



**Jorge Emilio Júlvez Bueno**

Generated from: Editor CVN de FECYT

Date of document: 29/09/2023

**v 1.4.3**

ccc2365cdffbf148095bea9b9a4aac6a

This electronic file (PDF) has embedded CVN technology (CVN-XML). The CVN technology of this file allows you to export and import curricular data from and to any compatible data base. List of adapted databases available at: <http://cvn.fecyt.es/>



## Jorge Emilio Júlvez Bueno

Surname(s): **Júlvez Bueno**  
 Name: **Jorge Emilio**  
 DNI: **29111548B**  
 ORCID: **0000-0002-7093-228X**  
 ScopusID: **7005478140**  
 ResearcherID: **B-4216-2019**  
 Date of birth: **07/02/1975**  
 Gender: **Male**  
 Nationality: **Spain**  
 Country of birth: **Spain**  
 Aut. region/reg. of birth: **Aragon**  
 City of birth: **Zaragoza**  
 Contact address: **Ciudadela 2, 1 B**  
 Postcode: **50017**  
 Contact country: **Spain**  
 Contact aut. region/reg.: **Aragon**  
 Contact city: **Zaragoza**  
 Land line phone: **(+34) 976762336**  
 Fax: **(+34) 976761914**  
 Email: **julvez@unizar.es**  
 Mobile phone: **(+34) 686921355**  
 Personal web page: **<http://webdiis.unizar.es/~julvez/>**

### Current professional situation

**Employing entity:** University of Zaragoza      **Type of entity:** University  
**Department:** Computer Science and Systems Engineering, School of Engineering and Architecture  
**Professional category:** Full Professor  
**City employing entity:** Zaragoza, Spain  
**Start date:** 15/02/2023  
**Type of contract:** Civil servant      **Dedication regime:** Full time  
**Primary (UNESCO code):** 120300 - Computer Sciences; 120305 - Automated manufacturing systems; 120710 - Network flow; 240300 - Biochemistry  
**Identify key words:** Artificial intelligence; Petri networks; Hibrid systems; Control of biosystems and bioprocessings

### Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Zaragoza	Associate Professor	01/09/2018
2	University of Cambridge	Research associate	01/10/2016
3	University of Cambridge	Marie Curie fellow	01/10/2014
4	Universidad de Zaragoza	Associate Professor	01/01/2012
5	Universidad de Zaragoza	Assistant professor	21/09/2010



	Employing entity	Professional category	Start date
6	Universidad de Zaragoza	Teaching assistant (PhD)	29/09/2008
7	Universitat Politècnica de Catalunya	PostDoc "Juan de la Cierva"	14/11/2005
8	Universidad de Zaragoza	Teaching assistant	18/02/2005
9	Universidad de Zaragoza	PhD Student	01/01/2001
10	Electronic Data Systems (EDS)	Systems Engineer	02/08/1999

- 1** **Employing entity:** Universidad de Zaragoza  
**Professional category:** Associate Professor  
**Start-End date:** 01/09/2018 - 01/03/2023  
**Type of entity:** University  
**Duration:** 2 years
- 2** **Employing entity:** University of Cambridge  
**Professional category:** Research associate  
**Start-End date:** 01/10/2016 - 30/09/2018  
**Type of entity:** University  
**Duration:** 2 years
- 3** **Employing entity:** University of Cambridge  
**Professional category:** Marie Curie fellow  
**Start-End date:** 01/10/2014 - 30/09/2016  
**Type of entity:** University  
**Duration:** 2 years
- 4** **Employing entity:** Universidad de Zaragoza  
**Professional category:** Associate Professor  
**Start-End date:** 01/01/2012 - 31/12/2014  
**Type of entity:** University  
**Duration:** 2 years
- 5** **Employing entity:** Universidad de Zaragoza  
**Professional category:** Assistant professor  
**Start-End date:** 21/09/2010 - 12/06/2012  
**Type of entity:** University  
**Duration:** 1 year - 8 months - 20 days
- 6** **Employing entity:** Universidad de Zaragoza  
**Professional category:** Teaching assistant (PhD)  
**Start-End date:** 29/09/2008 - 28/09/2010  
**Type of entity:** University  
**Duration:** 1 year - 11 months - 20 days
- 7** **Employing entity:** Universitat Politècnica de Catalunya  
**Professional category:** PostDoc "Juan de la Cierva"  
**Start-End date:** 14/11/2005 - 30/09/2008  
**Type of entity:** University  
**Duration:** 3 years
- 8** **Employing entity:** Universidad de Zaragoza  
**Professional category:** Teaching assistant  
**Start-End date:** 18/02/2005 - 30/09/2005  
**Type of entity:** University  
**Duration:** 7 months - 2 days
- 9** **Employing entity:** Universidad de Zaragoza  
**Professional category:** PhD Student  
**Start-End date:** 01/01/2001 - 31/12/2003  
**Type of entity:** University  
**Duration:** 3 years
- 10** **Employing entity:** Electronic Data Systems (EDS)  
**Professional category:** Systems Engineer  
**Start-End date:** 02/08/1999 - 31/12/2000  
**Type of entity:** Business  
**Duration:** 1 year - 6 months



## Education

### University education

#### 1st and 2nd cycle studies and pre-Bologna degrees

**University degree:** Higher degree

**Name of qualification:** Ingeniero en Informática

**Degree awarding entity:** Universidad de Zaragoza **Type of entity:** University

**Date of qualification:** 16/09/1998

#### Doctorates

**Doctorate programme:** Ingeniería de sistemas e informática

**Degree awarding entity:** Universidad de Zaragoza **Type of entity:** University

**City degree awarding entity:** Zaragoza, Aragon, Spain

**Date of degree:** 11/04/2005

**DEA awarding entity:** Universidad de Zaragoza

**Date DEA was awarded:** 12/03/2003

**Date of certificate:** 11/04/2005

**Thesis title:** Algebraic Techniques for the Analysis and Control of Continuous Petri nets

**Thesis director:** Manuel Silva Suárez

**Thesis co-director:** Laura Recalde Frisón

**Obtained qualification:** Sobresaliente cum Laude

### Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- 1 Title of course/seminar:** Discurso académico oral en inglés  
**Goals of the course/seminar:** Proporcionar técnicas para producir un discurso académico oral en inglés  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 20 hours  
**End date:** 06/06/2011
- 2 Title of course/seminar:** Coaching estratégico  
**Goals of the course/seminar:** Conocer herramientas para la transformación y mejora continua profesional  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 8 hours  
**End date:** 24/02/2011
- 3 Title of course/seminar:** Técnicas para potenciar la comunicación y participación de los alumnos en el aula  
**Goals of the course/seminar:** Presentar métodos efectivos de comunicación con los alumnos  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 9 hours  
**End date:** 21/02/2011



- 4** **Title of course/seminar:** Aprender a fijarse metas: nuevos estilos motivacionales  
**Goals of the course/seminar:** Realizar propuestas para mejorar el clima motivacional del aula  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 3 hours  
**End date:** 19/01/2010
- 5** **Title of course/seminar:** Metodología participativa en la Universidad. Estrategias de participación del alumnado  
**Goals of the course/seminar:** Desarrollar y aprender estrategias que promuevan la participación del alumnado  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 6 hours  
**End date:** 15/01/2010
- 6** **Title of course/seminar:** La adquisición de competencias de lectura y escritura de textos académicos  
**Goals of the course/seminar:** Analizar dificultades comunes de los estudiantes en la lectura de textos académicos  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 4 hours  
**End date:** 11/01/2010
- 7** **Title of course/seminar:** Docencia e investigación en ingeniería  
**Goals of the course/seminar:** Investigar e innovar sobre la práctica docente  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 2 hours  
**End date:** 11/02/2009
- 8** **Title of course/seminar:** El valor del profesor y el sentido de enseñar  
**Goals of the course/seminar:** Conocer el sentido y función formadora del proceso educativo  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 2 hours  
**End date:** 20/01/2009
- 9** **Title of course/seminar:** La investigación en el aula  
**Goals of the course/seminar:** Experimentar y enriquecer el repertorio didáctico  
**Organising entity:** Universidad de Zaragoza **Type of entity:** University  
**Duration in hours:** 4 hours  
**End date:** 16/01/2009

## Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
German		A1	A1	A1	B1
Polish		A1	C1	C1	B1
French		C1	A1	A1	B1
Italian		C1	C1	C1	A1
English		C2	C2	C2	C2



