DEPARTAMENTO DE TEORIA DE LA SEÑAL Y COMUNIC.

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Áreas de conocimiento:

- TEORIA DE LA SEÑAL Y COMUNICACIONES

ÁREA DE CONOCIMIENTO: TEORIA DE LA SEÑAL Y COMUNICACIONES

Actividades de investigación

Tesis Doctorales

- Algunas contribuciones al Reconocimiento Robusto del Habla
  Autores: DE VICENTE, J.
  Director: DIAZ-DE-MARIA, F.
  Centro donde se presentó: Escuela Politécnica Superior
  Año: 2007

- Metodo Hıbrido FEM-UTD para el Analisis de Estructuras Radiantes en Entornos Complejos
  Autores: FERNANDEZ, R.
  Director: GARCIA, L.E.
  Centro donde se presentó: Universidad de Alcalá de Henares
  Año: 2007

- Nuevos Criterios de Ayuda para Conjuntos de Decidores Cooperativos
  Autores: GOMEZ, V.
  Director: FIGUEIRAS, A. R. ; ARENAS, J.
  Centro donde se presentó: Escuela Politécnica Superior
  Año: 2007

Publicaciones y actividades de difusión de resultados

Artículos en revistas nacionales

- MENDEZ, E.; BRAVO, A. M.; MORENO, L.
  Microformats: web 2.0 for dublin core, *El Profesional de la Informacion*, 2007, ESPAÑA.

Artículos en revistas extranjeras

- A. GARCIA-ARMADA; BARDON, B. ; GIL, V.P.; SANCHEZ-FERNANDEZ, M.
  Modelling, performance analysis and design of WPAN systems *, Wireless Personal Communications*, Vol. 42, Núm. 3, 2007, pp. 367-386, HOLANDA.

- ALAIZ, R.; GUERRERO, A. ; CID, J.
  Minimax regret classifier for imprecise class distributions*, Journal of machine learning research*, 2007, ESTADOS UNIDOS DE AMERICA.

- ARENAL, A.; ORTIZ, M.; PEINADO, R.; MERINO, J.; ATIENZA, F.; ALBEROLA, A.; ORMAETXE, J.; CASTELLANOS, E.; RODRIGUEZ, J.; PEREZ, N.; BOLUDA, L.; PRADO, M. D. ; ARTES, A.
  Differentiation of ventricular and supraventricular tachycardias based on the analysis of the first postpacing interval after sequential anti-tachycardia pacing in implantable cardioverter-defibrillator patients, *Heart rhythm*, 2007, ESTADOS UNIDOS DE AMERICA.

- ARENAS, J. ; GOMEZ, V.; FIGUEIRAS, A. R.
  Fast evaluation of neural networks via confidence rating , *Neurocomputing*, Vol. 70, 2007, pp. 2775-2785, HOLANDA.

- BACA GARCIA, E.; PEREZ RODRIGUEZ, M.; BASURTE VILLAMOR, I.; LOPEZ CASTROMAN, J.; DEL MORAL, A.; JIMENEZ ARRIERO, M.; DE RIVERA, J.; LEIVA, J.M.; PRADO, M. D. ; SANTIAGO, R.; ARTES, A. ; OQUENDO, M.; DE LEON, J.; FERNANDEZ, A.; GONZALEZ, J.; SAIZ, J.I.
  Diagnostic stability and evolution of bipolar disorder in clinical practice: a prospective cohort study , *Acta psychiatrica scandinavica*, Vol. 115, Núm. 6, 2007, pp. 473-480, DINAMARCA.

- BACA GARCIA, E.; PEREZ RODRIGUEZ, M.M.; SAIZ GONZALEZ, D.; BASURTE VILLAMOR, I.; SAIZ RUIZ, J.; LEIVA, J.M.; PRADO, M. D. ; SANTIAGO, R.; ARTES, A. ; DE LEON, J.
  Variables associated with familial suicide attempts in a sample of suicide attempters , *Progress in neuro-psychopharmacology & biological psychiatry*, Vol. 31, Núm. 6, 2007, pp. 1312-1316, REINO UNIDO.

- BURINTRAMART, S.; SARKAR, T.K.; SALAZAR, M. ; ZHANG, Y.
  Nonconventional least squares optimization for DOA estimation , *IEEE Transactions on Antennas and Propagation*, Vol. 55, Núm. 3, 2007, pp. 707-714, ESTADOS UNIDOS DE AMERICA.

