

Congress Emplacement

The emplacement is the Higher Technical School of Industrial Engineering (*Edificio Politécnico*/Polytechnic Building), located at Luis de Ulloa Street 20, 26004 Logroño (<https://goo.gl/maps/mUxKv1tV3qAYwHBw6>), where the congress rooms are located: *ACTOS* room, *GRADOS* room, and *JUNTAS* room. The Opening (July 2 at 9.00) is the only academic activity in other building, concretelly in the *AULA MAGNA* of the University of La Rioja, in the Quintiliano Building (<https://goo.gl/maps/AfpPzQaWfPSmqseQ9>), located at La Cigüeña Street 60, 26006 Logroño.

School of Industrial Engineering
(Polytechnic Building)

- *Actos* room
- *Grados* room
- *Juntas* room

Departmental building

- *Computers1* room
- *Computers2* room
- *Eléctrica* room (3rd floor)

Quintiliano Building

- *Aula Magna*



Scientific and Social Program

Monday, 1st July 2019

16:00h–19:00h Registration and delivery of documentation (Polytechnic Building)
<https://goo.gl/maps/mUxKv1tV3qAYwHBw6>

17:30h–20.30h FlexSim Training: Learn how to create simulation models.
(Computers rooms 1 & 2, Departmental Building) FREE ENTRY with inscription
<https://goo.gl/maps/tT29kzajBybfiReh9>

<https://www.eventbrite.es/e/flexsim-training-tickets-63858572710> (inscription)

19.00h–20.00h Visit to the Professional Council of Industrial Engineers, to taste red wine and (knife cut) ham, while listening to traditional live string music.

Plaza de San Bartolomé 1, <https://goo.gl/maps/7i2s33P4PGdoa6s88>

20:00h–21:30h Guided tour of the historic city center

Plaza de San Bartolomé 1, <https://goo.gl/maps/7i2s33P4PGdoa6s88>

21:30h Welcome cocktail and fraternization dinner with The Spanish Modelling and Simulation Group and the Intelligent Control Group, at the La Becada Gastronomic Society. This activity includes the Welcome Reception & Rioja Wine Tasting Course

Calle Santiago 3, <https://goo.gl/maps/Awrm4v1y5J5kQPYN9>

Tuesday, 2nd July 2019

Place: Aula Magna of the University of La Rioja (Quintiliano Building)

9:00h–12:00h Opening (Aula Magna, Quintiliano Building) including the Plenary Conferences (the summary of them, together with the CV of the speakers, is at the end of this document): <https://goo.gl/maps/AfpPzQaWfPSmqseQ9>

- **Prof. Manuel Silva.** Formal Methods and Simulation: Cooperation makes strength
- **Prof. José Manuel Andújar.** Renewable sources-based smart micro grids with hydrogen as backup: modeling, control, implementation and management. A real case
- **Prof. Felix Breiteneker.** Nature, Features and Properties of Developments in Modelling and Simulation – from A -Alternative to Z – Zippy

12:00h–14:00h Reception Lunch (Edificio Quintiliano)

<https://goo.gl/maps/AfpPzQaWfPSmqseQ9>

Tuesday, 2nd July 2019

Place: Higher Technical School of Industrial Engineering

11:00h–14.00h FlexSim Training: Learn how to create simulation models. (Computers rooms 1 & 2, Departmental Building) FREE ENTRY with inscription

<https://goo.gl/maps/tT29kzajBybfiReh9>

<https://www.eventbrite.es/e/flexsim-training-tickets-63858572710> (inscription)