## Teaching experience

### General teaching experience

- 1** **Type of teaching:** Official teaching  
**Name of the course:** Lenguajes, Gramáticas y Autómatas  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**University degree:** Ingeniería Informática  
**End date:** 15/09/2011  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 168  
**Entity:** Universidad de Zaragoza **Type of entity:** University
- 2** **Type of teaching:** Official teaching  
**Name of the course:** Redes de Petri estocásticas: técnicas de análisis  
**Type of programme:** Doctorate **Type of teaching:** In person theory  
**University degree:** Ingeniería Informática  
**End date:** 15/09/2010  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 10  
**Entity:** Universidad de Zaragoza **Type of entity:** University
- 3** **Type of teaching:** Official teaching  
**Name of the course:** Estructuras de datos y algoritmos  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**University degree:** Ingeniería Informática  
**End date:** 15/09/2009  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 60  
**Entity:** Universidad de Zaragoza **Type of entity:** University
- 4** **Type of teaching:** Official teaching  
**Name of the course:** Programación concurrente  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**University degree:** Ingeniería Informática  
**End date:** 15/09/2009  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 30  
**Entity:** Universidad de Zaragoza **Type of entity:** University
- 5** **Type of teaching:** Official teaching  
**Name of the course:** Programación 1  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**University degree:** Ingeniería Informática  
**End date:** 15/09/2007  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 45



**Entity:** Universitat Politècnica de Catalunya

**Type of entity:** University

**6** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas automáticos  
**Type of programme:** Engineering  
**University degree:** Ingeniería Industrial  
**End date:** 15/09/2005  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 63  
**Entity:** Universidad de Zaragoza

**Type of teaching:** Laboratory work

**Type of entity:** University

**7** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas de eventos discretos  
**Type of programme:** Engineering  
**University degree:** Ingeniería Industrial  
**End date:** 15/09/2005  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 15  
**Entity:** Universidad de Zaragoza

**Type of teaching:** In person theory

**Type of entity:** University

**8** **Type of teaching:** Official teaching  
**Name of the course:** Compiladores I  
**Type of programme:** Engineering  
**University degree:** Ingeniería Informática  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 193  
**Entity:** Universidad de Zaragoza

**Type of teaching:** In person theory

**Type of entity:** University

**9** **Type of teaching:** Official teaching  
**Name of the course:** Modelos abstractos de cálculo  
**Type of programme:** Engineering  
**University degree:** Ingeniería Informática  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 15  
**Entity:** Universidad de Zaragoza

**Type of teaching:** In person theory

**Type of entity:** University

**10** **Type of teaching:** Official teaching  
**Name of the course:** Programación paralela  
**Type of programme:** Engineering  
**University degree:** Ingeniería Informática  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 280  
**Entity:** Universidad de Zaragoza

**Type of teaching:** Laboratory work

**Type of entity:** University

**11** **Type of teaching:** Official teaching  
**Name of the course:** Tecnología de programación  
**Type of programme:** Engineering  
**University degree:** Ingeniería Informática  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 60  
**Entity:** Universidad de Zaragoza

**Type of teaching:** Laboratory work

**Type of entity:** University





- 12** **Type of teaching:** Official teaching  
**Name of the course:** Modelos formales en bioinformática  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**University degree:** Ingeniería Informática  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 45  
**Entity:** Universidad de Zaragoza **Type of entity:** University

## Experience supervising doctoral thesis and/or final year projects

- 1** **Project title:** Modelado y control de sistemas de tráfico mediante redes flexibles  
**Type of project:** Work leading to an ASD  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Carlos Cunchillos Andicoberry  
**Obtained qualification:** Notable  
**Date of reading:** 05/10/2021
- 2** **Project title:** Análisis y simulación de modelos metabólicos de E. Coli para la producción de citramalato  
**Type of project:** Work leading to an ASD  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Violeta Gracia Román  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 05/07/2021
- 3** **Project title:** Optimisation of the production of bioproducts in Escherichia coli  
**Type of project:** Work leading to an ASD  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Jorge Lázaro Ibáñez  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 27/07/2020
- 4** **Project title:** Cálculo de puntos críticos en redes metabólicas microbianas  
**Type of project:** End of course project  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Alexandru Ioan Oarga Hategan  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 10/12/2019
- 5** **Project title:** Optimising production of citramalate based on the E. coli kinetic and stoichiometric models  
**Type of project:** Work leading to an ASD  
**Entity:** University of Cambridge **Type of entity:** University  
**Student:** Arin Wongprommoon  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 11/06/2018
- 6** **Project title:** Computation of tight flux bounds in metabolic networks  
**Type of project:** Work leading to an ASD  
**Entity:** University of Cambridge **Type of entity:** University  
**Student:** Anargyros Anargyros





**Obtained qualification:** Sobresaliente  
**Date of reading:** 13/06/2017

- 7** **Project title:** Structural Analysis of the Metabolic Network of E. coli  
**Type of project:** Work leading to an ASD  
**Entity:** University of Cambridge **Type of entity:** University  
**Student:** Lucy Mair  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 13/06/2017
- 8** **Project title:** Fluidization of Petri nets to improve the analysis of Discrete Event Systems  
**Type of project:** Doctoral thesis  
**Co-director of thesis:** Manuel Silva Suárez  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** María Estíbaliz Fraca Santamaría  
**Obtained qualification:** Sobresaliente cum laude  
**Date of reading:** 27/05/2015
- 9** **Project title:** Portal web de soporte a la gestión científica y administrativa de un organismo público de investigación  
**Type of project:** End of course project  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** José María Pérez Grao  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 30/09/2013
- 10** **Project title:** Performance Analysis and Resource Optimisation of Critical Systems Modelled by Petri Nets  
**Type of project:** Doctoral thesis  
**Co-director of thesis:** José Merseguer Hernáiz  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Ricardo Julio Rodríguez Fernández  
**Obtained qualification:** Sobresaliente cum laude  
**Date of reading:** 24/06/2013  
**European doctorate:** Yes  
**Quality recognition:** Yes **Date of award:** 20/10/2011
- 11** **Project title:** Redes de Petri híbridas adaptativas: alcanzabilidad y ausencia de bloqueos  
**Type of project:** Work leading to an ASD  
**Co-director of thesis:** Manuel Silva Suárez  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** María Estíbaliz Fraca Santamaría  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 20/09/2011
- 12** **Project title:** Identificación de cuellos de botella en circuitos asíncronos  
**Type of project:** End of course project  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Student:** Luis Jesus Jorge Salcines  
**Obtained qualification:** Sobresaliente  
**Date of reading:** 14/05/2010



## Student tutorials

- 1 Name of the programme:** Educational aid  
**Entity:** University of Cambridge  
**Frequency of the activity:** 1  
**Type of entity:** University
- 2 Name of the programme:** Mobility programme  
**Entity:** Universidad de Zaragoza  
**Frequency of the activity:** 1  
**Type of entity:** University

## Participation in innovative teaching projects

- 1 Project title:** Evaluación, seguimiento y coordinación de las asignaturas de Algoritmia y Computación en el Grado en Ingeniería Informática  
**Type of participation:** Others  
**Time of working relationship:** For a limited time  
**Funding entity:** Universidad de Zaragoza  
**Start-End date:** 09/2012 - 07/2013  
**Type of entity:** University  
**Duration:** 9 months
- 2 Project title:** Coordinación de la Implantación de las Asignaturas de Algoritmia y Computación en el Grado en Ingeniería Informática (PIIDUZ-11-3-462)  
**Type of participation:** Others  
**Time of working relationship:** For a limited time  
**Funding entity:** Universidad de Zaragoza  
**Start-End date:** 09/2011 - 07/2012  
**Type of entity:** University  
**Duration:** 9 months

## Other activities/achievements not included above

- 1 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2018/2019  
**Organising entity:** Universidad de Zaragoza  
**End date:** 15/09/2019  
**Type of entity:** University
- 2 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2012/2013  
**Organising entity:** Universidad de Zaragoza  
**End date:** 15/09/2013  
**Type of entity:** University
- 3 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2011/2012  
**Organising entity:** Universidad de Zaragoza  
**End date:** 15/09/2012  
**Type of entity:** University
- 4 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2010/2011  
**Organising entity:** Universidad de Zaragoza  
**End date:** 15/09/2011  
**Type of entity:** University
- 5 Description of the activity:** Profesor en el tutorial 'Fluid and Hybrid Petri nets' de la International Conference on Application and Theory of Petri Nets (ICATPN) 2011  
**City of activity:** Newcastle, United Kingdom



**Organising entity:** International Conference on Application and Theory of Petri Nets (ICATPN) 2011  
**End date:** 24/06/2011

**Type of entity:** Conferencia internacional

**6 Description of the activity:** Profesor en DISC PhD School on 'Control of Discrete-Event Systems- Automata and Petri nets'

