

Enfoque y alcance

La **Revista Iberoamericana de Automática e Informática Industrial (RIAI)** es el órgano de expresión del **Comité Español de Automática (CEA)**, miembro de la Federación Internacional de Control Automático (**IFAC**). La revista se desarrolla en el marco de la comunidad iberoamericana, y en general, en los entornos en los que el español constituye el idioma básico y no excluyente de comunicación. RIAI engloba el amplio campo de la **Teoría de Control**, la **Ingeniería de Sistemas**, la **Automatización**, la **Robótica**, la **Regulación Automática** y las diferentes tecnologías empleadas en la realización de los sistemas de control, en particular los basados en computadores y redes de comunicaciones.

Dentro del campo citado previamente, RIAI engloba artículos enmarcados en las siguientes temática, **siempre que tengan contenidos relacionados con la Automática y la Informática Industrial.**

- Teoría de control y sistemas.
- Ingeniería de control de procesos e instrumentación.
- Técnicas de control avanzado.
- Automatización y control de sistemas de producción.
- Robótica y sistemas robotizados.
- Arquitecturas de control y tecnología de computadores aplicada al control automático de sistemas.
- Sistemas de tiempo real e informática industrial aplicados al control automático de sistemas.
- Filtrado, estimación y análisis y tratamiento de señales e imágenes aplicados al control automático de sistemas.
- Visión por computador aplicada al control automático de sistemas.
- Modelado, identificación, simulación y optimización de sistemas.
- Inteligencia computacional y técnicas de supervisión y detección de fallos aplicados al control automático de sistemas.
- Historia de la automática. La automática en sistemas sociales, económicos y empresariales.
- Cuestiones docentes y de formación en automática.
- Control de sistemas en red y complejos a gran escala.
- Control de procesos industriales, sistemas energéticos, mineros, ingeniería civil y edificios.
- Control de sistemas de transporte y vehículos.
- Control en bioingeniería, biología, agricultura, ecología y medicina.
- Control de máquinas y motores y mecatrónica.

LISTADO DE ARTÍCULOS RECIENTES POR AÑOS

2018	
Paper	Original keywords
<p>J. A. Bonache Seco, J. Dormido Canto, M. Montalvo Martínez, J. A. López-Orozco, E. Besada Portas, J. M. de la Cruz García. A Ground Control Station for Collaborative Unmanned Surface Vehicles. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):1-11, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8737</p>	<p>Monitoring and supervision; Route planning; Cooperative control; Distributed control systems; Marine and submarine systems; Ground control station</p>
<p>M. Pérez de la Portilla, A. López Piñeiro, J. A. Somolinos Sánchez, R. Morales Herrera. Dynamic Modelling and Control of a Submerged Device with Hydrostatic Actuators. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):12-23, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8824</p>	<p>Renewable Energies; Marine Systems; Multivariable Control Systems; Time varying systems; OrcaFlex-Matlab Integration</p>
<p>F. Bonin-Font, C. Coll Gomila, G. Oliver Codina. Towards Visual Navigation of an Autonomous Underwater Vehicle in Areas with Posidonia Oceanica. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):24-35, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8828</p>	<p>Autonomous Mobile Robots; Robot Navigation; Robot Vision; Visual Motion</p>
<p>D. García, J. Sandoval, J. Gutiérrez-Jagüey, E. Bugarin. IDA-PBC Control of an Underactuated Underwater Vehicle. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):36-45, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8829</p>	<p>Underwater vehicle; underactuated system; non-linear control; IDA-PBC</p>
<p>E. M, Rubino, D. Centelles, J. Sales, J. V. Martí, R. Marín, A. J. Alvares, P. J. Sanz. Underwater Wireless Vision System Using Progressive Image Compression and Region of Interest. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):46-57, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8953</p>	<p>Image Compression; Data Transmission; Communication Systems; Teleoperation</p>
<p>E. Revestido Herrero, F. J. Velasco, L. M. Vega, F. J. Lastra. Efficient Parameter Estimation and Control Based on a Modified LOS Guidance System of an Underwater Vehicle. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):58-69, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8826</p>	<p>Parameter estimation; ordinary least squares; general least squares; nonlinear manoeuvring model; LOS</p>
<p>J. Pérez, D. Fornas, R. Marín, P. J. Sanz. UWSim, an underwater robotic simulator on the cloud as educational tool. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):70-78, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8827</p>	<p>Robotics; Education; Benchmark examples; Autonomous vehicles; Marine systems; Educational aids; Telerobotics</p>
<p>M. Prian Rodríguez, M. J. López Sánchez, J. F. Moreno Verdulla. Calculation Method for Equilibrium Points in Dynamical Systems Based on Adaptive Synchronization. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):79-85, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8845</p>	<p>Adaptive control; chaos; stabilization; reference model; equilibrium point; synchronization; dynamic system</p>
<p>M. Baquero-Suárez, J. Cortes-Romero, J. Arcos-Legarda, H. Coral-Enriquez. Automatic Stabilization of a Riderless Bicycle using the Active Disturbance Rejection Control Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):86-100, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8832</p>	<p>Robotic bicycles; Active disturbance rejection control; Robust control; Disturbance observers; Multibody systems dynamics; Non-linear systems; Autonomous vehicles</p>
<p>H. Bory-Prevez, H. Martínez-García, L. Vázquez-Seisdedos, F. Chang Mumañ, L.A. Enríquez García. Comparison of Three-Phase Rectifier with Symmetrical Switching and AC-AC Converter for the Power Factor Improvement in Hydroelectric Micro-Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 15(1), 101-111, 2018. https://doi.org/10.4995/riai.2017.8816</p>	<p>Controlled rectifiers, switching AC-AC converters, power factor, frequency control.</p>

<p>D. A. Aligia, G. A. Magallán, C. H. De Angelo. Traction control of an electric vehicle based on nonlinear observers. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):112-123, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8736</p>	<p>Traction control; road condition; friction coefficient, brush tyre model; feedback linearization; nonlinear Luenberger observer</p>
<p>A. Mjahad, A. Rosado Muñoz, M. Bataller Mompeán, J. V. Francés Vllora, J. F. Guerrero Martínez. Ventricular Fibrillation detection using time-frequency and the KNN classifier without parameter extraction. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):124-132, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8833</p>	<p>Biomedical systems; Electrocardiographic signals; time-frequency representation; Non-stationary signals; Image analysis; Classification</p>
<p>T. Rodríguez-Blanco, D. Sarabia, C. de Prada. Real-Time optimization using the Modifier Adaptation methodology. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):133-144, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8846</p>	<p>Real-Time optimization; uncertainty; modifier-adaptation</p>
<p>J. Lekube, A. J. Garrido, I. Garrido, E. Otaola. Output Power Improvement in Oscillating Water Column-based Wave Power Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):145-155, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8831</p>	<p>Renewable energy systems; wave power plants; oscillating water column; power control; induction generators</p>
<p>M. V. García, E. Irisarri, F. Pérez, E. Estévez, M. Marcos. Automation Architecture based on Cyber Physical Systems for Flexible Manufacturing within Oil&Gas Industry. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):156-166, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8823</p>	<p>Industry 4.0; Industrial Systems Integration; Cyber-Physical Production Systems; OPC UA; IEC 61499</p>
<p>J. Carlos Travieso-Torres, M. A. Duarte-Mermoud, A. Gutiérrez-Osorio, O. Beytía. Passivity Based Control of a Class of Nonlinear Systems and its Application to the Level Regulation of a Conical Tank. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):167-173, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8976</p>	<p>Nonlinear control systems; adaptive control; passivity</p>
<p>M. D. Del Castillo, J.I. Serrano, S. Lerma, I. Martínez, E. Rocón. Neurophysiologic Assessment of Motor Imagery Training by Using Virtual Reality for Pediatric Population with Cerebral Palsy. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):174-179, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8819</p>	<p>Bioengineering; Disability; Interfaces; Virtual Reality, Rehabilitation; Motor Imagery; EEG</p>
<p>A. Mancisidor, A. Zubizarreta, I. Cabanes, P. Bengoa, J. Hyung Jung. Multifunctional Robotic Device for the Rehabilitation of the Upper Limbs. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):180-191, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8820</p>	<p>Upper limb rehabilitation; Rehabilitation robots; Assistive tasks; Resistive tasks; Impedance control; Rehabilitation software; Implementation; Experimental validation</p>
<p>I. Zaplana, J. A. Claret, L. Basanez. Kinematic analysis of redundant robotic manipulators: application to Kuka LWR 4+ and ABB Yumi. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):192-202, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8822</p>	<p>Kinematics; Inverse kinematic problem; Redundant manipulators; Singularities; transformation matrices</p>
<p>J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Playful Robotic Environment for Rehabilitation Therapies of Pediatric Patients with Upper Limb Disability. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):203-210, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9043</p>	<p>Disability; Assisted Robotics; Upper limb; Engineering; Robotics; Therapy; Rehabilitation</p>
<p>Eduardo Trutié-Carrero, Damian Valdés-Santiago, Ángela León-Mecías, Jorge Ramírez-Beltrán. Burst Detection and Localization using Discrete Wavelet Transform and Cross-Correlation. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(2):211-216, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8738</p>	<p>Singularity; wavelet transform; detection; estimation</p>
<p>I. Simón-Marmolejo, Omar López-Ortega, L. E. Ramos-Velasco, M. Ortiz-</p>	<p>Flexible and intelligent</p>

