

**JOÃO BAPTISTA DA SILVA ARAUJO JUNIOR,  
PhD**

***CURRICULUM VITAE***

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# 1 Personal and Professional data



## 1.1 Personal

- Name: João Baptista da Silva Araujo Junior
- Address: Rua Luís Piçarra, No. 12, Bloco D, 7º B, 1750-101 Lisboa, Portugal.
- Mobile: +351 92 6140397
- Place of birth: Recife, Brazil
- Nationalities: Portuguese and Brazilian
- E-mail: p191@fct.unl.pt / joao.araujo@fct.unl.pt
- Google Scholar link: <https://scholar.google.pt/citations?user=tP9cyo0AAAAJ&hl=en>
- H-index: 29
- Scopus Author ID: 12802236400
- ORCID <http://orcid.org/0000-0001-5914-1631>
- Dblp: [https://dblp.uni-trier.de/pers/hd/a/Ara=uacute=jo\\_0001:Jo=atilde=o](https://dblp.uni-trier.de/pers/hd/a/Ara=uacute=jo_0001:Jo=atilde=o)
- URL: <http://docentes.fct.unl.pt/p191/>
- Working address: Departamento de Informática FCT/Nova, Quinta da Torre, 2829-516 Caparica, PORTUGAL.
  - Telephone +351 212948536.
  - Fax: +351 212948541

## 1.2 Professional

- Assistant Professor since July 2000, at Departamento de Informática, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal.
- Invited Assistant Professor 1998-2000, at Departamento de Informática, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal.
- Invited Assistant Professor, from February to December 1997, Faculdade de Ciências e Tecnologia, Departamento de Engenharia Eletrónica e Informática, Universidade do Algarve, Portugal.
- Integrated Member of NOVA LINCS, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal. (Until 2014, researcher at Centre of Informatics and Technologies of Information (CITI)).

## 2 Education

### 2.1 Academic

- PhD in *Software Engineering*, supervised by **Dr. Pete Sawyer**, member of the **Software Engineering group led by Prof. Ian Sommerville**, Lancaster University, United Kingdom, December 1996.
- MSc in Informatics, Universidade Federal de Pernambuco, Recife, Brazil, October 1992.
- BSc in Computing Science, Universidade Federal de Pernambuco, Recife, Brazil, December 1987.

### 2.2 Foreign Languages

- *Certificate of Proficiency in English (CPE)*, English for Speakers of other Languages (ESOL), University of Cambridge, United Kingdom, 2003.
- *First Certificate in English (FCE)*, University of Cambridge, United Kingdom, 1990.
- *The Oxford Examination in English as a Foreign Language, Preliminary Level*, Oxford University, United Kingdom, 1990.

### 2.3 Other

- Teaching skills, 19 June - 21 July 2000, 40 hours, Universidade Nova de Lisboa.
- Theatrical techniques applied to teaching, 18 January - 26 February 2000, 50 hours, UNL.

## 3 Summary

### 3.1 Teaching

I have a large experience on teaching at Bachelor's, Master's and PhD courses. Since 1998, I have been the main lecturer of **Software Engineering** at FCT-UNL and was responsible for updating and reformulating it since then. I created the Master's discipline **Requirements Engineering and Software Design** that worked from 2007/2008 to 2012/2013. When there was the migration to an Integrated Masters's course (MIEI) this discipline was substituted by **Requirements and Software Architecture**. I also participated in the program of the discipline Advanced Software Development and **I was its main lecturer** from 2008/2009 to 2011/2012.

### 3.2 Research

My main area is **Requirements Engineering** (RE). I have been very prolific publishing papers in journals (32), book chapters (11), conferences (88) and workshops (55). According to Scholar Google (30/1/2020), currently my **H-Index is 29**, I have **more than 4600 citations**. My selected publications are listed in a separate file<sup>1</sup>. It is worth noting that two of the papers got awards. I also got a **Best Paper Award** at **CAiSE 2014** (CORE A) with the paper "Identifying Modularity Improvement Opportunities in Goal-Oriented Requirements Models", that was invited to be extended and published at the Information Systems Journal, Elsevier (CORE A\*). In total, I have got **eight best paper awards**, from five conferences, two workshops and one journal. The paper "Analysing Gender Differences in Building Social Goal Models: A Quasi-Experiment" at RE2019 was candidate to **best paper award**.