15:00h–16:30h ACTOS room. Session 1

Iván Monzón, Jose Antonio Dieste, Alberto Laguia, Carlos Javierre and Daniel Elduque	Influence of process parameters on the morphology of additive manufacturing beads using WAAM technology in high deposition rate processes
Alberto Laguia Pérez, Jose Antonio Dieste Marcial, Iván Monzón Catalán, Carlos Javierre and Daniel Elduque	Influence of process parameters on the morphology of additive manufacturing beads using thermoset extrusion technology in high deposition rate processes
Juan-Ignacio Latorre-Biel, Eduardo Martínez Cámara, Julio Blanco Fernandez, Mercedes Perez de la Parte, Juan Carlos Sáenz-Díez and Emilio Jiménez-Macias	Human behavior modeling in crowded scenarios by reference nets
Antonio Gálvez Páez, Jokin Rubio, Dammika Severiratne, Asier González, Alberto Jimenez, Unai Martinez-de-Estarrona, Diego Galar and Esko Juuso	Hybrid Models and Digital Twins for Condition Monitoring: HVAC System for Railway

**15:00h–16:30h GRADOS room. Session 2 (joint with Spanish Symposium 2019).
Special Session on Trends and Perspectives of Machine Learning in Automation (I)**

Chairs:

- Matilde Santos, University Complutense of Madrid, Spain, msantos@ucm.es
- Juan G. Victores, University Carlos III of Madrid, Spain, jcgvicto@ing.uc3m.es
- Gonzalo A. Farias, Pontificia Universidad Católica de Valparaiso, Chile, gonzalo.farias@pucv.cl

Pablo Zambrana-Lopez, J. Jesus Fernandez-Lozano, Javier Fernandez-Quijano, Pedro Mayorga-Rubio and Alfonso Garcia-Cerezo	A methodology for improving the PI controller of a wind turbine on a semi-submersible offshore platform: development and evaluation of an anti windup algorithm
José Luis Pitarch and César de Prada	Machine learning and the digital era from a Process Systems Engineering perspective
Javier Bonilla, Jose Antonio Carballo, Manuel Berenguel, Jesús Fernández and Loreto Valenzuela	Machine Learning Perspectives in Concentrating Solar Thermal Technology
Raul Fernandez-Fernandez, Juan G. Victores, David Estevez and Carlos Balaguer	Quick, Stat!: A Statistical Analysis of the Quick, Draw! Dataset

15:00h–16:30h JUNTAS room. Session 3

Jorge Luis García Alcaraz, Juan Carlos Sáenz Diez-Muro, Julio Blanco Fernández, and Emilio Jiménez Macías	Role of human resources on TQM benefits
Esther de Mol, Mihaela Mitici, Floris Herrema and Bruno Desart	Estimating the flight departure duration from push-back to take-off
Juan José Ramos González, Miquel Angel Piera, Gabriella Gigante, Domenico Pascarella, Gabriella Duca, Mario Ciaburri, Marta Sánchez Cidoncha, Luiz Manuel Braga and Jose Luis Munoz-Gamarra	A socio-technical holistic ABM simulation framework to assess ATC performance variability
Thimjo Koca and Miquel Angel Piera	Guarantying consistency of spatio-temporal regions that solve air traffic conflicts

16:30h–17:00h Coffee break

17:00h–18:15h ACTOS room. Session 4

Solomon Aforkoghene Aromada and Bjørn Kvamme	Simulation of Hydrate Plug Prevention in Natural Gas Pipeline from Bohai Bay to Onshore Facilities in China
Solomon Aforkoghene Aromada and Bjørn Kvamme	Production of Methane from Hydrate and CO2 Zero-Emission Concept
Juan Carballeira, Carolina Nicolás, Santiago Garrido and Luis Moreno	Wildfire spreading simulator using Fast Marching algorithm

Gerardo Minguela Castro, Carlos Cerrada Somolinos and Jose A. Cerrada Somolinos	Military Operational Decision Maker based on Blocks feedback, using uncertainty techniques
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**17:00h–18:15h GRADOS room. Session 5 (joint with Spanish Symposium 2019).
Special Session on Trends and Perspectives of Machine Learning in Automation (II)**

Chairs:

- Matilde Santos, University Complutense of Madrid, Spain, msantos@ucm.es
- Juan G. Victores, University Carlos III of Madrid, Spain, jcgvicto@ing.uc3m.es
- Gonzalo A. Farias, Pontificia Universidad Católica de Valparaíso, Chile, gonzalo.farias@pucv.cl