**City of activity:** Cagliari, Italy

**Organising entity:** Proyecto de Investigación Europeo DISC 2007, FP7-ICT-2007-2

**End date:** 10/06/2011

**Type of entity:** Proyecto de investigación

**7 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2009/2010

**Organising entity:** Universidad de Zaragoza

**End date:** 15/09/2010

**Type of entity:** University

**8 Description of the activity:** Calificación 'positiva destacada' de la labor docente curso 2008/2009

**Organising entity:** Universidad de Zaragoza

**End date:** 15/09/2009

**Type of entity:** University

**9 Description of the activity:** Coordinador de Máster en Ingeniería Informática

**Organising entity:** Universidad de Zaragoza

**Type of entity:** University

## Scientific and technological experience

### Research and development groups/teams

**1 Name of the group:** Cambridge Systems Biology Centre

**Aims of the group:** Investigación

**Type of collaboration:** Co-authorship of publications

**Affiliation entity:** University of Cambridge

**Start date:** 01/10/2014

**Type of entity:** University

**Duration:** 4 years

**2 Name of the group:** Instituto de Investigación en Ingeniería de Aragón (I3A)

**Affiliation entity:** Universidad de Zaragoza

**Start date:** 29/09/2008

**Type of entity:** University

**Duration:** 5 years

**3 Name of the group:** ALgorithms, Bioinformatics, COmplexity and formal Methods (ALBCOM)

**Affiliation entity:** Universitat Politècnica de Catalunya

**Start date:** 14/11/2005

**Type of entity:** University

**Duration:** 3 years

**4 Name of the group:** Grupo de Ingeniería de Sistemas de Eventos Discretos (GISED)

**Aims of the group:** Investigación en el campo de los sistemas de eventos discretos

**Affiliation entity:** Universidad de Zaragoza

**Start date:** 01/01/2001

**Type of entity:** University

**Duration:** 10 years



## Scientific or technological activities

### R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** PID2020-113969RB-I00 DETECCIÓN Y MITIGACION DE VULNERABILIDADES EN SISTEMAS CRITICOS

**Geographical area:** National

**Entity where project took place:** Instituto Universitario de Investigación en Ingeniería de Aragón - Universidad de Zaragoza

**Name principal investigator (PI, Co-PI....):** Jorge Júlvez Bueno

**Nº of researchers:** 6

**Funding entity or bodies:**  
MINISTERIO DE CIENCIA E INNOVACION

**Start-End date:** 01/09/2021 - 31/08/2025      **Duration:** 48 months

**Total amount:** 64.009 €
- 2** **Name of the project:** ConBioChem: Continuous bio-production of commodity chemicals

**Entity where project took place:** University of Cambridge

**City of entity:** Cambridge, United Kingdom

**Name principal investigator (PI, Co-PI....):** Stephen G. Oliver

**Nº of researchers:** 12

**Funding entity or bodies:**  
Biotechnology & Biological Sciences Research Council (UK)      **Type of entity:** Public Research Body

**Start-End date:** 01/10/2016 - 30/09/2021

**Total amount:** 3.500.000 €
- 3** **Name of the project:** RTI2018-098543-B-I00. ModEl and Data-driven RESilience Engineering for complex dynamic systems

**Geographical area:** National

**Entity where project took place:** Instituto Universitario de Investigación en Ingeniería de Aragón - Universidad de Zaragoza

**Name principal investigator (PI, Co-PI....):** Simona Bernardi 1; José Merseguer Hernáiz

**Nº of researchers:** 6

**Funding entity or bodies:**  
MINISTERIO DE CIENCIA E INNOVACION

**Start-End date:** 01/01/2019 - 31/12/2020      **Duration:** 36 months
- 4** **Name of the project:** 7FP - Marie Curie Fellowship (IEF)

**Entity where project took place:** University of Cambridge

**City of entity:** Cambridge, United Kingdom

**Name principal investigator (PI, Co-PI....):** Stephen G. Oliver

**Nº of researchers:** 1

**Funding entity or bodies:**  
Comisión Europea      **Type of entity:** 7FP

**Start-End date:** 01/10/2014 - 30/09/2016



- 5** **Name of the project:** DPI2010-20413. ANALISIS Y CONTROL DE GRANDES SISTEMAS DE EVENTOS DISCRETOS DISTRIBUIDOS  
**Geographical area:** National  
**Entity where project took place:** Instituto Universitario de Investigación en Ingeniería de Aragón - Universidad de Zaragoza  
**Name principal investigator (PI, Co-PI....):** Manuel Silva  
**Nº of researchers:** 7  
**Funding entity or bodies:** MINISTERIO DE CIENCIA E INNOVACION  
**Start date:** 01/01/2011 **Duration:** 36 months  
**Total amount:** 88.000 €
- 6** **Name of the project:** FUNDACION ARAID 2010. MODELADO Y VERIFICACION DE SISTEMAS DE SOFTWARE CRITICOS  
**Geographical area:** Regional  
**Entity where project took place:** Instituto Universitario de Investigación en Ingeniería de Aragón - Universidad de Zaragoza  
**Name principal investigator (PI, Co-PI....):** Jorge Júlvez  
**Nº of researchers:** 3  
**Funding entity or bodies:** FUNDACION ARAGON I+D  
**Start date:** 01/10/2010 **Duration:** 25 months  
**Total amount:** 18.000 €
- 7** **Name of the project:** IDENTIFICAZIONE, RICOSTRUZIONE DELLO STATO E DIAGNOSI DI SISTEMI AD EVENTI DISCRETI MEDIANTE RETI DI PETRI (CRP1\_101)  
**Geographical area:** National  
**Entity where project took place:** Università degli studi di Cagliari  
**Name principal investigator (PI, Co-PI....):** Carla Seatzu  
**Nº of researchers:** 4  
**Funding entity or bodies:** Región de Cerdeña (Italia)  
**Start date:** 01/09/2010 **Duration:** 36 months  
**Total amount:** 6.000 €
- 8** **Name of the project:** DISTRIBUTED SUPERVISORY CONTROL OF COMPLEX PLANTS  
**Geographical area:** European Union  
**Entity where project took place:** Escuela de Ingeniería y Arquitectura - Universidad de Zaragoza  
**Name principal investigator (PI, Co-PI....):** Manuel Silva  
**Nº of researchers:** 5  
**Funding entity or bodies:** UNION EUROPEA  
**Start date:** 01/09/2008 **Duration:** 36 months  
**Total amount:** 192.000 €
- 9** **Name of the project:** TIN2007-66523. MÉTODOS FORMALES Y ALGORITMOS PARA EL DISEÑO DE SISTEMAS (FORMALISM)  
**Geographical area:** National  
**Entity where project took place:** Universitat Politècnica de Catalunya **Type of entity:** University

**Funding entity or bodies:**

MINISTERIO DE CIENCIA E INNOVACION

**Start date:** 01/01/2007**Duration:** 60 months**Total amount:** 821.000 €**10 Name of the project:** DPI2003-06376. REDES DE PETRI CONTINUAS E HIBRIDAS: MODELADO, ANALISIS Y SINTESIS.**Entity where project took place:** Escuela de Ingeniería y Arquitectura - Universidad de Zaragoza**Name principal investigator (PI, Co-PI...):** Manuel Silva**Nº of researchers:** 8**Funding entity or bodies:**

D.G.I. (MCyT)

**Start date:** 01/12/2003**Duration:** 36 months**Total amount:** 55.300 €**R&D non-competitive contracts, agreements or projects with public or private entities****1 Name of the project:** Contract as Research Associate**Degree of contribution:** Researcher**Nº of researchers:** 1**Funding entity or bodies:**

University of Cambridge

**Type of entity:** University**City funding entity:** Cambridge, United Kingdom**Start date:** 01/10/2016**Duration:** 2 years**2 Name of the project:** Contract as Marie Curie Fellow**Degree of contribution:** Researcher**Nº of researchers:** 1**Funding entity or bodies:**

University of Cambridge

**Type of entity:** University**City funding entity:** Cambridge, United Kingdom**Start date:** 01/10/2014**Duration:** 2 years**Results****Industrial and intellectual property****Title registered industrial property:** "Matlab Third Party Product. The MathWorks Connections Program" with the software tool "SimHPN: A Matlab toolbox for Hybrid Petri nets"**Inventors/authors/obtainers:** Jorge Júlvez Bueno; Cristian Mahulea**Entity holder of rights:** Universidad de Zaragoza**Nº of application:** Z-342-10**Country of inscription:** Spain, Aragon**Date of register:** 19/08/2010





## Scientific and technological activities

### Scientific production

#### Publications, scientific and technical documents

- 1** A. Oarga; B. P. Bannerman; J. Júlvez. CONTRABASS: exploiting flux constraints in genome- models for the detection of vulnerabilities scale. Bioinformatics. 39 - 2, Oxford, 2023.