- CAMPS VALLS, G.; MARTINEZ, M. ; ROJO, J. L. ; MUÑOZ MARI, J.
  Nonlinear system identification with composite relevance vector machines, *IEEE Signal processing letters*, 2007, ESTADOS UNIDOS DE AMERICA.

- CAMPS VALLS, G.; SORIA OLIVAS, E.; PEREZ RUIXO, J.; PEREZ, F. ; ARTES, A. ; JIMENEZ TORRES, N.
  Therapeutic drug monitoring of kidney transplant recipients using profiled support vector machines, *IEEE transactions on systems man and cybernetics part c-applications and reviews*, 2007, ESTADOS UNIDOS DE AMERICA.

- ESCUDERO, J. J. ; BOUSOÑO, C. ; A. GARCIA-ARMADA
  An energy-efficient adaptive modulation suitable for wireless sensor networks with SER and throughput constraints, *Eurasip Journal on Wireless Communications and Networking*, 2007.

- FERNANDEZ, R.; GARCIA, L.E.; GOMEZ, I.; SALAZAR, M.
  Fully coupled multi-hybrid fem-po/ptd-utd method for the analysis of scattering and radiation problems , *IEEE transactions on magnetics*, Vol. MAG-43, Núm. 4, 2007, pp. 1341-1344, ESTADOS UNIDOS DE AMERICA.

- GARCIA, L. E. ; LERA, E.D.; RAJO, E.
  Tapered slotline antenna modification for radiation pattern improving , *Microwave and Optical Technology Letters*, Vol. 49, Núm. 10, 2007, pp. 2590-2595, ESTADOS UNIDOS DE AMERICA.

- GARCIA, L.E.; PARDO, D.; GOMEZ, I.; DEMKOWICZ, L.
  A two-dimensional self-adaptive hp finite element method for the characterization of waveguide discontinuities. Part I: Energy-norm based automatic hp-adaptivity, *Computer Methods in Applied*

Mechanics and Engineering, Vol. 196, Núm. 49-52, 2007, pp. 4823-4852, ESTADOS UNIDOS DE AMERICA.

- GIL, V.P.; A. GARCIA-ARMADA
  Multi-user synchronisation in ad hoc ofdm-based wireless personal area networks *, Wireless Personal Communications*, Vol. 40, Núm. 3, 2007, pp. 387-399, HOLANDA.

- GOMEZ, I.; GARCIA, L.E.; PARDO, D.; DEMKOWICZ, L.
  A two-dimensional self-adaptive hp finite element method for the analysis of open region problems in electromagnetics*, IEEE transactions on magnetics*, 2007, ESTADOS UNIDOS DE AMERICA.

- GONZALEZ, D; ENRIQUE, E; RODRIGUEZ, M.; VILLAMOR, I; SAIZ RUZ, J.; LEIVA, J.M; PRADO, M. D; SANTIAGO, R ; ARTES, A.; DE LEON, J.
  Searching for variables associated with familial suicide attempts using data mining techniques *, European neuropsychopharmacology*, 2007, HOLANDA.

- HERRAIZ, F.J.; GONZALEZ, V.; IÑIGO VILLACORTA, F.; SEGOVIA, D.
  Low-cost approach based on an eigenfrequency method to obtain the dispersion diagram in CRLH structures*, IEEE Microwave and Wireless Components Letters*, Vol. 17, Núm. 1, 2007, pp. 13-15, ESTADOS UNIDOS DE AMERICA.

- KHALED, N.; MONDAL, B.; HEATH, R.; PETRE, F.
  Interpolation-loased multi-mode precoding for mimo-ofdm systems with limited feedback*, IEEE Transactions on wireless Communications*, 2007, ESTADOS UNIDOS DE AMERICA.

- LEIVA, J.M.; ARTES, A.
  Maximization of mutual information for supervised linear feature extraction*, IEEE Transactions on neural networks*, Vol. 18, Núm. 5, 2007, pp. 1433-1441, ESTADOS UNIDOS DE AMERICA.

- MARTINEZ, M. ; ROJO, J. L. ; CAMPS VALLS, G.; CHRISTODOULOU, C.G.
  Kernel antenna array processing *, IEEE Transactions on Antennas and Propagation*, Vol. 55, Núm. 3, 2007, pp. 642-650, ESTADOS UNIDOS DE AMERICA.

- NAVIA, A.
  Support vector perceptions*, Neurocomputing*, Vol. 70, Núm. 4-6, 2007, pp. 1089-1095, HOLANDA.

