

Curriculum Vitae

Vicente Feliu Batlle

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Born:

September, 23, 1957 in Figueras (Spain)

Research Interests

- Robotics (lightweight manipulators, assistive robots)
- Control theory (discrete control, fractional order control, nonlinear control)
- Control applications (mechanical vibrations, irrigation cannals, power electronic systems)
- Computer vision (pattern recognition, application to robotics)
- Electrochemistry

Education

- Licenciado (M.Sc), National University of Distance Education, March 1986
Spain (Spanish Open University).
Physics (major) and Automation (minor)
- Doctor (Ph.D), Polytechnical University of Madrid, Spain September 1982
Industrial Engineering.
- Engineer (M.Sc) Polytechnical University of Madrid, Spain November 1979
Industrial Engineering (major) and Electrical Engineering (minor).

Academic Positions

- Full professor 1994 – today
University of Castilla-La Mancha, School of Industrial Engineering.
- Full professor 1990 – 1994
National University of Distance Education, School of Industrial Engineering.
- Associate professor 1982 – 1990
National University of Distance Education, School of Industrial Engineering.
- Research scholar 1987 – 1989
Carnegie Mellon University, Robotics Institute.
- Assistant professor 1980 – 1982
National University of Distance Education, School of Industrial Engineering.
- Ph.D student and research associate 1980 – 1982

Adjunct Positions

- Director of the Industrial Development Institute, belonging to the Albacete Science and Technology Park 2006 – 2009
- Adjunct faculty member 1990 – 1990
University of Cantabria, School of Industrial Engineering.

Services in Academic Positions

- Dean of the School of Industrial Engineering, University of Castilla-La Mancha June 2016 – today
- Director of the Doctorate Program on Mechatronics University of Castilla-La Mancha Sept.2005 – Jan. 2016
- Director of the Doctorate Program on Industrial Engineering University of Castilla-La Mancha Sept 1997– Aug. 2005
- Member of the Senate of the University of Castilla-La Mancha. Sept 1994 - Feb.2002
- Dean of the School of Industrial Engineering, University of Castilla-La Mancha. Sep.1994–March 008
- Member of the Committee in charge of designing the Computer Science School of the National University of Distance Education. Apr. 1991 – Aug. 1994
- Member of the Senate of the National University of Distance Education. May 1990 - Aug.1994
- Director of the Department of Electrical, Electronics and Control, National University of Distance Education. Nov.1991– Aug. 1994
- Vice Director of the Department of Electrical, Electronics and Control, National University of Distance Education. Jan. 1990 – Nov. 1991

Awards

- **National Prize of the Cuban Academy of Science**, 2017. To the scientific research result: *Development of a New Family of Fractional Order Controllers for the Robust Control of Production Processes with Difficult and Uncertain Dynamic Behaviours*. Principal Investigators: V. Feliu and R. Rivas (nine prizes were given in 2017).
- **Best Paper Award Finalist**. One of the five best papers among 270 papers of the *2017 Asian Simulation Conference*. Paper: *Selection of Positive Position Feedback Controllers for Damping and Precision Positioning Applications*.
- **Control Engineering Practice Best Paper Award of the International Federation of Automatic Control and Elsevier Ltd**, 2011. Best paper published in the three-year period (2008-2011) in the *Control Engineering Practice Journal*. Paper: *Tuning and Auto-tuning of Fractional Order Controllers for Industry Applications*.
- **Innovation Prize**, 2008. Best activity in innovation given by the La Habana City branch of the Cuban Department of Technology and Environment. Activity: *Automated Laboratory for Training of Specialists in Automatic Control and Industrial Informatics*.

- **Certificate of Merit**, 2007. One of the three best papers of the *International Conference on Modeling, Simulation and Control "ICMSC 07"*, event of the *2007 World Congress on Engineering and Computer Science*. Paper: *Algebraic Identification Method for Mass-Spring Damper System*.
- **The Highly Commended Award**, 2007. One of the four best papers published in the *Industrial Robot Journal* in 2007. Paper: *Improving the Mechanical Design of a New Staircase Climbing Wheelchair*.
- **The Industrial Robot Highly Commended Award**, 2006. One of the four best papers of the *9th International Conference on Climbing and Walking Robots (CLAWAR 2006)*. Paper: *Improving the Mechanical Design of a New Staircase Climbing Wheelchair*.
- **Juanelo Turriano Prize**, 2003. Given by the Region of Castilla-La Mancha to its best researcher in engineering
- **Best Paper Award of the Pattern Recognition Society**, 2001. Best paper published in the *Pattern Recognition Journal* in 2001. Paper: *Global Shape Invariants: a Solution for 3D Free-Form Object Discrimination/Identification Problem*.

Awards to Reviewer Activities

- 2017, Outstanding reviewer of ISA Transactions.
- 2017, Outstanding reviewer of Journal of the Franklin Institute.
- 2017, Outstanding reviewer of Mechanism and Machine Theory.
- 2018, Outstanding reviewer of Robotics and Autonomous Systems.

Grants and other Achievements

- **First Prize of the National Instruments Spain Best Application Paper Contest**, 2011 (Member of the team). Project: *Design and Prototyping of an Autonomous Robot for Automatic Cleaning of Solar Energy Farms*.
- **Senior Member of the IEEE**, since 2008.
- **Innovation Prize**, 2007. Best activity in innovation given by the Polytechnical University of La Habana (Cuba). Activity: *Modelling and Control of Largely Uncertain Processes*.
- **Fulbright Postdoctoral Fellowship**, 1987-1989, to carry on research on *Design of Algorithms for the Control of Industrial Robots Endowed with Sensors* in the Robotics Institute of Carnegie Mellon University, Pittsburgh (USA) .
- **Doctoral Thesis Extraordinary Prize**, 1982. Given to the best Doctoral Thesis of the School of Industrial Engineering of the Polytechnical University of Madrid. Thesis: *Computer Aided Design of Multivariable Discrete Control Systems*.
- **Prize to the Best Doctoral Thesis given by the J.A. Artigas y Sanz Foundation**, 1982. Best doctoral thesis presented in the area of Electrical, Electronics, Automation and Computer Engineering. Thesis: *Computer Aided Design of Multivariable Discrete Control Systems*.
- **Doctorate Scholarship**, 1980-1982. Given by the Spanish Department of Education and Science to carry out the doctoral thesis.
- **Graduated with honors (number 1 of the year) of the School of Industrial Engineering of the Polytechnical University of Madrid**, 1979.

Projects

1. Title: Obtention of a Mathematical Model of the Dynamics of an Electronic Braking System for Trailers

Based on Rele Type Valves (2019-2019).
Principal investigator: Vicente Feliu Batlle
Funding institution: BPW COJALI SYSTEMS S.L.
Budget: 11.186 euros.

2. Title: Control of Flexible Robots Under External Forces. Application to Force Sensors and Systems for Robot Positioning and Propulsion in Fluids (2017-2019)
Principal investigator: Vicente Feliu Batlle
Funding institution: Economy and Competitiveness Department of the Spanish Government
Budget: 199.650 euros.
3. Title: Development of Robust Control Systems for Automation of Main Irrigation Canals (2014-2017)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 164.672 euros.
4. Title: Control of a Very Lightweight Flexible Robot of Large Dimension Mounted on a Mobile Platform in Presence of Environmental Disturbances (2013-2015).
Principal investigator: Vicente Feliu Batlle
Funding institution: Economy and Competitiveness Department of the Spanish Government
Budget: 100.000 euros.
5. Title: Object Recognition System Based on Artificial Vision for a Mobile Robot (2011-2013)
Principal investigator: Vicente Feliu Batlle
Funding institution: ACCIONA S.A.
Budget: 74.700 euros.
6. Title: Design and Implementation of a Generic Robotic Flexible Gripper with Application to Manufacturing Environments and Service Robotics (2011-2013)
Principal investigator: Andrés Vázquez Fernández-Pacheco
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 120.000 euros.
7. Title: Design and Control of a Very Lightweight Flexible Robot Built With Composites Material. Application to an Inspection Robotic System (2010-2012)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 356.103 euros.
8. Title: Study, Modelling and Proposals for Optimization and Robustness of the Control and Supervision Systems of Desalination Plants (2010-2012)
Principal investigator: Vicente Feliu Batlle
Funding institution: BEFESA WATER PROJECTS
Budget: 69.600 euros.
9. Title: Implementation of a New Generation of Advanced Control and Supervision Systems for the Water Distribution Processes by Open Cannals and Large Pipes (2010-2012)
Principal investigator: Vicente Feliu Batlle
Funding institution: BEFESA WATER PROJECTS
Budget: 69.600 euros.
10. Title: Study and Development of Techiques for Control and Improvement of Energy Quality of Photovoltaic Concentration Systems (2009-2012)
Principal investigator: Pedro Luis Roncero Sánchez-Elípe
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 100.000 euros.
11. Title: Control of Flexible Robots in Tasks that Involve Interaction with the Environment (2007-2011)
Principal investigator: Vicente Feliu Batlle

- Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 250.000 euros.
12. Title: MMI Robot System Development (2007-2009)
Principal investigator: Vicente Feliu Batlle
Funding institution: Eurocopter España S.A.
Budget: 206.700 euros.
 13. Title: Design and Manufacturing of a Handicapped Wheelchair Convertible in a Stretcher, Sloping Plane, and Transfer Mode (2007-2008)
Principal investigator: Vicente Feliu Batlle
Funding institution: Social and Work Affairs Department of the Spanish Government
Budget: 48.000 euros.
 14. Title: Monitoring and Control of Vibrations in Flexible Mobile Structures. Extension to Impact Situations (2007-2009)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 254.221 euros.
 15. Title: Technical Aid for the Development of a Mobile Robot for Inspection of Vehicles in Garages (2007-2007)
Principal investigator: Vicente Feliu Batlle
Funding institution: Movirobotics.
Budget: 19.836 euros.
 16. Title: Development of Tools for Improving the Energy Quality and the Predictibility of the Wind Applied to Variable Speed Wind Turbines (2006-2009)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 46.700 euros.
 17. Title: Automatic System for Inspection of Tanks Based on a Climbing Robot (2006-2009)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 108.290 euros.
 18. Title: Program for Development of New Flexible Robots and New Applications in Mobile Robotics and Rehabilitation Engineering (2005-2008)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 109.000 euros.
 19. Title: Technical Aid for Developing and Improving the Implementation of Hydraulic Models (2005-2006)
Principal investigator: Vicente Feliu Batlle
Funding institution: Hydrographical Confederation of the Ebro River and UTE-Ebro SDA
Budget: 128.876 euros.
 20. Title: Program for Monitoring and Control of Vibrations in Aerospace Flexible Structures (2003-2006)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 247.250 euros.
 21. Title: Fractional Control of Industrial Processes (2002-2005)
Principal investigator: Blas Manuel Vinagre Jara
Funding institution: Science and Technology Department of the Extremadura Region
Budget: 32.486 euros.
 22. Title: Autonomous Robots with Capability for Robot-Human Interaction with Application to Museum Guided Tours (2002-2005)

- Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 90.800 euros.
23. Title: Program of Activities in Automatic Control and System Engineering (2002-2005)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Castilla-La Mancha Region
Budget: 80.000 euros.
 24. Title: Automation of a Prototype of Improved Handicapped Wheelchair. Development of a Man-Machine Interfase for its Control (2002-2005)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 89.551 euros.
 25. Title: QUIXOTE. A Guide Robot for Public Buildings (2000-2002)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 35.460 euros.
 26. Title: Improvements in the Process Control of the Power Plant GICC of Puertollano (2000-2001)
Principal investigator: Vicente Feliu Batlle
Funding institution: ELCOGAS
Budget: 102.929 euros.
 27. Title: Advanced Technologies for Control and Process Engineering in Order to Improve the Functioning and the Availability of the Power Plant GICC of Puertollano, in the Context of the Program of UCLM-ELCOGAS Joint Activities for Innovation and I+D (1999-2001)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 509.778 euros.
 28. Title: Development of Aiding Tools for the Manager of an Electric Power System (1998-2001)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Spanish Government
Budget: 329.986 euros.
 29. Title: Program for Environmental Radiological Surveillance (1996-2006)
Principal investigator: Vicente Feliu Batlle
Funding institution: National Council for Nuclear Energy Security
Budget: 419.813 euros.
 30. Title: Development of a Hybrid Position-Force Control System for Flexible Robots. Application to Assembly Tasks and Multirobot Systems (1996-1999)
Principal investigator: Vicente Feliu Batlle
Funding institution: Education and Science Department of the Spanish Government
Budget: 92.159 euros.
 31. Title: Teleoperation System Based on Virtual Reality for Inspection and Maintenance of Electric Power Substations (1995-1997)
Principal investigator: Vicente Feliu Batlle
Funding institution: Science and Technology Department of the Madrid Region
Budget: 50.425 euros.
 32. Title: Identification and Control of Active Structures (1993-1996)
Principal investigator: Vicente Feliu Batlle
Funding institution: Education and Science Department of the Spanish Government
Budget: 12.621 euros.
 33. Title: Design and Control of a High Performance Three Degrees of Freedom Flexible Manipulator

- (1991-1995)
Principal investigator: Vicente Feliu Batlle
Funding institution: Education and Science Department of the Spanish Government
Budget: 166.841 euros.
34. Title: Definition of a Manipulator for Inspection and Maintenance of In-Orbit Minisatellites – MINIMAN (1992-1993)
Principal investigator: Vicente Feliu Batlle
Funding institution: INTA (National Institute of Aerospace Technology)
Budget: 30.051 euros.
35. Title: Automatic Visual System for the Analysis of the Mechanical Characteristics of Boxes or Frames that Contain Automobile Precision Components (1992-1993)
Principal investigator: Carlos Cerrada Somolinos
Funding institution: European Community.
36. Title: Design of a Local Network Based System for Statistical Sampling, with Interface to Standard Programs (SPSS, SAS,..) (1991-1992)
Principal investigator: Carlos de Mora Buendía
Funding institution: Science and Technology Department of the Madrid Region.
37. Title: Design and Implementation of a Voltage and Current Conditioner for the Medium and Low Voltage Distribution Network (1991-1994)
Principal investigator: Salvador Martínez García
Funding institution: IBERDROLA and SAFT Ibérica.
38. Title: Design of Walking Robot for Construction, Inspection and Maintenance of In-Orbit Space Station (1988-1991)
Principal investigator: Takeo Kanade
Funding institution: Shimizu Corporation.
39. Title: Design of Advanced Mobile Robots for Public Safety Applications (1987-1989)
Principal investigator: Rafael Aracil Santonja
Funding institution: European Community.
40. Title: Study, Design, Development and Implementation of an Assembly System for Industrial Application Based on Robots Designed and Manufactured in Spain (1985-1988)
Principal investigator: Eugenio Andrés Puente
Funding institution: Fundación Ramón Areces
41. Title: Design and Manufacturing of an Industrial Preserie of Three Assembly Robots of SCARA Type (1985-1987)
Principal investigator: Eugenio Andrés Puente
Funding institution: Industry Department of the Spanish Government
42. Title: Electrochemical Techniques for Evaluation of the Wear of Metallic Materials in Aggressive Environments (1984-1987)
Principal investigator: Sebastián Feliu Matas
Funding institution: Education and Science Department of the Spanish Government

Patents

1. Title: Method of Cleaning Solar Panels and Vehicle for Performing Said Cleaning (2011)
Authors: A. González, P.L. Roncero, R. Morales, O.D. Cortázar, F. Castillo, P.A. Hungría, A. Parreño, L.M. Gómez, V. Feliu, and M. Montero
Assignee: Solar Bright S.L.
Country of application: United States of America

2. Title: Gain Scheduling Fractional Order Control System of Water Levels in Main Irrigation Cannals (2011)
Authors: R. Rivas, V. Feliu, L. Sánchez Rodríguez, F. Castillo, and A. Linares
Assignee: BEFESA WATER PROJECTS and University of Castilla-La Mancha
Country of application: Spain
3. Title: Test Bench for an Equipment with a Variety of Buttons and a Visualization Display (2010)
Authors: O. Ciudad, S. Antic, F. Castillo, L. Sánchez Rodríguez, P.A. Hungría, F. Ramos de la Flor, and V. Feliu
Assignee: Eurocopter España
Country of application: European Community
4. Title: Autonomous Vehicle for Photovoltaic Pannels Cleaning (2009)
Authors: A. González, F. Castillo, P.L. Roncero, R. Morales, P.A. Hungría, O.D. Cortázar, L.M. Gómez, A. Parreño, V. Feliu, and M. Montero
Assignee: Solar Bright S.L.
Country of application: Spain
5. Title: Acoustic Detector of Impacts in Mechanic Structures (2008)
Authors: V. Feliu, O.D. Cortázar, and J.A. Somolinos
Assignee: University of Castilla-La Mancha
Country of application: Spain
6. Title: Computer Based Fractional Order Control of Water Levels in Main Irrigation Cannals (2008)
Authors: R. Rivas, V. Feliu, L. Sánchez Rodríguez, F. Castillo, and A. Linares
Assignee: University of Castilla-La Mancha
Country of application: Spain
7. Title: Handicapped Wheelchair Convertible in a Stretcher, Sloping Plane, and Transfer Mode (2005)
Authors: G. Mata, V. Feliu, J.J. López, and I. Muñoz
Assignee: University of Castilla-La Mancha
Country of application: Spain
8. Title: Electric Line Conditioning Equipment for Reduction or Suppression of Perturbations (1996)
Authors: S. Martínez García, F. Yeves, P.M^a. Martínez Cid, V. Feliu, and J.L. Iribarren
Assignee: IBERDROLA and SAFT Ibérica
Country of application: France
9. Title: Corrosion Detecting Probes for Use with a Corrosion-Rate Meter for Electrochemically Determining the Corrosion Rate of Reinforced Concrete Structures (1993)
Authors: S. Feliu, J.A. González, V. Feliu, S. Feliu Jr., M.L. Escudero, I.A. Rodríguez-Maribona, V. Ausin, C. Andrade, J.A. Bolaño, and F. Jiménez
Assignee: GEOCISA and Consejo Superior de Investigaciones Científicas
Country of application: United States of America
10. Title: Electric Line Conditioning Equipment for Reduction or Suppression of Perturbations (1993)
Authors: S. Martínez García, V. Feliu, F. Yeves, J.L. Iribarren, and P.M^a. Martínez Cid
Assignee: IBERDROLA and SAFT Ibérica
Country of application: Spain
11. Title: Method for the Electrochemical Measurement of the Corrosion-Rate in Large Reinforced Concrete Structures (1990)
Authors: S. Feliu, J.A. González, V. Feliu, S. Feliu Jr., M.L. Escudero, C. Andrade, I.A. Rodríguez-Maribona, V. Ausin, J.A. Bolaño, and F. Jiménez
Assignee: GEOCISA and Consejo Superior de Investigaciones Científicas
Country of application: Spain
12. Title: Procedure for Cuantitative and non Destructive Determination of the Corrosion-Rate in Large Reinforced Concrete Structures (1988)
Authors: S. Feliu, J.A. González, C. Andrade, and V. Feliu

Assignee: Consejo Superior de Investigaciones Científicas
Country of application: Spain

Publication List

Books

1. A. San Millán-Rodríguez and V. Feliu, "Prácticas de Regulación Automática", *Editorial: Lulu Press, Inc*, pp. 1-214, ISBN 9780244971816, March, 25, 2018.
2. C.A. Monje, YangQuan Chen, B.M. Vinagre, Dingyü Xue, and V. Feliu, "Fractional-order Systems and Controls: Fundamentals and Applications", *Communications and Control Engineering Series, Editorial: Springer (United Kingdom)*, pp. 1-418, July 2010.
3. C. Cerrada, V. Feliu, A. Adán, and J.A. Somolinos, "Fundamentos de Estructura y Tecnología de Computadores – Addenda", *Editorial: Centro de Estudios Ramón Areces, S.A. (Spain)*, pp. 1-78, July 2001.
4. C. Cerrada, V. Feliu, A. Adán, and J.A. Somolinos, "Fundamentos de Estructura y Tecnología de Computadores", *Editorial: Centro de Estudios Ramón Areces, S.A. (Spain)*, pp. 1-496, July 2001.
5. C. Cerrada, V. Feliu, and L. Rincón, "Estructura y Tecnología de Computadores I – Addenda", *Editorial: Universidad Nacional de Educación a Distancia (Spain)*, pp. 1-74, September 1995.
6. C. Cerrada, and V. Feliu, "Estructura y Tecnología de Computadores I", *Editorial: Universidad Nacional de Educación a Distancia (Spain)*, pp. 1-558, October 1993.
7. S. Feliu, and V. Feliu, "Modeling and Identification of Corrosion Processes. Response to Electric Signals". *Monografías del Instituto Eduardo Torroja, Editorial: Instituto Eduardo Torroja of the Consejo Superior de Investigaciones científicas (Spain)*, (bilingual spanish-english), pp. 1-100, April 1985.