**Type of production:** Scientific paper  
**Position of signature:** 3

**Total no. authors:** 1  
**Impact source:** ISI

**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
- 2** J. Lazaro; G. Jansen; Y. Yang; M.A. Torres-Acosta; G. Lye; S.G. Oliver; J. Júlvez. Combination of Genome-Scale Models and Bioreactor Dynamics to Optimize the Production of Commodity Chemicals. Frontiers in Molecular Biosciences. 9, Frontiers, 2022. Available on-line at: <<https://www.frontiersin.org/articles/10.3389/fmolb.2022.855735/full>>.

**Type of production:** Scientific paper  
**Position of signature:** 7

**Total no. authors:** 7  
**Impact source:** ISI

**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
- 3** B. P. Bannerman; J. Júlvez; A. Oarga; T. L. Blundell; P. Moreno; R.A. Floto. Integrated human/SARS-CoV-2 metabolic models present novel treatment strategies against COVID-19. Life Science Alliance. 4 - 10, pp. e202000954. EMBO Press, 2021. Available on-line at: <<https://doi.org/10.26508/lsa.202000954>>.

**Type of production:** Scientific paper  
**Position of signature:** 2

**Total no. authors:** 5  
**Impact source:** ISI

**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
- 4** J. Júlvez; S.G. Oliver. A unifying modelling formalism for the integration of stoichiometric and kinetic models. Journal of The Royal Society Interface. 17 - 169, pp. 20200341. 2020. Available on-line at: <[10.1098/rsif.2020.0341](https://doi.org/10.1098/rsif.2020.0341)>.

**Type of production:** Scientific paper  
**Position of signature:** 1

**Total no. authors:** 2  
**Impact source:** ISI  
**Impact index in year of publication:** 3.748  
**Position of publication:** 19

**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Category:** MULTIDISCIPLINARY SCIENCES  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 71





- 5** J. Júlvez; S.G. Oliver. Steady State Analysis of Flexible Nets. IEEE Transactions on Automatic Control. 65 - 6, pp. 2510 - 2525. IEEE, 2020. Available on-line at: <10.1109/TAC.2019.2931836>.  
**Type of production:** Scientific paper  
**Position of signature:** 1  
**Total no. authors:** 2  
**Impact source:** ISI  
**Impact index in year of publication:** 5.625  
**Position of publication:** 30  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Category:** ENGINEERING, ELECTRICAL & ELECTRONIC  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 266
- 6** J. Júlvez; Stephen G Olivez. Flexible Nets: A modeling formalism for dynamic systems with uncertain parameters. DISCRETE EVENT DYNAMIC SYSTEMS-THEORY AND APPLICATIONS. 29 - 3, pp. 367 - 392. Springer, 2019. Available on-line at: <https://doi.org/10.1007/s10626-019-00287-9>.  
**Type of production:** Scientific paper  
**Position of signature:** 1  
**Total no. authors:** 2  
**Impact source:** ISI  
**Impact index in year of publication:** 0.932  
**Position of publication:** 170  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** Yes  
**Category:** Mathematics applied  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 260
- 7** J. Júlvez; S.G. Oliver. Modeling, analyzing and controlling hybrid systems by Guarded Flexible Nets. Nonlinear Analysis: Hybrid Systems. 32, pp. 131 - 146. Elsevier, 2019. Available on-line at: <https://doi.org/10.1016/j.nahs.2018.11.004>.  
**Type of production:** Scientific paper  
**Position of signature:** 1  
**Total no. authors:** 2  
**Impact source:** ISI  
**Impact index in year of publication:** 5.881  
**Position of publication:** 2  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Category:** MATHEMATICS, APPLIED  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 260
- 8** J. Júlvez; D. Dikicioglu; S.G. Oliver. Handling variability and incompleteness of biological data by flexible nets: a case study for Wilson disease. npj Systems Biology and Applications. 4 - 1, Nature Publishing Group, 2018. Available on-line at: <https://doi.org/10.1038/s41540-017-0044-x>.  
**Type of production:** Scientific paper  
**Position of signature:** 1  
**Total no. authors:** 3  
**Impact source:** ISI  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee
- 9** E. Fraca; J. Júlvez; M. Silva. Fluid approximation of Petri net models with relatively small populations. DISCRETE EVENT DYNAMIC SYSTEMS-THEORY AND APPLICATIONS. 27 - 3, pp. 525 - 546. Springer, 2017. Available on-line at: <https://doi.org/10.1007/s10626-017-0238-9>.  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 3  
**Impact source:** ISI  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Category:** Mathematics applied



**Impact index in year of publication:** 1.444  
**Position of publication:** 63

**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 252

- 10** J. Júlvez. A straightforward method to compute average stochastic oscillations from data samples. *BMC Bioinformatics*. 16 - 1, pp. 1 - 17. Elsevier, 2015. Available on-line at: <<https://doi.org/10.1186/s12859-015-0765-z>>.

**Type of production:** Scientific paper  
**Position of signature:** 1

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Total no. authors:** 1

**Impact source:** ISI

**Impact index in year of publication:** 2.435

**Position of publication:** 10

**Category:** Mathematical and computational biology

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 56

- 11** E. Fraca; J. Júlvez; M. Silva. Hybrid and Hybrid Adaptive Petri Nets: on the computation of a Reachability Graph. *Nonlinear Analysis: Hybrid Systems*. 16, pp. 24 - 39. Elsevier, 2015. Available on-line at: <<https://doi.org/10.1016/j.nahs.2014.11.005>>.

**Type of production:** Scientific paper  
**Position of signature:** 2

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Total no. authors:** 3

**Impact source:** ISI

**Impact index in year of publication:** 3.192

**Position of publication:** 3

**Category:** Mathematics applied

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 254

**Source of citations:** Google Scholar

**Citations:** 3

- 12** J. Júlvez; S. Di Cairano; A. Bemporad; C. Mahulea. Event-Driven Model Predictive Control of Timed Hybrid Petri Nets. *INTERNATIONAL JOURNAL OF ROBUST AND NONLINEAR CONTROL*. 24 - 12, pp. 1724 - 1742. Wiley, 2014. Available on-line at: <<https://doi.org/10.1002/rnc.2958>>.

**Type of production:** Scientific paper  
**Position of signature:** 1

**Format:** Journal

**Total no. authors:** 4

**Impact source:** ISI

**Impact index in year of publication:** 3.232

**Position of publication:** 1

**Category:** Mathematics applied

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 257

- 13** L. Wang; C. Mahulea; J. Júlvez; M. Silva. ON/OFF strategy based minimum-time control of continuous Petri nets. *Nonlinear Analysis: Hybrid Systems*. 12, pp. 50 - 65. Elsevier, 2014. Available on-line at: <<https://doi.org/10.1016/j.nahs.2013.11.007>>.

**Type of production:** Scientific paper  
**Position of signature:** 3

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Total no. authors:** 4

**Impact source:** ISI

**Impact index in year of publication:** 2.375

**Position of publication:** 9

**Category:** Mathematics applied

**Journal in the top 25%:** Yes

**No. of journals in the cat.:** 257

**Source of citations:** Google Scholar

**Citations:** 7



- 14** E. Fraca; J. Júlvez; M. Silva. On the fluidization of Petri nets and marking homothety. *Nonlinear Analysis: Hybrid Systems*. 12, pp. 3 - 19. Elsevier, 2014. Available on-line at: <<https://doi.org/10.1016/j.nahs.2013.11.002>>.  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 2.375  
**Position of publication:** 9  
**Source of citations:** Google Scholar  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Category:** Mathematics applied  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 257  
**Citations:** 9
- 15** H. Apaydin-Ozkan; C. Mahulea; J. Júlvez; M. Silva. A Control Method for Distributed Continuous Mono-T-Semiflow Petri nets. *INTERNATIONAL JOURNAL OF CONTROL*. Sep(2013), pp. 1 - 18. Taylor & Francis, 2013.  
**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 4  
**Impact source:** ISI  
**Impact index in year of publication:** 1.00 (2012)  
**Format:** Journal
- 16** L. Wang; C. Mahulea; J. Júlvez; M. Silva. Minimum-time Decentralized Control of Choice-Free Continuous Petri Nets. *Nonlinear Analysis-Hybrid Systems*. 7 - 1, pp. 39 - 53. 2013.  
**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 4  
**Impact source:** ISI  
**Impact index in year of publication:** 1.685  
**Format:** Journal
- 17** R. Rodríguez; J. Júlvez; J. Merseguer. On the Performance Estimation and Resource Optimisation in Process Petri Nets. *IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS: SYSTEMS*. pp. 1385 - 1398. IEEE, 2013.  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 2.18 (2012)  
**Format:** Journal
- 18** R. Rodríguez; J. Júlvez; J. Merseguer. Quantification and Compensation of the Impact of Faults in System Throughput. *Proceedings of the Institution of Mechanical Engineers Part O-Journal of Risk and Reliability*. pp. 1 - 16. 2013.  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 0.62  
**Format:** Journal
- 19** J. Júlvez; M. Kwiatkowska; G. Normal; D. Parker. Evaluation of sustained stochastic oscillations by means of a system of differential equations. *International Journal of Computers and Applications*. 19 - 2, pp. 101 - 111. 2012.  
**Type of production:** Scientific paper  
**Format:** Journal



**Position of signature:** 1

**Total no. authors:** 4

- 20** J. Júlvez; C. Mahulea; C.R. Vázquez. SimHPN: A MATLAB toolbox for simulation, analysis and design with hybrid Petri nets. *Nonlinear Analysis-Hybrid Systems*. 6 - 2, pp. 806 - 817. 2012.