- NAVIA, A.
  Compact multi-class support vector machine*, Neurocomputing*, Vol. 71, Núm. 1-3, 2007, pp. 400-405, HOLANDA.

- ORTEGA, M.; GUTIERREZ, D.; DE PABLO, M.; CID, J.
  Training classifiers for tree-structured categories with partially labeled data*, Journal of VLSI Signal Processing-Systems for Signal, Image, and Video Technology*, 2007, ESTADOS UNIDOS DE AMERICA.

- ORTIZ GARCIA, E.; SALCEDO, S. ; LEIVA, J.M.; PEREZ BELLIDO, A.; PORTILLA FIGUERAS, J.
  Automated generation and visualization of picture-logic puzzles*, computers & graphics-uk*, 2007, REINO UNIDO.

- PARDO, D.; GARCIA, L.E.; DEMKOWICZ, L.; TORRES VERDIN, C.
  A two-dimensional self-adaptive hp finite element method for the characterization of waveguide discontinuities. Part II: Goal-oriented hp-adaptivity *, Computer Methods in Applied Mechanics and Engineering*, Vol. 196, Núm. 49-52, 2007, pp. 4811-4822, ESTADOS UNIDOS DE AMERICA.

- QUEVEDO, O.; RAJO, E. ; OROPESA, A.
  Hybrid algorithms for electromagnetic problems and the no-free-lunch framework*, IEEE Transactions on Antennas and Propagation*, Vol. 55, Núm. 3, 2007, pp. 742-749, ESTADOS UNIDOS DE AMERICA.

- RAJO, E. ; CAIAZZO, M.; INCLAN, L. F. D. ; KILDAL, P.S.
  Comparison of bandgaps of mushroom-type EBG surface and corrugated and strip-type soft surfaces *, Iet Microwaves Antennas & Propagation*, Vol. 1, Núm. 1, 2007, pp. 184-189, REINO UNIDO.

- RAJO, E. ; INCLAN, L. F. D. ; VAZQUEZ, J. L. ; GARCIA, L. E.
  Analysis of patch antennas on a multilayer substrate with a embedded periodic structure *, Microwave and Optical Technology Letters*, Vol. 49, Núm. 7, 2007, pp. 1717-1722, ESTADOS UNIDOS DE AMERICA.

- RAJO, E. ; INCLAN, L. F. D. ; VAZQUEZ, J. L. ; GARCIA, L. E.
  Size reduction of mushroom-type EBG surfaces by using edge-located vias *, IEEE Microwave and Wireless Components Letters*, Vol. 17, Núm. 9, 2007, pp. 670-672, ESTADOS UNIDOS DE AMERICA.

- RAJO, E. ; QUEVEDO, O.
  Linear array synthesis using an ant-colony-optimization-based algorithm*, IEEE Antennas and Propagation Magazine*, Vol. 49, Núm. 2, 2007, pp. 70-79, ESTADOS UNIDOS DE AMERICA.

- ROJO, J. L. ; BERMEJO, J.; RODRIGUEZ, A. B. ; MARTINEZ, A. ; YOTTI, R.; GARCIA FERNANDEZ, M.; ANTORANZ, J.C.
  Impact of image spatial, temporal, and velocity resolutions on cardiovascular indices derived from color-doppler echocardiography*, Medical image analysis*, 2007, HOLANDA.

- ROJO, J. L. ; FIGUERA, C.; MARTINEZ, C.E.; CAMPS VALLS, G.; ALONSO, F.; MARTINEZ, M.
  Nonuniform interpolation of noisy signals using support vector machines*, IEEE Transactions on signal processing*, Vol. 55, Núm. 8, 2007, pp. 4116-4126, ESTADOS UNIDOS DE AMERICA.

- SOLERA, R.; MARTIN, D.; GALLARDO, A. ; PELAEZ, C. ; DIAZ-DE-MARIA, F.
  Robust ASR Using Support Vector Machines*, Speech Communication*, Vol. 49, Núm. 9, 2007, pp. 253-267.

Libros

- ARTES, A. ; PEREZ GONZALEZ, F.; CID, J. ; LOPEZ, R.; MOSQUERA, C.; PEREZ, F.
  Comunicaciones Digitales, ESPAÑA, 2007.

Colaboraciones en obras colectivas

- ARRIBAS, J.I.; CID, J. ; ALBEROLA-LOPEZ, C.
  Estimation of posterior probabilities with neural networks: an application to microcalcification detection in breast cancer diagnosis , en: M.Akay (ed.), Neural Signal Processing and Modelling , ESTADOS UNIDOS DE AMERICA, pp. 41-58, 2007.