David Estevez, Juan G. Victores, Raul Fernandez-Fernandez and Carlos Balaguer	Towards Clothes Hanging via Cloth Simulation and Deep Convolutional Networks
Esko Juuso	Advanced machine learning in recursive data-based modelling
Jennifer J Gago, Valentina Vasco, Bartek Łukawski, Ugo Pattacini, Vadim Tikhonoff, Juan G Victores and Carlos Balaguer	Sequence-to-Sequence Natural Language to Humanoid Robot Sign Language
Ignacio Trojaola, Iker Elorza, Eloy Irigoyen and Aron Pujana	Machine Learning Control for the Commissioning of Hydraulic Presses

17:00h–18:15h JUNTAS room. Session 6

Borut Zupančič, Gašper Mušič, Maja Atanasijević-Kunc, Sašo Blažič and Milan Simčič	Control-Oriented Modelling and Simulation - the Impact to the INMOTION Project
Íñigo Leon, Juan Ignacio Latorre, Emilio Jiménez	Blockchain techniques applied to Petri Net state space. An approach to ensure security in Petri Net state evolution
David Gallarta, Pablo Álvarez, Javier Rico-Azagra and Montserrat Gil-Martínez	Adapted Laboratory for Mobile Robotics Teaching and its Application to Coordinated Control of Robots
Erika Oliveira-Silva and Cesar de Prada	Methodology to achieve convergence in a rigorous dynamic model of a superfractionator

18:20h–20:30h Buses to guided visit to Winery and Wine Museum Dinastia Vivanco (Briones). Buses are taken at the entrance of the Polytechnic Building, Calle Luis de Ulloa 20 <https://goo.gl/maps/mUxKv1tV3qAYwHBw6>

20:30h–21:00h Tasting and guided visit to the "Vivanco" Wine Culture Museum
<https://goo.gl/maps/pP92fRQmSoWBqSbJA>

21:00h Dinner at winery Dinastia Vivanco (Briones).
<https://goo.gl/maps/pP92fRQmSoWBqSbJA>

Wednesday, 3rd July 2019

Place: Higher Technical School of Industrial Engineering

09.00h ACTOS room. Plenary Talk (joint with Spanish Symposium 2019).

Chair. Felix Breitenecker

Martin Bicher, Matthias Wastian, Dominik Brunmeir, Matthias Rößler and Niki Popper	Review on Monte Carlo Simulation Stopping Rules: How Many Samples Are Really Enough?
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9:30h–11:30h ACTOS room. Session 7

Solomon Aforkoghene Aromada and Bjørn Kvamme	Modelling of Methane Hydrate Formation and Dissociation using Residual Thermodynamics
Julio Jose Caparros Mancera, Francisco Jose Vivas Fernandez, Francisca Segura Manzano and Jose Manuel Andujar Marquez	Optimized Balance of Plant for a medium-size PEM electrolyzer. Design, Modelling and Control
Rosa María Aguilar, Alberto Hamilton and Pedro Cabrera	Encoder-Decoder LSTM for predicting household electricity consumption using public data
Petri Heinonen and Esko K. Juuso	Genetic Algorithms in the domain of personalized nutrition

9:30h–11:30h GRADOS room. Session 8 (Conjunta con EUROSIM 2019). Special Session on Approaching Floating Off-shore Wind Turbines (FOWT): modelling, optimization and control

Chairs:

- Matilde Santos, University Complutense of Madrid, Spain, msantos@ucm.es
- María Tomás-Rodríguez, The City, University of London, UK, Maria.Tomas-Rodriguez.1@city.ac.uk
- Segundo Esteban, University Complutense of Madrid, segundo@dacya.ucm.es

