments to the Design of 60 GHz Antennas for Off-Body Communications", presented at the 2016 IEEE International Symposium on Antennas and Propagation in Fajardo, PR, 26 June – July 1 2016.
19. A. Alarcon, M.R. Rwebangira, M.F. Chouikha and V. Manian, "A new methodology based on level sets for target detection in hyperspectral images,"IEEE Trans. GRS, Vol. 54(9), 5385-5396, 2016.
20. A. Sotomayor, J. Vidal, O. Medina, and V. Manian, "Biodiversity assessment in coral reef benthic habitats using hyperspectral images", Proc. World Automation Congress, San Juan, PR July 2016
21. O. Nieves and V. Manian "Automatic person authentication using fewer channel EEG motor imagery", Proc. World Automation Congress, San Juan, PR July 2016
22. J. Camacho and V. Manian, "Real-time single channel EEG motor imagery based Brain Computer Interface", Proc. World Automation Congress, San Juan, PR July 2016.
23. Cristina Pomales-García, Luzmariel Durant, Johana Mercado, William Frey, Marcel Castro, Christopher Papadopoulos (2016). Industrial Engineering Students Perspectives on Well-Being. UPRM Research Academy Symposium. Mayagüez, PR.
24. Accuracy and Time Efficient Mobile Application for Vehicle Crash Records: Preliminary Analysis, Second Annual Symposium on Transportation Informatics, August 5-6, 2016 Arlington, VA.
25. Nicolás Cobo, Rogelio Palomera: *"Use of operational amplifiers and discrete off-the-shelf components to teach fuzzy logic controller concepts"*, Frontiers in Education Conference (FIE), 2015. 32614 2015 IEEE, vol.,no., pp. 1-5, 21-24 Octo. 2015
26. Flores Nigaglioni, A.; Contreras-Ospino, B.M.; Ducoudray, G.O.; Palomera, R.; *Comparative analysis and parameter extraction automation of anular MOSFETs*" in Circuits and Systems (MWSCAS), 2015 IEEE 58<sup>th</sup> International Midwest Symposium on, vol., no., pp. 1-4, 2-5 Aug. 2015)
27. Palomera-García, R., *Another perspective for linear equations, matrices and jthe technological tolols in learning*", in Frontiers in Education Conference (FIE), 2015.32614 2015. IEEE, vol., no., pp 1-5, 21-24 Oct. 2015

28. Conferencias (estudiantes subgraduados como coautores) Merced Daniel; Ortiz Rivera, Eduardo I.; Passivity Based Controller for Photovoltaic Modules Using ZETA Converter” IEEE Workshop on Control and Modeling for Power Electronics (COMPEL) 2016, Trondheim, Norway, 27-30 June 2016.
29. González-Llorente, Rambal-Vecino, A.; García Rodríguez, L.; Balda J.C. & Ortiz-Rivera, E. ”Simple and Efficient Low Power Photovoltaic Emulator for Evaluation of Power Conditioning Systems” 31<sup>st</sup> Annual IEEE Applied Power Electronics Conference & Exposition, Mar. 2016
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