Domínguez. Unified Ontology for a Holonic Manufacturing System. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):217-230, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8851	manufacturing systems and cells; smart control techniques; agents; distributed and decentralized control architectures; database systems
I. Zubiaguirre-Bergen, M. Torres-Torriti, M. Flores-Calero. Generation of regions of interest with high potential to contain pedestrians using non-dense 3D reconstruction from monocular vision. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 243-251, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8825	Pedestrian, accidents, traffic, monocular vision, stereo vision, trajectory, ROIs.
E. Molina, J. Díaz, H. Hidalgo-Silva, E. Chavez. Robust Binarization of Non-Uniform Illuminated Images. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 252-261, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8847	Image binarization, non-uniform illumination, image processing
F. Calderon, A. Garnica-Carrillo, J. J. Flores. Multi Focus Image Fusion with variable size windows. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15, 262-276, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8852	Multi-focus image fusion, Sliding windows, Incremental images
P. García Entrambasaguas, I. González-Prieto, M.J. Durán, M. Bermúdez , F. Barrero. Direct Torque Control based on Virtual Voltage Vector for a Six-phase Induction Machine. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 277-285, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9837	Electric Machines, Power Generation, Controlling Machines, Induction Machines, Torque Control
M. A. Duarte-Mermoud, F. Milla. Power System Stabilizer based on Model Predictive Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 286-296, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10056	Electrical and electronic power systems, Power system stabilizer (PSS), Predictive power system stabilizer (PPSS), Model predictive control (MPC), Particle swarm optimization (PSO), Simulation systems.
G. N. González, C. H. De Angelo, D. G. Forchetti, D. A. Aligia. Detection and Isolation of Faults on the Rotor Side Converter of Doubly Fed Induction Generators. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 297-308, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9042	Doubly Fed Induction Generator, Rotor Side Converter, Open Switch Fault, Observers, Fault Scenario, Fault Diagnosis
E. Guerrero-Ramírez, A. Martínez-Barbosa, E. Guzmán-Ramírez, J. Linares-Flores, H. Sira-Ramírez. On the Robust Control of DC/DC Buck-Parallel Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 309-316, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8925	Disturbance rejection, Linear multivariable systems, Robust control, Converters, Electronics applications
N. Vázquez, R. Diosdado, H. Huerta, R. Osorio, E. Vázquez, C. Hernández. Indirect Modulation for Direct Matrix Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 317-326, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8715	Conversion, Converters, Power Electronics, Modulation, Non-linear control systems
F. R. Rubio, S. J. Navas, P. Ollero, J. M. Lemos, M. G. Ortega. Optimal Control Applied to Distributed Solar Collector Fields. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 327-338, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8944	Process Control, Predictive control, Optimization, Solar energy
C. López Casado, C. J. Pérez del Pulgar Mancebo, V. F. Muñoz Martínez, A. Castro Tirado. GISch: Observation Plan Scheduler for the GLORIA Telescope Network. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 339-350, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8640	Network, telescopes, scheduling algorithms, fuzzy logic, software

<p>A. Martín Barrio, S. Terrile, A. Barrientos, J. del Cerro. Hyper-Redundant Robots: Classification, State-of-the-Art and Issues. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 351-362, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9207</p>	<p>Robotic systems, Robot kinematics, Underactuated systems, Hyper-redundant robots, Continuous robots, Soft robots</p>
<p>V. Huilcapi, B. Lima, X. Blasco, J. M. Herrero. Multi-objective Optimization in Modeling and Control for Rotary Inverted Pendulum. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 363-373, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8739</p>	<p>Multi-objective evolutionary optimization, non-linear identification, Pareto front, modeling, PID control</p>
<p>M. F. Arévalo-Castiblanco, C. H. Rodríguez-Garavito, A. A. Patiño-Forero, J. F. Salazar-Cáceres. LQR and SMC Control Applied to Pendular Platforms. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 374-383, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9101</p>	<p>Optimal Control, Sliding Mode Control, Embedded Systems, LQR, Quanser Inverted Pendulum Model, NxtWay Segway Model</p>
<p>F. E. Serrano, B. A. Rodríguez, M. Cardona. Dynamic Model Derivation of a 3RRR Robot Based in Screw Theory. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 384-390, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8725</p>	<p>Kinematics, Dynamics, Parallel Robot, Screw Theory, 3 RRR Robot</p>
<p>M. J. Castro-Toscano, J. C. Rodríguez-Quiñonez, D. Hernández-Balbuena, M. Rivas-Lopez, O. Sergiyenko, W. Flores-Fuentes. Obtaining Trajectories Using Strapdown INS/KF Framework: Methodological Proposal. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 391-403, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8660</p>	<p>Kalman Filter, Navigation, MEMS, INS</p>
<p>J. M. Cañas Plaza, A. Martín Florido, E. Perdices García, F. Rivas Montero, R. Calvo Palomino. Academic framework for teaching robot programming at university. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 404-415, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8962</p>	<p>Robot programming, Teaching, Software tools, Programming environments</p>
<p>F. Espinosa Zapata, J. L. Lázaro Galilea, J. Olivares Bueno. ALCOR Project: Contributions to Optimizing Remote Robot Guidance in Intelligent Spaces. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 416-426, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9199</p>	<p>Wireless sensor network, indoor positioning, infrared sensors, network control systems, event-based control, event-based estimation, rule-based routing, multichannel sniffer, tele-robotics, communication and communication network</p>
<p>H. A. Moreno Avalos, I. G. Carrera Calderón, J. A. Pámanes García, J. Baca. Helse Wheels: a Family of Mechanisms for Implementing Variable Geometry Hybrid Wheels. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 427-438. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8798</p>	<p>Mobile Robotics, Hybrid wheels, Transformable, Mechanism, Kinematics, Analysis</p>
<p>H. Pérez Tijero, J. Javier Gutiérrez. Development of Real-Time and Mixed Criticality Distributed Systems through the DDS Standard. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 439-447, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9000</p>	<p>Real-Time, Safety-critical, Distributed Systems, Embedded Systems, Distribution Middleware</p>
<p>A. S. Lunardi, E. V. V. Cambero, J. G. Cardoso, I. R. S. Casella, A. J. Sguarezi Filho, C. E. Capovilla. Performance of Coded Wireless Power Controllers for Wind Turbines Connected to a Smart Grid. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 448-456, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9100</p>	<p>Renewable Energy, Control, Power Systems, Communication and communication Networks</p>
<p>J. J. Martínez Nolasco, E. Rodríguez, H. Rodríguez, J. Morfin, A. Padilla. Fuzzy PD+I Embedded Control System for a Multi-Phase DC-DC Bidirectional</p>	<p>FPGA, Embedded Systems, Fuzzy Control, Electric and</p>