Book chapters

1. P. Roncero-Sánchez, V. Feliu, A. García-Cerrada, and X. del Toro García, "State-feedback, Predictive-integral and Repetitive Current Controllers for Active- and Reactive-power Control for Voltage Source Electronic Converters", *Power Plant Applications of Advanced Control Techniques*, Editorial: ProcessEng (Austria), pp. 361-391, 2010.
2. E. Pereira, J. Becedas, I. Payo, F. Ramos, and V. Feliu, "Control of Flexible Manipulators. Theory and Practice", *Robot Manipulators Trends and Development*, Editorial: INTECH, pp. 267-296, 2010.
3. A. Parreño, P. Roncero-Sánchez, X. del Toro García, V. Feliu, and F. Castillo, "Analysis of the Fractional Dynamics of an Ultracapacitor and its Application to a Buck-Boost Converter", *New Trends in Nanotechnology and Fractional Calculus Applications*, Editorial: Springer (Holland), pp. 97-107, 2010.
4. H. Sira-Ramírez, and V. Feliu, "A Generalized PI Sliding Mode and PWM Control of Switched Fractional Systems", *Modern Sliding Mode Control Theory (Lecture Notes in Control and Information Sciences)*, vol. 357/2008, Editorial: Springer (Germany), pp. 201-221, 2008.
5. R. Morales, A. González, and V. Feliu, "Mechanical and Kinematics Design Methodology of a New Wheelchair with Additional Capabilities", *Bioinspiration&Robotics - Walking and Climbing Robots*, Editorial: Advanced Robotics Systems Internacional& I-TECH (Austria), pp. 463-482, 2007.
6. V. Feliu, B.M. Vinagre, and C.A. Monje, "Fractional Control of a Single-Link Flexible Manipulator", *Advances in Fractional Calculus: Theoretical Developments and Applications in Physics and Engineering*, Editorial: Springer (Holland), pp. 449-462, 2007.
7. V. Feliu, "Introducción a la Robótica", *Avances en Robótica y Visión por Computador*, Colección Ciencia

- y Técnica, Editorial: Universidad de Castilla La-Mancha (Spain), pp. 11-27, 2002.
8. V. Feliu, "Robótica", *Informática Industrial*, Colección Ciencia y Técnica, Editorial: Universidad de Castilla La-Mancha (Spain), pp. 17-39, 1997

Technical reports and other documents

1. V. Feliu, H.B. Brown, and K.S. Rattan, "Design and Control of a Two-Degree-of-Freedom Lightweight Flexible Arm", *technical report of the Robotics Institute, Carnegie Mellon University (USA)*, vol. CMU-RI-TR-89-21, pp. 1-37, July 1989.
2. V. Feliu, K.S. Rattan, and H.B. Brown, "A New Approach to Control Single-Link Flexible Arms. Part III: Adaptive Control of the Tip Position with Payload Changes", *technical report of the Robotics Institute, Carnegie Mellon University (USA)*, vol. CMU-RI-TR-89-15, pp. 1-26, July 1989.
3. V. Feliu, K.S. Rattan, and H.B. Brown, "A New Approach to Control Single-Link Flexible Arms. Part II: Control of the Tip Position in the Presence of Joint Friction", *technical report of the Robotics Institute, Carnegie Mellon University (USA)*, vol. CMU-RI-TR-89-14, pp. 1-69, July 1989.
4. V. Feliu, K.S. Rattan, and H.B. Brown, "A New Approach to Control Single-Link Flexible Arms. Part I: Modelling and Identification in the Presence of Joint Friction", *technical report of the Robotics Institute, Carnegie Mellon University (USA)*, vol. CMU-RI-TR-89-8, pp. 1-28, March 1989.
5. V. Feliu, "Estudio de la Relación Existente entre un Sistema Continuo y su Discreto Equivalente", *M.S. thesis in Physics, Dept. Automática e Informática, Universidad Nacional de Educación a Distancia (Spain)*, pp. 1-53, February 1986.
6. V. Feliu, "Diseño Automático con Computador de Sistemas Discretos de Control Multivariables", *Ph.D. Thesis, Dept. Ingeniería de Sistemas y Automática, Escuela Técnica Superior de Ingenieros Industriales, Universidad Politécnica de Madrid (Spain)*, pp. 1-175, September 1982.
7. V. Feliu, "Programa para el Manejo de la Cinta Magnética Desde el HP21MX", *technical report of the Dept. Ingeniería de Sistemas y Automática, Escuela Técnica Superior de Ingenieros Industriales, Universidad Politécnica de Madrid (Spain)*, pp. 1-20, September 1981.
8. A. Jiménez, and V. Feliu, "Paquete de Rutinas HP21MX para Manejo del Plotter 7210", *technical report of the Dept. Ingeniería de Sistemas y Automática, Escuela Técnica Superior de Ingenieros Industriales, Universidad Politécnica de Madrid (Spain)*, pp. 1-19, July 1981.
9. V. Feliu, "Identificación de Procesos por Computador", *M.S. thesis in Industrial Engineering, Dept. Ingeniería de Sistemas y Automática, Escuela Técnica Superior de Ingenieros Industriales, Universidad Politécnica de Madrid (Spain)*, pp. 1-86, November 1979.

Journals indexed in the Journal Citations Report

My h-index is 28. The number of citations can be found in the ISI Web of Knowledge using my researcher identifiers, ORCID ID: **0000-0002-3578-7910**, RESEARCHER ID: **Q-2766-2018**.

1. V. Feliu and R. Rivas, "Smith Predictor Based Fractional-order Integral Controller for Robust Temperature Control in a Steel Slab Reheating Furnace", *Transactions of the Institute of Measurement and Control*, vol. 41, n°16, pp: 4521-4534, doi.org/10.1177/0142331219862978, December 2019.
2. N. Bouarroudj, D. Boukhetala, V. Feliu, F. Boudjema, B. Benlahbib and B. Batoun, "Maximum Power Point Tracker Based on Fuzzy Adaptive Radial Basis Function Neural Network for PV-System", *Energies*, vol. 12, n°14, 2827, 19 pp, article number 2827, [doi:10.3390/en12142827](https://doi.org/10.3390/en12142827), July 2019.

3. A. San-Millán, V. Feliu and S. Aphale, "Two-Degrees-of-Freedom PI²D Controller for Precise Nanopositioning in the Presence of Hardware-induced Constant Time Delay", *ISA Transactions*, vol. 91, pp: 207-217, August 2019.
4. D. Feliu-Talegón, V. Feliu, I. Tejado, B.M. Vinagre and S. Hassan HosseinNia, "Stable Force Control and Contact Transition of a Single Link Flexible Robot Using a Fractional-order Controller", *ISA Transactions*, vol. 89, pp: 139-157, June 2019.
5. A. San-Millán, S. Aphale and V. Feliu, "A Fast Algebraic Estimator for System Parameter Estimation and Online Controller Tuning - A Nanopositioning Application", *IEEE Transactions on Industrial Electronics*, vol. 66, n°6, pp: 4534-4543, June 2019.
6. S. Gharab, V. Feliu and R. Rivas, "A Fractional-Order Partially Non-Linear Model of a Laboratory Prototype of Hydraulic Canal System", *Entropy*, vol. 21, n°3, 24 pp, article number 309, doi:10.3390/e21030309, March 2019.
7. D. Feliu-Talegón and V. Feliu, "Passivity-based control of a single link flexible manipulator using fractional controllers", *Nonlinear Dynamics*, vol. 95, n°3, pp: 2415-2441, doi.org/10.1007/s11071-018-4701-4, February 2019.
8. D. Feliu-Talegón, A. San-Millán and V. Feliu, "A New Kinematic Model and Control Strategy for a Mobile Platform for Transporting Lightweight Manipulators", *Electronics*, vol.7, n°12, pp: 441-468, doi:10.3390/electronics7120441, December 2018.
9. V. Feliu, D. Feliu-Talegón, A. San-Millán and R. Rivas, "Wiener-Hopf Optimal Control of a Hydraulic Canal Prototype with Fractional-Order Dynamics", *ISA Transactions*, vol. 82, pp: 130-144, November 2018.
10. A. San-Millán, V. Feliu and S. Aphale, "Fractional order Implementation of Integral Resonant Control - A Nanopositioning Application", *ISA Transactions*, vol. 82, pp: 223-231, November 2018.
11. A. Parreño, P.L. Roncero and V. Feliu, "A Two Degrees of Freedom Resonant Control Scheme for Voltage Sag Compensation in Dynamic Voltage Restorers", *IEEE Transactions on Power Electronics*, vol. 33, n°1, pp: 31-37, June 2018.
12. W. Piña, V. Feliu and R. Rivas, "Direct Continuous-Time System Identification of the Purification Process of the Nimotuzumab, a Humanized Monoclonal Antibody", *IEEE Latin America Transactions*, vol.16, n°6, pp: 4852-4867, January 2018.
13. R. Cortez-Vega, I. Chairez, A. Luviano-Juárez and V. Feliu, "A Hybrid Dynamic Model of Shape Memory Alloy Spring Actuators", *Measurement*, vol.114, pp: 340-353, doi.org/10.1016/j.measurement.2017.08.041, January 2018.
14. J.A. Chocoteco, R. Morales y V. Feliu, "Enhancing the Trajectory Generation of a Stair-Climbing Mobility System", *Sensors*, vol. 17(11), pp: 2608-2639, doi : 10.3390/s17112608, 2017.
15. Y. Hernández, V. Feliu and R. Rivas, "Artificial Neural Network Based System Identification of an Irrigation Main Canal Pool", *IEEE Latin America Transactions*, vol.15, n°9, pp: 1595-1600, September 2017.
16. A. San-Millán, D. Feliu-Talegón, V. Feliu and R. Rivas, "On the Modelling and Control of a Laboratory Prototype of a Hydraulic Canal Based on a TITO Fractional-Order Model", *Entropy*, vol. 19, n°8, 18 pp, doi : 0.3390/e19080401, August 2017.
17. V. Feliu, "Robust isophase margin control of oscillatory systems with large uncertainties in their parameters: A fractional-order control approach", *International Journal of Robust and Nonlinear Control*, vol. 27, n°12, pp: 2145-2164, August 2017.
18. I.O. Benítez, R. Rivas and V. Feliu, "Predictor de Smith modificado para el control de la concentración en el proceso de producción de medicamentos inyectables", *Revista Mexicana de Ingeniería Química*, vol. 16, n°2, pp: 635-649, 2017.

19. V. Feliu, D. Feliu-Talegón y C.F. Castillo-Berrio, "Improved Object Detection Using a Robotic Sensing Antenna with Vibration Damping Control", *Sensors*, vol. 17, pp: 852-879, doi : [10.3390/s17040852](https://doi.org/10.3390/s17040852), 2017.
20. D. Feliu and V. Feliu, "Improving the position control of a two degrees of freedom robotic sensing antenna using fractional-order controllers", *International Journal of Control*, vol. 90, nº6, pp: 1256-1281, doi : [10.1080/00207179.2017.1281440](https://doi.org/10.1080/00207179.2017.1281440), 2017.
21. J.C. Cambera and V. Feliu, "Input-State Feedback Linearization Control of a Single-Link Flexible Robot Arm moving under Gravity and Joint Friction", *Journal of Robotics and Autonomous Systems*, vol. 88, pp: 24-36, February 2017.
22. I.O. Benítez, R. Rivas, V. Feliu, L.P. Sánchez and L.A. Sánchez, "Fuzzy Gain Scheduled Smith Predictor for Temperature Control in an Industrial Steel Slab Reheating Furnace", *IEEE Latin America Transactions*, vol.14, nº11, pp: 4439-4447, November 2016.
23. D. Feliu, A. San-Millán and V. Feliu, "Fractional-Order Integral Resonant Control of Collocated Smart Structures", *Control Engineering Practice*, vol. 56, pp: 210-223, November 2016.
24. V. Feliu and R. Rivas, "Robust Fractional-Order Controller for an EAF Electrode Position System", *Control Engineering Practice*, vol. 56, pp: 159-173, November 2016.
25. J. A. Chocoteco, R. Morales, V. Feliu and L. Sánchez-Rodríguez, "Trajectory Planning for a Stair-Climbing Mobility System Using Laser Distance Sensors", *IEEE Systems Journal*, vol. 10, nº3, pp: 944-956, September 2016.
26. B.M. Vinagre, V. Feliu and I. Tejado, "Fractional Control: Fundamentals and User Guide", *RIAI-Revista Iberoamericana de Automática e Informática Industrial*, vol. 13, nº3, pp: 265-280, July-September 2016.
27. C.F. Castillo-Berrio, Seref Naci Engin and V. Feliu, "A Study on the Tip Tracking Control of a Single Flexible-Beam", *Transactions of The Institute of Measurement and Control*, vol. 38, nº5, pp: 602-617, doi :[10.1177/0142331216632869](https://doi.org/10.1177/0142331216632869), May 2016.
28. D. Feliu, C.F. Castillo-Berrio and V. Feliu, "Motion Control of a Sensing Antenna with a Nonlinear Input Shaping Technique", *RIAI-Revista Iberoamericana de Automática e Informática Industrial*, vol. 13, nº2, pp: 162-173, April-June 2016.
29. J.A. Chocoteco, R. Morales and V. Feliu, "Improving the Climbing/Descent Performance of Stair-Climbing Mobility Systems Confronting Architectural Barriers with Geometric Disturbances", *Mechatronics*, vol.30, nº1, pp. 11-26, September 2015.
30. S.N. Calderón-Valdéz, V. Feliu and R. Rivas, "Fractional-Order Mathematical Model of an Irrigation Main Canal Pool", *Spanish Journal of Agricultural Research*, vol. 13, nº3, 13 pp, doi.org/[10.5424/sjar/2015133-7244](https://doi.org/10.5424/sjar/2015133-7244), September 2015.
31. J.C. Cambera, A. San-Millán and V. Feliu, "Payload Mass Identification of a Single-Link Flexible Arm moving under Gravity: an Algebraic Identification Approach", *Shock and Vibration*, vol. 2015, 13 pp, doi.org/[10.1155/2015/294157](https://doi.org/10.1155/2015/294157), June 2015.
32. A. San Millán, D. Russell, V. Feliu and S. Aphale, "A Modified Positive Velocity and Position Feedback Scheme with Delay Compensation for Improved Nanopositioning Performance", *Smart Materials and Structures*, vol. 24, 11 pp, doi:[10.1088/0964-1726/24/7/075021](https://doi.org/10.1088/0964-1726/24/7/075021), June 2015.
33. C.F. Castillo-Berrio and V. Feliu, "Vibration-Free Position Control for a Two Degrees of Freedom Flexible-Beam Sensor", *Mechatronics*, vol. 27, pp. 1-12, April 2015.
34. I.O. Benítez, R. Rivas, V. Feliu and F. Castillo, "Temperature Control Based on a Modified Smith Predictor for Injectable Drug Formulations", *IEEE Latin America Transactions*, vol. 13 nº4, pp. 1041-1047, April 2015.
35. A. San Millán and V. Feliu, "On-Line Estimator of the Two Main Vibration Modes of Flexible Structures From Biased and Noisy Measurements", *IEEE/ASME Transactions on Mechatronics*, vol. 20 nº1, pp. 93-104, February 2015.
36. J.A. Chocoteco, R. Morales, V. Feliu and H. Sira-Ramírez, "Robust Output Feedback Control for the Trajectory Tracking of Robotic Wheelchairs", *Robotica*, vol. 33 nº1, pp. 41-59, January 2015.