Concerning **Projects**, I have been involved in 16 projects, where in six of them I was coordinator, team leader or task leader. From those the project "Integrating Requirements Analysis Techniques with Aspects: The TROPOS case", funded by Programme CAPES/GRICES, and I was coordinator, allowed **scholarships for three post-docs and two PhD students** to spend from four months to one year working in my group at FCT/UNL. I also had a strong participation in the European AMPLE project, producing several publications and substituting the coordinator of the Portuguese team, Ana Moreira, in specific occasions. All projects allowed to foment further collaborations with colleagues from UK, Brazil, France, Germany, Argentina, Spain, and other institutions in Portugal.

I supervised and co-supervised **more than 30 MSc students**. Most of the dissertations produced at least one publication in a conference, workshop or journal. Also, I successfully **co-supervised six PhD students** (Maria Lencastre, Carla Silva, Ricardo Ramos, Charlie Lopes, Enyo Gonçalves and Catarina Gralha) and I am **currently supervising three PhD students** (Darliane Goes Miranda, Fernando Wanderley and Cedric Grueau). I also **supervised three post-doc students** (Carla Silva, Denis Silveira, Eliane Loiola) and **co-supervised another one** (Maria Lencastre). Finally, I also supervised **more than 30 first-degree final year internships**, allowing the establishment of useful contacts in industry.

I co-edited **Aspect-Oriented Requirements Engineering book**, Springer, and two special editions in journals, one for Transactions on AOSD (2007) on Early Aspects and another for the *Journal of Object Technology* (2016), a special section on the best papers of

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<sup>1</sup> SelectedPublicationsJoaoAraujoFCTUNL2020.pdf

CIBSE'15. I also co-edited the proceedings of the 25th IEEE International Requirements Engineering Conference, the Iberoamerican Conference on Software Engineering (in 2009, 2015 and 2019), and the proceedings of the MoDRE series of workshops. Currently I am a co-editor of the *IET Software Journal*.

Moreover, I have been on Program Committees and Program Boards of more than 50 conferences, such as RE, CAiSE, MoDELS, ER, AOSD, RCIS, ACM SAC, and more than 20 workshops. I was PC Chair of CIBSE'09, Colombia and CIBSE'15, Peru.

I have been invited regularly to review papers for top journals such as *Science of Computer Programming* (SCP), *Journal of Systems and Software*, *Transactions on Software Engineering*, *Software Quality Journal*, *Requirements Engineering Journal* (REJ), Springer. *Software and System Modeling* (SoSyM).

I have been a jury member of several PhD theses vivas from France, Switzerland, UK, Spain, Brazil, Colombia and Portugal. Also, I was an external reviewer or part of the qualification jury of other four theses from Finland, Spain, and Brazil.

I am a team member of the NAPIRE (Naming the Pain in Requirements Engineering) network, a globally distributed family of surveys on Requirements Engineering (RE) practices and problems. I joined the network in 2016.

I have been an evaluator of projects for FCT, QREN, FONCYT, ECOS-CONICYT and a consultant of "MMEDUSA- Marco Metodologico para el desarrollo de aplicaciones utilizando la aproximacion de aspectos", in Colombia, and more recently of the Academy of Finland.

### **3.3 Other Relevant Activities: Extension Activities and Academic Services**

I am a member of the *Steering Committee* of the International Requirements Engineering Conference (RE) since 2015 and of the Ibero-American Conference of Software Engineering (CIBSE) since 2009. I have (co)organised several conferences, chairing Doctoral Symposium (RE), Publicity (RE, Models, ICSE, ECOOP), Demos (AOSD), and Tutorials (MoDELS). I have also being a track chair of the RE-Track of ACM SAC. I have organised almost 30 workshops (e.g., Early Aspects, MoDRE, EmpER). The most important contribution in terms of organization was as ***General Co-Chair of IEEE 25<sup>th</sup> International Requirements Engineering Conference (RE'17), Lisbon, Portugal, 4-8 September 2017.***

I also gave 13 tutorials in conferences such as RE, MoDELS, AOSD, etc.. I was a member of the organization of the Domain Specific Modeling, International Summer School (DSM-TP) and gave the talk "The Need for Early Aspects" at the 3rd Summer School on Generative and Transformational Techniques in Software Engineering (GTTSE), 2009.