- FERNANDEZ, R.; GARCIA, L.E.; GOMEZ, I.; SALAZAR, M.
  Fully Coupled Multi-Hybrid FEM-PO/PTD-UTD Method for the Analysis of Scattering and Radiation Problems , en: IEEE Transactions on Magnetics , pp. 1341-1344, 2007.

- FERNANDEZ-GETINO, M. J. ; ROJO, J. L. ; GIL, V.P.; ALONSO, F.; A. GARCIA-ARMADA
  A Complex Support Vector Machine Approach to OFDM Coherent Demodulation , en: <u>Kernel methods in bioengineering, signal and image processing</u> , Idea Group Publishing, pp. 179-202, 2007.

- GARCIA, A.I.; SOLERA, R.; PELAEZ, C. ; DIAZ-DE-MARIA, F.
  Hybrid Models for Automatic Speech Recognition: A Comparison of Classical ANN and Kernel Based Methods , en: <u>Advances in Nonlinear Speech Processing - Lecture Notes on Computer Science (NOLISP07)</u> , Springer, ALEMANIA, pp. 152-160, 2007.

- GARCIA, L.E.; PARDO, D.; DEMKOWICZ, L.F.; TORRES VERDIN, C.
  A Two Dimensional Self-Adaptive hp-Adaptive Finite Element Method for the Characterization of Waveguide Discontinuities. Part II: Goal-Oriented hp-Adaptivity , en: <u>Computer Methods in Applied Mechanics and Engineering</u> , pp. 4811-4822, 2007.

- GARCIA, L.E.; PARDO, D.; GOMEZ, I.; DEMKOWICZ, L.F.
  A Two Dimensional Self-Adaptive hp-Adaptive Finite Element Method for the Characterization of Waveguide Discontinuities. Part I: Energy-norm Based Automatic hp-Adaptivity , en: <u>Computer Methods in Applied Mechanics and Engineering</u> , pp. 4823-4852, 2007.

- GOMEZ, I.; GARCIA, L.E.; PARDO, D.; DEMKOWICZ, L.F.
  A Two-Dimensional Self-Adaptive hp Finite Element Method for the Analysis of Open Region Problems in Electromagnetics , en: <u>IEEE Transactions on Magnetics</u> , pp. 1337-1340, 2007.

- JANG, S.; SARKAR, T.K.; SALAZAR, M. ; BAUM, C.E.
  Exploiting Noisy Early Time Response Using the Half Fourier Transform, en: <u>Ultra-Wideband, Short-Pulse Electromagnetics 7</u>, SPRINGER , ALEMANIA, pp. 667-680, 2007.

- JI, Z.; SARKAR, T.K.; SALAZAR, M.
  Solving Time Domain Electric Field Integral Equation for Thin-Wire Antennas Using the Laguerre Polynomials, en: <u>Ultra-Wideband, Short-Pulse Electromagnetics</u> , SPRINGER , pp. 159-171, 2007.

- SARKAR, T.K.; KOLUNDZIJA, B.; SALAZAR, M.
  Use of Higher Order Basis in Solution of Electromagnetic Field Problems, en: <u>Ultra-Wideband, Short-Pulse Electromagnetics 7</u>, SPRINGER , ALEMANIA, pp. 150-158, 2007.

- SOLERA, R.; PADRELL, J.; MARTIN, D.; GALLARDO, A. ; PELAEZ, C. ; DIAZ-DE-MARIA, F.
  SVMs for Automatic Speech Recognition: A Survey , en: <u>Progress in Nonlinear Speech</u> , Springer-Verlag, Berlin, Germany (SV), ALEMANIA, pp. 186-212, 2007.

- VALVERDE, F. J. ; PELAEZ, C.
  Galois Connections between Semimodules and Applications in Data Mining , en: <u>Formal Concept Analysis: ICFCA 2007</u> , Springer-Verlag, Berlin, Germany (SV), ALEMANIA, pp. 181-196, 2007.

Ponencias y Comunicaciones a congresos

- A. GARCIA-ARMADA; QUAHMANN, A.A.; EL BAAMRANI, K.; GIL, V.P.
  Power optimization in multiuser OFDM/Offset-QAM systems, Information and Communication Technologies International Symposium (ICTIS)*, FEZ*, MARRUECOS, 2007.