<p>Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 457-466, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8721</p>	Power Electronic Systems
<p>D. Rotondo, H. S. Sánchez, F. Nejari, V. Puig. Analysis and design of linear parameter varying systems using LMIs. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 1-14. https://doi.org/10.4995/riai.2018.10436</p>	Linear systems, stability analysis, performance analysis, linear matrix inequalities (LMIs), linear parameter varying (LPV) systems.
<p>P. Mercader, C. D. Cánovas, A. Baños. Multivariable PID Control of a Boiler. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 15-25, 2019. https://doi.org/10.4995/riai.2018.9034</p>	PID control, Multivariable feedback control, Process control, Sensitivity functions, Convex optimization
<p>M. Kalliski, J.L. Pitarch, C. Jasch, C. de Prada. Support to decision-making in a network of industrial evaporators. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 26-35. 2019. https://doi.org/10.4995/riai.2018.9233</p>	Decision support systems, Resource allocation, Surrogate models, Cleaning schedule, Fiber and paper industry.
<p>J. Reyes-Luévano, E. Ruiz-Beltrán, L. A. Castañeda-Ramos, J. L. Orozco-Mora. 2019. Failure Detection and Location on Manufacturing Systems: a Complex Network Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 36-47. https://doi.org/10.4995/riai.2018.9662</p>	Detection, Isolation, Failure, Online Monitoring, Complex Systems, Manufacturing Systems.
<p>M. R. Arahál, A. Kowal G., F. Barrero, M. Castilla. Cost Function Optimization for Multi-phase Induction Machines Predictive Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 48-55, 2019. https://doi.org/10.4995/riai.2018.9771</p>	Predictive control, Induction machines, Inverters, Multi-phase machines, Global optimization.
<p>P. García Entrambasaguas, I. González-Prieto, M.J. Durán, M. Bermúdez, F. Barrero. Fault Tolerance in Direct Torque Control with Virtual Voltage Vectors. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1),56-65, 2019.https://doi.org/10.4995/riai.2018.9288</p>	Direct torque control, Virtual vectors, Multiphase induction machine, Fault.
<p>M. García López, P. Ponce, L.A. Soriano, A. Molina, J.J. Rodríguez. Improvement of Lifetime in the Power Electronic Drive of a BLDCM Through the Optimization of Fuzzy Logic Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 66-78, 2019. https://doi.org/10.4995/riai.2017.9078</p>	Power Electronics Module, BLDCM, Fuzzy Control, Lifetime, Optimization by Particle Swarm.
<p>H. Bory-Prevez, H. Martínez-García, L. Vázquez-Seisdedos. Comparison of Single-Phase Rectifier with Symmetrical Switching and AC-AC Converter for the Power Factor Improvement in Hydroelectric Micro-Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 79-88, 2019. https://doi.org/10.4995/riai.2018.9313</p>	Power electronics, electric converters and actuators, power and electronic power systems. Controlled rectifiers, switching AC-AC converters, power factor, frequency control.
<p>C. Fernández, N. Pantano, S. Godoy, E. Serrano, G. Scaglia. Parameters optimization applying Monte Carlo methods and Evolutionary Algorithms. Enforcement to a trajectory tracking controller in non-linear systems. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 89-99, 2019. https://doi.org/10.4995/riai.2018.8796</p>	Closed loop control, nonlinear systems, multivariable control systems, Monte Carlo method, Genetic Algorithms.
<p>J. A. Palacios Morales, J. A. Isaza Hurtado, A. F. Tobón Mejía, J. A. Herrera Cuartas. Methodology for NMPC tuning with Takagi Sugeno fuzzy inference system and multidimensional fuzzy sets for applications in non-linear chemical processes. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 100-113, 2019. https://doi.org/10.4995/riai.2018.9773</p>	Fuzzy control and fuzzy systems, industrial process control, system identification and parameter estimation.
<p>R. M. Aguilar, J. M. Torres, C. A. Martín. Machine Learning for System Identification. A Case Study in Wind Farm Generation. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 114-127, 2019. https://doi.org/10.4995/riai.2018.9421</p>	System Identification and Parameter Estimation, Modeling uncertainty, Artificial intelligence, Machine Learning.
<p>M. E. Paoletti, J. M. Haut, J. Plaza, A. Plaza. A Comparative Study of</p>	Artificial Intelligence, Satellite

Techniques for Hyperspectral Image Classification. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):129-137, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11078	applications, Scene Analysis, Computer Engineering, Computer Applications
D. I. Rosas Almeida, J. A. Cantú Cárdenas, J. D. Ocampo Díaz, H. Muñiz. Tracking Robust Controller for a Pneumatic Actuator based on Active Rejection Control Structure. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):138-146, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9073	Pneumatic systems, disturbance rejection, robust control, observers
J. J. Rubio, E. García, G. Aquino, C. Aguilar-Ibáñez, J. Pacheco, J. A. Meda-Campaña. Recursive Least Squares for a Manipulator which Learns by Demonstration. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):147-158, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.8899	Manipulator, recursive least squares, trajectory, kinematics, model, embedded platform
A. Gutiérrez-Preciado, M. A. González-Palacios, L. A. Aguilera-Cortés, F. J. Mendoza-Patiño. Workspace Optimization of a Deltoid Robot. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):159-170, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8747	Deltoid Robot, Design, Optimization, Computer simulation, Workspace, ADEFID
J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Benefits of SpinBOT Playful Robotic Environment in the Development of Cognitive Abilities. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):171-177, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8763	Disability, Assisted Robotics, Upper limb, Engineering, Robotics, Therapy, Rehabilitation.
S. J. González-Ambriz, M. E. Rivero Ángeles, R. Menchaca-Méndez, R. Menchaca-Méndez. Entropy-Based Channel Access Control for S-ALOHA in Wireless Ad-Hoc Networks. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):178-189, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10398	Wireless technology and mobile devices, access control, communications and communication networks, distributed and decentralized control architectures, event-based control
A. Manilla García, I. Rivas Cambero, J. A. Moroy Anieva. Modeling and Analysis of speed tuning of a PMSM with presence of crack using genetic algorithms. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):190-199, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9767	Modeling of the continuous system, Para meter estimation, Modeling uncertainty, Closed loop identification, Computational optimization method, Inertia Degradation, Fissure Mechanism, Sensitivity, Genetic Algorithm
V. Cañas, A. García, J. de las Morenas, J. Blanco. Modular and Reconfigurable Platform as New Philosophy for the Development of Updatable Vehicular Electronics. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):200-211, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9863	Intelligent Transportation Systems (ITS), Cyber-Physical Systems (CPS), distributed control, HiL, DSPs, FPGA, MCS
O. Danilo Montoya, W. Gil-González, S. Avila-Becerril, A. Gaces, G. Espinosa-Perez. Distributed Energy Resources Integration in AC Grids: a Family of Passivity-Based Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):212-221, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10666	Passivity-based control, distributed energy resources, voltage source converters, single-phase ac grids
M. Ortiz, M. Rodríguez-Ugarte, E. Iáñez, J.M. Azorín. Analysis of Algorithms for Detection of Pedaling Intention in Brain-Machine Interfaces. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):222-231, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9861	Signal analysis and processing, Event related, (De)synchronization, Motor intention, Brain-Machine Interfaces, Offline, Rehabilitation,

	Fourier Transform, Hilbert-Huang transform, Stockwell transform
C. Salamea Palacios, S. Luna Romero. Automatic Calibration in Adaptive Filters to EMG Signals Processing. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):232-237, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10204	Adaptive Filters, Signal Processing, Control Applications, Perturbation, Noise
P. S. Rivadeneira, J. E. Sereno, M. A. Caicedo. New Strategies of the Glycemic Control in Diabetes Mellitus Type 1 Patients. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):238-248, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9728	Linear Control Systems, Model Predictive Control, PID Control, Biomedical Systems, Physiological and Clinic Variables Control, Artificial Pancreas
A. Amurrio, E. Azketa, J. Javier Gutiérrez, M. Aldea, J. Parra. A review on optimization techniques for the deployment and scheduling of distributed real-time systems. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):249-263, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10997	Real-time systems, Scheduling algorithms, Partitions, Optimization
A. Pérez Ruiz, M. Aldea Rivas, M. González Harbour. Real-time Ada applications on Android. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):264-272, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10604	Operating systems, Real-time. Real-time operating systems, Ada tasking programs, Compilers
H. Díaz, L. Armesto, A. Sala. Real-time Approximate Dynamic Programming Methodology for Data-based Optimal Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):273-283, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10379	Intelligent Control, Approximate Dynamic Programming, Neural Learning, Optimal Control
R. González-Martín, F. Morilla. Gasoline rundown blender Process Optimization and Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):284-295, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10639	Process Control, Predictive Control, Optimization, Flow Control, Quality Control, Chemical Industry
M. A. Patti, D. Feroldi, D. Zumoffen. Predictive control applied to a continuous production process of biodiesel. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):296-307, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10696	Model-based predictive control, biodiesel production, industrial process control
A. Beltrán, J. Rumbo, H. Azcaray, K. Santiago, M. Calixto, E. Sarmiento. Simulation and Control of the Velocity and Electromagnetic Torque of a Three-Phase Induction Motor: An Electric Vehicles Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):308-320, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10452	Electric induction motor, Inverters, Systems of simulation in Simulink, Velocity Trajectory, DTC, Scalar Control, Modulation, MTI.
N. Ullah, M. Asghar Ali, A. Ibeas, J. Herrera. Sliding Fractional Order Trajectory and Attitude Control of a Quadrotor Transporting Cable-Suspended Unknown Payloads. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):321-331, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.9951	Quadrotor control; sliding-mode control; Fractional control; Uncertain dynamic systems; Trajectory control.
X. Yamile Sandoval Castro, E. Castillo Castañeda. Terrain adaptability strategies statically-stable for a walking hexapod robot. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):332-343, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.8979	Forward kinematics; Inverse kinematics; Adaptability; Constant orientation of the thorax; Emergency strategy; Geometric strategy; Stability
J. E. Miranda-Vega, M. Rivas-López, W. Flores-Fuentes, O. Sergiyenko, L. Lindner, J. C. Rodríguez-Quiñonez. Digital Implementation of FIR Filters for the Minimize of Optical and Optoelectronic Noise of an Optical Scanning System. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):344-357, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10210	Analysis and treatment of signal, Sensors and virtual instruments, Noise, Modulation, 3D stereo vision.