I have always collaborated and participated in national, Iberian and Latin-American conferences and workshops as a way to promote Requirements Engineering in those areas, to meet colleagues for project proposals and attract students for PhD supervisions. These objectives were reached through: the projects that I had with my colleagues from Brazil, Argentina and Spain; the PhD and post-Doc students that I supervised and co-supervised from Brazil.

I have been invited by colleagues to give talks, more than 20, at several universities (in Brazil, Spain, Canada Argentina, Australia, UK), 4 keynotes at international workshops and 1 at a conference.

I have carried out more than 30 research and academic missions to different institutions in UK, Germany, Belgium, Brazil, France, Canada, Hong Kong, Spain, Australia, Barbados,



in order to participate in project meetings and establish new contacts during my sabbatical leaves.

In terms of department committees, I am currently a member of Scientific Committee of the Doctoral Program in Computer Science of Department of Informatics, FCT/UNL and NOVA LINCS. Also, I have been a member of the Board of the FCT/UNL Library, since February 2013 and a member of the selection committee of the internships proposals of the computer science Department of the FCT/UNL, from 2011 to 2013.

Finally, I have been evaluated **Excellent** in **all periods** (2004-2007; 2008-2009; 2010-2012; 2013-2015; 2016-2018) under the RAD (“Regulamento de Avaliação de Docentes”) at FCT/NOVA, a distinction limited to a low percentage of teachers each year.

## 4 Scientific Areas

### 4.1 Expertise

- Software Engineering
- Requirements Engineering
- Quality in Requirements
- Model-Driven Requirements
- Modularity: Aspect-Oriented Requirements Engineering
- User Centred Requirements Modeling
- Software Product Lines
- Business Process Modeling
- Information Systems Development and Applications

### 4.2 ACM Descriptors

The ACM CCS main areas of expertise are Software and its engineering, Information Systems and Applied Computing. The respective sub-areas are:

- Software and its engineering
  - Software organization & properties/Software Systems Structures
    - Software system models (Entity relationship modeling, Model-driven software engineering, Feature interaction)
    - Abstraction, modeling and modularity
    - Software architectures
  - Software Notation & Tools/System Description Languages
    - Unified Modeling Language (UML)
    - System Modeling Languages
    - Specification Languages
  - Software Creation & Management
    - Designing software (Requirements Analysis, Software Design Tradeoffs)
    - Software development process management (Software Development Methods)
    - Software development techniques (Object oriented development, Reusability/Software product lines)
- Information Systems
  - Information systems applications
- Applied Computing
  - Enterprise computing
    - Business process management (Business process modeling)

## 5. Teaching

Currently, my teaching covers the disciplines of MIEI (*Mestrado Integrado em Engenharia Informática*). Before that, I taught disciplines of LEI (*Licenciatura em Engenharia Informática*) and MEI (*Mestrado em Engenharia Informática*). I also taught disciplines of undergraduate courses of Informatics Engineering at University of Algarve and Computer Science at Catholic University in Recife, Brazil.

### 5.1 Teaching at FCT/UNL

#### 5.1.1 MIEI - Integrated Master in Computer Science at FCT/UNL

MIEI is the current course that integrates the 1<sup>st</sup> and 2<sup>nd</sup> cycles of studies. I was responsible for the reformulation of the discipline of **Software Engineering**, part of MIEI in all its versions until now. Also, I participated in the proposal of the curricular units of **Requirements and Software Architecture**, and **Software Quality** disciplines.

I have always been the **main lecturer** of the **Software Engineering** course. All **materials** including slides, relevant links (e.g. tool downloads) and exercises for the **Software Engineering** discipline are uploaded using the **Moodle** platform.

The course is being reformulated with a new edition starting in 2020/2021. I was responsible for the elaboration of a new discipline **Software and Systems Engineering**, in which the student is expected to acquire knowledge, skills and competences that will allow him to model organizational processes such as context of software systems and also model-based development and animation (or, execution) of software models (e.g., BPMN and SysML models).