37. I. Payo and V. Feliu, "Strain gauges based sensor system for measuring 3-D deflections of flexible beams", *Sensors and Actuators: A-Physical*, vol. 217, pp. 81-94, 2014.
38. R. Morales, H. Sira-Ramírez and V. Feliu, "Adaptive Control Based on Fast On-Line Algebraic Identification and GPI Control for Magnetic Levitation Systems with Time-Varying Input Gain", *International Journal of Control*, vol. 87 n°8, pp: 1604-1621, August 2014.
39. C.F. Castillo-Berrio, Seref Naci Engin and V. Feliu, "Design, Dynamic Modelling and Experimental Validation of a 2DOF Flexible Antenna Sensor", *International Journal of Systems Science*, vol. 45 n°4, pp: 714-727, April 2014.
40. R. Rivas, V. Feliu, F. Castillo and A. Linares, "Mathematical Model for Robust Control of an Irrigation Main Canal Pool", *Environmental Modelling and Software*, vol. 51, pp: 207-220, 2014.
41. V. Feliu and F. Castillo, "On the Robust Control of Stable Minimum Phase Plants with Large Uncertainty in a Time Constant. A Fractional-Order Control Approach", *Automatica*, vol. 50 n°1, pp: 218-224, January 2014.
42. R. Rivas, V. Feliu, F. Castillo, L. Sánchez Rodríguez and A. Linares, "Controlador robusto de orden fraccional implementado en el primer tramo del canal principal Imperial de Aragón", *Tecnología y Ciencias del Agua*, vol. 5 n°1, pp: 23-42, January-February 2014.
43. R. Rivas, F. Castillo, V. Feliu and J. Sotomayor, "Control Robusto de Orden Fraccional de la Presión del Vapor en el Domo Superior de una Caldera Bagacera", *RIAI-Revista Iberoamericana de Automática e Informática Industrial*, vol. 11, pp: 20-31, January 2014.
44. V. Feliu, E. Pereira, and I.M. Díaz, "Passivity-Based Control of Single-Link Flexible Manipulators using a Linear Strain Feedback", *Mechanism and Machine Theory*, vol. 71, pp: 191-208, January 2014.
45. H. Heidari, M. Haghpanahi, M.H. Korayem and V. Feliu, "Optimal Trajectory Planning for Flexible Link Manipulators with Large Deflection using a New Displacements Approach", *Journal of Intelligent Robotics Systems*, vol. 72 n°3-4, pp: 287-300, December 2013.
46. V. Feliu, F. Castillo, V.H. Jaramillo, and G. Partida, "A Robust Controller, for a 3-DOF Flexible Robot with a Time Variant Payload", *Asian Journal of Control*, vol. 15 n°4, pp: 1-17, September 2013.
47. P.L. Roncero, X. Del Toro García, A. Parreño and V. Feliu, "Fundamental Positive- and Negative-Sequence Estimator for Grid Synchronization under Highly Disturbed Operating Conditions", *IEEE Transactions on Power Electronics*, vol. 28 n°8, pp: 3733-3746, August 2013.
48. V. Feliu, R. Rivas and F. Castillo, "Simple Fractional Order Controller Combined with a Smith Predictor for Temperature Control in a Steel Slab Reheating Furnace", *International Journal of Control, Automation and Systems*, vol. 11 n°3, pp: 533-544, June 2013.
49. A. Parreño, P.L. Roncero, X. Del Toro García, and V. Feliu, "Design and Comparison of Two Control Strategies for Voltage-sag Compensation using Dynamic Voltage Restorers", *Elektronika ir Elektrotechnika*, vol. 19 n°6, pp: 7-12, 2013.
50. R. Morales, J.A. Chocoteco, V. Feliu and H. Sira-Ramírez, "Obstacle Surpassing and Posture Control of a Stair-Climbing Robotic Mechanism", *Control Engineering Practice*, vol. 21 n°5, pp: 604-621, May 2013.
51. F. Castillo, V. Feliu, and R. Rivas, "Time Domain Tuning of a Fractional Order PI^α Controller Combined with a Smith Predictor for Automation of Water Distribution in Irrigation Main Channel Pools", *Asian Journal of Control*, vol. 15 n°3, pp: 819-833, May 2013.
52. F. Castillo, V. Feliu and R. Rivas, "Frequency Specification Regions of Fractional-Order PI Controllers for First Order Plus Time Delay Processes", *Journal of Process Control*, vol. 23, pp. 598-612, April 2013.
53. F. Castillo, A. San Millán, V. Feliu and L. Sánchez-Rodríguez, "Fractional-Order PI Control of First Order Plants with Guaranteed Time Specifications", *Journal of Applied Mathematics*, 10 pp, doi.org/10.1155/2013/197186, 2013.
54. A. Parreño, P.L. Roncero, X. Del Toro García, and V. Feliu, "Generalized Proportional-Integral Control for Voltage-Sag Compensation in Dynamic Voltage Restorers", *International Journal for Computation and Mathematics in Electrical and Electronic Engineering (COMPEL)*, vol. 31, n°6, pp. 1964-1984,

- 2012.
55. E. González, A. Adán and V. Feliu, "Framework Heurístico para la Implementación de Sistemas Activos de Reconocimiento de Objetos", *RIAI-Revista Iberoamericana de Automática e Informática Industrial*, vol. 9, nº4, pp. 474-483, October-December 2012.
 56. V. Feliu, F. Castillo, F. Ramos and J.A. Somolinos, "Robust Tip Trajectory Tracking of a Very Lightweight Single-Link Flexible Arm in Presence of Large Payload Changes", *Mechatronics*, vol. 22, pp. 594-613, 2012.
 57. G. Mamani, J. Becedas, and V.Feliu, "Sliding Mode Tracking Control of a Very Lightweight Single-Link Flexible Robot Robust to Payload Changes and Motor Friction", *Journal of Vibration and Control*, vol. 18, nº8, pp. 1141-1155, July 2012.
 58. R. Morales, V. Feliu, and V.H. Jaramillo, "Position Control of Very Lightweight Single-Link Flexible Arms with Large Payload Variations by Using Disturbance Observers", *Journal of Robotics and Autonomous Systems*, vol. 60, nº4, pp. 532-547, April 2012.
 59. E. Pereira, J.R. Trapero, I.M. Díaz, and V. Feliu, "Adaptive input shaping for single-link flexible manipulators using an algebraic identification", *Control Engineering Practice*, vol. 20, nº 2, pp. 138-147, February 2012.
 60. E. González, A. Adán, and V. Feliu, "2D Shape Representation and Similarity Measurement for 3D Recognition Problems: An Experimental Analysis", *Pattern Recognition Letters*, vol. 33, nº2, pp. 199-217, January 2012.
 61. E. Pereira, J.R. Trapero, I.M. Díaz, and V. Feliu, "Algebraic Identification of the First Two Natural Frequencies of Flexible Beam-like Structures", *Mechanical Systems and Signal Processing*, vol. 25 nº7, pp. 2324-2335, October 2011.
 62. R. Morales, V. Feliu, and H. Sira-Ramírez, "Nonlinear Control for Magnetic Levitation Systems Based on Fast On-line Algebraic Identification of the Input Gain", *IEEE Transactions on Control Systems Technology*, vol. 19 nº4, pp. 757-771, July 2011.
 63. J. Becedas, I. Payo, and V.Feliu, "Two-Flexible-Fingers Gripper Force Feedback Control System for its Application as End-Effector in a 6 DOF Manipulator", *IEEE Transactions on Robotics*, vol. 27 nº3, pp. 599-615, June 2011.
 64. V. Feliu R. Rivas, F. Castillo, L. Sánchez Rodríguez, and A.Linares, "Robust Fractional Order Controller for Irrigation Main Canal Pools with Time-varying Dynamical Parameters", *Computers and Electronics in Agriculture*, vol. 76 nº2, pp. 205-217, May 2011.
 65. P.L. Roncero, X. Del Toro García, A. Parreño, and V. Feliu, "Robust Frequency Estimation Method for Distorted and Imbalanced Three-Phase Systems", *IEEE Transactions on Power Electronics*, vol. 26 nº4, pp. 1089-1101, April 2011.
 66. H. Sira-Ramírez, and V. Feliu, "Robust Σ - Δ Modulation Based Sliding-Mode Observers for Linear Systems Subject to Time Polynomial Inputs", *International Journal of Systems Science*, vol. 42 nº4, pp. 621-631, April 2011.
 67. E. Pereira, S. Aphale, V. Feliu, and S.O. Reza Moheimani, "Integral Resonant Control for Vibration Damping and Precise Tip-Positioning of a Single-Link Flexible Manipulators", *IEEE/ASME Transactions on Mechatronics*, vol. 16 nº2, pp. 232-240, April 2011.
 68. I. Muñoz, E. Pereira, V. Feliu, and J.J. López, "Concurrent Design of Multi-mode Input Shapers and Link Dynamics for Flexible Manipulators", *IEEE/ASME Transactions on Mechatronics*, vol. 15 nº4, pp. 646-651, August 2010.
 69. J. Becedas, I.Payo, and V. Feliu, "Generalized Proportional Integral Torque Control for Single-Link Flexible Manipulators", *IEE Proceeding-D (IET): Control Theory and Applications*, vol. 4 nº5, pp. 773-783, May 2010.
 70. J. Becedas, G. Mamani, and V. Feliu, "Algebraic Parameter Identification of DC Motors: Methodology and Analysis", *Internacional Journal of Systems Science*, vol. 41 nº10, pp. 1241-1255, March 2010.
 71. F. Castillo, V. Feliu, R. Rivas, and L. Sánchez Rodríguez, "Design of a Class of Fractional Controllers

- from Frequency Specifications with Guaranteed Time Domain Behaviour”, *Computers and Mathematics with Applications*, vol. 59, pp. 1656-1666, January-February 2010.
72. R. Morales, V. Feliu, and A. González, “Optimized Obstacle Avoidance Trajectory Generation for a Reconfigurable Staircase Climbing Wheelchair”, *Journal of Robotics and Autonomous Systems*, vol. 58 n°1, pp. 97-114, January 2010.
 73. V. Feliu, R. Rivas, and F. Castillo, “Fractional Order Controller Robust to Time Delay for Water Distribution in an Irrigation Main Canal Pool”, *Computers and Electronics in Agriculture*, vol. 69 n°2, pp. 185-197, December 2009.
 74. W. O’Connor, D. McKeown, F. Ramos, and V. Feliu, “Wave-based Control of Non-linear Flexible Mechanical Systems”, *Nonlinear Dynamics*, vol. 57 n°1-2, pp. 113-123, July 2009.
 75. J. Becedas, J.R. Trapero, V. Feliu, and H. Sira-Ramírez, “Adaptive Controller for Single-Link Flexible Manipulators Based on Algebraic Identification and Generalized Proportional Integral Control”, *IEEE Transactions on Systems, Man and Cybernetics Part B*, vol. 39 n°3, pp. 735-751, June 2009.
 76. D.J. Pedregal, R. Rivas, V. Feliu, L. Sánchez Rodríguez, and A. Linares, “A Non-Linear Forecasting System for the Ebro River at Zaragoza, Spain”, *Environmental Modelling and Software*, vol. 24 n°4, pp. 502-509, April 2009.
 77. E. Pereira, J.R. Trapero, I.M. Díaz, and V. Feliu, “Adaptive Feedforward Control for Maneuvering Flexible Structures Using an Algebraic Identification Technique”, *Automatica*, vol. 45 n°4, pp. 1046-1051, April 2009.
 78. V. Feliu, R. Rivas, L. Sánchez Rodríguez, and M.A. Ruiz-Torija, “Robust Fractional Order PI Controller Implemented on a Hydraulic Canal”, *Journal of Hydraulic Engineering, ASCE*, vol. 135 n°5, pp. 271-282, 2009.
 79. I. Payo, V. Feliu, and O.D. Cortázar, “Fibre Bragg Grating (FBG) Sensor System for Highly Flexible Single-Link Robots”, *Sensors and Actuators: A-Physical*, vol. 150 n°1, pp. 24-39, March 2009.
 80. G. Mamani, J. Becedas, V. Feliu, and H. Sira-Ramírez, “Open and Closed Loop Algebraic Identification Method for Adaptive Control of DC Motors”, *Internacional Journal of Adaptive Control and Signal Processing*, vol. 23, pp. 1097-1103, March 2009.
 81. V. Feliu, R. Rivas, F. Castillo, and L. Sánchez Rodríguez, “Smith Predictor Based Robust Fractional Order Control. Application to Water Distribution in a Main Irrigation Canal Pool”, *Journal of Process Control*, vol. 19 n°3, pp. 506-519, March 2009.
 82. I. Payo, V. Feliu, and O.D. Cortázar, “Force Control of a Very Lightweight Single-Link Flexible Arm Based on Coupling Torque Feedback”, *Mechatronics*, vol. 19, pp. 334-347, 2009.
 83. P.L. Roncero, V. Feliu, and A. García-Cerrada, “Design and Comparison of State-Feedback and Predictive-Integral Current Controllers for Active and Reactive-Power Control in Renewable Energy Systems”, *Control Engineering Practice*, vol. 17 n°2, pp. 255-266, February 2009.
 84. P.L. Roncero, E. Acha, J.E. Ortega-Calderón, V. Feliu, and A. García-Cerrada, “A Versatile Control Scheme for a Dynamic Voltage Restorer for Power Quality Improvement”, *IEEE Transactions on Power Delivery*, vol. 24 n°1, pp. 277-284, January 2009.
 85. C.A. Monje, B.M. Vinagre, V. Feliu, and Y.Q. Chen, “Tuning and Auto-Tuning of Fractional Order Controllers for Industry Applications”, *Control Engineering Practice*, vol. 16 n° 7, pp. 798-812, September 2008.
 86. F. Ramos, and V. Feliu, “New OnLine Payload Identification for Flexible Robots. Application to Adaptive Control”, *Journal of Sound and Vibration*, vol. 315 n°1-2, pp. 34-57, August 2008.
 87. F. Ramos, V. Feliu, and I. Payo, “Design of Trajectories with Physical Constraints for Very Lightweight Single Link Flexible Arms”, *Journal of Vibration and Control*, vol. 14 n°8, pp. 1091-1110, August 2008.
 88. E. González, A. Adán, V. Feliu, and L. Sánchez, “Active Object Recognition Based on Fourier Descriptors Clustering”, *Pattern Recognition Letters*, vol. 29 n°8, pp. 1060-1071, June 2008.
 89. J. R. Trapero, H. Sira-Ramírez, and V. Feliu, “On the Algebraic Identification of the Frequencies of Two Sinusoidal Signals from their Noisy Sum”, *International Journal of Control*, vol. 81 n° 3, pp. 505-516,

March 2008.

90. R. Rivas, V. Feliu, L. Sánchez Rodríguez, D.J. Pedregal, A. Linares, J.V. Aguilar, and P. Langarita, "Identificación del Primer Tramo del Canal Principal de Riego "Imperial de Aragón"", *Ingeniería Hidráulica en México*, vol. XXIII n°1, pp. 71-87, January-March 2008.
91. B. M. Vinagre, and V. Feliu, "Optimal Fractional Controllers for Rational Order Systems. A Special Case of the Wiener-Hopf Spectral Factorization Method", *IEEE Transactions on Automatic Control*, vol. 52 n°12, pp. 2385-2389, December 2007.
92. R. Morales, A. González, V. Feliu, and P. Pintado, "Environment Adaptation of a New Staircase Climbing Wheelchair", *Autonomous Robot*, vol. 23 n°4, pp. 275-292, November 2007.
93. J.R. Trapero, H. Sira-Ramírez, and V. Feliu, "A Fast On-Line Frequency Estimator of Lightly Damped Vibrations in Flexible Structures", *Journal of Sound and Vibration*, vol. 307 n°1-2, pp. 365-378, October 2007.
94. C.A. Monje, F. Ramos, V.Feliu, and B.M. Vinagre, "Tip Position Control of a Lightweight Flexible Manipulator Using a Fractional Order Controller", *IEE Proceeding-D (IET): Control Theory and Applications*, vol. 1 n° 5, pp. 1451-1460, September 2007.
95. P.L. Roncero, A. García-Cerrada, and V. Feliu, "Rotor-Resistance Estimation for Induction Generators with Indirect-Field Orientation", *Control Engineering Practice*, vol. 15 n°9, pp. 1119-1133, September 2007.
96. V. Feliu, J.A. González, and S. Feliu, "Corrosion Estimates from the Transient Response to a Potential Step", *Corrosion Science*, vol. 49 n°8, pp. 3241-3255, 2007.
97. R. Rivas, V. Feliu, and L. Sánchez Rodríguez, "Robust System Identification of an Irrigation Main Canal", *Advances in Water Resources*, vol. 30 n° 8, pp. 1785-1796, August 2007.
98. V. Feliu, R. Rivas, and L. Sánchez Rodríguez, "Fractional Robust Control of Main Irrigation Canals with Variable Dynamic Parameters", *Control Engineering Practice*, vol. 15 n°6, pp. 673-686, June 2007.
99. J.R. Trapero, H. Sira-Ramírez, and V. Feliu, "An Algebraic Frequency Estimator for a Biased and Noisy Sinusoidal Signal", *Signal Processing*, vol. 87, pp. 1188-1201, 2007.
100. A. González, R. Morales, V. Feliu, and P. Pintado, "Improving the Mechanical Design of a New Staircase Climbing Wheelchair", *Industrial Robot*, vol. 34 n° 2, pp. 110-115, March 2007.
101. A. García-Cerrada, O. Pinzón-Ardila, V. Feliu, P.L. Roncero, and P. García-González, "Application of a Repetitive Controller for a Three-Phase Active Power Filter", *IEEE Transactions on Power Electronics*, vol. 22 n°1, pp. 237-246, January 2007.
102. A.J. Calderón, B. Vinagre, and V. Feliu, "Fractional Order Control Strategies for Power Electronic Buck Converters", *Signal Processing*, vol. 86 n° 10, pp. 2803-2819, October 2006.
103. R. Morales, V. Feliu, A. González, and P. Pintado, "Kinematic Model of a New Staircase Climbing Wheelchair and its Experimental Validation", *International Journal of Robotics Research*, vol. 25 n°9, pp. 825-841, September 2006.
104. O.D. Cortázar, and V. Feliu, "A Simple and Robust Fiber Optics System for Measuring the Lead-Acid Battery State-of-Charge", *Journal of Power Sources*, vol. 159, pp. 728-733, September 2006.
105. V. Feliu, E. Pereira, I. Muñoz, and P. Roncero Sánchez-Elipse, "Feedforward Control of Multimode Single-Link Flexible Manipulators Based on an Optimal Mechanical Design", *Journal of Robotics and Autonomous Systems*, vol. 54, pp. 651-666, August 2006.
106. A. Ramos Martín, I. De la Nuez, and V. Feliu, "Linearisation Method and Control for Series Active Power Filter by Means of Pulse-Width Modulation", *IEE P-Electronic Power Applications*, vol. 153 n°3, pp. 337-342, May 2006.
107. D.P. del Rey, J. Crespo, A. Anguita, J.L.P. Ordóñez, J. Dorado, G. Bueno, V. Feliu, A. Estruch, and J.A. Heredia, "Biomedical Image Processing Integration through INBIOMED: A Web Services-Based Platform", *Lecture Notes in Computer Science (Biological and Medical Data Analysis)*, vol. 3745, pp. 34-43, 2005.
108. V. Feliu, and F. Ramos, "Strain Gauge Based Control of Single-Link Very Lightweight Flexible Robots

- Robust to Payload Changes”, *Mechatronics*, vol. 15, pp. 547-571, 2005.
109. V. Feliu, J.A. González, and S. Feliu, “Modelling of the Steel-Concrete Interface to Obtain Information on Reinforcement Bar Corrosion”, *Journal of Applied Electrochemistry*, vol. 35, pp. 429-436, 2005.
 110. S. Feliu, J.A. González, J.M. Miranda, and V. Feliu, “Possibilities and Problems of In Situ Techniques for Measuring Steel Corrosion Rates in Large Reinforced Concrete Structures”, *Corrosion Science*, vol. 47, pp. 217-238, 2005.
 111. C.A. Monje, B.M. Vinagre, Y.Q. Chen, and V. Feliu, “On Fractional PI^λ Controllers: Some Tuning Rules for Robustness to Plant Uncertainties”, *Nonlinear Dynamics*, vol. 38, pp. 369-381, 2004.
 112. A. García-Cerrada, P.L. Roncero, P. García-González, and V. Feliu, “Detailed Analysis of Closed-Loop Control of Output-Voltage Harmonics in Voltage-Source Inverters”, *IEE P-Electronic Power Applications*, vol. 151 n°6, pp. 734-743, November 2004.
 113. V. Feliu, J.A. González, and S. Feliu, “Algorithm for Extracting Corrosion Parameters from the Response of the Steel-Concrete System to a Current Pulse”, *Journal of the Electrochemical Society*, vol. 151 n°3, pp. 134-140, 2004.
 114. V. Feliu, J.A. Somolinos, and A. García, “Inverse Dynamics Based Control System for a New Three Degree-of-Freedom Flexible Arm”, *IEEE Transactions on Robotics and Automation*, vol. 19 n°6, pp. 1007-1014, December 2003.
 115. B. Llanas, M. Fernández de Sevilla, and V. Feliu, “Minimum Distance Between the Faces of Two Convex Polyhedra: A Sufficient Condition”, *Journal of Global Optimization*, vol. 26, pp. 361-385, 2003.
 116. A. García, V. Feliu, and J.A. Somolinos, “Experimental Testing of a Gauge Based Collision Detection Mechanism for a New Three- Degree-of-Freedom Flexible Robot”, *Journal of Robotic Systems*, vol. 20 n°6, pp. 271-284, 2003.
 117. V. Feliu, J.A. Somolinos, A. García, and L. Sánchez, “Robustness Comparative Study of Two Control Schemes for 3 DOF Flexible Manipulators”, *Journal of Intelligent Robotics Systems*, vol. 34, pp. 467-488, 2002.
 118. J.A. Somolinos, V. Feliu, and L. Sánchez, “Design, Dynamic Modeling and Experimental Validation of a New Three Degree-of-Freedom Flexible Arm”, *Mechatronics*, vol. 12, pp. 919-948, 2002.
 119. V. Feliu, A. Cobo, J.A. González, and S. Feliu, “Non-exponential Transient Resulting from Application of the Interruption Technique to Assess Corrosion Rate of Steel in Concrete”, *Corrosion*, vol. 58 n°1, pp. 72-81, January 2002.
 120. V. Feliu, A. García, and J.A. Somolinos, “Gauge Based Tip Position Control of a New Three-Degree-of-Freedom Flexible Robot”, *International Journal of Robotics Research*, vol. 20 n°8, pp. 660-675, August 2001.
 121. A. Adán, C. Cerrada, and V. Feliu, “Automatic Pose Determination of 3D Shapes Based on Modeling Wave Sets: A New Data Structure for Object Modeling”, *Image and Vision Computing*, vol. 19, pp. 867-890, 2001.
 122. A. Adán, C. Cerrada, and V. Feliu, “Global Shape Invariants: a Solution for 3D Free-Form Object Discrimination/ Identification Problem”, *Pattern Recognition*, vol. 34, pp. 1331-1348, 2001.
 123. A. García, and V. Feliu, “Force Control of a Single-Link Flexible Robot Based on a Collision Detection Mechanism”, *IEE Proceeding-D: Control Theory and Applications*, vol. 147 n°6, pp. 588-596, November 2000.
 124. B. Llanas, M. Fernández de Sevilla, and V. Feliu, “An Iterative Algorithm for Finding a Nearest Pair of Points in Two Convex Subsets of R^n ”, *Computers and Mathematics with Applications*, vol. 40, pp. 971-983, October-November 2000.
 125. A. Adán, C. Cerrada, and V. Feliu, “Modeling Wave Sets: Definition and Application of a New Topological Organization for 3D Object Modelling”, *Computer Vision and Image Understanding*, vol. 49, pp. 281-307, August 2000.
 126. I. de la Nuez, and V. Feliu, “On the Voltage Pulse-Width Modulation Control of L-C Filters”, *IEEE Transactions on Circuits and Systems. Part I: Fundamental Theory and Applications*, vol. 47 n°3, pp.