<p>E. Fidalgo, E. Alegre, L. Fernández-Robles, V. González-Castro. Early Fusion of Multi-level Saliency Descriptors for Image Classification. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(3):358-368, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10640</p>	<p>Computer Vision, Detection algorithms, Machine Learning, Image processing, Encoding, Classifiers</p>
<p>F. León, F. J. Rodríguez-Lozano, A. Cubero-Fernández, J. M. Palomares, J. Olivares. SysGpr: System of Generation of Pseudo-realistic Synthetic Signals. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(3):369-379, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10025</p>	<p>Signal analysis and treatment, Design of experiments, Signal modelling, Synthetic data, Statistical distributions.</p>
<p>M. Tomás-Rodríguez, M. Santos. Modelling and control of floating offshore wind turbines. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):381-390, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11648</p>	<p>Modelling, Control, Wind turbine, Floating Offshore wind turbines, wind marine energy, renewable energy</p>
<p>J. Astrada, C. De Angelo. Reduction of the output impedance in single phase inverters for UPS combining conventional multi-loop and plug-in repetitive control. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):391-402, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11034</p>	<p>Power Electronics, DC- AC Inverter, PID Control, Repetitive Control</p>
<p>J. L. Mendoza-Soto, L. Álvarez-Icaza, H. Rodríguez Cortés. Non-linear control of speed and air path in a diesel engine with turbocharger and exhaust gas recirculation. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):403-414, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10563</p>	<p>Diesel engines, Estimation algorithms, Feedback control, Speed control, Exhaust gas recirculation</p>
<p>R. Fonnegra, G. Goez, A. Tobón. Orientation estimating in a non-modeled aerial vehicle using inertial sensor fusion and machine learning techniques. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):415-422, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11286</p>	<p>Inertial Sensors, Artificial Intelligence, Machine Learning, UAV</p>
<p>P. Sánchez-Sánchez, A. Gutiérrez-Giles, J. Pliego-Jiménez, M. A. Arteaga-Pérez. Track trajectories with model uncertainty using a robust differentiator. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):423-434, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10265</p>	<p>Performance index, Control, Robot dynamics, Planning and tracking, Robot manipulators, Robust differentiator</p>
<p>O. D. Ramírez-Cárdenas, J. F. Guerrero-Castellanos, J. Linares-Flores, S. Durand, W. F. Guerrero-Sánchez. Decentralized event-based leader-following consensus for a group of two-wheeled self-balancing robots. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):435-446, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11113</p>	<p>Event-based control, Agents, Leader-following consensus, Transport systems and vehicles, Mobile robots and autonomous vehicles, Control Theory</p>
<p>J. O. Hernández-Vázquez, S. Hernández-González, J. A. Jiménez-García, M. D. Hernández-Ripalda, J. I. Hernández-Vázquez. Hybrid metaheuristic approach GA-SA for the buffer allocation problem that minimizes the work in process in open serial production lines. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):447-459, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10883</p>	<p>Inventory control, Optimization and computational methods, BAP, Hybrid metaheuristics, Production lines</p>
<p>F. J. Gómez, L. J. Yebra, A. Giménez, J. L. Torres-Moreno. Modelling of batteries for application in light electric urban vehicles. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):459-466, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10609</p>	<p>Simulation languages, Discrete-event dynamic systems, Systems simulation, Storage and management of energy, System identification and Parameter estimation</p>
<p>J. Díaz, J. Vuelvas, F. Ruiz, D. Patiño. A Set-Membership approach to short-term electric load forecasting. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):467-479, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.9819</p>	<p>A Set-Membership approach to short-term electric load forecasting</p>

<p>P. Mayorga Rubio, J. Fernández Quijano, P. Zambrana López, J. J. Fernández Lozano, A. García Cerezo, J. Ortega Casanova. Intelligent control for improving the efficiency of a hybrid semi-submersible platform with wind turbine and wave energy converters: fuzzy control system for the wind turbine. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):480-491, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10972</p>	<p>Intelligent control, Fuzzy control and fuzzy systems, System Simulation, Renewable energy, PID control, Sustainability and environmental stability, Modelling, development and integration of mechatronic systems, Electric motors</p>
<p>J. L. Casteleiro-Roca, A. J. Barragán, F. Segura, J. L. Calvo-Rolle, J. M. Andújar. Intelligent hybrid system for the prediction of the voltage-current characteristic curve of a hydrogen-based fuel cell. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):492-501, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10986</p>	<p>Energy storage, Fuel Cell, Hydrogen, K-Means, ANN</p>

LISTADO DE ARTÍCULOS RECIENTES POR TEMÁTICAS

Automática Marina

2018	
Paper	Original keywords
<p>J. A. Bonache Seco, J. Dormido Canto, M. Montalvo Martínez, J. A. López-Orozco, E. Besada Portas, J. M. de la Cruz García. A Ground Control Station for Collaborative Unmanned Surface Vehicles. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):1-11, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8737</p>	<p>Monitoring and supervision; Route planning; Cooperative control; Distributed control systems; Marine and submarine systems; Ground control station</p>
<p>M. Pérez de la Portilla, A. López Piñeiro, J. A. Somolinos Sánchez, R. Morales Herrera. Dynamic Modelling and Control of a Submerged Device with Hydrostatic Actuators. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):12-23, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8824</p>	<p>Renewable Energies; Marine Systems; Multivariable Control Systems; Time varying systems; OrcaFlex-Matlab Integration</p>
<p>F. Bonin-Font, C. Coll Gomila, G. Oliver Codina. Towards Visual Navigation of an Autonomous Underwater Vehicle in Areas with Posidonia Oceanica. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):24-35, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8828</p>	<p>Autonomous Mobile Robots; Robot Navigation; Robot Vision; Visual Motion</p>
<p>D. García, J. Sandoval, J. Gutiérrez-Jagüey, E. Bugarin. IDA-PBC Control of an Underactuated Underwater Vehicle. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):36-45, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8829</p>	<p>Underwater vehicle; underactuated system; non-linear control; IDA-PBC</p>
<p>E. M. Rubino, D. Centelles, J. Sales, J. V. Martí, R. Marín, A. J. Alvares, P. J. Sanz. Underwater Wireless Vision System Using Progressive Image Compression and Region of Interest. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):46-57, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8953</p>	<p>Image Compression; Data Transmission; Communication Systems; Teleoperation</p>
<p>E. Revestido Herrero, F. J. Velasco, L. M. Vega, F. J. Lastra. Efficient Parameter Estimation and Control Based on a Modified LOS Guidance System of an Underwater Vehicle. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):58-69, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8826</p>	<p>Parameter estimation; ordinary least squares; general least squares; nonlinear manoeuvring model; LOS</p>
<p>J. Pérez, D. Fornas, R. Marín, P. J. Sanz. UWSim, an underwater robotic simulator on the cloud as educational tool. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):70-78, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8827</p>	<p>Robotics; Education; Benchmark examples; Autonomous vehicles; Marine systems; Educational aids; Telerobotics</p>

Control automático en Bioingeniería – Ingeniería/Informática Médica

2018	
Paper	Original keywords
A. Mjahad, A. Rosado Muñoz, M. Bataller Mompeán, J. V. Francés VÍllora, J. F. Guerrero Martínez. Ventricular Fibrillation detection using time-frequency and the KNN classifier without parameter extraction. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):124-132, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8833	Biomedical systems; Electrocardiographic signals; time-frequency representation; Non-stationary signals; Image analysis; Classification
M. D. Del Castillo, J.I. Serrano, S. Lerma, I. Martínez, E Rocón. Neurophysiologic Assessment of Motor Imagery Training by Using Virtual Reality for Pediatric Population with Cerebral Palsy. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):174-179, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8819	Bioengineering; Disability; Interfaces; Virtual Reality, Rehabilitation; Motor Imagery; EEG
A. Mancisidor, A. Zubizarreta, I. Cabanes, P. Bengoa, J. Hyung Jung. Multifunctional Robotic Device for the Rehabilitation of the Upper Limbs. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):180-191, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8820	Upper limb rehabilitation; Rehabilitation robots; Assistive tasks; Resistive tasks; Impedance control; Rehabilitation software; Implementation; Experimental validation
J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Playful Robotic Environment for Rehabilitation Therapies of Pediatric Patients with Upper Limb Disability. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):203-210, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9043	Disability; Assisted Robotics; Upper limb; Engineering; Robotics; Therapy; Rehabilitation
2019	
J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Benefits of SpinBOT Playful Robotic Environment in the Development of Cognitive Abilities. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):171-177, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8763	Disability, Assisted Robotics, Upper limb, Engineering, Robotics, Therapy, Rehabilitation.
P. S. Rivadeneira, J. E. Sereno, M. A. Caicedo. New Strategies of the Glycemic Control in Diabetes Mellitus Type 1 Patients. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):238-248, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9728	Linear Control Systems, Model Predictive Control, PID Control, Biomedical Systems, Physiological and Clinic Variables Control, Artificial Pancreas