A list of my teaching allocation over the years may be found below (in the MIEI context I have not been the main lecturer of the disciplines of Methodologies for Software Development and Informatics for Science and Engineering).

#### **Academic year 2019/2020**

1<sup>st</sup> semester:

- Methodologies for Software Development*

2<sup>nd</sup> semester:

- Software Engineering*

#### **Academic year 2018/2019**

1<sup>st</sup> semester:

- Sabbatical*

2<sup>nd</sup> semester:

- Software Engineering*
- Informatics for Science and Engineering*

#### **Academic year 2017/2018**

1<sup>st</sup> semester:

- Methodologies for Software Development*

2<sup>nd</sup> semester:  
 *Software Engineering*

### **Academic year 2016/2017**

1<sup>st</sup> semester:  
 *Methodologies for Software Development*  
2<sup>nd</sup> semester:  
 *Software Engineering*

### **Academic year 2015/2016**

1<sup>st</sup> semester:  
 *Sabbatical leave*  
2<sup>nd</sup> semester:  
 *Informatics for Science and Engineering*  
 *Software Engineering*

### **Academic year 2014/2015**

1<sup>st</sup> semester:  
 *Software Engineering*  
2<sup>nd</sup> semester:  
 *Informatics for Science and Engineering*

### **Academic year 2013/2014**

1<sup>st</sup> semester:  
 *Introduction to programming*  
 *Software Engineering*  
2<sup>nd</sup> semester:  
 *Informatics for Science and Engineering*

## **5.1.2 LEI - Degree in Informatics Engineering**

LEI and MEI were the courses offered before MIEI. Before the Treaty of Bologna, I participated in the creation of curricular unit Complements of Software Engineering and upgraded the Software Engineering course. I **was the main lecturer** of the disciplines:

- System analysis II (6ECTS), in 2001/2002.
- Software Engineering (6ECTS), from 1998/1999 to 2006/2007.
- Complements of Software Engineering (6 ECTS), I was **the main lecturer** and it was offered to LEI, MEI, and the Graduate Program in Informatics Engineering (PGEI) in the academic years 2003/2004 to 2006/2007.

Also, in 2002/2003 and 2005/2006 I taught theoretical-practical classes of the discipline Programming Ia.

With the Treaty of Bologna, I have been **the main lecturer** of the disciplines:

- Software Engineering (6.0 ECTS) discipline of the 1st cycle (average of 20 students each edition);

- Software development methods (6.0 ECTS), discipline of the 1st cycle, in 2007/2008, 2008/2009, 2009/2010 (average 220 students per edition).

For all editions of these disciplines, I made available and administered their pages on moodle (<http://moodle.fct.unl.pt/>).

In other disciplines (Informatics for Science and Engineering), I collaborated teaching practical classes. Still, in 2010/2011, 2011/2012, 2012/2013, and 2013/2014 I taught theoretical and practical classes of Introduction to Programming (8.0 ECTS).

#### **Academic year 2013/2014**

1<sup>st</sup> semester:

- Introduction to Programming*

2<sup>nd</sup> semester:

- Informatics for Science and engineering*

#### **Academic year 2012/2013**

1<sup>st</sup> semester:

- Introduction to Programming*

2<sup>nd</sup> semester:

- Informatics for Science and Engineering*

#### **Academic year 2011/2012**

1<sup>st</sup> semester:

- Introduction to Programming*
- Software Engineering (1st cycle)*

2<sup>nd</sup> semester:

- Sabbatical leave*

#### **Academic year 2010/2011**

1<sup>st</sup> semester:

- Introduction to programming (1st cycle)*

2<sup>nd</sup> semester:

- Software Engineering (1st cycle)*

#### **Academic year 2009/2010**

1<sup>st</sup> semester:

- Software Engineering (1st cycle)*

2<sup>nd</sup> semester:

- Software development methods (1st cycle)*

#### **Academic year 2008/2009**

1<sup>st</sup> semester:

- Sabbatical Leave*

2<sup>nd</sup> semester:

- Software development methods (1st cycle)*

#### **Academic year 2007/2008**

1<sup>st</sup> semester:

- Software Engineering (1st cycle)*

2<sup>nd</sup> semester:

- Software development methods (1st cycle)*

### **Academic year 2006/2007**

1<sup>st</sup> semester:

- Complements of Software Engineering (LEI, MEI and PGEI)*

2<sup>nd</sup> semester:

- Software Engineering*
- System analysis I*

### **Academic year 2005/2006**

1<sup>st</sup> semester:

- Complements of Software Engineering (LEI, MEI and PGEI)*
- Programming Ia*

2<sup>nd</sup> semester:

- Software Engineering*
- System analysis I*

### **Academic year 2004/2005**

1<sup>st</sup> semester:

- Complements of Software Engineering (LEI, MEI and PGEI)*
- System analysis II*

2<sup>nd</sup> semester:

- Sabbatical leave*

### **Academic year 2003/2004**

1<sup>st</sup> semester:

- Complements of Software Engineering (LEI, MEI and PGEI)*
- System analysis II*

2<sup>nd</sup> semester:

- Software Engineering*
- System analysis I*

### **Academic year 2002/2003**

1<sup>st</sup> semester:

- Programming Ia*

2<sup>nd</sup> semester:

- Software Engineering*
- System analysis I*

### **Academic year 2001/2002**

1<sup>st</sup> semester:

- System analysis II*

2<sup>nd</sup> semester:

- Software Engineering*

### **Academic year 2000/2001**

2<sup>nd</sup> semester:

- System analysis I*
- Software Engineering*

### **Academic year 1999/2000**

1<sup>st</sup> semester:

- Programming I*

2<sup>nd</sup> semester:

- Introduction to computing and Programming*
- Software Engineering*

### **Academic year 1998/99**

1<sup>st</sup> semester:

- I programming languages*

2<sup>nd</sup> semester:

- Algorithms and data structures I*
- Software Engineering*

### **Academic year 1997/98**

2<sup>nd</sup> semester:

- Algorithms and data structures I*

## **5.1.3 Degree in Mathematics**

### **Academic years from 1998/1999 to 2003/2004**

1<sup>st</sup> semester:

- Management computing (Informática de Gestão)*

## **5.1.4 MEI - Master's Degree in Informatics Engineering**

Under the MEI, I **upgraded the discipline of Software Engineering** (6 ECTS, 4h a week), for which I was **the main lecturer**, having defined the syllabus, the support material and assessed the practical work and exams. With the Treaty of Bologna, Software Engineering became part of LEI. A new discipline was created by myself and Prof. Pedro Guerreiro called **Complements of Software engineering** (6 ECTS, 4h a week) offered by LEI, MEI and PGEI, from 2003/2004 to 2006/2007.

From 2007/2008 the Complements of Software Engineering discipline ceased to exist, when the Treaty of Bologna started. A new discipline, **Requirements Engineering and Software Design** (6 ECTS, 4 hours a week), **was proposed by me** and entered into operation in the second half of 2007/2008 until 2012/2013, getting 64 students - a high number for a first edition. I also **was the main lecturer** of **Software Architecture** (6ECTS, 4h a week) in 2010/2011.

### **Academic year 2012/2013**

2<sup>nd</sup> semester:

- Requirements engineering and Software Design*

### **Academic year 2010/2011**

1<sup>st</sup> semester:

- Software architecture*

2<sup>nd</sup> semester:

- Requirements Engineering and Software Design*

### **Academic year 2009/2010**

2<sup>nd</sup> semester:

- Requirements Engineering and Software Design*

### **Academic year 2008/2009**

2<sup>nd</sup> semester:

- Requirements Engineering and Software Design*

### **Academic year 2007/2008**

2<sup>nd</sup> semester:

- Requirements Engineering and Software Design*

### **Academic years of 2003/2004 to 2006/2007 (Pre-Bologna)**

1<sup>st</sup> semester:

- Complements of Software Engineering (also discipline of LEI)*

### **Academic years from 2000/2001 to 2002/2003**

1<sup>st</sup> semester:

- Software Engineering*

### **Academic year 1999/2000**

2<sup>nd</sup> semester:

- Software Engineering*

## **5.1.5 PhD course**

A new discipline, Advanced Software Development (6.0 ECTS; duration 2 hours a week), **was proposed by me, Ana Moreira, Vasco Amaral and Miguel Monteiro**, going into operation since the second half of 2008/2009. **I was the main lecturer** from 2008/2009 to 2011/2012.