- 338-349, March 2000.
127. V. Feliu, and K.S. Rattan, "Feedforward Control of Single-Link Flexible Manipulators by Discrete Model Inversion", *ASME Journal of Dynamic Systems, Measurement, and Control*, vol. 121, pp. 713-721, December 1999.
 128. J.J. Feliu, V. Feliu, and C. Cerrada, "Load Adaptive Control of Single-Link Flexible Arms Based on a New Modeling Technique", *IEEE Transactions on Robotics and Automation*, vol. 15 n°5, pp. 793-804, October 1999.
 129. A. Adán, C. Cerrada, and V. Feliu, "A Fast Mesh Deformation Method to Build Spherical Representation Models of 3D Objects", *Lecture Notes in Computer Science*, vol. 1351, pp. 482-489, 1998.
 130. V. Feliu, J.A. González, C. Andrade, and S. Feliu, "Equivalent Circuit for Modelling the Steel-Concrete Interface. II Complications in Applying the Stern-Geary Equation to Corrosion Rate Determinations", *Corrosion Science*, vol. 40 n° 6, pp. 995-1006, 1998.
 131. V. Feliu, J.A. González, C. Andrade, and S. Feliu, "Equivalent Circuit for Modelling the Steel-Concrete Interface. I Experimental Evidence and Theoretical Predictions", *Corrosion Science*, vol. 40 n° 6, pp. 975-993, 1998.
 132. V. Feliu, and J.A. Cerrada, "Analysis and Design of Minimum-Phase Zeros of Sampled Systems", *International Journal of Control*, vol. 68 n° 6, pp. 1397-1416, December 1997.
 133. V. Feliu, C. Cerrada, J.A. Cerrada, and J.A. Somolinos, "A New Control Scheme of Single-Link Flexible Manipulators Robust to Payload Changes", *Journal of Intelligent Robotics Systems*, vol. 20 n° 2-4, pp. 349-373, 1997.
 134. V. Feliu, and S. Feliu, "Method of Obtaining the Time Domain Response of an Equivalent Circuit Model", *Journal of Electroanalytical Chemistry*, vol. 435/1-2, pp. 1-10, September 1997.
 135. V. Feliu, K.S. Rattan, and H.B. Brown, "Control of a Two-Degree-of-Freedom Lightweight Flexible Arm with Friction in the Joints", *Journal of Robotic Systems*, vol. 12 n°1, pp. 1-17, January 1995.
 136. V. Feliu, K.S. Rattan, and H.B. Brown, "Control of Flexible Arms with Friction in the Joints", *IEEE Transactions on Robotics and Automation*, vol. 9 n°4, pp. 467-475, August 1993.
 137. V. Feliu, K.S. Rattan, and H.B. Brown, "Modelling and Control of Single-Link Flexible Arms with Lumped Masses", *ASME Journal of Dynamic Systems, Measurement, and Control*, vol. 114, pp. 59-69, March 1992.
 138. V. Feliu, K.S. Rattan, and H.B. Brown, "Adaptive Control of a Single-Link Flexible Manipulator in the Presence of Joint Friction and Load Changes", *IEEE Control Systems Magazine*, vol. 10 n°2, pp. 29-33, February 1990.
 139. V. Feliu, J.A. Cerrada, and C. Cerrada, "A Method to Design Multirate Controllers for Plants Sampled at a Low Rate", *IEEE Transactions on Automatic Control*, vol. 35 n°1, pp. 57-60, January 1990.
 140. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "Polarization Resistance Measurements in Large Concrete Specimens: Mathematical Solution for a Unidirectional Current Distribution", *Materials and Structures*, vol. 22, pp. 199-205, 1989.
 141. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "Determining Polarization Resistance in Reinforced Slabs", *Corrosion Science*, vol. 29 n°1, pp. 105-113, 1989.
 142. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "On-Site Determination of the Polarization Resistance in a Reinforced Concrete Beam", *Corrosion*, vol. 44 n°10, pp. 761-765, October 1988.
 143. V. Feliu, J.A. Cerrada, and C. Cerrada, "An Algorithm to Compute the Continuous State Model from its Equivalent Discrete Model", *Control Theory and Advanced Technology*, vol. 4 n°2, pp. 231-241, June 1988.
 144. V. Feliu, and A. Jiménez, "Matrix Factorization Method to Stabilize Multivariable Control Systems", *Automatica*, vol. 23 n°5, pp. 647-651, September 1987.
 145. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "The Determination of the Corrosion Rate of Steel in Concrete by a Non-Stationary Method", *Corrosion Science*, vol. 26 n°11, pp. 961-970, 1986.
 146. V. Feliu, and S. Feliu, "Noniterative Method for Determining Corrosion Parameters from a Sequence of

- Polarization Data”, *Corrosion*, vol. 42 n°3, pp. 151-156, March 1986.
147. V. Feliu, “A Transformation Algorithm for the Estimation of System Laplace-Transform from Sampled-Data”, *IEEE Transactions on Systems, Man & Cybernetics*, vol. 16 n°1, pp. 168-173, January-February 1986.
148. R. Aracil, A. Jiménez, and V. Feliu, “Multirate Sampling Technique in Digital Control Systems Simulation”, *IEEE Transactions on Systems, Man & Cybernetics*, vol. 14 n°5, pp. 776-780, September-October 1984.

Other journals

1. R. Rivas, V. Feliu, L. Sánchez-Rodríguez, F. Castillo and A. Linares, “Desarrollo de una Nueva Familia de Controladores de Orden Fraccionario (FOC) para el Control Robusto de Procesos Productivos con Comportamientos Dinámicos Difíciles e Inciertos”, *Anales de la Academia de Ciencias de Cuba*, vol. 8, n° 1, 11 pp, October 2018.
2. D. Russell, A. San-Millán, V. Feliu and S.S. Aphale, “Butterworth Pattern-based Simultaneous Damping and Tracking Controller Designs for Nanopositioning Systems”, *Frontiers in Mechanical Engineering*, vol. 2, 10 pp, [dx.doi.org/10.3389/fmech.2016.00002](https://doi.org/10.3389/fmech.2016.00002), March 2016.
3. R. Rivas, I. Benítez, V. Feliu, and J. Sotomayor, “Extensión del Predictor de Smith para el Control de Procesos Industriales con Perturbaciones Externas no Medibles”, *Revista Electro Electrónica*, vol. 32, pp. 34-43, 2009.
4. G. Mamani, J. Becedas, V. Feliu, and H. Sira-Ramírez, “Algebraic Observers to Estimate Unmeasured State Variables of DC Motors”, *Engineering Letters (IAENG Journal)*, vol. 16 n° 2, pp. 248-255, May 2008.
5. A. González, R. Morales, A. Nieto, J.M. Chicharro, P. Pintado, and V. Feliu, “Un Nuevo Mecanismo para Subir Escaleras”, *Revista Iberoamericana de Ingeniería Mecánica*, vol. 11 n°1, pp. 59-73, 2007.
6. V. Feliu, “Robots Flexibles: Hacia una Generación de Robots con Nuevas Prestaciones”, *Revista Iberoamericana de Automática e Informática Industrial*, vol. 3 n°3, pp. 24-41, July 2006.
7. V. Feliu, R. Rivas, F. Castillo, and J. Sotomayor, “Calderas Industriales Piro tubulares”, *Automática e Instrumentación*, vol. 365, pp. 90-95, September 2005.
8. R. Rivas, V. Feliu, and J. Sotomayor, “Sistema de Detección de Fallos Basado en PC en Calderas Piro tubulares”, *Revista Iberoamericana de Ingeniería Mecánica*, vol. 9 n°1, pp. 63-78, 2005.
9. V. Feliu, R. Rivas, J. Sotomayor, and F. Castillo, “Control Fraccional de Procesos Industriales”. *Revista Electro Electrónica*, vol. 1er sem. 2005, pp. 19-28, 2005.
10. B.M. Vinagre, I. Podlubny, A. Hernández, and V.Feliu, “Some Approximations of Fractional Order Operators Used in Control Theory and Applications”, *Journal of Fractional Calculus and Applied Analysis*, vol. 3 n°3, pp. 231-248, 2000.
11. A. García, and V. Feliu, “Estudio Comparativo de Diferentes Sistemas de Control de Fuerza en un Robot Flexible de un Grado de Libertad”, *Revista Iberoamericana de Ingeniería Mecánica*, vol. 3 n° 1, pp. 57-76, 1999.
12. J.J. Feliu, and V. Feliu, “Modelado de Brazos Flexibles de un Grado de Libertad Sometidos a Agentes Externos. Aplicación al Control Adaptativo ante Cambios en la Masa”, *Revista Iberoamericana de Ingeniería Mecánica*, vol. 2 n° 1, pp. 21-41, 1998.
13. C. Calero, and V. Feliu, “Entorno para Visión Artificial Educativo”, *Revista de Enseñanza y Tecnología de ADIE*, vol. 7, pp. 14-19, June 1997.
14. F. Yeves, J. Carpio, S. Martínez, and V. Feliu, “Iterative Voltage and Current High Frequency Line Conditioner”, *European Power Electronics and Drives Journal*, vol. 5 n°3/4, pp. 38-43, January 1996.
15. V. Feliu, K.S. Rattan, and H.B. Brown, “Tip Control of Flexible Arms”, *Systems Science*, vol. 18 n°4, pp. 55-63, 1992.

16. V. Feliu, K.S. Rattan, and H.B. Brown, "Model Identification of a Single-Link Flexible Manipulator in the Presence of Friction", *Journal of Modelling and Simulation*, vol. 19, pp. 2057-2061, 1988.
17. V. Feliu, J.A. Cerrada, and C. Cerrada, "Algoritmo para la Obtención del Sistema Discreto Multiperiodico a Partir del Correspondiente Sistema Discreto", *Revista de Informática y Automática*, vol. 21 nº3, pp. 31-39, July-September 1988.
18. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "Posibilidades de Estimar la Velocidad Instantánea de Corrosión en Estructuras Reales de Hormigón Armado. Caso de una Viga", *Revista Iberoamericana de Corrosión y Protección*, vol. XVIII nº2-6, pp. 177-183, 1987.
19. J.A. Cerrada, and V. Feliu, "Estudio Comparativo de Métodos para la Obtención de Modelos de Sistemas Continuos a Partir de su Identificación por Computador", *Revista de Informática y Automática*, vol. 64, pp. 35-42, July-September 1985.
20. E.A. Puente, R. Aracil, V. Feliu, M.A. Salichs, C. Balaguer, and A. Barrientos, "El Robot DISAM-E65: Primera Experiencia Nacional en Diseño y Desarrollo de Robots Industriales para Ensamblado", *Regulación y Mando Automático*, vol. 140, pp. 99-103, July 1984.
21. S. Feliu, V. Feliu, and J.M. Bastidas, "Respuesta en Frecuencia para una Distribución no Uniforme de la Densidad de Corriente Alterna sobre un Electrodo", *Revista Iberoamericana de Corrosión y Protección*, vol. 14, pp. 359-366, 1983.
22. S. Feliu, V. Feliu, and J.A. Lamela, "Utilización de Electrodo Coplanares para las Determinaciones de la Velocidad Instantánea de Corrosión", *Revista Iberoamericana de Corrosión y Protección*, vol. 13 nº2, pp. 11-17, March-April 1982.
23. S. Feliu, and V. Feliu, "Efecto de una Distribución Desigual de la Corriente de Polarización en la Medida de R_p ", *Revista Iberoamericana de Corrosión y Protección*, vol. 13 nº1, pp. 19-25, January-February 1982.

CONFERENCES

Invited lectures

1. V. Feliu, "Application of Fractional Control to Flexible Robots and Vibration Suppression", *10 IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Senigallia-Ancona (Italy), September 2014.
2. V. Feliu, "Técnicas de Identificación Algebraica con Aplicaciones en Mecatrónica", *Informática 2013. Plenary Lecture of XI Symposium Internacional de Automatización*, La Habana (Cuba), March 2013.
3. V. Feliu, "Sistemas y Controles de Orden Fraccional", *Informática 2011. Plenary Lecture of X Symposium Internacional de Automatización*, La Habana (Cuba), February 2011.
4. V. Feliu, "Impact Control of Mobile Flexible Structures. Applications in Robotics ", *Plenary Lecture of 2009 6th International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE 2009)*, México D.F. (Mexico), November 2009.
5. V. Feliu, "Robótica y Robótica Flexible. Estado Actual y Desarrollo Futuro", *Plenary Lecture of Informática 2009. IX Symposium Internacional de Automatización*, La Habana (Cuba), February 2009.
6. V. Feliu, "Robótica Flexible: Mejorando las Prestaciones Dinámicas de los Robots", *Plenary Lecture of XIV Congreso Internacional de Computación CIC'2005*, México D.F. (México), September 2005.
7. V. Feliu, "Robots Flexibles. Una Alternativa a la Robótica Convencional", *Plenary Lecture of XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
8. V. Feliu, "La Nueva Organización de las Enseñanzas en el Espacio Europeo de Educación Superior: ¿Evolución o Revolución?", *Keynote Speech in the Acto Académico de Entrega de Diplomas de la Escuela Técnica Superior de Ingenieros Industriales de la Universidad de Cantabria*, Santander (Spain), March 2003.

9. V. Feliu, "Automatización y Automática: Una Perspectiva Histórica", *Keynote Speech in the Acto Académico de Entrega de Diplomas de la Escuela Técnica Superior de Ingenieros Industriales de la Universidad Politécnica de Cartagena*, Cartagena (Spain), March 2002.

Workshops and Tutorials

1. V. Feliu, "Flexible Robotics", *Tutorial of the 6th International Conference on Control Engineering & Information Technology*, Istanbul (Turkey), October 2018.
2. V. Feliu, "Fractional Order Robust Control of Mechatronic Systems", *Training School on Fractional Order Control: Theory and Applications. COST Action 15225*, Catania (Italy), September 2017.
3. V. Feliu, "Lumped Mass Modelling with Applications", *Tutorial on "Modelling and Control of Flexible Link Multi-Body Systems" associated to the 20 World Congress of the International Federation of Automatic Control*, Toulouse (France), July 2017.

International Conferences

1. S. Gharab and V. Feliu, "Feasible frequency robustness conditions for PI λ controllers: Laboratory hydraulic canal system as an example of analysis", *2019 IEEE International Conference on Systems, Man and Cybernetics (IEEE-SMC-2019)*, Bari (Italy), October 2019.
2. J.C. Cambera and V. Feliu, "Feedback Linearizing Controller for a Single Link Flexible Arm with a Passive Gravity Compensation Mechanism", *2018 IEEE/RJS International Conference on Intelligent Robotics and Systems (IROS)*, Madrid (Spain), October 2018.
3. J.C. Cambera, J.A. Chocoteco and V. Feliu, "Modeling and Identification of a Single Link Flexible Arm with a Passive Gravity Compensation Mechanism", *2018 IEEE International Conference on Robotics and Automation (ICRA)*, Brisbane (Australia), May 2018.
4. E. Mancha, J.E. Traver, I. Tejado, B.M. Vinagre and V. Feliu, "Artificial Flagellum Microrobot. Design and Simulation in COMSOL", *ROBOT 2017- Third Iberian Robot Conference*, Sevilla (Spain), November 2017.
5. R.J. Moon, A. San-Millán, M. Aleyaasin, V. Feliu and S.S. Aphale, "Selection of Positive Position Feedback Controllers for Damping and Precision Positioning Applications", *2017 Asian Simulation Conference*, pp. 289-301, Melaka (Malaysia), August 2017
6. V. Feliu, R. Rivas and A. Linares, "Fractional Order Robust Control of a Reverse Osmosis Seawater Desalination Plant", *20 World Congress of the International Federation of Automatic Control*, Toulouse (France), July 2017.
7. A. San-Millán, V. Feliu and S. Aphale, "Application of a Fractional Order Integral Resonant Control to Increase the Achievable Bandwidth of a Nanopositioner", *20 World Congress of the International Federation of Automatic Control*, Toulouse (France), July 2017.
8. D. Feliu and V. Feliu, "A Fractional-Order Controller for Single-Link Flexible Robots Robust to Sensor", *20 World Congress of the International Federation of Automatic Control*, Toulouse (France), July 2017.
9. D. Abdelhamid, B. Nouredine, V. Feliu, B. Djamel and F. Bodjema, "Fractional Order Sliding Mode Control with Pole-Placement for Non-linear Systems with Uncertain Disturbances", *6th International Conference on Systems and Control (ICSC)*, Batna (Algeria), May 2017.
10. V. Feliu, A. San-Millán, D. Feliu and R. Rivas, "Multivariable Fractional-order Model of a Laboratory Hydraulic Canal with Two Pools", *4th International Conference on Control, Decision and Information*

Technologies (CoDIT'17), Barcelona (Spain), April 2017.