2018	
Paper	Original keywords
A. Martín Barrio, S. Terrile, A. Barrientos, J. del Cerro. Hyper-Redundant Robots: Classification, State-of-the-Art and Issues. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 351-362, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9207	Robotic systems, Robot kinematics, Underactuated systems, Hyper-redundant robots, Continuous robots, Soft robots
J. J. Martínez Nolasco, E. Rodríguez, H. Rodríguez, J. Morfin, A. Padilla. Fuzzy PD+I Embedded Control System for a Multi-Phase DC-DC Bidirectional Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 457-466, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8721	FPGA, Embedded Systems, Fuzzy Control, Electric and Power Electronic Systems
C. López Casado, C. J. Pérez del Pulgar Mancebo, V. F. Muñoz Martínez, A. Castro Tirado. GSch: Observation Plan Scheduler for the GLORIA Telescope Network. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 339-350, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8640	Network, telescopes, scheduling algorithms, fuzzy logic, software
2019	
Paper	Original keywords
C. Fernández, N. Pantano, S. Godoy, E. Serrano, G. Scaglia. Parameters optimization applying Monte Carlo methods and Evolutionary Algorithms. Enforcement to a trajectory tracking controller in non-linear systems. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 89-99, 2019. https://doi.org/10.4995/riai.2018.8796	Closed loop control, nonlinear systems, multivariable control systems, Monte Carlo method, Genetic Algorithms.
J. A. Palacios Morales, J. A. Isaza Hurtado, A. F. Tobón Mejía, J. A. Herrera Cuartas. Methodology for NMPC tuning with Takagi Sugeno fuzzy inference system and multidimensional fuzzy sets for applications in non-linear chemical processes. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 100-113, 2019. https://doi.org/10.4995/riai.2018.9773	Fuzzy control and fuzzy systems, industrial process control, system identification and parameter estimation.
R. M. Aguilar, J. M. Torres, C. A. Martín. Machine Learning for System Identification. A Case Study in Wind Farm Generation. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 114-127, 2019. https://doi.org/10.4995/riai.2018.9421	System Identification and Parameter Estimation, Modeling uncertainty, Artificial intelligence, Machine Learning.
A. Manilla García, I. Rivas Cambero, J. A. Moroy Anieva. Modeling and Analysis of speed tuning of a PMSM with presence of crack using genetic algorithms. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):190-199, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9767	Modeling of the continuous system, Parameter estimation, Modeling uncertainty, Closed loop identification, Computational optimization method, Inertia Degradation, Fissure Mechanism, Sensitivity, Genetic Algorithm
H. Díaz, L. Armesto, A. Sala. Real-time Approximate Dynamic Programming Methodology for Data-based Optimal Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):273-283, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10379	Intelligent Control, Approximate Dynamic Programming, Neural Learning, Optimal Control
M. Tomás-Rodríguez, M. Santos. Modelling and control of floating offshore wind turbines. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):381-390, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11648	Modelling, Control, Wind turbine, Floating Offshore wind turbines, wind marine energy, renewable energy
R. Fonnegra, G. Goetz, A. Tobón. Orientation estimating in a non-modeled aerial vehicle using inertial sensor fusion and machine learning techniques. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):415-	Inertial Sensors, Artificial Intelligence, Machine Learning, UAV

422, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11286	
P. Mayorga Rubio, J. Fernández Quijano, P. Zambrana López, J. J. Fernández Lozano, A. García Cerezo, J. Ortega Casanova. Intelligent control for improving the efficiency of a hybrid semi-submersible platform with wind turbine and wave energy converters: fuzzy control system for the wind turbine. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):480-491, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10972	Intelligent control, Fuzzy control and fuzzy systems, System Simulation, Renewable energy, PID control, Sustainability and environmental stability, Modelling, development and integration of mechatronic systems, Electric motors
J. L. Casteleiro-Roca, A. J. Barragán, F. Segura, J. L. Calvo-Rolle, J. M. Andújar. Intelligent hybrid system for the prediction of the voltage-current characteristic curve of a hydrogen-based fuel cell. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):492-501, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10986	Energy storage, Fuel Cell, Hydrogen, K-Means, ANN

Educación en Automática

2018	
Paper	Original keywords
J. M. Cañas Plaza, A. Martín Florido, E. Perdices García, F. Rivas Montero, R. Calvo Palomino. Academic framework for teaching robot programming at university. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 404-415, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8962	Robot programming, Teaching, Software tools, Programming environments

Ingeniería de Control

2018	
Paper	Original keywords
D. A. Aligia, G. A. Magallán, C. H. De Angelo. Traction control of an electric vehicle based on nonlinear observers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):112-123, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8736	Traction control; road condition; friction coefficient, brush tyre model; feedback linearization; nonlinear Luenberger observer
J. Lekube, A. J. Garrido, I. Garrido, E. Otaola. Output Power Improvement in Oscillating Water Column-based Wave Power Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):145-155, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8831	Renewable energy systems; wave power plants; oscillating water column; power control; induction generators
F. R. Rubio, S. J. Navas, P. Ollero, J. M. Lemos, M. G. Ortega. Optimal Control Applied to Distributed Solar Collector Fields. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 327-338, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8944	Process Control, Predictive control, Optimization, Solar energy

2019	
Paper	Original keywords
D. Rotondo, H. S. Sánchez, F. Nejari, V. Puig. Analysis and design of linear parameter varying systems using LMIs. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 1-14. https://doi.org/10.4995/riai.2018.10436	Linear systems, stability analysis, performance analysis, linear matrix inequalities (LMIs), linear parameter varying (LPV) systems.
P. Mercader, C. D. Cánovas, A. Baños. Multivariable PID Control of a Boiler. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 15-25, 2019. https://doi.org/10.4995/riai.2018.9034	PID control, Multivariable feedback control, Process control, Sensitivity functions, Convex optimization
D. I. Rosas Almeida, J. A. Cantú Cárdenas, J. D. Ocampo Díaz, H. Muñiz. Tracking Robust Controller for a Pneumatic Actuator based on Active Rejection Control Structure. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):138-146, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9073	Pneumatic systems, disturbance rejection, robust control, observers
O. Danilo Montoya, W. Gil-González, S. Avila-Becerril, A. Gaces, G. Espinosa-Perez. Distributed Energy Resources Integration in AC Grids: a Family of Passivity-Based Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):212-221, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10666	Passivity-based control, distributed energy resources, voltage source converters, single-phase ac grids
P. S. Rivadeneira, J. E. Sereno, M. A. Caicedo. New Strategies of the Glycemic Control in Diabetes Mellitus Type 1 Patients. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):238-248, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9728	Linear Control Systems, Model Predictive Control, PID Control, Biomedical Systems, Physiological and Clinic Variables Control, Artificial Pancreas
R. González-Martín, F. Morilla. Gasoline rundown blender Process Optimization and Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):284-295, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10639	Process Control, Predictive Control, Optimization, Flow Control, Quality Control, Chemical Industry
M. A. Patti, D. Feroldi, D. Zumoffen. Predictive control applied to a continuous production process of biodiesel. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):296-307, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10696	Model-based predictive control, biodiesel production, industrial process control
M. Tomás-Rodríguez, M. Santos. Modelling and control of floating offshore wind turbines. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):381-390, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11648	Modelling, Control, Wind turbine, Floating Offshore wind turbines, wind marine energy, renewable energy
J. L. Mendoza-Soto, L. Álvarez-Icaza, H. Rodríguez Cortés. Non-linear control of speed and air path in a diesel engine with turbocharger and exhaust gas recirculation. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):403-414, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10563	Diesel engines, Estimation algorithms, Feedback control, Speed control, Exhaust gas recirculation

Robótica

2018	
Paper	Original keywords
A. Mancisidor, A. Zubizarreta, I. Cabanes, P. Bengoa, J. Hyung Jung. Multifunctional Robotic Device for the Rehabilitation of the Upper Limbs. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):180-191, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8820	Upper limb rehabilitation; Rehabilitation robots; Assistive tasks; Resistive tasks; Impedance control; Rehabilitation software;