### **Academic year 2017/2018**

2<sup>nd</sup> semester:

- Advanced Software Development (3<sup>rd</sup> cycle) -9<sup>th</sup> Edition*

### **Academic year 2016/2017**

2<sup>nd</sup> semester:

- Advanced Software Development (3<sup>rd</sup> cycle)-8<sup>th</sup> Edition*



**Academic year 2015/2016**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-7<sup>th</sup> Edition*

**Academic year 2014/2015**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-6<sup>th</sup> Edition*

**Academic year 2013/2014**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-5<sup>th</sup> Edition*

**Academic year 2012/2013**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-4<sup>th</sup> Edition*

**Academic year 2011/2012**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle) – 3<sup>rd</sup> Edition*

**Academic year 2009/2010**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-2<sup>nd</sup> Edition*

**Academic year 2008/2009**2<sup>nd</sup> semester:

- *Advanced Software Development (3<sup>rd</sup> cycle)-1<sup>st</sup> Edition*

**5.1.6 Pedagogical inquiries**

Table 1 shows the results of the pedagogical inquiries of the students (taken from RAD) from 2013/2014 till 2017/2018.

**Table 1.** Pedagogical inquiries

<b>Year</b>	<b>Course</b>	<b>Type of class</b>	<b>Nr. of students</b>	<b>Course grade</b>
2017/2018	Software Engineering	Theory & lab	69	4
2017/2018	Informatics for Science and Engineering	Lab	60	4
2017/2018	Methods for Software Development	Lab	120	3.8

2016/2017	Software Engineering	Theory & lab	80	3.9
2016/2017	Methods for Software Development	Lab	120	3.8
2015/2016	Software Engineering	Theory & lab	36	3.7
2015/2016	Informatics for Science and Engineering	Lab	30	3
2014/2015	Informatics for Science and Engineering	Lab	103	2.97
2014/2015	Software Engineering	Theory & lab	64	4.23
2013/2014	Informatics for Science and Engineering	Lab	59	2.57
2013/2014	Software Engineering	Theory & lab	68	3.88
2013/2014	Introduction to Programming	28	28	3.37

## 5.2 Teaching bachelors and graduate degrees at other institutions

### 5.2.1 Degree in Informatics Engineering, University the Algarve

In all the disciplines, listed below (i.e., Software Engineering, Data Structures and Introduction to Computing and Programming), I was the main lecturer.

#### Academic year 1997/98

1<sup>st</sup> semester

- Software Engineering*
- Introduction to computing and programming*

#### Academic year 1996/97

2<sup>nd</sup> semester:

- Software Engineering*
- Data structures*

### 5.2.2 Degree in Computer Science, Universidade Católica de Pernambuco, Brazil

In all the disciplines listed below (i.e., Compiler construction and Programming language III), I was the main lecturer.

#### Academic year 1992

1<sup>st</sup> semester:

- Compiler construction*
- 2<sup>nd</sup> semester
- Programming language 3*

### **Academic year 1991**

- 1<sup>st</sup> semester:
- Compiler construction*
- 2<sup>nd</sup> semester:
- Programming language 3*

## **5.3 Summer School: Invited Talk**

1. Ana Moreira, João Araujo, “The Need for Early Aspects”, 3<sup>rd</sup> Summer School on Generative and Transformational Techniques in Software Engineering (GTTSE), Braga, Portugal, 6–11 July, 2009.

## **5.4 Undergraduate Student Supervision**

### **5.4.1 Under the discipline of Introduction to Scientific Research in Computer Engineering (UROP)**

1. Student's name: Miguel Duarte  
N<sup>o</sup>: 28508  
School year: 2nd semester 2012/2013  
Title of the project: a tool for the analysis and comparison of approaches of object-oriented requirements models  
Applicant and Advisor: João Araujo

### **5.4.2 Supervision of Graduate Students (internships)**

#### **University of Algarve**

1. Students: Pedro Leote (No. 4055).  
Title: Control and management of Clothes.  
Institution proponent: REDS.  
Start: March 1997.  
Completion: June 1997
2. Students: Jorge Rocha (4755), Paulo Varga (No. 4447), Steph Shah (# 4264).  
Title: School Management.  
Proponent institution: SoftMip Ltda.  
Start: March 1997.  
Completion: June 1997