- ALONSO, J.; SANTIAGO, R.; LEIVA, J.M.; LAZARO, M. ; ARTES, A.
  Real-Time Tracking and Identification on an Intelligent IR-based Surveillance System , IEEE Conference on Advanced Video and Signal Based Surveillance (AVSS'05)*, LONDRES*, REINO UNIDO, 2007.

- ARENAS, J. ; CAMPS VALLS, G.
Feature Extraction from Remote Sensing Data using Kernel Orthonormalized PLS, Intl. Geoscience and Remote Sensing Symposium*, BARCELONA*, ESPAÑA, 2007.

- ARENAS, J. ; MENG, A.; PETERSEN, B.; LEHN SCHIOLER, T.; HANSEN, L.K.; LARSEN, J.
Adaptive combination of IPNLMS filters for robust sparse echo cancellation , IEEE Machine Learning for Signal Processing*, Thessaloniki*, GRECIA, 2007.

- ARENAS, J. ; MENG, A.; PETERSEN, B.; LEHN SCHIOLER, T.; HANSEN, L.K.; LARSEN, J.
Unveiling Music Structure via PLSA Similarity Fusion, Thessaloniki, GRECIA, 2007.

- ARENAS, J. ; PARRADO, E. ; MENG, A.; HANSEN, L.K.; LARSEN, J.
Discovering Music Structure via Similarity Fusion, Workshop onMusic, Brain and Cognition,dentro de la Conferencia en Neural Information Processing Systems (NIPS)*, WHISTLER, VANCOUVER*, CANADÁ, 2007.

- ARROYO, M.D.R.; ALAIZ, R.; GUERRERO, A. ; CID, J.
Q-Probabilistic Routing in Wireless Sensor Networks ; en: Proceedings (CDROM) , 2007.

- ARROYO, M.D.R.; GARCIA MARQUES, A.; CID, J.
Energy-aware Geographic Forwarding of Prioritized Messages in Wireless Sensor Networks; en: Proceedings (CD-ROM) , 2007.

- AZPICUETA, L.A.; FIGUEIRAS, A. R. ; ARENAS, J.
Acoustic echo cancellation in frequency domain using combinations of filters , 19th Congress on Acoustics*, MADRID*, ESPAÑA, 2007.

- BARRIO, R.M.; GARCIA, L.E.; GOMEZ, I.; SALAZAR, M.
Comparativa entre el Metodo Rapido de los Multipolos (FMM) y el Algoritmo de Aproximacion Cruzada Adaptativa (ACA), Multipolos (FMM) y el Algoritmo de Aproximacion Cruzada Adaptativa(ACA), XXII Simposium Nacional de la URSI . Tenerife (España)*, SANTA CRUZ DE TENERIFE*, ESPAÑA, 2007.

- BURINTRAMAT, S.; YILMAZER, N.; SARKAR, T.K.; SALAZAR, M.
Different Perspective on Channel Capacity Theorem , IEEE AP-S International Symposium 2007*, HONOLULU, HAWAII*, ESTADOS UNIDOS DE AMERICA, 2007.

- DURAN DIAZ, R.; RICO, R.; GARCIA, L.E.; GOMEZ, I.; ACEBRON, J.A.
Comparativa de Diversas Paralelizaciones de unMŽetodo FEM-HF Hıbrido para el Analisis de la Radiacion y el Scattering de Ondas Electromagneticas en Entornos Complejos , XV Jornadas de Concurrencia y Sistemas Distribuidos*, TORREMOLINOS*, ESPAÑA, 2007.

- FERNANDEZ, R.; GARCIA, L.E.; GOMEZ, I.; SALAZAR, M.
Convergence Study of a Non-standard Schwarz Domain Decomposition Method for Fnite Element Mesh Truncation in Electromagnetics, International Conference on Electromagnetics in Advanced Applications (ICEAA'07)*, TORINO*, ITALIA, 2007.

- FERNANDEZ, R.; GARCIA, L.E.; GOMEZ, I.; SALAZAR, M.
Convergencia de un Método de Elementos Finitos Iterativo para Problemas Abiertos , SANTA CRUZ DE TENERIFE, ESPAÑA, 2007.

- GALLARDO, A. ; BARRA, R.; SCHRÖDER, M.; KRSTULOVIC , S.; MONTERO, M.
Automatic Phonetic Segmentation of Spanish Emotional Speech ; en: Actas del congreso INTERSPEECH'07, 2007.