	Implementation; Experimental validation
I. Zaplana, J. A. Claret, L. Basanez. Kinematic analysis of redundant robotic manipulators: application to Kuka LWR 4+ and ABB Yumi. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):192-202, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8822	Kinematics; Inverse kinematic problem; Redundant manipulators; Singularities; transformation matrices
J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Playful Robotic Environment for Rehabilitation Therapies of Pediatric Patients with Upper Limb Disability. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):203-210, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9043	Disability; Assisted Robotics; Upper limb; Engineering; Robotics; Therapy; Rehabilitation
F. E. Serrano, B. A. Rodriguez, M. Cardona. Dynamic Model Derivation of a 3RRR Robot Based in Screw Theory. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 384-390, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8725	Kinematics, Dynamics, Parallel Robot, Screw Theory, 3 RRR Robot
M. J. Castro-Toscano, J. C. Rodríguez-Quiñonez, D. Hernández-Balbuena, M. Rivas-Lopez, O. Sergiyenko, W. Flores-Fuentes. Obtaining Trajectories Using Strapdown INS/KF Framework: Methodological Proposal. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 391-403, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8660	Kalman Filter, Navigation, MEMS, INS
J. M. Cañas Plaza, A. Martín Florido, E. Perdices García, F. Rivas Montero, R. Calvo Palomino. Academic framework for teaching robot programming at university. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 404-415, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8962	Robot programming, Teaching, Software tools, Programming environments
F. Espinosa Zapata, J. L. Lázaro Galilea, J. Olivares Bueno. ALCOR Project: Contributions to Optimizing Remote Robot Guidance in Intelligent Spaces. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 416-426, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9199	Wireless sensor network, indoor positioning, infrared sensors, network control systems, event-based control, event-based estimation, rule-based routing, multichannel sniffer, tele-robotics, communication and communication network
H. A. Moreno Avalos, I. G. Carrera Calderón, J. A. Pámanes García, J. Baca. Helse Wheels: a Family of Mechanisms for Implementing Variable Geometry Hybrid Wheels. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 427-438. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8798	Mobile Robotics, Hybrid wheels, Transformable, Mechanism, Kinematics, Analysis
2019	
Paper	Original keywords
J. J. Rubio, E. García, G. Aquino, C. Aguilar-Ibáñez, J. Pacheco, J. A. Meda-Campaña. Recursive Least Squares for a Manipulator which Learns by Demonstration. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):147-158, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.8899	Manipulator, recursive least squares, trajectory, kinematics, model, embedded platform
A. Gutiérrez-Preciado, M. A. González-Palacios, L. A. Aguilera-Cortés, F. J. Mendoza-Patiño. Workspace Optimization of a Deltoid Robot. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):159-170, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8747	Deltoid Robot, Design, Optimization, Computer simulation, Workspace, ADEFID
J. A. Acevedo-Londoño, E. Caicedo-Bravo, J. F. Castillo-García. Benefits of SpinBOT Playful Robotic Environment in the Development of Cognitive Abilities. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):171-177, 2019.	Disability, Assisted Robotics, Upper limb, Engineering, Robotics, Therapy, Rehabilitation.

ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8763	
X. Yamile Sandoval Castro, E. Castillo Castañeda. Terrain adaptability strategies statically-stable for a walking hexapod robot. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):332-343, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.8979	Forward kinematics; Inverse kinematics; Adaptability; Constant orientation of the thorax; Emergency strategy; Geometric strategy; Stability
R. Fonnegra, G. Goez, A. Tobón. Orientation estimating in a non-modeled aerial vehicle using inertial sensor fusion and machine learning techniques. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):415-422, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11286	Inertial Sensors, Artificial Intelligence, Machine Learning, UAV
P. Sánchez-Sánchez, A. Gutiérrez-Giles, J. Pliego-Jiménez, M. A. Arteaga-Pérez. Track trajectories with model uncertainty using a robust differentiator. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):423-434, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10265	Performance index, Control, Robot dynamics, Planning and tracking, Robot manipulators, Robust differentiator
O. D. Ramírez-Cárdenas, J. F. Guerrero-Castellanos, J. Linares-Flores, S. Durand, W. F. Guerrero-Sánchez. Decentralized event-based leader-following consensus for a group of two-wheeled self-balancing robots. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):435-446, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11113	Event-based control, Agents, Leader-following consensus, Transport systems and vehicles, Mobile robots and autonomous vehicles, Control Theory

Simulación y Optimización

2018	
Paper	Original keywords
T. Rodríguez-Blanco, D. Sarabia, C. de Prada. Real-Time optimization using the Modifier Adaptation methodology. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):133-144, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8846	Real-Time optimization; uncertainty; modifier-adaptation
I. Simón-Marmolejo, Omar López-Ortega, L. E. Ramos-Velasco, M. Ortiz-Domínguez. Unified Ontology for a Holonic Manufacturing System. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):217-230, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8851	Flexible and intelligent manufacturing systems and cells; smart control techniques; agents; distributed and decentralized control architectures; database systems
V. Huilcapi, B. Lima, X. Blasco, J. M. Herrero. Multi-objective Optimization in Modeling and Control for Rotary Inverted Pendulum. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 363-373, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8739	Multi-objective evolutionary optimization, non-linear identification, Pareto front, modeling, PID control
2019	
Paper	Original keywords
P. Mercader, C. D. Cánovas, A. Baños. Multivariable PID Control of a Boiler. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 15-25, 2019. https://doi.org/10.4995/riai.2018.9034	PID control, Multivariable feedback control, Process control, Sensitivity functions, Convex optimization
M. Kalliski, J.L. Pitarch, C. Jasch, C. de Prada. Support to decision-making in a network of industrial evaporators. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 26-35. 2019. https://doi.org/10.4995/riai.2018.9233	Decision support systems, Resource allocation, Surrogate models, Cleaning schedule, Fiber and paper industry.
H. Díaz, L. Armesto, A. Sala. Real-time Approximate Dynamic Programming Methodology for Data-based Optimal Controllers. <i>Revista Iberoamericana</i>	Intelligent Control, Approximate Dynamic

<i>de Automática e Informática Industrial</i> , 16(3):273-283, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10379	Programming, Neural Learning, Optimal Control
J. O. Hernández-Vázquez, S. Hernández-González, J. A. Jiménez-García, M. D. Hernández-Ripalda, J. I. Hernández-Vázquez. Hybrid metaheuristic approach GA-SA for the buffer allocation problem that minimizes the work in process in open serial production lines. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):447-459, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10883	Inventory control, Optimization and computational methods, BAP, Hybrid metaheuristics, Production lines
F. J. Gómez, L. J. Yebra, A. Giménez, J. L. Torres-Moreno. Modelling of batteries for application in light electric urban vehicles. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):459-466, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10609	Simulation languages, Discrete-event dynamic systems, Systems simulation, Storage and management of energy, System identification and Parameter estimation

Sistemas de Control en Red

2018	
Paper	Original keywords
F. Espinosa Zapata, J. L. Lázaro Galilea, J. Olivares Bueno. ALCOR Project: Contributions to Optimizing Remote Robot Guidance in Intelligent Spaces. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 416-426, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9199	Wireless sensor network, indoor positioning, infrared sensors, network control systems, event-based control, event-based estimation, rule-based routing, multichannel sniffer, tele-robotics, communication and communication network
2019	
S. J. González-Ambriz, M. E. Rivero Ángeles, R. Menchaca-Méndez, R. Menchaca-Méndez. Entropy-Based Channel Access Control for S-ALOHA in Wireless Ad-Hoc Networks. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):178-189, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10398	Wireless technology and mobile devices, access control, communications and communication networks, distributed and decentralized control architectures, event-based control

Control automático en Tecnología / Control de potencia

2018	
Paper	Original keywords
M. Prian Rodríguez, M. J. López Sánchez, J. F. Moreno Verdulla. Calculation Method for Equilibrium Points in Dynamical Systems Based on Adaptive Synchronization. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):79-85, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8845	Adaptive control; chaos; stabilization; reference model; equilibrium point; synchronization; dynamic system
M. Baquero-Suárez, J. Cortes-Romero, J. Arcos-Legarda, H. Coral-Enriquez. Automatic Stabilization of a Riderless Bicycle using the Active Disturbance Rejection Control Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):86-100, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8832	Robotic bicycles; Active disturbance rejection control; Robust control; Disturbance observers; Multibody systems dynamics; Non-linear systems; Autonomous vehicles
H. Bory-Prevez, H. Martínez-García, L. Vázquez-Seisdedos, F. Chang Mumañ,	Controlled rectifiers, switching