**Type of production:** Scientific paper

**Format:** Journal

**Position of signature:** 1

**Total no. authors:** 3

**Impact source:** ISI

**Impact index in year of publication:** 1.685

- 21** J. Carmona; J. Júlvez; J. Cortadella; M. Kishinevsky. A scheduling strategy for synchronous elastic designs. *FUNDAMENTA INFORMATICAE*. 108 - 1-2, pp. 1 - 21. 2011.

**Type of production:** Scientific paper

**Format:** Journal

**Position of signature:** 2

**Total no. authors:** 4

**Impact source:** ISI

**Impact index in year of publication:** 0.365

- 22** H. Apaydin-Özkan; J. Júlvez; C. Mahulea; M. Silva. Approaching minimum time control of timed continuous Petri nets. *Nonlinear Analysis-Hybrid Systems*. 5 - 2, pp. 136 - 148. 2011.

**Type of production:** Scientific paper

**Format:** Journal

**Position of signature:** 2

**Total no. authors:** 5

**Impact source:** ISI

**Impact index in year of publication:** 1.685

- 23** M. Silva; J. Júlvez; C. Mahulea; C.R. Vázquez. On Fluidization of Discrete Event Models: Observation and Control of Continuous Petri nets. *DISCRETE EVENT DYNAMIC SYSTEMS-THEORY AND APPLICATIONS*. 21 - 4, pp. 427 - 497. 2011.

**Type of production:** Scientific paper

**Format:** Journal

**Position of signature:** 2

**Total no. authors:** 4

**Impact source:** ISI

**Impact index in year of publication:** 0,872

- 24** J. Júlvez; R. Boel. A Continuous Petri Net Approach for Model Predictive Control of Traffic Systems. *IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART A-SYSTEMS AND HUMANS*. 40 - 4, pp. 686 - 697. 2010.

**Type of production:** Scientific paper

**Format:** Journal

**Position of signature:** 1

**Total no. authors:** 2

**Impact source:** ISI

**Impact index in year of publication:** 2.123

- 25** J. Júlvez; J. Cortadella; M. Kishinevsky. On the performance evaluation of multi-guarded marked graphs with single-server semantics. *DISCRETE EVENT DYNAMIC SYSTEMS-THEORY AND APPLICATIONS*. 20 - 3, pp. 377 - 407. 2010.

**Type of production:** Scientific paper

**Format:** Journal



**Position of signature:** 1  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 0,872

- 26** S. Di Cairano; A. Bemporad; J. Júlvez. Event-driven optimization-based control of hybrid systems with integral continuous-time dynamics. AUTOMATICA. 45 - 4, pp. 1243 - 1251. 2009.

**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 3  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 3.178

- 27** J. Cortadella; M. Kishinevsky; D. Bufistov; J. Carmona; J. Júlvez. Elasticity and Petri nets. Special Issue of Lecture Notes in Computer Science, Transactions on Petri nets and other Models of Concurrency. pp. 221 - 249. 2008. ISBN 978-3-540-89286-1

**Type of production:** Scientific paper  
**Position of signature:** 5  
**Total no. authors:** 5

- 28** J. Júlvez; E. Jiménez; L. Recalde; M. Silva. On Observability and Design of Observers in Timed Continuous Petri Net Systems. IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING. 5 - 3, pp. 532 - 537. 2008.

**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 1  
**Total no. authors:** 4  
**Impact source:** ISI  
**Impact index in year of publication:** 1.929

- 29** J. Júlvez; L. Recalde; M. Silva. Deadlock-freeness analysis of continuous mono-T-semiflow Petri nets. IEEE TRANSACTIONS ON AUTOMATIC CONTROL. 51 - 9, pp. 1472 - 1481. 2006.

**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 1  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 2.772

- 30** A. Bemporad; S. Di Cairano; J. Júlvez. Event-based model predictive control and verification of integral continuous-time hybrid automata. Lecture Notes in Computer Science. 3927, pp. 93 - 107. 2006. ISSN 0302-9743

**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 3

- 31** J. Júlvez; L. Recalde; M. Silva. Steady-state performance evaluation of continuous mono-T-semiflow Petri nets. AUTOMATICA. 41, pp. 605 - 616. 2005.

**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 1  
**Total no. authors:** 3  
**Impact source:** ISI

**Impact index in year of publication:** 1.693

- 32** A. Giua; C. Seatzu; J. Júlvez. Marking Estimation of Petri Nets With Pairs of Nondeterministic Transitions. ASIAN JOURNAL OF CONTROL. 6 - 2, pp. 270 - 280. 2004. ISSN 1561-8625  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 3  
**Total no. authors:** 3  
**Impact source:** ISI  
**Impact index in year of publication:** 0.466
- 33** J. Júlvez; L. Recalde; M. Silva. On Reachability in Autonomous Continuous Petri Net Systems. Lecture Notes in Computer Science. 2679, pp. 221 - 240. 2003. ISSN 0302-9743  
**Type of production:** Scientific paper  
**Position of signature:** 1  
**Total no. authors:** 3
- 34** J. Júlvez; C. Mahulea; C. R. Vázquez; M. Silva. Continuous Petri nets: Controllability and Control. Control of Discrete-Event Systems. Automata and Petri Net Perspectives. pp. 387 - 406. Springer, 2013. Available on-line at: <<https://doi.org/10.1007/978-1-4471-4276-8>>.  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 1 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Total no. authors:** 4
- 35** C. Mahulea; J. Júlvez; C. R. Vázquez; M. Silva. Continuous Petri nets: Observability and Diagnosis. Control of Discrete-Event Systems. Automata and Petri Net Perspectives. pp. 387 - 406. Springer, 2013. Available on-line at: <<https://doi.org/10.1007/978-1-4471-4276-8>>.  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Total no. authors:** 4
- 36** C.R. Vázquez; C. Mahulea; J. Júlvez; M. Silva. Introduction to fluid Petri nets. Control of Discrete-Event Systems. Automata and Petri Net Perspectives. pp. 365 - 386. Springer, 2013. Available on-line at: <<https://doi.org/10.1007/978-1-4471-4276-8>>.  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 3 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Total no. authors:** 4

## Works submitted to national or international conferences

- 1** **Title of the work:** On the computation of the minimum set of reactions for optimal growth in constraint-based models  
**Name of the conference:** 61st IEEE Conference on Decision and Control (CDC 2022)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2022  
**Type of contribution:** Scientific paper  
A. Oarga; J. Júlvez.