11. A. San-Millán, S. Aphale and V. Feliu, "Two-degrees-of-freedom controller delivering zero-error tracking of ramp-like trajectories for nanopositioning systems", *2015 IEEE Multi-Conference on Systems and Control (MSC)*, Sydney (Australia), September 2015.
12. D. Russell, A. San-Millán, V. Feliu and S. Aphale, "Butterworth pattern based simultaneous damping and tracking controller designs for nanopositioning systems", *European Control Conference*, Linz (Austria), July 2015.
13. A. San-Millán, V. Feliu and A. García, "A two-stage control scheme of single-link flexible manipulators", *23th Mediterranean Conference on Control and Automation (MED)*, Torremolinos (Spain), June 2015.
14. S. Hassan HosseinNia, I. Tejado, D.Torres, B.M. Vinagre and V. Feliu, "A General Form for Reset Control Including Fractional Order Dynamics", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
15. V. Feliu, R. Rivas, F. Castillo and C.A. Rodríguez-Martínez, "A Robust Fractional Order Controller for an EAF Electrode Position System", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
16. R. Rivas, F. Castillo, J. Sotomayor and V. Feliu, "Design of a Fractional Order PI Controller for Steam Pressure in the Steam Drum of a Bagasse Fired Boiler", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
17. R. Rivas, V. Feliu, F. Castillo and I Benítez-González, "Temperature control of a crude oil preheating furnace using a modified Smith predictor improved with a disturbance rejection term", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
18. D. Feliu, V. Feliu and C.F. Castillo-Berrio, "A Nonlinear Input Shaping Technique for Motion Control of a Sensing Antenna", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
19. A. San-Millán, J.C. Cambera and V. Feliu, "Online Algebraic Identification of the Payload Changes in a Single-Link Flexible Manipulator Moving under Gravity", *19 World Congress of the International Federation of Automatic Control*, Cape Town (South Africa), August 2014.
20. V. Feliu-Batlle, R. Rivas-Perez and F. Castillo-Garcia, "Robust Fractional-Order Temperature Control of a Steel Slab Reheating Furnace with Large Time Delay Uncertainties", *1th International Conference on Fractional Differentiation and its Applications ICFDA'14*, Catania (Italy), June 2014.
21. J.C. Cambera, J.A. Chocoteco and V. Feliu, "Feedback Linearizing Controller for a Flexible Single-Link Arm under Gravity and Joint Friction", *ROBOT 2013- First Iberian Robotics Conference*, Madrid (Spain), November 2013.
22. D. Feliu, C.F Castillo-Berrio and V. Feliu, "Improving the Motion of a Sensing Antenna by Using an Input Shaping Technique", *ROBOT 2013- First Iberian Robotics Conference*, Madrid (Spain), November 2013.
23. V. Feliu, G. Maione and S.N. Calderón-Valdéz, "Comparison between Robustness of Two Fractional-Order PI Controllers for Irrigation Canals", *6 Workshop on Fractional Differentiation and its Applications FDA'13*, Grenoble (France), February 2013.
24. R. Rivas, V. Feliu, F. Castillo and J. Sotomayor, "Control Robusto de Orden Fraccional de la Presión del Vapor en el Domo Superior de una Caldera Bagacera", *XV Congreso Latinoamericano de Control Automático*, Lima (Perú), October 2012.
25. V. Feliu, R. Rivas, F. Castillo and I.Y. Mora, "Fractional Order Temperature Control of Steel Slab Reheating Furnace Robust to Delay Changes", *5 Workshop on Fractional Differentiation and its Applications FDA'12*, Nanking (China), May 2012.
26. F. Castillo, V. Feliu, R. Rivas, and L. Sánchez, "Time Domain Tuning of a Fractional Order PIa Controller Combined with a Smith Predictor for Automation of Water Distribution in Irrigation Main Channel Pools", *18 World Congress of the International Federation of Automatic Control*, Milan (Italy), August-September 2011.

27. F. Castillo, V. Feliu, R. Rivas, and L. Sánchez, "Comparative Analysis of Stability and Robustness between Integer and Fractional-Order PI Controllers for First Order plus Time Delay Plants", *18 World Congress of the International Federation of Automatic Control*, Milan (Italy), August-September 2011.
28. J. Becedas, E. González, I. Payo y V. Feliu, "On Line Visual-Grasping System Based on a Gripper with Two Flexible Fingers", *18 World Congress of the International Federation of Automatic Control*, Milan (Italy), August-September 2011.
29. C.F. Castillo-Berrio, V. Feliu, and F. Castillo, "Experimental Validation of a 2 Degrees of Freedom Whisker Sensor Dynamic Model", *18 World Congress of the International Federation of Automatic Control*, Milan (Italy), August-September 2011.
30. R. Rivas, V. Feliu, F. Castillo, L. Sánchez, and A. Linares, "Control-Oriented Model of a Complex Irrigation Main Canal Pool", *18 World Congress of the International Federation of Automatic Control*, Milan (Italy), August-September 2011.
31. E. González, V. Feliu, and A. Adán, "CSS-AFFN: A Dataset Representation Model for Active Recognition Systems", *14th International Conference on Computer Analysis of Images and Patterns CAIP'2011*, Sevilla (Spain), August 2011.
32. A. Parreño, P. L. Roncero, X. del Toro, and V. Feliu, "Generalized Proportional-Integral Control for Voltage-Sag Compensation in Dynamic Voltage Restorers", *7 International Workshop/Conference on Compatibility and Power Electronics CPE 2011*, Tallinn (Estonia), June 2011.
33. H. Heydari, V. Feliu, M. Heghpanahi, and M.H. Korayem, "A new nonlinear finite element model for the dynamic modeling of flexible link manipulators undergoing large deflections", *IEEE International Conference on Mechatronics ICM 2011*, Estambul (Turkey), April 2011.
34. C.F. Castillo-Berrio, F. Castillo, and V. Feliu, "Inverse dynamics feed forward based control of two degrees of freedom whisker sensor", *IEEE International Conference on Mechatronics ICM 2011*, Estambul (Turkey), April 2011.
35. C. Rodríguez-Martínez, R. Rivas, V. Feliu, and F. Castillo, "Sistema de Control de Orden Fraccional de un Horno de Arco Eléctrico de Antillana de Acero", *X Symposium Internacional de Automatización, en Informática 2011*, La Habana (Cuba), February 2011.
36. Y. Mora-Inchaustequi, R. Rivas, V. Feliu, and F. Castillo, "Control de Orden Fraccional del Proceso de Variación de Temperatura en un Horno Siderúrgico", *X Symposium Internacional de Automatización, en Informática 2011*, La Habana (Cuba), February 2011.
37. I. Benítez, R. Rivas, V. Feliu, and F. Castillo, "Diseño del Sistema de Control del Proceso de Variación de la Temperatura en la Zona de Igualación en el Horno de Calentamiento de Palanquillas", *X Symposium Internacional de Automatización, en Informática 2011*, La Habana (Cuba), February 2011.
38. G. Partida, V.H. Jaramillo, and V. Feliu, "Mass Variations Robust Controller, for a 3-DOF Flexible Robot", *36 IEEE Conference on Industrial Electronics IECON'10*, Phoenix (USA), November 2010.
39. R. Fernández-Rodríguez, E. Gonzalez, A. Gonzalez-Rodríguez, and V. Feliu, "A Wall Climbing Robot for Tank Inspection. An Autonomous Prototype", *36 IEEE Conference on Industrial Electronics IECON'10*, Phoenix (USA), November 2010.
40. V. Feliu, and H. Sira-Ramírez, "On the Linear Feedback Control of Fractional-Order Derivative Systems", *4 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'10*, Badajoz (Spain), October 2010.
41. S.N. Calderón-Valdez, M.A. Ruiz-Torija, R. Rivas-Pérez, and V. Feliu, "Fractional Order PI Controller with Minimized Weighted Integral Squared Error Using Extreme Possible Models of a Laboratory Hydraulic Canal", *4 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'10*, Badajoz (Spain), October 2010.
42. F. Castillo, V. Feliu, L. Sánchez, R. Rivas, and V.H. Jaramillo, "Robust PD^α Time-Domain Tuning Rules for Controlling DC-Motors", *4 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'10*, Badajoz (Spain), October 2010.

43. G. Partida, V.H. Jaramillo, and V. Feliu, "Three-Degrees-of-Freedom Flexible Robot Position Control Robust to Load Changes", *IEEE International Conference on Emerging Technology and Factory Automation ETFA10*, Bilbao (Spain), September 2010.
44. J.A. Chocoteco, R. Morales, A. González, and V. Feliu, "Kinematic Control of a Reconfigurable Stair-Climbing System", *13th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2010*, Nagoya (Japan), September 2010.
45. C.F. Castillo-Berrio, F.J. Castillo, and V. Feliu, "Feedback Linearization Based Control for Trajectory Tracking of a 2 Degree of Freedom Whisker", *13th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2010*, Nagoya (Japan), September 2010.
46. X. del Toro, P. L. Roncero, A. Parreño, and V. Feliu, "Ultracapacitor-based Storage: Modelling, Power Conversion and Energy Considerations", *IEEE International Symposium on Industrial Electronics ISIE 2010*, Bari (Italy), July 2010.
47. J. Becedas, E. Pereira, P.A. Hungría, and V. Feliu, "A Novel Control Engineering Trainer for Moving the Experimental Work from the Laboratory to the Student's Home", *The International Technology, Education and Development Conference INTED 2010*, Valencia (Spain), March 2010.
48. L.M. Gómez, V.H. Jaramillo, F.J. Castillo, and V. Feliu, "Time Domain Tuning of a Class of a Smith Predictor Based Fractional Control", *Symposium on Fractional Signals and Systems FSS09*, Lisboa (Portugal), November 2009.
49. X. del Toro, P. L. Roncero, A. Parreño, and V. Feliu, "Analysis of the Non-Linear Fractional Dynamics of Ultracapacitors Integrated in Power Systems", *Symposium on Fractional Signals and Systems FSS09*, Lisboa (Portugal), November 2009.
50. V.H. Jaramillo, C.F. Castillo-Berrio, and V. Feliu, "A Robust Fractional Motion Control with Disturbance Observation", *Symposium on Fractional Signals and Systems FSS09*, Lisboa (Portugal), November 2009.
51. S.N. Calderón, M.A. Ruiz-Torija, R. Rivas-Pérez, and V. Feliu, "Fractional PI Controller Design with Optimized Robustness to Time Delay Changes in Main Irrigation Canals", *14th IEEE International Conference on Emerging Technologies and Factory Automation ETFA'2009*, Palma de Mallorca (Spain), September 2009.
52. P.L. Roncero, E. Acha, J.E. Ortega-Calderón, V. Feliu, and A. García-Cerrada, "Repetitive Control for a Dynamic Voltage Restorer for Power-Quality Improvement", *13th European Conference on Power Electronics and Applications EPE 2009*, Barcelona (Spain), September 2009.
53. P.L. Roncero, X. del Toro, A. Parreño, and V. Feliu, "A Fast Frequency Estimation Method for Balanced Three-Phase Systems with Harmonic Distortion", *13th European Conference on Power Electronics and Applications EPE 2009*, Barcelona (Spain), September 2009.
54. G. Mamani, J.M. Andrade-Da Silva, and V. Feliu, "Least Squares State Estimator Based Sliding Mode Control of a Very Lightweight Single-Link Flexible Robot Arm", *IEEE International Conference on Mechatronics ICM 2009*, Málaga (Spain), April 2009.
55. V.H. Jaramillo, V. Feliu, and F.J. Castillo, "An Approach for Flexible Link Robots Gearbox Design", *IEEE International Conference on Mechatronics ICM 2009*, Málaga (Spain), April 2009.
56. E. Pereira, S.S. Aphale, V. Feliu, and S.O. Reza Moheimani, "A hybrid control strategy for vibration damping and precise tip-positioning of a single-link flexible manipulator", *IEEE International Conference on Mechatronics ICM 2009*, Málaga (Spain), April 2009.
57. I. Payo, and V. Feliu, "Linear and Non-Linear Behavior of Highly Flexible Single-Link Arms. Theory and Experiments", *IEEE International Conference on Mechatronics ICM 2009*, Málaga (Spain), April 2009.
58. I. Benítez, R. Rivas, V. Feliu, and F. Castillo, "Predictor de Smith Modificado Mediante un Modelo Interno, Robusto a Perturbaciones Externas No Medibles", *IX Symposium Internacional de Automatización, en Informática 2009*, La Habana (Cuba), February 2009.

59. F. Castillo, V. Feliu, R. Rivas, and T. Ciudad, "Método de Control para una Cierta Clase de Plantas No-Lineales Basado en Linealización por Tramos", *IX Symposium Internacional de Automatización, en Informática 2009*, La Habana (Cuba), February 2009.
60. J.E. González-Lavaut, R. Rivas, V. Feliu, and F. Castillo, "Identificación del Proceso de Variación de la Temperatura de la Mezcla Durante la Formulación de Medicamentos Inyectables Líquidos en un Reactor Químico", *IX Symposium Internacional de Automatización, en Informática 2009*, La Habana (Cuba), February 2009.
61. F. Castillo, V. Feliu, R. Rivas, and L. Sánchez, "On the Relationship Between Frequency and Time-Domain Specifications in a Class of Fractional PI Controllers", *3 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'08*, Ankara (Turkey), November 2008.
62. A. Parreño, P.L. Roncero, V. Feliu, and F. Castillo, "Fractional Dynamics Analysis of an Ultracapacitor Based Buck-Boost Power Electronic Converter", *3 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'08*, Ankara (Turkey), November 2008.
63. J. Guerra, and V. Feliu, "Dynamic Modelling of a Single-Link Flexible Arm to be Used as a Sensing Antenna", *2nd European Conference on Mechanism Science EUCOMES 2008*, Cassino (Italy), September 2008.
64. J. Guerra, and V. Feliu, "Control of a Single-Link Flexible Arm to Be Used as a Sensing Antenna", *11th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2008*, Coimbra (Portugal), September 2008.
65. R. Fernández-Rodríguez, A. González-Rodríguez, and V. Feliu, "A Proposed Wall Climbing Robot for Oil Tank Inspection", *11th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2008*, Coimbra (Portugal), September 2008.
66. G. Mamani, J. Becedas, and V. Feliu, "On-Line Fast Algebraic Parameter and State Estimation for a DC Motor Applied to Adaptive Control", *2008 International Conference of Applied and Engineering Mathematics*, London (United Kingdom), July 2008.
67. J. Becedas, I. Payo, V. Feliu, and H. Sira-Ramírez, "Generalized Proportional Integral Control for a Robot with Flexible Finger Gripper", *17 World Congress of the International Federation of Automatic Control*, Seoul (South Korea), July 2008.
68. R. Rivas, V. Feliu, F. Castillo, and A. Linares, "System Identification for Control of a Main Irrigation Canal Pool", *17 World Congress of the International Federation of Automatic Control*, Seoul (South Korea), July 2008.
69. F. Castillo, R. Rivas, and V. Feliu, "Fractional II^o Controller Combined with a Smith Predictor for Effective Water Distribution in a Main Irrigation Canal Pool", *17 World Congress of the International Federation of Automatic Control*, Seoul (South Korea), July 2008.
70. V. Feliu, R. Rivas, L. Sánchez, A. Linares, and F. Castillo, "Robust Fractional Order PI Controller for a Main Irrigation Canal Pool", *17 World Congress of the International Federation of Automatic Control*, Seoul (South Korea), July 2008.
71. H. Sira-Ramírez, V. Feliu, F. Beltrán, and A. Blanco, "Modulation Sliding Mode Observers for Linear Systems Subject to Locally Unstable Inputs", *16 Mediterranean Conference on Control and Automation*, Nancy (France), June 2008.
72. J.R. Trapero, M. Mboup, E. Pereira, and V. Feliu, "On-Line Frequency and Damping Estimation in a Single-Link Flexible Manipulator Based on Algebraic Identification", *16 Mediterranean Conference on Control and Automation*, Nancy (France), June 2008.
73. P.L. Roncero, V. Feliu, and A. García-Cerrada, "Predictive-Integral Current Controller for Active-and Reactive-Power Control of Wind Generators", *The International Conference on Renewable Energies and Power Quality ICREPQ'08*, Santander (Spain), March 2008.

74. E. González, A. Adán, V. Feliu, and L. Sánchez, "A Solution to the Next Best View Problem Based on D-Spheres for 3D Object Recognition", *IASTED International Conference on Computer Graphics and Imaging CGIM 2008*, Innsbruck (Austria), February 2008.
75. J. Becedas, V. Feliu, and H. Sira-Ramírez, "GPI Control for a Single-Link Flexible Manipulator", *2007 World Congress on Engineering and Computer Science- International Conference on Modeling, Simulation and Control ICMSC 07*, San Francisco (USA), October 2007.
76. J. Becedas, G. Mamani, V. Feliu, and H. Sira-Ramírez, "Algebraic Identification Method for Mass-Spring Damper System", *2007 World Congress on Engineering and Computer Science- International Conference on Modeling, Simulation and Control ICMSC 07*, San Francisco (USA), October 2007.
77. G. Mamani, J. Becedas, V. Feliu, and H. Sira-Ramírez, "An Algebraic State Estimation Approach for DC Motors", *2007 World Congress on Engineering and Computer Science- International Conference on Modeling, Simulation and Control ICMSC 07*, San Francisco (USA), October 2007.
78. R. Martínez, I. Mazaira, and V. Feliu, "Control of First Order Systems with Bounded Input by Asymptotic Output Tracking with Fractional Regulators", *2007 ASME International Design Engineering Technical Conference & Computers and Information in Engineering Conference IDETC 07. 6th International Conference on Multibody Systems, Nonlinear Dynamics and Control*, Las Vegas (USA), September 2007.
79. L. Sánchez Rodríguez, V. Feliu, R. Rivas, and M.A. Ruiz-Torija, "Robust Control of a Laboratory Hydraulic Canal by Using a Fractional PI Controller", *2007 ASME International Design Engineering Technical Conference & Computers and Information in Engineering Conference IDETC 07. 6th International Conference on Multibody Systems, Nonlinear Dynamics and Control*, Las Vegas (USA), September 2007.
80. E. Pereira, I. Muñoz, J.J. López, and V. Feliu, "A New Design Methodology for Passivity-Based Control of Single-Link Flexible Manipulators", *IEEE International Conference on Advanced Intelligent Mechatronics AIM 2007*, Zurich (Switzerland), September 2007.
81. G. Mamani, J. Becedas, V. Feliu, and H. Sira-Ramírez, "Open-Loop Algebraic Identification Method for a DC Motor", *European Control Conference ECC'07*, Kos (Greece), July 2007.
82. J. Becedas, V. Feliu, and H. Sira-Ramírez, "Control of Flexible Manipulators Based on the Generalized Proportional Integral Concept", *2007 IEEE Symposium on Industrial Electronics ISIE2007*, Vigo (Spain), June 2007.
83. E. González, V. Feliu, A. Adán, and L. Sánchez, "Active 3D Recognition System Based on Fourier Descriptors", *ICINCO-2007 International Conference on Informatics in Control, Automation and Robotics*, Angers (France), May 2007.
84. J. Becedas, J.R. Trapero, H. Sira-Ramírez, and V. Feliu, "Fast Identification Applied to Control of a Flexible Manipulator", *2007 IEEE International Conference on Robotics and Automation*, Rome (Italy), April 2007.
85. V. Feliu, L. Sánchez Rodríguez, R. Rivas, D.J. Pedregal, A. Linares, J.V. Aguilar, and P. Langarita, "Fractional PI Control of an Irrigation Main Canal", *8^o IFAC Symposium on Cost Oriented Automation*, La Habana (Cuba), February 2007.
86. R. Rivas, V. Feliu, L. Sánchez Rodríguez, D.J. Pedregal, A. Linares, J.V. Aguilar, and P. Langarita, "System Identification of Aragon's Imperial Irrigation Main Canal", *8^o IFAC Symposium on Cost Oriented Automation*, La Habana (Cuba), February 2007.
87. J. Becedas, J.R. Trapero, G. Mamani, H. Sira-Ramírez, and V. Feliu, "A Fast On-Line Algebraic Estimation of a Single-Link Flexible Arm Applied to GPI Control", *32 IEEE Conference on Industrial Electronics IECON'06*, Paris (France), November 2006.
88. A. González, R. Morales, V. Feliu, and P. Pintado, "Improving the Mechanical Design of a New Staircase Climbing Wheelchair", *9th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2006*, Brussels (Belgium), September 2006.