<p>L.A. Enríquez García. Comparison of Three-Phase Rectifier with Symmetrical Switching and AC-AC Converter for the Power Factor Improvement in Hydroelectric Micro-Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 15(1), 101-111, 2018. https://doi.org/10.4995/riai.2017.8816</p>	<p>AC-AC converters, power factor, frequency control.</p>
<p>D. A. Aligia, G. A. Magallán, C. H. De Angelo. Traction control of an electric vehicle based on nonlinear observers. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(1):112-123, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8736</p>	<p>Traction control; road condition; friction coefficient, brush tyre model; feedback linearization; nonlinear Luenberger observer</p>
<p>P. García Entrambasaguas, I. González-Prieto, M.J. Durán, M. Bermúdez, F. Barrero. Direct Torque Control based on Virtual Voltage Vector for a Six-phase Induction Machine. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(3), 277-285, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9837</p>	<p>Electric Machines, Power Generation, Controlling Machines, Induction Machines, Torque Control</p>
<p>M. A. Duarte-Mermoud, F. Milla. Power System Stabilizer based on Model Predictive Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(3), 286-296, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10056</p>	<p>Electrical and electronic power systems, Power system stabilizer (PSS), Predictive power system stabilizer (PPSS), Model predictive control (MPC), Particle swarm optimization (PSO), Simulation systems.</p>
<p>G. N. González, C. H. De Angelo, D. G. Forchetti, D. A. Aligia. Detection and Isolation of Faults on the Rotor Side Converter of Doubly Fed Induction Generators. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(3), 297-308, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9042</p>	<p>Doubly Fed Induction Generator, Rotor Side Converter, Open Switch Fault, Observers, Fault Scenario, Fault Diagnosis</p>
<p>E. Guerrero-Ramírez, A. Martínez-Barbosa, E. Guzmán-Ramírez, J. Linares-Flores, H. Sira-Ramírez. On the Robust Control of DC/DC Buck-Parallel Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(3), 309-316, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8925</p>	<p>Disturbance rejection, Linear multivariable systems, Robust control, Converters, Electronics applications</p>
<p>N. Vázquez, R. Diosdado, H. Huerta, R. Osorio, E. Vázquez, C. Hernández. Indirect Modulation for Direct Matrix Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(3), 317-326, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8715</p>	<p>Conversion, Converters, Power Electronics, Modulation, Non-linear control systems</p>
<p>A. S. Lunardi, E. V. V. Cambero, J. G. Cardoso, I. R. S. Casella, A. J. Sguarezi Filho, C. E. Capovilla. Performance of Coded Wireless Power Controllers for Wind Turbines Connected to a Smart Grid. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 448-456, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9100</p>	<p>Renewable Energy, Control, Power Systems, Communication and communication Networks</p>
<p>J. J. Martínez Nolasco, E. Rodríguez, H. Rodríguez, J. Morfin, A. Padilla. Fuzzy PD+I Embedded Control System for a Multi-Phase DC-DC Bidirectional Converter. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 15(4), 457-466, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8721</p>	<p>FPGA, Embedded Systems, Fuzzy Control, Electric and Power Electronic Systems</p>
2019	
<p>Paper</p>	<p>Original keywords</p>
<p>J. Reyes-Luévano, E. Ruiz-Beltrán, L. A. Castañeda-Ramos, J. L. Orozco-Mora. 2019. Failure Detection and Location on Manufacturing Systems: a Complex Network Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 36-47. https://doi.org/10.4995/riai.2018.9662</p>	<p>Detection, Isolation, Failure, Online Monitoring, Complex Systems, Manufacturing Systems.</p>
<p>M. R. Arahal, A. Kowal G., F. Barrero, M. Castilla. Cost Function Optimization for Multi-phase Induction Machines Predictive Control. <i>Revista</i></p>	<p>Predictive control, Induction machines, Inverters, Multi-</p>

Iberoamericana de Automática e Informática Industrial 16(1), 48-55, 2019. https://doi.org/10.4995/riai.2018.9771	phase machines, Global optimization.
P. García Entrambasaguas, I. González-Prieto, M.J. Durán, M. Bermúdez, F. Barrero. Fault Tolerance in Direct Torque Control with Virtual Voltage Vectors. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1),56-65, 2019. https://doi.org/10.4995/riai.2018.9288	Direct torque control, Virtual vectors, Multiphase induction machine, Fault.
M. García López, P. Ponce, L.A. Soriano, A. Molina, J.J. Rodríguez. Improvement of Lifetime in the Power Electronic Drive of a BLDCM Through the Optimization of Fuzzy Logic Control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 66-78, 2019. https://doi.org/10.4995/riai.2017.9078	Power Electronics Module, BLDCM, Fuzzy Control, Lifetime, Optimization by Particle Swarm.
H. Bory-Prevez, H. Martínez-García, L. Vázquez-Seisdedos. Comparison of Single-Phase Rectifier with Symmetrical Switching and AC-AC Converter for the Power Factor Improvement in Hydroelectric Micro-Plants. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 79-88, 2019. https://doi.org/10.4995/riai.2018.9313	Power electronics, electric converters and actuators, power and electronic power systems. Controlled rectifiers, switching AC-AC converters, power factor, frequency control.
D. I. Rosas Almeida, J. A. Cantú Cárdenas, J. D. Ocampo Díaz, H. Muñiz. Tracking Robust Controller for a Pneumatic Actuator based on Active Rejection Control Structure. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):138-146, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9073	Pneumatic systems, disturbance rejection, robust control, observers
A. Manilla García, I. Rivas Cambero, J. A. Moroy Anieva. Modeling and Analysis of speed tuning of a PMSM with presence of crack using genetic algorithms. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):190-199, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9767	Modeling of the continuous system, Para meter estimation, Modeling uncertainty, Closed loop identification, Computational optimization method, Inertia Degradation, Fissure Mechanism, Sensitivity, Genetic Algorithm
V. Cañas, A. García, J. de las Morenas, J. Blanco. Modular and Reconfigurable Platform as New Philosophy for the Development of Updatable Vehicular Electronics. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):200-211, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9863	Intelligent Transportation Systems (ITS), Cyber-Physical Systems (CPS), distributed control, HiL, DSPs, FPGA, MCS
O. Danilo Montoya, W. Gil-González, S. Avila-Becerril, A. Gaces, G. Espinosa-Perez. Distributed Energy Resources Integration in AC Grids: a Family of Passivity-Based Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):212-221, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10666	Passivity-based control, distributed energy resources, voltage source converters, single-phase ac grids
A. Beltrán, J. Rumbo, H. Azcaray, K. Santiago, M. Calixto, E. Sarmiento. Simulation and Control of the Velocity and Electromagnetic Torque of a Three-Phase Induction Motor: An Electric Vehicles Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):308-320, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10452	Electric induction motor, Inverters, Systems of simulation in Simulink, Velocity Trajectory, DTC, Scalar Control, Modulation, MTI.
J. Astrada, C. De Angelo. Reduction of the output impedance in single phase inverters for UPS combining conventional multi-loop and plug-in repetitive control. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):391-402, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11034	Power Electronics, DC- AC Inverter, PID Control, Repetitive Control
J. Díaz, J. Vuelvas, F. Ruiz, D. Patiño. A Set-Membership approach to short-term electric load forecasting. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):467-479, 2019.	A Set-Membership approach to short-term electric load forecasting

ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.9819	
P. Mayorga Rubio, J. Fernández Quijano, P. Zambrana López, J. J. Fernández Lozano, A. García Cerezo, J. Ortega Casanova. Intelligent control for improving the efficiency of a hybrid semi-submersible platform with wind turbine and wave energy converters: fuzzy control system for the wind turbine. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):480-491, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10972	Intelligent control, Fuzzy control and fuzzy systems, System Simulation, Renewable energy, PID control, Sustainability and environmental stability, Modelling, development and integration of mechatronic systems, Electric motors

Teoría de Control Automático

2018	
Paper	Original keywords
M. Prian Rodríguez, M. J. López Sánchez, J. F. Moreno Verdulla. Calculation Method for Equilibrium Points in Dynamical Systems Based on Adaptive Synchronization. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):79-85, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8845	Adaptive control; chaos; stabilization; reference model; equilibrium point; synchronization; dynamic system
M. Baquero-Suárez, J. Cortes-Romero, J. Arcos-Legarda, H. Coral-Enriquez. Automatic Stabilization of a Riderless Bicycle using the Active Disturbance Rejection Control Approach. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):86-100, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8832	Robotic bicycles; Active disturbance rejection control; Robust control; Disturbance observers; Multibody systems dynamics; Non-linear systems; Autonomous vehicles
J. Carlos Travieso-Torres, M. A. Duarte-Mermoud, A. Gutiérrez-Osorio, O. Beytía. Passivity Based Control of a Class of Nonlinear Systems and its Application to the Level Regulation of a Conical Tank. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):167-173, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8976	Nonlinear control systems; adaptive control; passivity
M. F. Arévalo-Castiblanco, C. H. Rodríguez-Garavito, A. A. Patiño-Forero, J. F. Salazar-Cáceres. LQR and SMC Control Applied to Pendular Platforms. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 374-383, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9101	Optimal Control, Sliding Mode Control, Embedded Systems, LQR, Quanser Inverted Pendulum Model, NxtWay Segway Model
2019	
Paper	Original keywords
D. Rotondo, H. S. Sánchez, F. Nejari, V. Puig. Analysis and design of linear parameter varying systems using LMIs. <i>Revista Iberoamericana de Automática e Informática Industrial</i> 16(1), 1-14. https://doi.org/10.4995/riai.2018.10436	Linear systems, stability analysis, performance analysis, linear matrix inequalities (LMIs), linear parameter varying (LPV) systems.
D. I. Rosas Almeida, J. A. Cantú Cárdenas, J. D. Ocampo Díaz, H. Muñiz. Tracking Robust Controller for a Pneumatic Actuator based on Active Rejection Control Structure. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):138-146, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9073	Pneumatic systems, disturbance rejection, robust control, observers
O. Danilo Montoya, W. Gil-González, S. Avila-Becerril, A. Gaces, G. Espinosa-Perez. Distributed Energy Resources Integration in AC Grids: a Family of Passivity-Based Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):212-221, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10666	Passivity-based control, distributed energy resources, voltage source converters, single-phase ac grids
P. S. Rivadeneira, J. E. Sereno, M. A. Caicedo. New Strategies of the Glycemic	Linear Control Systems, Model