- 2** **Title of the work:** Extending the Modeling and Analysis Capabilities of Continuous Petri Nets by Flexible Nets  
**Name of the conference:** 60th IEEE Conference on Decision and Control (CDC 2021)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2021  
**Type of contribution:** Scientific paper  
J. Júlvez; S.G. Oliver.
- 3** **Title of the work:** Growth Dependent Computation of Chokepoints in Metabolic Networks  
**Name of the conference:** 18th International Conference on Computational Methods in Systems Biology (CMSB2020)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2020  
**Type of contribution:** Scientific paper  
A. Oarga; B. Bannerman; J. Júlvez.
- 4** **Title of the work:** Structural and dynamical analysis of an integrated human/virus metabolic model provides insight to new treatment strategies against Covid-19  
**Name of the conference:** 27th Conference on Intelligent Systems for Molecular Biology (ISMB2020)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2020  
**Type of contribution:** Scientific paper  
B. Bannerman; J. Júlvez; A. Oarga; T. L. Blundell; P. Moreno; R.A. Floto.
- 5** **Title of the work:** fnyzer: a Python package for the analysis of Flexible Nets  
**Name of the conference:** 18th International Conference on Computational Methods in Systems Biology (CMSB2020)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2020  
**Type of contribution:** Scientific paper  
J. Júlvez; S.G. Oliver.
- 6** **Title of the work:** A novel modelling framework for the analysis of partially known biological systems  
**Name of the conference:** British Yeast Group (BYG2016)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2016  
**Type of contribution:** Scientific paper  
J. Júlvez; D. Dikicioglu; S. G. Oliver.
- 7** **Title of the work:** A Petri net model of the protein machinery of the yeast cell factory  
**Name of the conference:** 27th International Conference on Yeast Genetics and Molecular Biology (YEAST 2015)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**Date of event:** 2015





**Type of contribution:** Scientific paper  
J. Júlvez; D. Dikicioglu; S. G. Oliver.

**8 Title of the work:** MATLAB tools for the analysis of Petri net models

**Name of the conference:** 19th IEEE International Conference on Emerging Technologies and Factory Automation (2014)

**Type of event:** Conference

**Corresponding author:** Yes

**Date of event:** 2014

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

J. Júlvez; M. H. Matcovshi; O. Pastravanu.

**9 Title of the work:** On the average dynamical behaviour of stochastic population models

**Name of the conference:** 19th world congress of the International Federation of Automatic Control (IFAC 2014)

**Type of event:** Conference

**Corresponding author:** Yes

**Date of event:** 2014

**Organising entity:** IFAC

**City organizing entity:** Cape Town, South African Republic

**Type of contribution:** Scientific paper

J. Júlvez.

**10 Title of the work:** The "bound reaching problem" on the fluidization of timed Petri nets

**Name of the conference:** 12th International Workshop on Discrete Event Systems (WODES 2014)

**Type of event:** Conference

**Corresponding author:** Yes

**Date of event:** 2014

**Organising entity:** IFAC

**Type of contribution:** Scientific paper

E. Fraca; J. Júlvez; M. Silva.

**11 Title of the work:** A simulation approach to detect oscillating behaviour in stochastic population models

**Name of the conference:** 11th Conference on Computational Methods in Systems Biology

**Type of event:** Conference

**Date of event:** 2013

**Organising entity:** IST Austria

**City organizing entity:** Viena, Austria

**Type of contribution:** Scientific paper

J. Júlvez. En: Lecture Notes in Computer Science. 8130, pp. 1 - 3. 09/2013. ISBN 978-3-642-40708-6

**12 Title of the work:** Control of continuous Petri nets using ON/OFF based method

**Name of the conference:** 11th International Workshop on Discrete Event Systems (WODES 2012)

**Date of event:** 2012

**Organising entity:** IFAC

L. Wang; C. Mahulea; J. Júlvez; M. Silva.

**13 Title of the work:** Marking homothetic monotonicity and fluidization of untimed Petri nets

**Name of the conference:** 11th International Workshop on Discrete Event Systems (WODES 2012)

**Date of event:** 2012



**Organising entity:** IFAC  
E. Fraca; J. Júlvez; M. Silva.

- 14 Title of the work:** PeabraiN: A PIPE Extension for Performance Estimation and Resource Optimisation  
**Name of the conference:** 12th International Conference on Application of Concurrency to System Design (ACSD2012)  
**Date of event:** 2012  
**Organising entity:** ACSD  
R. Rodríguez; J. Júlvez; J. Merseguer.
- 15 Title of the work:** A systematic approach to evaluate sustained stochastic oscillations  
**Name of the conference:** 3rd International Conference on Bioinformatics and Computational Biology (BICoB 2011)  
**Date of event:** 2011  
**Organising entity:** ISCA  
J. Júlvez; M. Kwiatkowska; G. Norman; D. Parker.
- 16 Title of the work:** Analysis and Simulation of Manufacturing Systems using SimHPN toolbox  
**Name of the conference:** 7th Annual IEEE Conference on Automation Science and Engineering (CASE2011)  
**Date of event:** 2011  
**Organising entity:** IEEE  
J. Júlvez; C. Mahulea; C.R. Vázquez.
- 17 Title of the work:** Decentralized Control of Large Scale Systems Modeled with Continuous Marked Graphs  
**Name of the conference:** 18th world congress of the International Federation of Automatic Control (IFAC2011)  
**Date of event:** 2011  
**Organising entity:** IFAC  
L. Wang; C. Mahulea; J. Júlvez; M. Silva.
- 18 Title of the work:** On State Estimation of Timed Petri Nets  
**Name of the conference:** 18th world congress of the International Federation of Automatic Control (IFAC2011)  
**Date of event:** 2011  
**Organising entity:** IFAC  
X. Wang; C. Mahulea; J. Júlvez; M. Silva.
- 19 Title of the work:** On reachability and deadlock-freeness of Hybrid Adaptive Petri nets  
**Name of the conference:** 18th world congress of the International Federation of Automatic Control (IFAC2011)  
**Date of event:** 2011  
**Organising entity:** IFAC  
E. Fraca; J. Júlvez; C. Mahulea; M. Silva.
- 20 Title of the work:** A Control Method for Timed Distributed Continuous Petri nets  
**Name of the conference:** American Control Conference (ACC 2010)  
**Date of event:** 2010  
**Organising entity:** IFAC  
H. Apaydin-Özkan; J. Júlvez; C. Mahulea; M. Silva.



- 21** **Title of the work:** Accurate Performance Estimation for Stochastic Marked Graphs by Bottleneck Regrowing  
**Name of the conference:** 7th European Performance Engineering Workshop (EPEW 2010)  
**Date of event:** 2010  
**Organising entity:** EPEW  
R. Rodríguez; J. Júlvez.
- 22** **Title of the work:** An Iterative Control Method for Distributed Continuous Petri nets with Tree Structure  
**Name of the conference:** 49th IEEE Conference on Decision and Control (CDC 2010)  
**Date of event:** 2010  
**Organising entity:** IEEE  
H. Apaydin- Özkan; C. Mahulea; J. Júlvez; M. Silva.
- 23** **Title of the work:** Minimum-time Control for Structurally Persistent Continuous Petri Nets  
**Name of the conference:** 49th IEEE Conference on Decision and Control (CDC 2010)  
**Date of event:** 2010  
**Organising entity:** IEEE  
L. Wang; C. Mahulea; J. Júlvez; M. Silva.
- 24** **Title of the work:** SimHPN: a MATLAB toolbox for continuous Petri nets  
**Name of the conference:** 10th International Workshop on Discrete Event Systems (WODES 2010)  
**Date of event:** 2010  
**Organising entity:** IFAC  
J. Júlvez; C. Mahulea.
- 25** **Title of the work:** An Efficient Heuristics for Minimum Time Control of Continuous Petri nets  
**Name of the conference:** 3rd IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 2009)  
**Date of event:** 2009  
**Organising entity:** IFAC  
H. Apaydin-Özkan; J. Júlvez; C. Mahulea; M. Silva.
- 26** **Title of the work:** Basic Qualitative Properties of Petri Nets with Multi-Guarded Transitions  
**Name of the conference:** American Control Conference (ACC 2009)  
**Date of event:** 2009  
**Organising entity:** IFAC  
J. Júlvez.
- 27** **Title of the work:** Retiming and recycling for elastic systems with early evaluation  
**Name of the conference:** 46th Design Automation Conference (DAC 2009)  
**Date of event:** 2009  
**Organising entity:** SIGDA  
D. Bufistov; J. Cortadella; M. Galceran-Oms; J. Júlvez; M. Kishinevsky.
- 28** **Title of the work:** Scheduling synchronous elastic designs  
**Name of the conference:** Application of Concurrency to System Design 2009 (ACSD 2009)  
**Date of event:** 2009  
**Organising entity:** ACSD  
J. Carmona; J. Júlvez; J. Cortadella; M. Kishinevsky.
- 29** **Title of the work:** Performance optimization of elastic systems using buffer resizing and buffer insertion  
**Name of the conference:** International Conference on Computer-Aided Design (ICCAD 2008)  
**Date of event:** 2008