89. A. González, R. Morales, A.J. Nieto, V. Feliu, P. Pintado, J.M. Chicharro, and A.L. Morales, "A New High Load Capacity Hybrid Locomotion Robot Capable to Climb Staircases", *10th Internacional Research/Expert Conference "Trends in the Development of Machinery and Associated Technology", TMT-2006*, Barcelona-Lloret de Mar (Spain), September 2006.
90. E. González, V. Feliu, A. Adán, and L. Sánchez, "Reconocimiento de Objetos de Forma Libre y Estimación de su Posicionamiento Usando Descriptores de Fourier", *CMPI-2006 Congreso Multidisciplinar en Percepción e Inteligencia*, Albacete (Spain), July 2006.
91. I. Payo, V. Feliu, and M. Moallem, "Force Control of a Single-Link Flexible Arm", *IEEE International Conference on Mechatronics ICM 2006*, Budapest (Hungary), July 2006.
92. E. Pereira, I. Muñoz, P.L. Roncero, and V. Feliu, "Approaches of Discrete Feedforward Control for Vibration Cancellation in Multimode Single-Link Flexible Manipulators", *IEEE International Conference on Mechatronics ICM 2006*, Budapest (Hungary), July 2006.
93. I. Muñoz, E. Pereira, I. Payo, J.J. López, and V. Feliu, "Design and Experimental Validation of Optimal Placement of Strain Sensors in Flexible Structures", *13th International Congress on Sound and Vibration*, Vienna (Austria), July 2006.
94. H. Sira-Ramírez, J.R. Trapero, and V. Feliu, "Frequency Identification in the Noisy Sum of Two Sinusoidal Signals", *17th International Symposium on Mathematical Theory of Networks and Systems*, Kyoto (Japan), July 2006.
95. H. Sira-Ramírez, and V. Feliu, "On the GPI-Sliding Mode Control of Switched Fractional Order Systems", *The 9th International Workshop on Variable Structure Systems VSS 2006*, Alghero (Italy), July 2006.
96. C.A. Monje, B.M. Vinagre, V. Feliu, and Y.Q. Chen, "On Auto-Tuning of Fractional Order PI^λD^μ Controllers", *2nd Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'06*, Port (Portugal), July 2006.
97. H. Sira-Ramírez, and V. Feliu, "On the GPI-PWM Control of a Class of Switched Fractional Order Systems", *2nd Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA'06*, Port (Portugal), July 2006.
98. W.J. O'Connor, F. Ramos, and V. Feliu, "Wave-based Control of a Non-linear Flexible System", *ASME 2006 Conference on Engineering Systems Design and Analysis ESDA 2006*, Torino (Italy), July 2006.
99. F. Ramos, V. Feliu, and I. Payo, "Design of Trajectories with Physical Constraints for Very Lightweight Single Link Flexible Arms", *ASME 2006 Conference on Engineering Systems Design and Analysis ESDA 2006*, Torino (Italy), July 2006.
100. R. Morales, V. Feliu, A. González, and P. Pintado, "Coordinated Motion of a New Staircase Climbing Wheelchair with Increased Passenger Comfort", *2006 IEEE International Conference on Robotics and Automation*, Orlando (USA), May 2006.
101. H. Sira-Ramírez, V. Feliu, and J.R. Trapero, "An Algebraic Approach to Fast Perturbed Sinusoidal Signal Parameters Identification", *IATED International Conference on Modelling, Identification, and Control 2006 "MIC 2006"*, Lanzarote (Spain), February 2006.
102. I. Payo, F. Ramos, D.O. Cortázar, and V. Feliu, "Experimental Validation of Nonlinear Dynamic Models for Single-Link Very Flexible Arms", *2005 Joint IEEE Conference on Decision and Control, and European Control Conference*, Sevilla (Spain), December 2005.
103. V. Feliu, B.M. Vinagre, and C.A. Monje, "Fractional Control of a Single-Link Flexible Manipulator", *ASME 2005 International Design Engineering Technical Conference & Computers and Information in Engineering Conference*, Long Beach (USA), September 2005.
104. I. Muñoz, E. Pereira, J.J. López, and V. Feliu, "Efficient Placement of Strain Sensors of Plate Dynamics Based on Some Optimization Criteria", *ASME 2005 International Design Engineering Technical Conference & Computers and Information in Engineering Conference*, Long Beach (USA), September 2005.
105. P.L. Roncero, V. Feliu, and A. García-Cerrada, "Active and Reactive Power Control for a Wind Generator

- Connected to the Grid using Predictive-Integral Control and PI Control Schemes”, *11th European Conference on Power Electronics and Applications EPE 2005*, Dresden (Germany), September 2005.
106. R. Morales, V. Feliu, A. González, and P. Pintado, “A Prototype of a New Staircase Climbing Wheelchair”, *XIV Congreso Internacional de Computación CIC’2005*, México D.F. (Mexico), September 2005.
 107. C.A. Monje, B.M. Vinagre, A.J. Calderón, V. Feliu, and Y.Q. Chen, “Self-Tuning of Fractional Lead-Lag Compensators”, *16 World Congress of the International Federation of Automatic Control*, Praga (Czech Republic), July 2005.
 108. P.L. Roncero, V. Feliu, A. García-Cerrada, and P. García-González, “Repetitive-Control System for Harmonic Elimination in Three-Phase Voltage-Source Inverters”, *16 World Congress of the International Federation of Automatic Control*, Praga (Czech Republic), July 2005.
 109. V. Feliu, R. Rivas, and F. Castillo, “Fractional Robust Control to Delay Changes in Main Irrigation Canals”, *16 World Congress of the International Federation of Automatic Control*, Praga (Czech Republic), July 2005.
 110. V. Feliu, I. Muñoz, P.L. Roncero, and J.J. López, “Repetitive Control for Single Link Flexible Manipulators”, *2005 IEEE International Conference on Robotics and Automation*, Barcelona (Spain), May 2005.
 111. C.A. Monje, A.J. Calderón, B.M. Vinagre, and V. Feliu, “The Fractional Order Lead Compensator”, *IEEE International Conference on Computational Cybernetics ICC3’04*, Vienna (Austria), September 2004.
 112. R. Morales, A. González, V. Feliu, and P. Pintado, “Kinematics of a New Staircase Climbing Wheelchair”, *7th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines CLAWAR 2004*, Madrid (Spain), September 2004.
 113. C.A. Monje, B.M. Vinagre, Y.Q. Chen, V. Feliu, P. Lanusse, and J. Sabatier, “Proposals for Fractional $PI^{\lambda}D^{\mu}$ Tuning”, *1 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA’04*, Bordeaux (France), July 2004.
 114. B.M. Vinagre, C.A. Monje, A.J. Calderon, Y.Q. Chen, and V. Feliu, “The Fractional Integrator as a Reference Function”, *1 Workshop of the International Federation of Automatic Control on Fractional Differentiation and its Applications FDA’04*, Bordeaux (France), July 2004.
 115. I. Payo, D.O. Cortázar, and V. Feliu, “Design of an Efficient Estimator of the Tip Position and Orientation for Non-Linear Very Flexible Robotic Arms”, *2004 World Automation Congress – International Symposium on Robotics and Automation*, Sevilla (Spain), July 2004.
 116. F. Ramos, F.J. Castillo, J.A. Somolinos, and V. Feliu, “Robust Control of a Very Lightweight One Degree-Of-Freedom Flexible Arm with Changes in the Tip Mass and Inertia”, *2004 World Automation Congress – International Symposium on Robotics and Automation*, Sevilla (Spain), July 2004.
 117. V. Feliu, R. Rivas, and J. Sotomayor, “Control Fraccional de la Distribución de Agua en Sistemas de Riego”, *Informática 2004*, La Habana (Cuba), May 2004.
 118. I. Payo, D.O. Cortázar, and V. Feliu, “Dynamics of a Single-link Very Flexible Non-linear Arm for Robotic Applications”, *13 International Symposium on Measurement and Control in Robotics ISMCR’03*, Madrid (Spain), December 2003.
 119. F.J. Castillo, J.A. Somolinos, and V. Feliu, “Dynamic Behaviour of a New 6 Degree-of-freedom Flexible Arm”, *13 International Symposium on Measurement and Control in Robotics ISMCR’03*, Madrid (Spain), December 2003.
 120. R. Morales, A. González, P. Pintado, and V. Feliu, “A New Staircase Climbing Wheelchair”, *13 International Symposium on Measurement and Control in Robotics ISMCR’03*, Madrid (Spain), December 2003.
 121. A.J. Calderón, B.M. Vinagre, and V. Feliu, “Linear Fractional Order Control of a DC-DC Buck Converter”, *European Control Conference ECC’03*, Cambridge (United Kingdom), September 2003.
 122. V. Feliu, R. Rivas, L. Gorostiaga, and L. Sánchez, “Fractional Control for an Open Irrigation Canal”, *6th Inter-Regional Conference on Environment-Water*, Albacete (Spain), September 2003.

123. R. Rivas, V. Feliu, and J. Sotomayor, "Robust System Identification of Irrigation Main Canal", *6th Inter-Regional Conference on Environment-Water*, Albacete (Spain), September 2003.
124. P.L. Roncero, A. García-Cerrada, and V. Feliu, "Vector Control of Wind Turbines Based on Asynchronous Machines and their Integration with the Grid", *European Wind Energy Conference EWEC'03*, Madrid (Spain), July 2003.
125. A.J. Calderón, B.M. Vinagre, and V. Feliu, "Fractional Sliding Mode Control of a DC-DC Buck Converter with Application to DC Motor Drives", *11 IEEE Internacional Conference on Advanced Robotics (ICAR'03)*, Coimbra (Portugal), June 2003.
126. C.A. Monje, A.J. Calderón, B.M. Vinagre, and V. Feliu, "PI vs Fractional PI Controls: First Results", *Controlo 2002*, Aveiro (Portugal), September 2002.
127. P.L. Roncero, A. García-Cerrada, and V. Feliu, "Indirect-Field-Orientated Control of an Asynchronous Generator with Rotor-Resistance Adaptation Based on a Reference Model", *15 World Congress of the International Federation of Automatic Control*, Barcelona (Spain), July 2002.
128. A. Adán, V. Feliu, and F. Ramos, "A New Approach for Mobile Robot Self-Location in Three Dimensional Environments", *15 World Congress of the International Federation of Automatic Control*, Barcelona (Spain), July 2002.
129. J. Salido, A. Adán, V. Feliu, L. Sánchez, J.A. Somolinos, and P.L. Roncero, "An Autonomous Tour-Guide Robot for Public Places", *ISPRA'02 International Conference on Signal Processing, Robotics and Automation*, Cádiz (Spain), June 2002.
130. I. Petras, B. Vinagre, V. Dorcak, and V. Feliu, "Fractional Digital Control of a Heat Solid: Experimental Results", *International Carpathian Control Conference "ICCC-2002"*, Malenovice (Czech Republic), May 2002.
131. M. Bachiller, A. Adán, V. Feliu, and C. Cerrada, "Well Structured Robot Positioning Control Strategy for Position Based Visual Servoing", *2001 IEEE International Conference on Robotics and Automation*, Seoul (South Korea), May 2001.
132. A. García, V. Feliu, and J.A. Somolinos, "Gauge Based Collision Detection Mechanism for a Three-degree-of-freedom Flexible Robot", *2001 IEEE International Conference on Robotics and Automation*, Seoul (South Korea), May 2001.
133. G. Mata, P. Pintado, and V. Feliu, "Un Diseño de Silla de Ruedas con Nuevas Capacidades", *Congreso Europeo de Investigación en Rehabilitación*, Madrid (Spain), April 2001.
134. J.A. Somolinos, V. Feliu, and A. García, "Stability Analysis of a New Control Scheme for a Three-Degree-of-Freedom Flexible Arm under Tip Payload Changes", *39 IEEE Conference on Decision and Control*, Sidney (Australia), December 2000.
135. B.M. Vinagre, and V. Feliu, "Frequency Domain Design of Fractional Optimal Controllers for Commensurate Order Systems: a Special Case of the Wiener-Hopf Method", *39 IEEE Conference on Decision and Control*, Sidney (Australia), December 2000.
136. A.J. Calderón, I. de la Nuez, and V. Feliu, "Three-Phase Static Frequency Converter", *IASTED International Conference on Power and Energy Systems 2000 "PES 2000"*, Marbella (Spain), September 2000.
137. B.M. Vinagre, I. Podlubny, A. Hernández, and V. Feliu, "Réalisation de Correcteurs D'Ordre Fractionnaire", *Premiere Conférence Internationale Francophone d'Automatique CIFA 2000*, Lille (France), July 2000.
138. V. Feliu, A. García, J.A. Somolinos, and L. Sánchez, "Hacia un Robot Flexible de Especificaciones Industriales", *III Conferencia Internacional de Control de Sistemas Industriales, dentro del evento Informática 2000*, La Habana (Cuba), May 2000.
139. B.M. Vinagre, I. Podlubny, L. Dorcak, and V. Feliu, "On Fractional PID Controllers: A Frequency Domain Approach", *PID'00 IFAC Workshop on Digital Control. Past, Present and Future of PID Control*, Tarrasa (Spain), April 2000.

140. R. Martín, I. Aspiazu, I. de la Nuez, and V. Feliu, "Sliding Control of a Buck Converter with Variable Load", *IASTED International Conference on Control and Applications*, Banff (Canada), July 1999.
141. J.F. Estívariz, A. García, and V. Feliu, "Comparative Study of Force Control Systems for a Single-Link Flexible Robot", *IASTED International Conference on Control and Applications*, Banff (Canada), July 1999.
142. S.R. Gómez, J.A. Cerrada, and V. Feliu, "A Faster Algorithm for Calculating the Inverse Kinematics of a General 6R Manipulator for Robot Real Time Control", *14 World Congress of the International Federation of Automatic Control*, Pekin (China), July 1999.
143. J.A. Somolinos, V. Feliu, L. Sánchez, and J.A. Cerrada, "Design and Experimental Validation of a New Three-Degree-of-Freedom Flexible Arm with Simplified Dynamics", *14 World Congress of the International Federation of Automatic Control*, Pekin (China), July 1999.
144. A. Adán, C. Cerrada, and V. Feliu, "Automatic Orienting of 3D Shapes by Using a New Data Structure for Object Modeling", *1999 IEEE International Conference on Robotics and Automation*, Detroit (USA), May 1999.
145. J.A. Somolinos, V. Feliu, L. Sánchez, and J.A. Cerrada, "Modeling and Control of a New Three-Degree-of-Freedom Flexible Arm with Simplified Dynamics", *1999 IEEE International Conference on Robotics and Automation*, Detroit (USA), May 1999.
146. B.M. Vinagre, V. Feliu, and J.J. Feliu, "Frequency Domain Identification of a Flexible Structure with Piezoelectric Actuators Using Irrational Transfer Functions Models", *37 IEEE Conference on Decision and Control*, Tampa (USA), December 1998.
147. A. Adán, C. Cerrada, V. Feliu, and M. Bachiller, "LSR/GSR: Un Modelo de Representación Híbrido Local/Global", *6º Congreso Iberoamericano de Inteligencia Artificial "IBERAMIA '98"*, Lisbon (Portugal), October 1998.
148. A. García, and V. Feliu, "Effects of the Flexibility on the Hybrid Position Force Control of a Single-Link Manipulator", *3rd Portuguese Conference on Automatic Control "CONTROLO 98"*, Coimbra (Portugal), September 1998.
149. J.J. Feliu, and V. Feliu, "Modelling of Flexible Manipulators with Tip Force and Tip Torque. Application to the Tip Load Identification", *3rd International Conference on Advanced Mechatronics "ICAM'98"*, Okayama (Japan), August 1998.
150. A. Adán, C. Cerrada, and V. Feliu, "A Fast Mesh Deformation Method to Build Spherical Representation Models of 3D Objects", *Asian Conference on Computer Vision "ACCV98"*, Hong Kong (China), January 1998.
151. Y. González, C. Cerrada, and V. Feliu, "Intrinsic and Extrinsic Parameter Calibration Procedure for a Camera with Radial Distortion: 3D Pose Estimation", *3er International Conference on Road Vehicle Automation "ROVA97"*, Salamanca (Spain), October 1997.
152. R. Martín, C. González, I de la Nuez, and V. Feliu, "Design of DC-DC or DC-AC Switching Power Converter", *Control'97 IASTED International Conference*, Cancún (Mexico), May 1997.
153. A. Adán, C. Cerrada, V. Feliu, and M. Bachiller, "3D Object Recognition Approach Based on Shape Discrimination Under a Spherical Model Representation", *7º Simposium Nacional de Reconocimiento de Formas y Análisis de Imágenes*, Barcelona (Spain), April 1997.
154. J.A. Somolinos, J.A. Cerrada, V. Feliu, and C. Cerrada, "A New Clothoidal Approach for 3D Trajectory Generation. Application to 3D Tracking", *CESA'96 IMACS-IEEE SMC Multiconference. Symposium on Control, Optimization and Supervision*, Lille (France), July 1996.
155. A. Adán, M. Bachiller, C. Cerrada, and V. Feliu, "An Approach to Object Tracking Based on a Simplified 3D Geometric Model", *CESA'96 IMACS-IEEE SMC Multiconference. Symposium on Control, Optimization and Supervision*, Lille (France), July 1996.
156. V. Feliu, F. Mur, I. de la Nuéz, and S. Martínez, "PWM Based Control System for Voltage Conditioning of Distribution Networks", *13 World Congress of the International Federation of Automatic Control*, San