- GARCIA, A.I.; SOLERA, R.; PELAEZ, C. ; DIAZ-DE-MARIA, F.
  Hybrid Models for Automatic Speech Recognition: A Comparison of Classical ANN and Kernel Based Methods , ISCA Tutorial and Research Workshop on Nonlinear Speech Processing (NOLISP 2007), *PARIS*, FRANCIA, 2007.

- GARCIA LAENCINA, P.J.; SERRANO, J.; FIGUEIRAS, A. R. ; SANCHO GOMEZ, J.L.
  Multi-Task Neural Networks for Dealing with Missing Data ; en: Proceedings 8th Intl. Work-Conf. Interplay Natural and Artificial Comp (IWINAC), Lecture Notes in Computer Science, ESPAÑA, 2007.

- GARCIA, L.E.; PARDO, D.; DEMKOWICZ, L.F.
  Fully Automatic hp Adaptivity for Electromagnetics. Application to the Analysis of H-Plane and E-Plane Rectangular Waveguide Discontinuities, 2007 IEEE MTT-S International Microwave Symposium(IMS2007)*, HONOLULU, HAWAII*, ESTADOS UNIDOS DE AMERICA, 2007.

- GIL, V.P.; ERIKSSON, T.; A. GARCIA-ARMADA; FERNANDEZ-GETINO, M. J. ; OTTOSSON, T.; SVENSSON, A.
  Methods for Compression of Feedback in Adaptive Multi-carrier 4G Systems; en: Final Workshop COST 289 , 2007.

- GOMEZ, I.; GARCIA, L.E.; DEMKOWICZ, L.F.
  A Comparison Between Several Mesh Truncation Methods for hp-Adaptivity in Electromagnetics , International Conference on Electromagnetics in Advanced Applications(ICEAA07)*, TORINO*, ITALIA, 2007.

- GOMEZ, I.; GARCIA, L.E.; PARDO, D.; DEMKOWICZ, L.F.
  Comparacion entre PML y FEM Iterativo para el Analisis de Problemas Abierto Mediante Adaptabilidad hp Automatica, XXII Simposium Nacional de la URSI*, SANTA CRUZ DE TENERIFE*, ESPAÑA, 2007.

- GONZALEZ, I.; DIAZ-DE-MARIA, F.
  Improved motion classification techniques for adaptive multi-pattern fast block-matching algorithm ; en: Proceedings of the Conference, 2007.

- GONZALEZ, I.; FRUTOS, M.D.; SANZ, S.; DIAZ-DE-MARIA, F.
  Adaptive multi-pattern fast block-matching algorithm based on motion classification techniques ; en: Proceedings of the Conference, 2007.

- GUERRERO, C.A.; NAVIA, A. ; MALANDA TRIGUEROS, A.
  Identifying neural discharges using Time-frequency distributions for EEG; en: Proceedings IEEE International Conference on Signal Processing and Communications ICSP07 , 2007.

- HANSEN, L.K.; LEHN SCHIOLER, T.; PETERSEN, B.; ARENAS, J.; LARSEN, J.; JENSEN, S.H.
  Learning and clean-up in a large scale music database ; en: Proceedings 15th European Signal Processing Conference (EUSIPCO'07), 2007.

- INCLAN, L. F. D. ; VAZQUEZ, J. L. ; RAJO, E.
  Characterization of new compact filter based on EBG resonators , Metamaterials 2007*, ROMA*, ITALIA, 2007.

- INCLAN, L. F. D. ; VAZQUEZ, J. L. ; RAJO, E.
  Filtro compacto multicapa basado en estructuras EBG, URSI 2007*, LAGUNA, LA*, ESPAÑA, 2007.

- INCLAN, L. F. D. ; VAZQUEZ, J. L. ; RAJO, E.
  Diplexed dual-polarization proximity coupled patch antenna, IEEE APS 2007*, HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- INCLAN, L. F. D. ; VAZQUEZ, J. L. ; RAJO, E. ; GARCIA MUÑOZ, E.
  Compact EBG surface based on capacitively loaded loop resonators with grounded vias, EUCAP 2007*, EDIMBURGO*, REINO UNIDO, 2007.

- KILDAL, P.S.; RAJO, E.
  Mushroom surface cloaks for making struts invisible , IEEE APS 2007*, HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- KILDAL, P.S.; RAJO, E. ; CARLBERG, U.; RYLANDER, T.; SIPUS, Z.
  Reducing side- lobes from blocking struts by metamaterials cloaking and shape optimization, 29th ESA Antenna Workshop*, NOORDWIJK*, HOLANDA, 2007.