**Organising entity:** IEEE/ACM  
D. Bufistov; J. Júlvez; J. Cortadella.

- 30** **Title of the work:** Polynomial Throughput Bounds for Equal Conflict Petri Nets with Multi-Guarded Transitions  
**Name of the conference:** 5th International Conference on the Quantitative Evaluation of Systems (QEST 2008)  
**Date of event:** 2008  
**Organising entity:** IEEE Computer Society  
J. Júlvez.
- 31** **Title of the work:** Performance analysis of concurrent systems with early evaluation  
**Name of the conference:** International Conference on Computer-Aided Design (ICCAD 2006)  
**Date of event:** 2006  
**Organising entity:** IEEE/ACM  
J. Júlvez; J. Cortadella; M. Kishinevsky.
- 32** **Title of the work:** Event-Driven Optimal Control of Integral Continuous-Time Hybrid Automata  
**Name of the conference:** 44th IEEE Conference on Decision and Control (2005 Joint CDC-ECC)  
**Date of event:** 2005  
**Organising entity:** IEEE  
A. Bemporad; S. D. Cairano; J. Júlvez.
- 33** **Title of the work:** Modelling and controlling traffic behaviour with continuous Petri nets  
**Name of the conference:** 16th triennial world congress of the International Federation of Automatic Control (IFAC2005)  
**Date of event:** 2005  
**Organising entity:** IFAC  
J. Júlvez; R. Boel.
- 34** **Title of the work:** On Controllability of Timed Continuous Petri Net Systems: the Join Free Case  
**Name of the conference:** 44th IEEE Conference on Decision and Control (2005 Joint CDC-ECC)  
**Date of event:** 2005  
**Organising entity:** IEEE  
E. Jiménez; J. Júlvez; L. Recalde; M. Silva.
- 35** **Title of the work:** Design of Observers for Timed Continuous Petri Net Systems  
**Name of the conference:** IEEE 2004 Int. Conf. on Systems, Man, and Cybernetics (SMC 2004)  
**Date of event:** 2004  
**Organising entity:** IEEE  
J. Júlvez; E. Jiménez; L. Recalde; M. Silva.
- 36** **Title of the work:** Event-Driven Optimal Control of Continuous Petri Nets  
**Name of the conference:** 43rd IEEE Conference on Decision and Control (CDC 2004)  
**Date of event:** 2004  
**Organising entity:** IEEE  
J. Júlvez; A. Bemporad; L. Recalde; M. Silva.
- 37** **Title of the work:** On Observability in Timed Continuous Petri Net Systems  
**Name of the conference:** First International Conference on the Quantitative Evaluation of Systems (QEST 2004)



**Date of event:** 2004

**Organising entity:** IEEE Computer Society

J. Júlvez; E. Jiménez; L. Recalde; M. Silva.

**38 Title of the work:** Relaxed Continuous Views of Discrete Event Systems: Considerations on Forrester Diagrams and Petri Nets

**Name of the conference:** IEEE 2004 Int. Conf. on Systems, Man, and Cybernetics (SMC 2004)

**Date of event:** 2004

**Organising entity:** IEEE

E. Jiménez; J. Júlvez; L. Recalde; M. Silva.

**39 Title of the work:** Marking Estimation of Petri Nets based on Partial Observation

**Name of the conference:** American Control Conference (ACC 2003)

**Date of event:** 2003

**Organising entity:** IFAC

A. Giua; J. Júlvez; C. Seatzu.

**40 Title of the work:** Observers for nondeterministic lambda-free labeled Petri nets

**Name of the conference:** 9th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA2003)

**Date of event:** 2003

**Organising entity:** IEEE

D. Corona; A. Giua; C. Seatzu; J. Júlvez.

**41 Title of the work:** On deadlock-freeness analysis of autonomous and timed continuous mono-T-semiflow nets

**Name of the conference:** 41st IEEE Conference on Decision and Control (CDC 2002)

**Date of event:** 2002

**Organising entity:** IEEE

J. Júlvez; L. Recalde; M. Silva.

**42 Title of the work:** Steady State Performance evaluation for some continuous Petri nets

**Name of the conference:** 15th triennial world congress of the International Federation of Automatic Control (IFAC2002)

**Date of event:** 2002

**Organising entity:** IFAC

L. Recalde; J. Júlvez; M. Silva.



## R&D management and participation in scientific committees

### Scientific, technical and/or assessment committees

- 1** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2022)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2022 - 2022
- 2** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2021)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2021 - 2021
- 3** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2020)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2020 - 2020
- 4** **Committee title:** Co-chair del Track 4: 24th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 2019 - 2019
- 5** **Committee title:** Comité de programa de: 14th Workshop on Discrete Event Systems  
**Affiliation entity:** IFAC, IEEE  
**Start-End date:** 14/05/2018 - 16/05/2018
- 6** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2018)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2018 - 2018
- 7** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2017)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2017 - 2017
- 8** **Committee title:** Comité de programa de: 21st IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 2016 - 2016
- 9** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2016)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2016 - 2016



- 10** **Committee title:** Comité de programa de: 20th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 2015 - 2015
- 11** **Committee title:** Comité de programa de: Workshop on Petri nets for Adaptive Discrete-Event Control Systems  
**Affiliation entity:** German Institute for International Educational Research  
**Start-End date:** 2015 - 2015
- 12** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2015)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2015 - 2015
- 13** **Committee title:** Comité de programa de: 19th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 16/09/2014 - 19/09/2014
- 14** **Committee title:** Comité de programa de: 12th Workshop on Discrete Event Systems  
**Affiliation entity:** IFAC, IEEE  
**Start-End date:** 14/05/2014 - 16/05/2014
- 15** **Committee title:** Comité de programa de: 5th ACM/SPEC International Conference on Performance Engineering  
**Affiliation entity:** ACM  
**Start-End date:** 23/03/2014 - 26/03/2014
- 16** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2014)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 2014 - 2014
- 17** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2013)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 21/11/2013 - 22/11/2013
- 18** **Committee title:** Comité de programa de: 18th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 10/09/2013 - 13/09/2013
- 19** **Committee title:** Comité de programa de: 11th Workshop on Discrete Event Systems  
**Affiliation entity:** IFAC, IEEE  
**Start-End date:** 03/10/2012 - 05/10/2012
- 20** **Committee title:** Comité de programa de: 17th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 17/09/2012 - 21/09/2012





- 21** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2012)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 15/09/2012 - 16/09/2012
- 22** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2011)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 15/09/2011 - 16/09/2011
- 23** **Committee title:** Comité de programa de: 16th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 05/09/2011 - 09/09/2011
- 24** **Committee title:** Comité de programa de: 15th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 13/09/2010 - 16/09/2010
- 25** **Committee title:** Comité de programa de: Workshop on Verification and Evaluation of Computer and Communication Systems (VECoS 2010)  
**Affiliation entity:** Formal methods Europe  
**Start-End date:** 01/07/2010 - 02/07/2010
- 26** **Committee title:** Comité de programa de: 31st International Conference on Application and Theory of Petri Nets and Other Models of Concurrency  
**Affiliation entity:** Springer  
**Start-End date:** 21/06/2010 - 25/06/2010
- 27** **Committee title:** Comité de programa de: 14th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 22/09/2009 - 26/09/2009
- 28** **Committee title:** Comité de programa de: 3rd IFAC Conference on Analysis and Design of Hybrid Systems  
**Affiliation entity:** IFAC  
**Start-End date:** 16/09/2009 - 19/09/2009
- 29** **Committee title:** Comité de programa de: 30th International Conference on Application and Theory of Petri Nets and Other Models of Concurrency  
**Affiliation entity:** Springer  
**Start-End date:** 22/06/2009 - 26/06/2009
- 30** **Committee title:** Comité de programa de: 13th IEEE International Conference on Emerging Technologies and Factory Automation  
**Affiliation entity:** IEEE  
**Start-End date:** 15/09/2008 - 18/09/2008

## Organization of R&D activities

- 1** **Title of the activity:** 18th European Dependable Computing Conference (EDCC 2022)  
**Type of activity:** Local Organization and Financial Chair  
**Geographical area:** Non EU International  
**Convening entity:** IEEE  
**City convening entity:** Zaragoza, Aragon, Spain  
**Start-End date:** 12/09/2022 - 15/09/2022  
**Duration:** 4 days
- 2** **Title of the activity:** 3rd IFAC Conference on Analysis and Design of Hybrid Systems  
**Type of activity:** Miembro del comité organizador  
**Geographical area:** Non EU International  
**Convening entity:** IFAC  
**City convening entity:** Zaragoza, Aragon, Spain  
**Start date:** 16/09/2009  
**Duration:** 3 days
- 3** **Title of the activity:** 3rd IFAC Conference on Analysis and Design of Hybrid Systems  
**Type of activity:** Miembro del comité organizador  
**Geographical area:** Non EU International  
**Convening entity:** IFAC  
**City convening entity:** Zaragoza, Aragon, Spain  
**Start date:** 16/09/2009  
**Duration:** 3 days
- 4** **Title of the activity:** 6th International Workshop on Discrete Event Systems  
**Type of activity:** Miembro del comité organizador  
**Geographical area:** Non EU International  
**Convening entity:** Control Systems Society  
**City convening entity:** Zaragoza, Aragon, Spain  
**Start date:** 02/10/2002  
**Duration:** 3 days
- 5** **Title of the activity:** X Jornadas Nacionales de Concurrencia  
**Type of activity:** Miembro del comité organizador  
**Geographical area:** National  
**City convening entity:** Zaragoza, Aragon, Spain  
**Start date:** 12/06/2002  
**Duration:** 3 days