#### **FCT/Universidade Nova de Lisboa**

1. Students: José Augusto de Melo Domingos (7133)

- and Helder Ferreira Gaspar (7628).  
Title: Application of Computer Park management of APL  
Proponent institution: the port administration of Lisbon (APL).  
Start: March 1999. Completion: September 23 1999
2. Students: Bruno Fernandes Cravo (# 7123) and Carlos Alberto Batista (# 6045).  
Title: Management of changes to the production environment of information systems of Portugal Telecom.  
Proponent institution: Portugal Telecom.  
Start: March 1999. Completion: September 1999.
  3. Students: Caesar Simões (No. 6426) and Sergio Silva (8323).  
Title: Development of an application of art Auctions on the Web Using UML.  
Proponent institution: DI/FCT/UNL.  
Co-orientation: Prof. Ana Moreira.  
Start: March 2000. Completion: October 2000.
  4. Student: Patricia Ramalho Almeida (7699).  
Title: Database for travel.  
Proponent institution: Oracle.  
Coordinator at the institution: eng. António Rodrigues.  
Start: March 2001. Completion: October 2001.
  5. Student: Paulo Correia (7983).  
Title: CHASM: Customer History, Acquisition and Satisfaction Management.  
Proponent institution: CFocus, Novabase.  
Coordinator at the institution: Sérgio Sousa.  
Start: March 2001. Completion: September 2001.
  6. Student: Ana Teresa Ilk Mendonça (6988).  
Title: Atlas Treasury: New Solution NSK Compaq Himalaya S-Series.  
Proponent institution: ESI (Holy Spirit Innovation).  
Coordinator: Dr. Carlos Silva.  
Start: March 2002. Completion: November 2002.
  7. Student: José Carlos Martins (No. 9072).  
Title: Hardware and Software management.  
Proponent institution: the Army Geographic Institute.  
Coordinator at the institution: Ten. Eng. Guerreiro Malik, Major Francisco Nunes.  
Start: March 2002. Completion: September 2002.
  8. Student: Henrique Pereira (8952).  
Title: Database Development with UML.  
Proponent institution: Center for the study of Theatre of the University of Lisbon.  
Coordinator at the institution: prof<sup>a</sup> Maria João Brilhante and Dr. José Calhoun.  
Start date: March 2003. Completion: September 2003.
  9. Student: Hélder Rodrigues (# 14741).  
Title: application analysis and design of enterprise integration with BizTalk Server.  
Proponent institution: eb-focus.  
Coordinator at the institution: eng. Luis Rosa.

- Start: March 2004. Completion: September 2004.
10. Student: Ricardo Anastasius (# 9639).  
Title: ancillary obligations: Model 11.  
Proponent institution: Opensoft Lda.  
Coordinator at the institution: eng. Rui Neves.  
Start: March 2004. Completion: September 2004.
  11. Student: Nelson Correia dos Santos (# 9774).  
Title: Expenditure Management Component.  
Proponent institution: eb-focus.  
Coordinator at the institution: eng. Luis Rosa.  
Start: March 2004. Completion: September 2004.
  12. Student: Cátia Cristina Fernandes Severino de Vasconcelos (No. 6421).  
Title: KISS-Workflows to integrate business processes.  
Proponent institution: EN information systems.  
Coordinator at the institution: eng. Nuno Pavão.  
Start: September 2004. Completion: February 2005.
  13. Students: Marcos Tavares da Silva Larsen (# 11840) and Marco Tulio Lara Bianchi Brazil (11940).  
Title: management support tool of aspects during the requirements engineering  
Proponent institution: ESTIG-Beja.  
Coordinator at the institution: Prof. Isabel Sofia Brito.  
Start: September 2005. Completion: February 2006.
  14. Student: Nuno Gonçalo das Neves Carneiro Duarte Ferreira (11810).  
Title: building a Parser for editing rules of composition  
Proponent institution: ESTIG-Beja.  
Coordinator at the institution: Prof. Isabel Sofia Brito.  
Start: September 2005. Completion: February 2006.
  15. Student: André Marques (11810).  
Title: Aspects Specification for the Space Domain  
Proponent institution: FCT/UNL (sponsored by the European Space Agency).  
Coordinator at the institution: Prof. Ana Moreira.  
Start: March 2006. Completion: September 2006.
  16. Student: Michael Anthony (14055).  
Title: Solution care CUMT  
Proponent institution: FCT Unisys Portugal-Sistemas de Informação, S.A.  
Coordinator at the institution: eng. Paulo Teixeira.  
Start: March 2007. Completion: September 2007.
  17. Student: Ricardo Nuno Pereira Sobral Campos (12132)  
Title: Claims Management solution  
Proponent institution: LINK CONSULTING  
Coordinator at the institution: eng. Marco Freitas  
Start: November 2007. Completion: August 2008.