- Francisco (USA), July 1996.
157. M. de la Fuente, and V. Feliu, "Low Cost Laboratory Equipment for Distance Education of Automatic Control", *13 World Congress of the International Federation of Automatic Control*, San Francisco (USA), July 1996.
 158. V. Feliu, F. Yeves, and E. Uzal, "Active Damping Augmentation of Beam-Shaped Mechanical Systems", *Aerosense'96 Symposium of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, Orlando (USA), April 1996.
 159. C. Cerrada, Y. González, V. Feliu, and J. Gómez-Elvira, "A Perception System for Experiments with Robots in an Aerospace Platform", *ACR-'96 IASTED International Conference in Applications of Control and Robotics*, Orlando (USA), January 1996.
 160. J.F. Estívariz, S.R. Gómez, J.A. Cerrada, and V. Feliu, "Reduction of Tip Vibrations in Single-Link Lightweight Arms by Using Discrete Model Inversion", *ACR-'96 IASTED International Conference in Applications of Control and Robotics*, Orlando (USA), January 1996.
 161. C. Pumar, F. Mur, F. Yeves, V. Feliu, and S. Martínez, "Iterative Voltage, Current High Frequency Line Conditioner", *PQA'94, Third International Conference on Power Quality: End-Use Applications and Perspectives*, Amsterdam (Holland), October 1994.
 162. M. Romero, V. Feliu, and J.R. Jurado, "The Transfer Function Analysis to Fit Impedance Spectra: Application to Zirconia Solid Electrolytes", *Third Euro-Ceramics*, Madrid (Spain), October 1993.
 163. V. Feliu, J.A. Cerrada, and C. Cerrada, "Control of Single-Link Flexible Manipulators Robust to Payload Changes", *93 IEEE International Conference on Systems, Man and Cybernetics*, Le Touquet (France), October 1993.
 164. V. Feliu, C. Cerrada, and J.A. Cerrada, "Combined Feedforward-Feedback Control Scheme for Single-Link Flexible Arms", *12 World Congress of the International Federation of Automatic Control*, Sidney (Australia), July 1993.
 165. L. Azpiazu, P.M. Martínez, S. Martínez, V. Feliu, and F. Yeves, "Voltage and Current Conditioner for Distribution Networks Reconfigurable to UPS", *12 International Conference on Electricity Distribution (CIRED 93)*, Birmingham (United Kingdom), May 1993.
 166. I. de la Nuez, V. Feliu, F. Yeves, R. Aguasca, and P. Martínez, "Control Strategies for Voltage Conditioners Based on Chopper Duty Cycle", *1992 Canadian Conference on Electrical and Computer Engineering (CCECE-92)*, Toronto (Canada), September 1992.
 167. V. Feliu, J.A. Cerrada, and C. Cerrada, "A Real-Time Trajectory Generation Algorithm for Mobile Robots", *1992 IFAC Symposium on Intelligent Components and Instruments for Control Applications*, Málaga (Spain), May 1992.
 168. V. Feliu, K.S. Rattan, and H.B. Brown, "Comparative Study of Three Robust Schemes to Control Single-Link Flexible Arms", *1992 IFAC Symposium on Intelligent Components and Instruments for Control Applications*, Málaga (Spain), May 1992.
 169. K.S. Rattan, and V. Feliu, "Feedforward Control of Flexible Manipulators", *1992 IEEE Conference on Robotics and Automation*, Nice (France), May 1992.
 170. V. Feliu, K.S. Rattan, and H.B. Brown, "Design and Control of a Two-Degree-of-Freedom Lightweight Flexible Arm", *30 IEEE Conference on Decision and Control*, Brighton (United Kingdom), December 1991.
 171. P.M. Martínez, F. Barrero, R. Aguasca, V. Feliu, and S. Martínez, "Fast Voltage Conditioner Based on Active Filtering", *First International Conference on Power Quality: End-Use, Applications and Perspectives*, Paris (France), October 1991.
 172. R. Aguasca, F. Barrero, P.M. Martínez, S. Martínez, and V. Feliu, "Análisis en Frecuencia de un Troceador de C.A. para Filtro Activo", *II Jornadas Luso-Españolas de Ingeniería Eléctrica*, Coimbra (Portugal), July 1991.
 173. K.S. Rattan, and V. Feliu, "A Robust Control Scheme for Flexible Manipulators", *1991 IEEE National*

- Aerospace and Electronics Conference (NAECON 1991)*, Dayton (USA), May 1991.
174. K.S. Rattan, and V. Feliu, "Feedforward Control of Flexible Manipulators", *1991 IEEE National Aerospace and Electronics Conference (NAECON 1991)*, Dayton (USA), May 1991.
 175. V. Feliu, K.S. Rattan, and H.B. Brown, "Tip Position Control of Flexible Arms", *7th International Conference on Systems Engineering*, Las Vegas (USA), July 1990.
 176. K.S. Rattan, V. Feliu, and H.B. Brown, "Tip Position Control of Flexible Arms Using a Control Law Partitioning Scheme", *1990 IEEE International Conference on Robotics and Automation*, Cincinnati (USA), May 1990.
 177. V. Feliu, K.S. Rattan, and H.B. Brown, "Kinematics of a Three Degrees of Freedom - Two Links Lightweight Flexible Arm", *6^o IFAC/IFIP/IFORS/IMACS Symposium on Information Control Problems in Manufacturing*, Madrid (Spain), September 1989.
 178. K.S. Rattan, B. Chiu, V. Feliu, and H.B. Brown, "Rule-Based Fuzzy Control of a Single-Link Flexible Manipulator in the Presence of Joint Friction and Load Changes", *1989 American Control Conference*, Pittsburgh (USA), June 1989.
 179. V. Feliu, K.S. Rattan, and H.B. Brown, "Adaptive Control of a Single-Link Flexible Manipulator in the Presence of Joint Friction and Load Changes", *1989 IEEE International Conference on Robotics and Automation*, Scottsdale (USA), May 1989.
 180. K.S. Rattan, V. Feliu, and H.B. Brown, "Identification and Control of a Single-Link Flexible Manipulator", *27 IEEE Conference on Decision and Control*, Austin (USA), December 1988.
 181. K.S. Rattan, V. Feliu, and H.B. Brown, "Experiments to Control Single-Link Lightweight Flexible Manipulators with One Vibrational Mode", *88 ISA International Conference on Robotics and Expert Systems*, Houston (USA), October 1988.
 182. C. Cerrada, and V. Feliu, "An Approach to Cartesian Trajectories Generation for Industrial Robots", *88 IMACS Symposium on Modelling Systems*, Cetraro (Italy), September 1988.
 183. K.S. Rattan, V. Feliu, and H.B. Brown, "A Robust Control Scheme for Flexible Arms with Friction in the Joints", *1988 NASA/Air Force Workshop on Space Operation, Automation and Robotics*, Dayton (USA), July 1988.
 184. V. Feliu, K.S. Rattan, and H.B. Brown, "Model Identification of a Single-Link Flexible Manipulator in the Presence of Friction", *19 ISA Annual Modeling and Simulation Conference*, Pittsburgh (USA), May 1988.
 185. A. Guillén, C. Cerrada, and V. Feliu, "Study of the Dynamical Behavior of Industrial Robots by Using Frequency Analysis Techniques", *2^o World Basque Congress*, Bilbao (Spain), December 1987.
 186. C. Cerrada, and V. Feliu, "An Efficient Algorithm for Generating Point to Point Trajectories in Industrial Robots", *IMACS International Symposium on AI, Expert Systems and Languages in Modelling and Simulation*, Barcelona (Spain), June 1987.
 187. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "On Site Determination of the Polarization Resistance in a Reinforced Concrete Beam", *Corrosion 87. NACE Conference*, San Francisco (USA), March 1987.
 188. C. Cerrada, and V. Feliu, "Implementation of a Real-Time Algorithm to Obtain the Inverse Transformation in a Robot of the SCARA Family", *1er IFAC Symposium on Components, Instruments and Techniques for Low Cost Automation & Applications*, Valencia (Spain), November 1986.
 189. E. Carrizosa, V. Feliu, and E.A. Puente, "Study of the Dynamical Behavior of an Assembly Robot", *1er IFAC Symposium on Robot Control*, Barcelona (Spain), November 1985.
 190. V. Feliu, A. Barrientos, and E.A. Puente, "A Low Level Language for Assembly Robots", *1er IFAC Symposium on Robot Control*, Barcelona (Spain), November 1985.
 191. V. Feliu, C. de Mora, and E.A. Puente, "An Algorithm for the Cartesian to Joint Coordinates Conversion in Assembly Robots of the SCARA Family", *1er IFAC Symposium on Robot Control*, Barcelona (Spain), November 1985.
 192. V. Feliu, and J.A. Cerrada, "On the Estimation of System Laplace-Transform from Sampled Signals. Influence of the Input Signal Reconstruction", *IEEE Mediterranean Electrotechnical Conference*, Madrid

- (Spain), October 1985.
193. S. Feliu, J.A. González, C. Andrade, and V. Feliu, "Electrical Model for Studying the Corroding Steel/Concrete System", *36^o Meeting of the International Society of Electrochemistry*, Salamanca (Spain), October 1985.
 194. V. Feliu, and A. Jiménez, "An Algorithm for the Design of Pseudodecoupling Digital Controllers", *7th IFAC Conference on Digital Computer Application to Process Control*, Vienna (Austria), September 1985.
 195. V. Feliu, and A. Jiménez, "A Package for Computer Aided Design of Multivariable Discrete Control Systems", *3er IFAC/IFIP Symposium on Software for Computer Control*, Madrid (Spain), October 1982.

National conferences

1. J.C. Cambera, D. Feliu, S. Gharab and V. Feliu, "Flexible Link Arm with a Passive Gravity Compensation Mechanism: Design and Modelling", *XXXIX Jornadas de Automática*, Badajoz (Spain), September 2018.
2. D. Feliu, J.C. Cambera, A. San-Millán and V. Feliu, "A New Truck Prototype for Transporting Flexible Manipulators", *XXXIX Jornadas de Automática*, Badajoz (Spain), September 2018.
3. S. Gharab, V. Feliu and J.C. Cambera, "Fractional-Order Identification Based On Time Domain Methodology For Hydraulic Canal System", *XXXIX Jornadas de Automática*, Badajoz (Spain), September 2018.
4. C.F. Castillo-Berrio, Seref Naci Engin y V. Feliu, "Experimental Testing of a Vibration Suppression Control for a 2DOF Single Flexible-Beam", *Turkish National Conference on Automatic Control, TOK-2015*, Pamukale (Turkey), October 2015.
5. J. J. Serrano, B.M. Vinagre, I. Tejado, D. Torres, P.A. Hungría, V. Feliu and P. Merchán, "Simuladores Basados en Herramientas de Modelado Físico para el Apoyo a la Enseñanza de Control Automático (I): Robot Móvil con Brazo Flexible", *XXXVI Jornadas de Automática*, Bilbao (Spain), September 2015.
6. A. Parreño, P.L. Roncero, X. del Toro and V. Feliu, "Estimación de la Secuencia Positiva y Negativa para la Sincronización con la Red Eléctrica", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2015*, Zaragoza (Spain), July 2015.
7. C.F. Castillo-Berrio, Seref Naci Engin and V. Feliu, "Bir Esnek Cubugun Uc İzleme Kontrolü", *Turkish National Conference on Automatic Control, TOK-2014*, Kokaeli (Turkey), October 2014.
8. C.F. Castillo-Berrio, Seref Naci Engin and V. Feliu, "İki Serbestlik Dereceli Esnek Anten Algılayıcının Dinamik Modeli", *Turkish National Conference on Automatic Control, TOK-2012*, Nigde (Turkey), October 2012.
9. A. Parreño, P.L. Roncero, X. del Toro and V. Feliu, "Estimación de la Frecuencia Fundamental en Sistemas Trifásicos Desequilibrados con Elevada Distorsión", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI- 2012*, Guimarães (Portugal), July 2012.
10. I. Payo, J. Becedas, E. González and V. Feliu, "Sistema de Agarre Basado en una Pinza con Dedos Flexibles", *Workshop ROBOT 2011- Robótica Experimental*, Sevilla (Spain), November 2011.
11. J.A. Chocoteco, R. Morales and V. Feliu, "Mejora en la Actuación del Sistema de Remonte en un Dispositivo Robótico Capaz de Superar Escaleras", *Workshop ROBOT 2011- Robótica Experimental*, Sevilla (Spain), November 2011.
12. E. González, E. Pereira, R. Fernández-Rodríguez, L. Sánchez y and. Feliu, "Mejora del Campo Visual de un Robot Móvil de Inspección Mediante el Empleo de Materiales Ligeros", *Workshop ROBOT 2011- Robótica Experimental*, Sevilla (Spain), November 2011.
13. G. Partida, V.H. Jaramillo, F. Castillo and V. Feliu, "Control de Posición de un Robot Flexible de Tres Grados de Libertad Robusto ante Cambios en la Carga", *Workshop ROBOT 2011- Robótica Experimental*, Sevilla (Spain), November 2011.

14. C.F. Castillo-Berrio and V. Feliu, "Modelado Dinámico y Control en Lazo Abierto de una Antena Sensora Flexible de Dos Grados de Libertad", *Workshop ROBOT 2011- Robótica Experimental*, Sevilla (Spain), November 2011.
15. A. San Millán, and V. Feliu, "Diseño y Construcción de un Prototipo de Robot Autónomo de Tipo Serpiente Teleoperado por Control Remoto", *XXXII Jornadas de Automática*, Sevilla (Spain), September 2011.
16. E. González, V. Feliu, and A. Adán, "Sistema Activo de Reconocimiento empleando SVM y D-Spheres", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2011*, Badajoz (Spain), July 2011.
17. J.A. Chocoteco, R. Morales, A. González-Rodríguez, and V. Feliu, "Control de Inclinación Basado en un Regulador PI de un Sistema Reconfigurable Capaz de Subir Escaleras", *XVIII Congreso Nacional de Ingeniería Mecánica*, Ciudad Real (Spain), November 2010.
18. G. Partida, V.H. Jaramillo, and V. Feliu, "Validación Experimental de la Dinámica de un Robot Flexible de 3GDL", *XVIII Congreso Nacional de Ingeniería Mecánica*, Ciudad Real (Spain), November 2010.
19. X. del Toro, P.L. Roncero, A. Parreño, and V. Feliu, "Almacenamiento Basado en Ultracondensadores: Modelado y Análisis Energético", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI- 2010*, Bilbao (Spain), July 2010.
20. P.L. Roncero, E. Acha, J.E. Ortega-Calderón, V. Feliu, and A. García-Cerrada, "Repetitive Control for a Dynamic Voltage Restorer for Power-Quality Improvement", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI- 2008*, Cartagena (Spain), September 2008.
21. E. Pereira, V. Feliu, and I.M. Díaz, "Fractional Control for Active Damping of a Flexible Beam Actuated with Piezoelectrics", *Symposium on Applied Fractional Calculus*, Badajoz (Spain), October 2007.
22. V. Feliu, R. Rivas Pérez, M.A. Ruiz Torija, and L. Sánchez Rodríguez, "Fractional Control Strategies Implemented in an Automated Experimental Hydraulic Canal of Laboratory", *Symposium on Applied Fractional Calculus*, Badajoz (Spain), October 2007.
23. R. Martínez, and V. Feliu, "Linear Control Rational Systems Approach on State Space", *Symposium on Applied Fractional Calculus*, Badajoz (Spain), October 2007.
24. R. Martínez, A. Parreño, and V. Feliu, "Buck-Boost Converter with Ultracapacitors", *Symposium on Applied Fractional Calculus*, Badajoz (Spain), October 2007.
25. V. Feliu, "Diseño y Control de Robots Flexibles", *I Workshop de Robótica, dentro del II Congreso Español de Informática "CEDI 2007"*, Zaragoza (Spain), September 2007.
26. J. Becedas, and V. Feliu, "Estimación Algebraica de la Constante de Rigidez de un Manipulador Flexible en Situaciones de Impacto", *XXVIII Jornadas de Automática*, Huelva (Spain), September 2007.
27. O. Pinzón-Ardila, A. García-Cerrada, P. García-González, V. Feliu, and P. Roncero Sánchez-Elipse, "Aplicación del Control Repetitivo a Filtros Activos de Potencia en Conexión en Paralelo", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI- 2006*, Gijón (Spain), September 2006.
28. F. Castillo, V. Feliu, and J.A. Somolinos, "Comparación de Esquemas de Control Clásicos para la Compensación de la Fricción sobre el Lazo Interno de un Robot Flexible de 1 G.D.L.", *XXVII Jornadas de Automática*, Almería (Spain), September 2006.
29. J.R. Trapero, J. Becedas, V. Feliu, and H. Sira-Ramírez, "Estimación Algebraica en Línea de la Frecuencia Natural de un Robot Flexible", *XXVII Jornadas de Automática*, Almería (Spain), September 2006.
30. J. Becedas, and V. Feliu, "Interfase de Control por Soplo para un Prototipo de Silla de Ruedas Automatizada", *XXVI Jornadas de Automática*, Alicante (Spain), September 2005.
31. J.R. Trapero, E. Pereira, D.J. Pedregal, and V. Feliu, "Identificación del Modelo de un Brazo de Robot Flexible de un Eslabón Mediante Modelos Box-Jenkins", *XXVI Jornadas de Automática*, Alicante (Spain), September 2005.

32. M. García Rojo, G. Bueno, J. González, M. Carbajo Vicente, A. Adán, and V. Feliu, "Preparaciones Histológicas Virtuales, un Nuevo Reto para los Pacs Hospitalarios", *X Congreso Nacional de Informática Médica "Infomed 2004"*, Barcelona (Spain), November 2004.
33. F.J. Castillo, J.A. Somolinos, and V. Feliu, "Estudio Preliminar del Comportamiento Dinámico de un Nuevo Brazo Flexible de 6 Grados de Libertad", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
34. F. Ramos, I. Payo, and V. Feliu, "Comparativa entre Dos Esquemas de Control Robusto de un Robot Flexible de Un Grado de Libertad", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
35. P.L. Roncero, A. García-Cerrada, V. Feliu, and P. García-González, "Control en Lazo Cerrado para Eliminación de Armónicos en Inversores Fuente de Tensión", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
36. A.J. Calderón, C.A. Monje, B.M. Vinagre, and V. Feliu, "Implantación de Controladores de Orden Fraccionario Mediante Autómatas Programables", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
37. R. Morales, J. Becedas, and V. Feliu, "Automatización de un Prototipo de Silla con Accionamiento Eléctrico y Capacidad de Transferencia a la Cama", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
38. E. González, V. Feliu, A. Adán, and L. Sánchez, "Descriptores de Fourier para Identificación y Posicionamiento de Objetos en Entornos 3D", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
39. J.A. Somolinos, O.D. Cortázar, and V. Feliu, "Sistema de Detección y Localización de Impactos en una Barra Flexible", *XXV Jornadas de Automática*, Ciudad Real (Spain), September 2004.
40. P. Roncero, A. García-Cerrada, V. Feliu, and P. García-González, "Control de Potencias Activa y Reactiva Basado en Inversores Fuentes de Tensión para un Generador Eólico", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2003*, Vigo (Spain), September 2003.
41. J.A. Somolinos, V. Feliu, and A. García, "Diseño y Simulación Dinámica de una Muñeca de Tres Grados de Libertad para Robot Flexible", *XIV Congreso Nacional de Ingeniería Mecánica*, Leganés (Spain), December 2000.
42. J.A. Somolinos, V. Feliu, and A. García, "Identificación de Robots Flexibles Bajo la Hipótesis de Masas Concentradas por Mínimos Cuadrados", *XIV Congreso Nacional de Ingeniería Mecánica*, Leganés (Spain), December 2000.
43. E. Moreda, J.A. Cerrada, and V. Feliu, "Reconocimiento de Objetos Poliédricos para su Incorporación en Mundos Virtuales", *XXI Jornadas de Automática*, Sevilla (Spain), September 2000.
44. A. García, V. Feliu, J.A. Somolinos, and P. Fraile, "Construcción de un Generador de Trayectorias para su Utilización en la Simulación Dinámica de un Robot Flexible de Seis Grados de Libertad", *XXI Jornadas de Automática*, Sevilla (Spain), September 2000.
45. J.A. Somolinos, A. García, V. Feliu, and J.R. Agenjo, "Control Dinámico de una Muñeca de Tres Grados de Libertad para Robot Flexible", *XXI Jornadas de Automática*, Sevilla (Spain), September 2000.
46. J.A. Somolinos, and V. Feliu, "Simulación Dinámica de un Nuevo Esquema de Control para Robots Flexibles de Tres Grados de Libertad", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2000*, Tarrasa (Spain), September 2000.
47. A.J. Calderón, I. de la Nuez, and V. Feliu, "Control en Modo Deslizamiento de un Convertidor de Potencia Buck con Carga Variable", *Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2000*, Tarrasa (Spain), September 2000.
48. P.L. Roncero, A. García-Cerrada, and V. Feliu, "Control de Generador Asíncrono con Adaptación de la Resistencia del Rotor Basado en un Modelo de Referencia", *Congreso: Seminario Anual de Automática, Electrónica Industrial e Instrumentación, SAAEI-2000*, Tarrasa (Spain), September 2000.