Jesus Enrique Sierra Garcia and Matilde Santos	Cable suspended load UAV hybrid automata modelling and neuro-control
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Sergio Díaz González, Jesús Torres Jorge and Rosa María Aguilar China	Using Deep Learning to classify emotions in images in the tourism field
Daniel Villoslada, Matilde Santos and María Tomás-Rodríguez	Identification and Validation of a Barge Floating Offshore Wind Turbine Model with Optimized Tuned Mass Damper
Maria Tomas-Rodriguez, Kamal Feroz and Matilde Santos	Floating Offshore Wind Turbines Oscillations Damping
Segundo Esteban, Rafael Lopez, Maria Guijarro and Matilde Santos	Simulation of Regular Waves on Floating Wind Turbines: Preliminary Analysis
Maria Guijarro, Segundo Esteban and Matilde Santos	A survey of damage control methods for wind turbines based on sensors: a first approach

11:30h–12:00h Coffee Break

12:00h–13:30h ACTOS room. Session 9

Sophie Adama, Aaron Blankenburg, Christian Ernst, Richard Kummer, Satiyabooshan Murugaboopathy and Martin Bogdan	Motion Detection in Videos of Coherence Matrices in order to detect Consciousness States in CLIS-patients – an Approach
Mario Kallenbach, Stephan Kocks and Thomas Feuerle	An Adaptable Full-Scale Aircraft Cabin Simulator for Human-in-the-Loop Simulations
Gorka Miñano Durantez, Mikel Larrea and Eloy Irigoyen	Review of neural modelling on cardiovascular rehabilitation active processes by using cycloergometers
Volafidy Sophie Adama, Shang-Ju Wu, Nicoletta Nicolaou and Martin Bogdan	Extendable Hybrid approach to detect conscious states in a CLIS patient using machine learning

12:00h–13:30h JUNTAS room. Session 10

Janitha Bandara, Britt Moldestad and Marianne Eikeland	Analyzing the Effects of Geometrical and Particle Size Uncertainty in Circulating Fluidized Beds using CPFD Simulation
Guillermo Calvo Alvarado and Jesus Enrique Sierra	pyEff: New tool for code efficiency measurement
Marsel Omeri, Marko Radanovic, Ernesto Emmanuel Santana Cruz and Romualdo Moreno Ortiz	Simulation processes for on-board state estimation in a small UAV environment
Hendrik Folkerts, Christina Deatcu and Thorsten Pawletta	Python-Based eSES/MB Framework: Model Specification and Automatic Model Generation for Multiple Simulators

13:30h–15:00h Lunch, Spanish paella (polytechnic building)

15:00h–16:30h ACTOS room. Session 11

Vladimir Ceperic and Alma Trazivuk	Automated generation and selection of the electronic circuit black-box model inputs
Aitor J. Garrido, Erlantz Otaola, Manuel De la Sen and Izaskun Garrido	Analytical design and validation of OWC chamber device models by means of real-time experimental data
Jesus Enrique Sierra	Industrial AGV holistic modelling approach
Julián Seco, Antonio José Calderón, Isaías González and Manuel Calderón	Preliminary design of modular electrolyzer for photovoltaic energy utilization in Smart Micro-Grids

15:00h–16:30h GRADOS room. Session 12

Xiaofeng Hu, Wei Li, Ping Ma and Ming Yang	A Combined Weighting Method Based on Hierarchical Clustering
Dirk Zimmer	Robust Simulation of Stream-Dominated Thermo-Fluid Systems: From Unidirectional to Bidirectional Applications
Du, Tao Chao, Ma and Yang	Multi-objective optimization based on decomposition of weight vectors generated by Latin Hypercube
Isabel Claveria, Daniel Elduque, Carlos Javierre, Carmelo Pina and Raquel Acero	Dimensional behavior of recycled polypropilene

16:30h–17:00h Coffee Break

17:00h–18:30h ACTOS room. Session 13

Arturo Aquino Martín, Juan Manuel Ponce Real, Borja Millán Prior, Diego Tejada Guzmán and José Manuel Andújar Márquez	Post-Harvest Olive-Table Characterisation by Means of Image Analysis
Javier Echeto, Matilde Santos and Manuel Romana	Traffic Jam Assist Simulation and Analysis
Galina Antonova	The simulation modeling as the part of grid methods of uniform probing for the dynamic stochastic systems investigation
Julian Malaka	Application of CAE to model and simulate wheel-ground contact in railway vehicle
Mario Rodríguez Cantelar, Fernando Matía Espada and Pablo San Segundo Carrillo	Neural Model Applied to a Conversational Agent in a Closed Domain