## R&D management

- 1** **Name of the activity:** Control and Automation Systems (Frontiers in Control Engineering)  
**Type of management:** Edición  
**Performed tasks:** Editor Asociado  
**Entity:** Frontiers  
**Start date:** 01/01/2020  
**Duration:** 1 year
- 2** **Name of the activity:** Discrete Dynamics in Nature and Society  
**Type of management:** Edición  
**Performed tasks:** Editor Asociado  
**Entity:** Hindawi  
**Start date:** 01/11/2014  
**Duration:** 2 years



- 3 Name of the activity:** Modelado y Verificación de sistemas de software críticos  
**Type of management:** Management of R&D&I actions and projects  
**Performed tasks:** Investigador principal  
**Entity:** Universidad de Zaragoza **Type of entity:** University  
**Start date:** 01/10/2010 **Duration:** 2 years
- 4 Name of the activity:** Discrete Event Dynamic Systems: Theory and Applications  
**Type of management:** Edición  
**Performed tasks:** Editor Asociado  
**Entity:** Springer **Type of entity:** Business  
**Start date:** 01/01/2010 **Duration:** 11 years

### Evaluation and revision of R&D projects and articles

- 1 Name of the activity:** Evaluación  
**Performed tasks:** Evaluador del programe Europa de la Caja de Ahorros de la Inmaculada para estancias de investigación  
**Entity where activity was carried out:** CAJA DE AHORROS DE LA INMACULADA  
**City of entity:** Zaragoza, Aragon, Spain  
**Start-End date:** 01/01/2009 - 31/12/2109
- 2 Name of the activity:** Revisión de artículos  
**Performed tasks:** Revisor de artículos de investigación de las siguientes revistas internacionales: Automatica; IEEE Transactions on Computers; IEEE Systems, Man and Cybernetics, Part A; IEEE Transactions on Automation Science and Engineering; Asian Journal of Control; Revista Iberoamericana de Automática e Inform´atica Industrial; The Computer Journal; Natural Computing; IEEE Transactions on Industrial Informatics; IEEE Transactions on Very Large Scale Integration Systems; Control Engineering Practice; Nonlinear Analysis: Hybrid Systems; Fundamenta Informaticae; World Journal of Modelling and Simulation  
**Start-End date:** 01/01/2003 - 31/12/2011
- 3 Name of the activity:** Revisión de artículos  
**Performed tasks:** Revisor de artículos de investigación de las siguientes conferencias internacionales: International Conference on Application and Theory of Petri Nets; International Workshop on Discrete Event Systems; International Conference on the Quantitative Evaluation of Systems; Hybrid Systems: Computation and Control conference; Conference on Decision and Control; Hybrid Systems: Computation and Control conference; American Control Conference; IFAC World Congress; IEEE International Symposium on Asynchronous Circuits and Systems; European Control Conference; International Conference on Formal Engineering Methods.  
**Start-End date:** 01/08/2002 - 31/12/2011
- 4 Name of the activity:** Miembro del tribunal  
**Performed tasks:** Tesis: Fluidization, Controllability and Control of Timed Continuous Petri nets  
**Entity where activity was carried out:** Universidad de Zaragoza **Type of entity:** University  
**City of entity:** Zaragoza, Spain  
**Start-End date:** 24/06/2011 - 24/06/2011
- 5 Name of the activity:** Miembro del tribunal  
**Performed tasks:** Tesis: Analysis and control of continuous Petri nets  
**Entity where activity was carried out:** Anadolu Univeristy **Type of entity:** University



**City of entity:** Eskisehir, Turkey

**Start-End date:** 15/10/2010 - 15/10/2010

## Other achievements

### Stays in public or private R&D centres

- 1** **Entity:** University of Cambridge  
**City of entity:** Cambridge, East Anglia, United Kingdom  
**Start-End date:** 01/10/2014 - 30/09/2018      **Duration:** 4 years  
**Goals of the stay:** Contracted  
**Provable tasks:** Formalismos de modelado para sistemas biológicos
- 2** **Entity:** University of Cambridge  
**City of entity:** Cambridge, East Anglia, United Kingdom  
**Start date:** 01/08/2013      **Duration:** 21 days  
**Goals of the stay:** Post-doctoral  
**Provable tasks:** Análisis de propiedades dinámicas de sistemas biológicos
- 3** **Entity:** University of Oxford  
**City of entity:** Oxford, Berkshire, Buckinghamshire and Oxfordshire, United Kingdom  
**Start date:** 01/08/2009      **Duration:** 3 months  
**Goals of the stay:** Post-doctoral  
**Provable tasks:** Análisis de propiedades dinámicas de sistemas biológicos
- 4** **Entity:** Università degli Studi di Siena  
**City of entity:** Siena, Toscana, Italy  
**Start date:** 01/05/2005      **Duration:** 3 months  
**Goals of the stay:** Post-doctoral  
**Provable tasks:** Control predictivo de sistemas híbridos
- 5** **Entity:** Universiteit Gent      **Type of entity:** University  
**City of entity:** Gante, Belgium  
**Start date:** 01/01/2004      **Duration:** 3 months  
**Goals of the stay:** Doctorate  
**Provable tasks:** Modelado y análisis de sistemas de tráfico
- 6** **Entity:** Università degli Studi di Siena  
**City of entity:** Siena, Toscana, Italy  
**Start date:** 10/10/2003      **Duration:** 2 months - 10 days  
**Goals of the stay:** Doctorate  
**Provable tasks:** Control óptimo de redes de Petri continuas
- 7** **Entity:** Università degli Studi di Cagliari      **Type of entity:** University  
**City of entity:** Cagliari, Sardegna, Italy  
**Start date:** 15/04/2002      **Duration:** 3 months  
**Goals of the stay:** Doctorate  
**Provable tasks:** Estimación de marcado en redes de Petri



## Obtained grants and scholarships

- 1 **Name of the grant:** Beca del programa Europa de la Caja de Ahorros de la Inmaculada (2009, ref. IT15/09).  
**Aims:** Post-doctoral  
**Awarding entity:** CAJA DE AHORROS DE LA INMACULADA  
**Conferral date:** 01/07/2009 **Duration:** 3 months
- 2 **Name of the grant:** Beca de la red europea de excelencia Hybrid Control: Taming Heterogeneity and Complexity of Networked Embedded Systems (HYCON 2005)"  
**Aims:** Post-doctoral  
**Awarding entity:** Università degli Studi di Siena  
**Conferral date:** 01/05/2005 **Duration:** 3 months
- 3 **Name of the grant:** European Community Marie Curie Fellowship, CTS (HPMT-CT-2001-00278)  
**Aims:** Pre-doctoral  
**Awarding entity:** Unión Europea **Type of entity:** Unión Europea  
**Conferral date:** 01/04/2004 **Duration:** 3 months
- 4 **Name of the grant:** Beca Predoctoral de la Diputación General de Aragón (ref B106/2001)  
**Aims:** Pre-doctoral  
**Awarding entity:** Diputación General de Aragón **Type of entity:** Organismo autonómico  
**Conferral date:** 01/01/2001 **Duration:** 3 years

## Prizes, mentions and distinctions

**Description:** Best paper award por el artículo "Scheduling synchronous elastic designs" en la conferencia ACSD2009  
**Awarding entity:** ACSD **Type of entity:** Comité de programa de la conferencia  
**City awarding entity:** Augsburg, Schwaben, Germany  
**Conferral date:** 01/07/2009

## Periods of research activity

- 1 **Nº of recognized periods:** 3  
**Certifying entity:** Agencia Nacional de Evaluación de la Calidad y Acreditación **Type of entity:** Pública  
**City certifying entity:** Zaragoza, Aragon, Spain  
**Date of recognition:** 05/06/2013
- 2 **Nº of recognized periods:** 1  
**Certifying entity:** Agencia de Calidad y Prospectiva Universitaria de Aragón (ACPUA) **Type of entity:** Organismo autonómico  
**City certifying entity:** Zaragoza, Aragon, Spain  
**Date of recognition:** 22/04/2010