49. B.M. Vinagre, and V. Feliu, "Identificación en el Dominio de la Frecuencia de Sistemas Caracterizados por Funciones de Transferencia no Racionales", *Seminario de Matlab*, Badajoz (Spain), February 2000.
50. F.J. García, B.M. Vinagre, and V. Feliu, "Simulación de Sistemas Dinámicos Caracterizados por Ecuaciones Diferenciales de Orden Fraccionario", *XIX Jornadas de Automática*, Madrid (Spain), September 1998.
51. V. Feliu, J.J. Feliu, B.M. Vinagre, and M. Calderón, "Identificación de Sistemas Dinámicos Basada en Modelos de Función de Transferencia en $s^{1/2}$. Aplicación a Estructura Flexible", *XVIII Jornadas de Automática*, Gerona (Spain), September 1997.
52. V. Feliu, J.F. Estívariz, J.A. Cerrada, and J.A. Somolinos, "Experimentación de un Nuevo Esquema de Control Robusto para Robots Flexibles ante Cambios en la Carga del Extremo", *XVIII Jornadas de Automática*, Gerona (Spain), September 1997.
53. J.J. Feliu, and V. Feliu, "Modelado de un Brazo Flexible de un Grado de Libertad Mediante la Técnica de Masas Concentradas. Incorporación de Agentes Externos", *XII Congreso Nacional de Ingeniería Mecánica*, Bilbao (Spain), February 1997.
54. E. Moreda, J.J. Feliu, and V. Feliu, "Obtención y Verificación Experimental del Modelo Dinámico Conjunto Estructura Flexible-Actuador Piezoeléctrico", *XII Congreso Nacional de Ingeniería Mecánica*, Bilbao (Spain), February 1997.
55. C. Calero, and V. Feliu, "Paquete de Programas para Prácticas de una Asignatura de Visión Artificial", *XVII Jornadas de Automática*, Santander (Spain), September 1996.
56. S.R. Gómez, J.A. Cerrada, and V. Feliu, "Plataforma de Teleoperación de un Robot Utilizando un Entorno Virtual", *XVII Jornadas de Automática*, Santander (Spain), September 1996.
57. C. Pumar, R. González, P.M. Martínez, E. Villar, J.L. Gutiérrez, J.L. Iribarren, J.A. Zabala, S. Martínez, and V. Feliu, "Mejora de Calidad e Inmunización de Equipos Mediante Filtros Activos de Alta Frecuencia", *CIREN-MATELEC 94, 3ª Jornadas Técnicas de Redes Eléctricas de Distribución e Instalaciones de Usuarios. Innovaciones*, Madrid (Spain), October 1994.
58. J.F. Estívariz, J.J. Feliu, J.I. Pedrero, and V. Feliu, "Modelado y Construcción de un Prototipo de Robot Flexible de un Grado de Libertad", *XIV Jornadas de Automática*, Cartagena (Spain), September 1993.
59. I. de la Nuez, R. Aguasca, and V. Feliu, "Solución de Control para Compensadores Activos de Tensión", *XIV Jornadas de Automática*, Cartagena (Spain), September 1993.
60. V. Feliu, J.A. Cerrada, and C. Cerrada, "Control de Robots Flexibles", *Espacio 21, II Congreso del INTA*, Madrid (Spain), October 1992.
61. I. de la Nuez, and V. Feliu, "Control de Filtro Activo para Acondicionadores de Red", *XIII Jornadas de Automática*, Ávila (Spain), September 1992.
62. A. Guillén, C. Cerrada, and V. Feliu, "Identificación de Parámetros y Control de Robots Industriales. Aplicación al Robot Scara SEIRO-R65", *VII Congreso Nacional de Ingeniería Mecánica*, Valencia (Spain), December 1988.
63. A. Guillén, C. Cerrada, and V. Feliu, "Estudio del Comportamiento en Frecuencia de Robots Industriales. Efecto de la Torsión", *V Congreso Nacional de Ingeniería Mecánica*, Murcia (Spain), December 1986.
64. A. Ullán, and V. Feliu, "Método Generalizado para la Identificación de Sistemas a Partir de su Respuesta en Frecuencia", *VI Congreso de Informática y Automática*, Madrid (Spain), October 1985.
65. J.M. Sánchez, and V. Feliu, "Conjunto de Programas para la Definición y Simulación de Sistemas Discretos de Control Multivariados", *VI Jornadas de Automática*, Valladolid (Spain), April 1985.
66. V. Feliu, and E. Carrizosa, "Modelado e Identificación del Comportamiento Dinámico de un Robot de Ensamblado", *II Simposio Nacional IFAC sobre Automática en la Industria*, Zaragoza (Spain), November 1984.
67. F. Sastrón, V. Feliu, and E. Carrizosa, "Prácticas de Procesos Estocásticos para un Curso Avanzado de Regulación Automática", *V Jornadas de Automática*. Vigo (Spain), September 1983.

DOCTORAL THESES

1. Daniel Feliu Talegón, *Nonlinear and Fractional Control of Very Large Lightweight Flexible Robots with Model Uncertainties*, PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2019 (International Doctorate).
2. Juan Carlos Cambera Ibáñez, *Position Control of a Flexible Link Robot Moving under Gravity with a Novel Gravity Compensation System*, PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2019 (International Doctorate).
3. Andrés San Millán Rodríguez, *Advanced Control Techniques to Improve Accuracy and Speed of Nanopositioning Platforms*, PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2017 (International Doctorate).
4. Ivón Oristela Benítez González, *Desarrollo de Estrategias de Control Basadas en Modificaciones del Predictor de Smith para Plantas con Retardo de Tiempo Dominante*, Coadvisor: R. Rivas Pérez. PhD thesis, University Tecnológica de La Habana José Antonio Echeverría (Cuba), Department of Automatic Control and Computers, 2017.
5. C.F. Castillo Berrio, *Design, Modelling and Control of Two Degrees of Freedom Flexible Antenna Sensors*, PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2016 (International Doctorate and Quality Mention of the Spanish Department of Science and Technology). *Second position award of the Robotnik Prize to the Best Doctoral Thesis on Robotics in Spain in the year 2016, given by the Robotnik Company and the Spanish Committee of Automatica.*
6. V.H. Jaramillo Velásquez, *Nuevas Técnicas para el Control de Robots Flexibles con Carga Variable*, PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2016 (Quality Mention of the Spanish Department of Science and Technology).
7. A. Parreño Torres, *Análisis de Compensadores Dinámicos de Tensión para la Mejora de Calidad de la Energía Eléctrica*, Coadvisor: P.L. Rocero Sánchez-Elipe. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2016 (Quality Mention of the Spanish Department of Science and Technology).
8. J.A. Chocoteco Campos, *Development and Control of a Stair-Climbing Mobility System*. Coadvisor: R. Morales Herrera. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2015 (Quality Mention of the Spanish Department of Science and Technology). *Second position award of the Robotnik Prize to the Best Doctoral Thesis on Robotics in Spain in the year 2015, given by the Robotnik Company and the Spanish Committee of Automatica.*
9. G. Partida Ochoa, *Dynamic Modeling and End Position Control of a 5-Bar Flexible Robot with 6-DOF*. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2015 (Quality Mention of the Spanish Department of Science and Technology).
10. E. González García, *3D Object Recognition Based on Monocular Vision*. Coadvisor: A. Adán Oliver. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2012 (International Doctorate and Quality Mention of the Spanish Department of Science and Technology).
11. F.J. Castillo. *Methodology for the Design of Fractional Order Controllers from Time Specifications. Application to Main Irrigation Cannals*. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2010 (Quality Mention of the

- Spanish Department of Science and Technology).
12. F. Ramos de la Flor. *Vibration Control Strategies for a Very Lightweight One Degree-of-Freedom Flexible Arm Built with Composite Material*. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2009 (European Doctorate and Quality Mention of the Spanish Department of Science and Technology).
 13. G.L. Mamani. *Algebraic Identification and Sliding Mode Control Techniques Applied to a Very Lightweight Single-Link Flexible Robot Arm*. Coadvisor: H. Sira-Ramírez. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2009 (European Doctorate and Quality Mention of the Spanish Department of Science and Technology).
 14. E. Pereira. *Improvement of the Vibration Control in Beam-like Flexible Structures by Using Mechanical Properties*. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2009 (Quality Mention of the Spanish Department of Science and Technology).
 15. J. Becedas. *Flatness Based Methodology for the Design of Position and Force Controllers for One Degree of Freedom Flexible Robots*. Coadvisor: H. Sira-Ramírez. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2009 (Quality Mention of the Spanish Department of Science and Technology).
 16. I. Payo. *Control of Very Lightweight One Degree of Freedom Flexible Robots Built with Composite Materials, Based on Strain Gauges*. Coadvisor: O.D. Cortázar Pérez. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2009 (Quality Mention of the Spanish Department of Science and Technology).
 17. J.R. Trapero. *Algebraic and Spectral Techniques for Identification of Harmonic Signals. Application to Mechatronics and Economy*. Coadvisor: D. Pedregal Tercero. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2008 (European Doctorate and Quality Mention of the Spanish Department of Science and Technology).
 18. I. Muñoz. *Development, Modelling and instrumentation of Flexible Structures for Active Cancellation of Vibrations*. Coadvisor: D. J.J. López Cella. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2007.
 19. R. Morales. *Control and Trajectory Generation of a New Locomotion System for Handicapped Wheelchairs Able to Climb and Descend Staircases*. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2006.
 20. C.A. Monje. *Design Methods of Fractional Order Controllers for Industrial Applications*. Coadvisor: B.M. Vinagre Jara. PhD thesis, University of Extremadura, Department of Electrical, Electronics and Automation Engineering, 2006 (European Doctorate and Doctorate Extraordinary Prize).
 21. P.L. Roncero. *Improvements in the Control of Wind Turbines and their Connection to the Power Network by Electronic Power Converters*. Coadvisor: A. García Cerrada. PhD thesis, University of Castilla-La Mancha, Department of Electrical, Electronics, Automation and Communications Engineering, 2004.
 22. L. Sánchez. *Obtention of Dense Depth Maps by using Active Computer Vision Based on the Controlled Movement of a Single Camera. Application to Recognition Tasks*. Coadvisor: L.I. Pastor Pérez. PhD thesis, Polytechnical University of Madrid, Department of Photonic Technology, 2003.
 23. A.J. Calderón. *Fractional-Order Control of Buck Electronic Power Converters*. Coadvisor: B.M. Vinagre Jara. PhD thesis, University of Extremadura, Department of Electrical, Electronics and Automation Engineering, 2003.
 24. B.M. Vinagre. *Modeling and Control of Dynamic Systems Described by Integro-Differential Equations of Fractional Order*. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 2001 (Doctorate Extraordinary Prize).

25. A. García. *Combined Force/Position Control of a 3 Degrees of Freedom and Two Flexible Links Robot*. PhD thesis, Polytechnical University of Madrid, Department of Automation, Electronic Engineering and Industrial Informatics, 1999.
26. M. Bachiller. *Control Strategies for Tracking of 3D Moving Objects. Application to a Robotic System Based on Visual Perception*. Coadvisor: C. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1999 (Doctorate Extraordinary Prize).
27. J.A. Somolinos. *Dynamic Modeling and Control of a Three Degrees of Freedom Flexible Robot*. Coadvisor: J.A. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1999 (Doctorate Extraordinary Prize).
28. Y. González. *Research on Calibration of Cameras with Geometric Distortion. Application to the Control by Visual Feedback*. Coadvisor: C. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1998.
29. A. Adán. *3D Modeling of Free Form Objects for Application to 3D Object Recognition and Positioning*. Coadvisor: C. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1997 (Doctorate Extraordinary Prize).
30. J.J. Feliu. *Development of Computationally Efficient Dynamic Models for Single Link Flexible Robots. Application to Adaptive Control*. Coadvisor: C. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1997 (Doctorate Extraordinary Prize).
31. S.R. Gómez. *Design of Algorithms for the Kinematic Representation of Articulated Objects in Virtual Environments. Application to Telepresence*. Coadvisor: J.A. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1997.
32. J.F. Estívariz. *Robust Control System for Single Link Flexible Robots with a Variable Tip Payload*. Coadvisor: J.A. Cerrada Somolinos. PhD thesis, National University of Distance Education, Department of Electrical, Electronics and Control Engineering, 1997.
33. I. de la Nuéz. *Design of a Generalized Control System for Voltage Series Compensators*. PhD thesis, University of Las Palmas of Gran Canari, Department of Electronics, 1994.
34. A. Guillén. *Study of the Dynamics and Control of Industrial Robots and their Actuation Systems. Application to a Robot of the SCARA Family*. Coadvisor: E. Andrés Puente. PhD thesis, Polytechnical University of Madrid, Department of Automation, Electronic Engineering and Industrial Informatics, 1989.

PROFESSIONAL ACTIVITIES

Chairmanships/Editorial Boards

- Co-Chairman of the session on "Tactile and Force Sensing II" of the 2018 IEEE/RJS International Conference on Intelligent Robotics and Systems, IROS'18. Madrid (Spain), 2018.
- Associate Editor of the journal *Mechatronics*, (since 2016).
- Organizer of the session "Flexible Robots" in the *ROBOT 2013: First Iberian Robotics Conference*. Madrid (Spain), 2013.
- Cochairman of the session "Experimental Studies on Fractional Dynamics 2" of the *5rd Workshop Fractional Differentiation and its Applications FDA'12*. Nanking (China), 2012.
- Chairman of the session on "Robotic Manipulation II" of the *Workshop Robot 2011- Robótica Experimental*, Sevilla (España), 2011.
- Cochairman of the session on "Grasping" of the *18 World Congress of the International Federation of*

Automatic Control, Milan (Italy), 2011.

- Chairman of the session on “Robotics” of the *X Symposium Internacional de Automatización*, perteneciente al *Congreso Informática 2011*, La Habana (Cuba), 2011.
- Cochairman and Proceedings Editor of the *4rd IFAC Workshop on Fractional Differentiation and its Applications FDA’10*, Badajoz (Spain), 2010.
- Organizer of the special session on “Fractional Order Control” of the *3rd Symposium on Fractional Derivatives & Their Applications*, included in the *6th International Conference on Multibody Systems, Nonlinear Dynamics and Control (MSNDC), ASME IDETC 07*, Las Vegas (USA), 2007.
- General Chair of the XXV National (Spanish) Symposium on Automatic Control, Ciudad Real (Spain) , 2004.
- Organizer of the Session on “Flexible Robots” of the *2004 World Automation Congress WAC’04*, Sevilla (Spain), 2004.
- Associate Editor of the journal *Pattern Recognition*, (2002-2007).
- Organizer of the Session on “Creativity, Science and Technology” of the Creativity’93 World Congress, Madrid (Spain), 1993.
- General Chair of the XIII National (Spanish) Symposium on Automatic Control, Avila (Spain), 1992.

Memberships

- Senior Member IEEE
- Member IFAC
- Member COIIM (Industrial Engineers Association of Madrid)

Program Committees

- Member of the National Advisory Committee of the *2018 IEEE/RJS International Conference on Intelligent Robotics and Systems, IROS’18*. Madrid (Spain), 2018.
- Member of the Committee of the International Program of the International Conference on Fractional Differentiation and its Applications 2018, ICFDA’18. Amman (Jordan), 2018.
- Workshop ROBOT 2017- Third Iberian Robotics Conference. Sevilla (Spain), 2017.
- Workshop ROBOT 2015- Second Iberian Robotics Conference. Lisbon (Portugal), 2015.
- International Symposium on Fractional Signals and Systems 2015, FSS’15. Cluj-Napoca (Rumania), 2015.
- International Conference on Fractional Differentiation and Its Applications 2014, ICFDA’14, Catania (Italy), 2014.
- Workshop ROBOT 2013- First Iberian Robotics Conference. Madrid (Spain), 2013.
- International Conference on Fractional Signals and Systems FSS 2013. Ghent (Belgium), 2013.
- XV Latinoamerican Congress on Automatic Control (CLCA 2012), Lima (Perú), 2012.
- 5th IFAC Workshop on Fractional Differentiation and its Applications FDA’12, Nanking (China), 2012.
- National (Spanish) Workshop ROBOT 2011, Sevilla (Spain), 2011.
- 4rd IFAC Workshop on Fractional Differentiation and its Applications FDA’10, Badajoz (Spain), 2010.
- Symposium on Fractional Signals and Systems, Lisboa (Portugal), 2009.
- IEEE International Conference on Mechatronics ICM’09, Malaga (Spain), 2009.
- IX International Symposium on Automation SIA’2009, included in the Conference “Informática 2009”, Sevilla (Spain), 2009.
- 3rd IFAC Workshop on Fractional Differentiation and its Applications FDA’08, Ankara (Turkey), 2008.
- 13 International Symposium on Measurement and Control in Robotics ISMCR’03, Madrid (Spain), 2003.

- 3rd Automatic Control Symposium included in the “2001 International Conference on Cybernetics, Mathematics and Physics”, La Habana (Cuba), 2001.

Award Committees

- Control Engineering Best Paper Award of the 2012 National Conference on Automatic Control – 2012 Mathworks Prize (Spain), 2012.
- Best Application Paper Award of the 4th IFAC Workshop on Fractional Differentiation and its Applications FDA'10, 2010.
- Prize to the Best Doctoral Thesis on Robotics in Spain, 2010.
- Research Prizes of the Castilla-La Mancha Region (Spain), 2005.
- Prizes to the Young Scientists of the Murcia Region (Spain), 2003.
- Research Prize “Ingeniero Comerma” of the Galicia Region (Spain), 2001.