- KROZER, V.; Cilla, C.; VAZQUEZ, J. L. ; VIDKJAER, J.; DALL, J.
  Development of an airborne ice sounding radar front-end, Radar Conference 2007 (EuRAD 2007)*, MUNICH*, ALEMANIA, 2007.

- LAZARO, M. ; ARTES, A.
  Optimal Sensor Selection in Heterogeneous Sensor Networks , IEEE Int. Conf. on Acoustics, Speech, and Signal Processing, ICASSP'2007*, HONOLULU, HAWAI*, ESTADOS UNIDOS DE AMERICA, 2007.

- LAZARO, M. ; LEIVA, J.M.; ARTES, A. ; FIGUEIRAS, A. R.
  A New Cost Function for Binary Classification Problems Based on the Distributions of the Soft Output for Each Class, IEEE Int. Joint Conf. on Neural Networks, IJCNN'2007*, ORLANDO, FLORIDA*, ESTADOS UNIDOS DE AMERICA, 2007.

- LERA, E.D.; GARCIA, L. E.
  Mutual coupling edge effect approximation for phased-array antenas , Antennas and Propagation Society International Symposium, 2007 IEEE*, HONOLULU, HAWAII*, ESTADOS UNIDOS DE AMERICA, 2007.

- MADRID, J.; LAZARO, M.; FIGUEIRAS, A. R.
  A Single Layer Perceptron Approach to Selective Multi-Task Learning; en: <u>Proceedings 8th Intl. Work-Conf. Interplay Natural and Artifical Comp (IWINAC), Lecture Notes in Computer Science</u>, ESPAÑA, 2007.

- MARTINEZ, E.; FRUTOS, M.D.; PUJOL, J.C.; DIAZ-DE-MARIA, F.
  A fast cost-based algorithm for H.264/AVC Inter mode decision , IEEE International Conference on Image Processing (ICIP'07)*, SAN ANTONIO, TEXAS*, ESTADOS UNIDOS DE AMERICA, 2007.

- MARTINEZ, M. ; NAVIA, A. ; CHRISTODOULOU, C.G.; FIGUEIRAS, A. R.
  Adaptive Antenna Array Processing with Kernels; en: <u>Proceedings Second European Conference on Antennas and Propagation (EuCAP 2007), The Edinburgh International Conference Centre</u>, 2007.

- MIGUEZ, J.; ARTES, A.
  Distributed Sequential Monte Carlo Algorithms for Node Localization and Target Tracking in Wireless Sensor Networks , EURASIP Signal Processing Conference, EUSIPCO 2007*, POZNAN*, POLONIA, 2007.

- NG MOU KEHN, M.; RAJO, E. ; QUEVEDO, O.
  Parametric study of dispersion and filtering capabilities of SRR-type FSS loaded rectangular waveguides , IEEE APS 2007*, HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- NIELSEN, A.B.; SIGURDSSON, S.; HANSEN, L.K.; ARENAS, J.
  On the relevance of spectral features for instrument classification; en: <u>Proceedings of the 2007 IEEE Intl. Conf. on Acoustics, Speech and Signal Processing</u>, 2007.

- PEREZ, O.I.; SANCHEZ-FERNANDEZ, M. ; A. GARCIA-ARMADA
  Coordinación en una red celular de múltiples antenas para la mejora de la eficiencia, Coordinación en una red celular de múltiples antenas para la mejora de la eficiencia, *SANTA CRUZ DE TENERIFE*, ESPAÑA, 2007.

- QUEVEDO, O.; RAJO, E.
  Hybrid algorithms on antenna design, IEEE APS 2007, *HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- QUEVEDO, O.; RAJO, E.
  Antena compacta multifrecuencia de parche basada en modos regresivos , URSI 2007, *LAGUNA, LA*, ESPAÑA, 2007.

- QUEVEDO, O.; RAJO, E.
  Compact multifrequency PIFA antenna based on backward modes , EUCAP 2007, *EDIMBURGO*, REINO UNIDO, 2007.

- QUEVEDO, O.; RAJO, E. ; INCLAN, L. F. D. ; GARCIA, L. E.
  Design of a planar EBG structure to reduce mutual coupling in multilayer patch antennas. Best conference paper Award , Loughborough Antennas & Propagation Conference, *LOUGHBOROUGH*, REINO UNIDO, 2007.