19:15h–20:30h Walk for the Santiago's road to the restaurant, departing from the north part of the Stone Bridge "*Puente de Piedra*", <https://goo.gl/maps/otjCitMW1KvfdVTu5> finishing at the restaurant of the Gala Dinner

20:30h–21:00h Visit to the winery Bodegas Francoespañolas, where the gala dinner will take place. <https://goo.gl/maps/HdmyAfZLEMceWEzp9>

21:00h Gala dinner at Bodegas Francoespañolas, where the gala dinner will take place. <https://goo.gl/maps/HdmyAfZLEMceWEzp9>

Thursday, 4th July 2019

Place: Higher Technical School of Industrial Engineering

09.00h ACTOS room. Plenary Talk

Chair. Emilio Jimenez

Rodrigo Romero-Silva and Miguel Mujica Mota	Modelling landside logistic operations of a mega airport hub with discrete-event simulation
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9:30h–11:30h ACTOS room. Session 14

Francisco J. Flor, Mercedes Pérez, Emilio Jiménez, Eduardo Martínez, Julio Blanco	Wine Aging in Reused Oak Barrels Sanitized with Carbon Dioxide
Francisco J. Flor, Mercedes Pérez, Emilio Jiménez, Eduardo Martínez, and Julio Blanco	Carbon dioxide as a new oak barrel cleaning process. Influences on the volatile compounds of oak-wood
Montblanc Quentin, Dewaele Ophelie, Jaouane Yasmina, Kouiti Ismail, and Odjaoade Benjamin	Android application for the Bier Game Benchmark
Hamoud Mohamed Sneiba, Bensaka Mouad, Jaaouane Yasmina, Harchli Chaymae	Realization of a web application "Personalization of Polo online"
Tagmouti Zineb	System for measuring and collecting data of an isolated photovoltaic installation
Diego Ruiz	Modeling and simulation of a real industrial process using FLEXSIM
Víctor López Larrea	Biocompatible materials in the modeling, design and 3D printing of artificial prostheses
Martin Prieto Celorrio	How to manage virtual reality projects
Alberto Falces	Electric car development in the University of La Rioja
Alberto Falces	Motostudent participation in the University of La Rioja

12.30 Closing Ceremony and Presentation of next Eurosim Congress in Amsterdam 2022

13:30h–15:00h Lunch (Polytechnic building)

19:30h–21:00h Guided tour of the historic city centre (for those who were not able to attend the guided visit on Monday), departing from *Plaza del Mercado*, the place of the Cathedral. <https://goo.gl/maps/hjMbDjcSq5o1birg8>

21:00h Free dinner in Calle Laurel, probably the most typical street of Tapas of Spain, making use of the tickets provided in the registration kit, which can be used to obtain a wine and a tapa in the bars with a distinctive in the entrance. <https://goo.gl/maps/8mDLNayRbxMrszff9>

Friday, 5th July 2019

08:00h Tour by La Rioja visiting some of the most famous Monasteries of La Rioja, wineries, and technological centers. Lunch included in the visit. Departure from the (Polytechnic Building) <https://goo.gl/maps/mUxKv1tV3qAYwHBw6>

Saturday 6th July. Post conference tour

As an extension of the activities, and taking advantage from the vicinity of Pamplona, the well-known city for the festivities of *San Fermín* and the bullfights for its streets during the festivities, immortalized by Hemingway, there will be an excursion to the event of the official beginning of the festivity, with "*el chupinazo*" (rocket announcer) . Departure from the (Polytechnic Building) <https://goo.gl/maps/mUxKv1tV3qAYwHBw6>

Price (this activity is not included in the inscription pack):
It includes bus to Pamplona and lunch.

50€