Control in Diabetes Mellitus Type 1 Patients. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):238-248, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9728	Predictive Control, PID Control, Biomedical Systems, Physiological and Clinic Variables Control, Artificial Pancreas
N. Ullah, M. Asghar Ali, A. Ibeas, J. Herrera. Sliding Fractional Order Trajectory and Attitude Control of a Quadrotor Transporting Cable-Suspended Unknown Payloads. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):321-331, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.9951	Quadrotor control; sliding-mode control; Fractional control; Uncertain dynamic systems; Trajectory control.
O. D. Ramírez-Cárdenas, J. F. Guerrero-Castellanos, J. Linares-Flores, S. Durand, W. F. Guerrero-Sánchez. Decentralized event-based leader-following consensus for a group of two-wheeled self-balancing robots. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(4):435-446, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11113	Event-based control, Agents, Leader-following consensus, Transport systems and vehicles, Mobile robots and autonomous vehicles, Control Theory

Control automático de tiempo real/Tecnología de computadores en control automático

2018	
Paper	Original keywords
T. Rodríguez-Blanco, D. Sarabia, C. de Prada. Real-Time optimization using the Modifier Adaptation methodology. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):133-144, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8846	Real-Time optimization; uncertainty; modifier-adaptation
M. V. García, E. Irisarri, F. Pérez, E. Estévez, M. Marcos. Automation Architecture based on Cyber Physical Systems for Flexible Manufacturing within Oil&Gas Industry. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):156-166, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8823	Industry 4.0; Industrial Systems Integration; Cyber-Physical Production Systems; OPC UA; IEC 61499
H. Pérez Tijero, J. Javier Gutiérrez. Development of Real-Time and Mixed Criticality Distributed Systems through the DDS Standard. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 439-447, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.9000	Real-Time, Safety-critical, Distributed Systems, Embedded Systems, Distribution Middleware
2019	
V. Cañas, A. García, J. de las Morenas, J. Blanco. Modular and Reconfigurable Platform as New Philosophy for the Development of Updatable Vehicular Electronics. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):200-211, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9863	Intelligent Transportation Systems (ITS), Cyber-Physical Systems (CPS), distributed control, HiL, DSPs, FPGA, MCS
A. Amurrio, E. Azketa, J. Javier Gutiérrez, M. Aldea, J. Parra. A review on optimization techniques for the deployment and scheduling of distributed real-time systems. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):249-263, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10997	Real-time systems, Scheduling algorithms, Partitions, Optimization
A. Pérez Ruiz, M. Aldea Rivas, M. González Harbour. Real-time Ada applications on Android. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):264-272, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10604	Operating systems, Real-time. Real-time operating systems, Ada tasking programs, Compilers
H. Díaz, L. Armesto, A. Sala. Real-time Approximate Dynamic Programming Methodology for Data-based Optimal Controllers. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(3):273-283, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10379	Intelligent Control, Approximate Dynamic Programming, Neural Learning, Optimal Control

Visión por Computador/ Tratamiento de Señales para el control automático

2018	
Paper	Original keywords
E. M, Rubino, D. Centelles, J. Sales, J. V. Martí, R. Marín, A. J. Alvares, P. J. Sanz. Underwater Wireless Vision System Using Progressive Image Compression and Region of Interest. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(1):46-57, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8953	Image Compression; Data Transmission; Communication Systems; Teleoperation
Eduardo Trutié-Carrero, Damian Valdés-Santiago, Ángela León-Mecías, Jorge Ramírez-Beltrán. Burst Detection and Localization using Discrete Wavelet Transform and Cross-Correlation. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(2):211-216, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8738	Singularity; wavelet transform; detection; estimation
D. Chaves, S., Saikia, L., Fernández-Robles, E., Alegre, M., Trujillo. A Systematic Review on Object Localisation Methods in Images. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 231-242, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10229	Detection algorithms, Image processing, Machine learning, Object recognition, Pattern recognition
I. Zubiaguirre-Bergen, M. Torres-Torriti, M. Flores-Calero. Generation of regions of interest with high potential to contain pedestrians using non-dense 3D reconstruction from monocular vision. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 243-251, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8825	Pedestrian, accidents, traffic, monocular vision, stereo vision, trajectory, ROIs.
E. Molina, J. Diaz, H. Hidalgo-Silva, E. Chavez. Robust Binarization of Non-Uniform Illuminated Images. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(3), 252-261, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8847	Image binarization, non-uniform illumination, image processing
F. Calderon, A. Garnica-Carrillo, J. J. Flores. Multi Focus Image Fusion with variable size windows. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15, 262-276, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2017.8852	Multi-focus image fusion, Sliding windows, Incremental images
M. J. Castro-Toscano, J. C. Rodríguez-Quiñonez, D. Hernández-Balbuena, M. Rivas-Lopez, O. Sergiyenko, W. Flores-Fuentes. Obtaining Trajectories Using Strapdown INS/KF Framework: Methodological Proposal. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 15(4), 391-403, 2018. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.8660	Kalman Filter, Navigation, MEMS, INS
2019	
Paper	Original keywords
M. E. Paoletti, J. M. Haut, J. Plaza, A. Plaza. A Comparative Study of Techniques for Hyperspectral Image Classification. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):129-137, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.11078	Artificial Intelligence, Satellite applications, Scene Analysis, Computer Engineering, Computer Applications
M. Ortiz, M. Rodríguez-Ugarte, E. Iáñez, J.M. Azorín. Analysis of Algorithms for Detection of Pedaling Intention in Brain-Machine Interfaces. <i>Revista Iberoamericana de Automática e Informática Industrial</i> , 16(2):222-231, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.9861	Signal analysis and processing, Event related, (De)synchronization, Motor intention, Brain-Machine Interfaces, Offline, Rehabilitation, Fourier Transform, Hilbert-Huang transform, Stockwell transform
C. Salamea Palacios, S. Luna Romero. Automatic Calibration in Adaptive Filters to EMG Signals Processing. <i>Revista Iberoamericana de Automática e</i>	Adaptive Filters, Signal Processing, Control

<p><i>Informática Industrial</i>, 16(2):232-237, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2018.10204</p>	<p>Applications, Perturbation, Noise</p>
<p>J. E. Miranda-Vega, M. Rivas-López, W. Flores-Fuentes, O. Sergiyenko, L. Lindner, J. C. Rodríguez-Quíñonez. Digital Implementation of FIR Filters for the Minimize of Optical and Optoelectronic Noise of an Optical Scanning System. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(3):344-357, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10210</p>	<p>Analysis and treatment of signal, Sensors and virtual instruments, Noise, Modulation, 3D stereo vision.</p>
<p>E. Fidalgo, E. Alegre, L. Fernández-Robles, V. González-Castro. Early Fusion of Multi-level Saliency Descriptors for Image Classification. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(3):358-368, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10640</p>	<p>Computer Vision, Detection algorithms, Machine Learning, Image processing, Encoding, Classifiers</p>
<p>F. León, F. J. Rodríguez-Lozano, A. Cubero-Fernández, J. M. Palomares, J. Olivares. SysGpr: System of Generation of Pseudo-realistic Synthetic Signals. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(3):369-379, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.10025</p>	<p>Signal analysis and treatment, Design of experiments, Signal modelling, Synthetic data, Statistical distributions.</p>
<p>J. Díaz, J. Vuelvas, F. Ruiz, D. Patiño. A Set-Membership approach to short-term electric load forecasting. <i>Revista Iberoamericana de Automática e Informática Industrial</i>, 16(4):467-479, 2019. ISSN: 1697-7912, https://doi.org/10.4995/riai.2019.9819</p>	<p>A Set-Membership approach to short-term electric load forecasting</p>