- RAJO, E. ; NG MOU KEHN, M.
  Moment Method analysis of dispersion in SRR-type FSS loaded rectangular waveguides using spectral domain Green's functions and RWG basis functions , IEEE APS 2007, *HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- RAJO, E. ; NG MOU KEHN, M.; QUEVEDO, O.
  Investigation of SRR-type FSS loaded rectangular waveguides with narrow backward travelling modal passband for use as waveguide filters, URSI International, *OTAWA*, CANADÁ, 2007.

- RAJO, E. ; NG MOU KEHN, M.; QUEVEDO, O.
  Optimized design of a miniaturized waveguide with SRR-loaded lateral walls , EUCAP 2007, *EDIMBURGO*, REINO UNIDO, 2007.

- RAJO, E. ; QUEVEDO, O.; INCLAN, L. F. D.
  Study of mutual coupling reduction in single and stacked multilayer patch antennas by using planar EBG structures, IEEE APS 2007, *HONOLULU*, ESTADOS UNIDOS DE AMERICA, 2007.

- Ribeiro, C.; FERNANDEZ-GETINO, M. J. ; GIL, V.P.; Gameiro, A.; A. GARCIA-ARMADA
  Uplink channel estimation for multi-user OFDM-based systems; en: <u>Final Workshop COST 289</u> , 2007.

- SALAZAR, M. ; SARKAR, T.K.
  Smart Antennas and Digital Beamforming , Workshop WFA, Reconfigurable and Smart Antennas,2007 IEEE MTT-S internacional Microwave Symposium, *HONOLULU, HAWAI*, ESTADOS UNIDOS DE AMERICA, 2007.

- SALAZAR, M. ; SARKAR, T.K.
  A Look at the Concept of Channel Capacity from a Maxwellian Viewpoint , IEEE International Symposium on Signals, Systems and Electronics,ISSSE'07, *MONTREAL, QUEBEC*, CANADÁ, 2007.

- SANTIAGO, R.; TOLMOS RODRIGUEZ-PIÑERO, P.
  Prediction of claims and risk factor selection in automobile insurance using Support Vector Machines and Genetic Algorithms ; en: <u>Proceedings of the Workshop Net-Works 2007</u> , ESPAÑA, 2007.

- SANZ, S.; GARCIA GARCIA, D.; FRUTOS, M.D.; CID, J.
  Dynamic Basic Unit Size in Rate Control for Real-Time H.264 Vide Coding ; en: Proceedings (CD-ROM) , 2007.

- SANZ, S.; FRUTOS, M.D.; GARCIA MARQUES, A.; CID, J.
  A Rate Control Algorithm for Low-Delay H.264 Video Coding with Stored-B Pictures; en: Proceeding (CD-ROM), 2007.

- SARKAR, T.K.; SALAZAR, M. ; BAUM, C.E.
  Exploiting Early Time Response Using the Half Fourier Transform for Analyzing Transient Radar Returns , CNC/USNC North American Radio Science Meeting 2007*, OTAWA*, CANADÁ, 2007.

- VALVERDE, F. J. ; PELAEZ, C.
  Further Galois connections between Idempotent Semimodules, Concept Lattices and Applications (CLA, 07)*, MONTPELLIER*, FRANCIA, 2007.

- VALVERDE, F. J. ; PELAEZ, C.
  Galois connections between semimodules and applications in data mining, International Conference on Formal Concept Analysis (ICFCA 2007)*, CLERMONT-FERRAND*, FRANCIA, 2007.

- VEMULA, M.; MIGUEZ, J.; ARTES, A.
  A Sequential Monte Carlo Method for Target Tracking in an Asynchronous Wireless Sensor Network; en: Proceedings of the 4th Workshop on Positioning, Navigation and Communication , 2007.

- YANG, J.; SARKAR, T.K.; SALAZAR, M.
  Reconstruction of the Band-limited Temporal Response from the Far-Field Power Spectrum of an Electromagnetic System Using the Cauchy Method, EMTS 2007 International URSI Commission B - Electromagnetic Theory Symposium*, OTAWA*, CANADÁ, 2007.

Propiedad Industrial/intelectual

- *Inventores:* KHALED, N.
  Design and experimental validation of energy-efficient MAC protocols for wireless sensor networks
  Titular: UNIVERSIDAD CARLOS III DE MADRID
  Fecha Solicitud: 02/07/2007
  Países: SUIZA

Actividades de formación y movilidad de personal investigador

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  Duración: 01/06/2007 a 01/08/2007.

- LUIS EMILIO GARCIA CASTILLO
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