18. Student: Rui Filipe Machado Vieira (18166)  
Title: Business Intelligence as a tool of Management of organizations  
Proponent institution: MORE YOU  
Coordinator at the institution: eng. Hugo Cortes  
Start: April 2009. Completion: September 2009.
19. Student: Pedro Henrique Nunes Fazenda (14310)  
Title: Web portals EN on clients EN  
Proponent institution: EN  
Coordinator at the institution: eng. Eduardo Oliveira  
Start: November 2009. Completion: April 2010.
20. Student: Ana Luisa Gamito Jorge (17827)  
Title: applications and modules in Windows environment  
Proponent institution: Inforbarras Electronica e Informatica, LDA.  
Coordinator at the institution: eng. Rui Costa  
Start: March 2010. Completion: September 2010.
21. Student: Marco Filipe Pereira Nunes (9274)  
Title: SCADA and real-time DATA ACQUISITION  
Proponent institution: Novabase  
Coordinator at the institution: eng. Luis Lisboa  
Start: October 2010. Completion: March 2011.
22. Student: Irina Andon (34885)  
Title: Unified Finance  
Proponent institution: Novabase  
Coordinator at the institution: eng. João Pina  
Start: March 2011. Conclusion: scheduled for September 2011.
23. Student: Janete Freitas Malik (20403)  
Title: Development of dynamic tool of surveys and forms online  
Proponent institution: Maksen Consulting S.A.  
Coordinator at the institution: Filomena Pereira  
Start: March 2011. Completion: September 2011.
24. Student: Hugo Duarte (34340)  
Title: Web programmer.  
Proponent institution: International Project Portfolio Consulting & Solutions.  
Coordinator at the institution: eng. Paulo Gomes  
Start: March 2013. Completion: July 2013.
25. Student: Ricardo Boto Silva (41951)  
Title: Pré-visualizador PDF.  
Proponent institution: International Project Portfolio Consulting & Solutions.  
Coordinator at the institution: eng. Paulo Gomes  
Start: March 2013. Completion: July 2013.
26. Student: Fábio Rosa (35266)  
Title: CRM.  
Proponent institution: Unisys

- Coordinator at the institution: eng. Nuno Alves  
Start: April 2014. Completion: October 2014.
27. Student: Vanessa Lopes (42708)  
Title: Aplicação de tracing para a solução OneContact CC  
Proponent institution: Novabase  
Coordinator at the institution: Sergio Ministro  
Start: April 2016. Completion: October 2016.
28. Student: Pedro Lima e Silva(44362)  
Title: Implementação de Collab Partner Portal(Collab Network)  
Proponent institution: Novabase  
Coordinator at the institution: Sergio Ministro  
Start: April 2016. Completion: October 2016.
29. Student: João Pedro Sousa Jorge (42644)  
Title: Android App  
Proponent institution: TI Tecnologia Informática, SA - ArtSoft  
Coordinator at the institution: Filipe Grangeiro/João Catalão  
Start: October 2016. Completion: February 2017.
30. Student: Daniel Fonseca Duarte Pilzecker (42298)  
Title: Project Manager .  
Proponent institution: Siemens  
Coordinator at the institution: Cesare Braccini  
Start: April 2017. Completion: July 2017.
31. Student: Ana Rita Gouveia Barata (41605)  
Title: Validação de dados de tráfego MST para auditoria.  
Proponent institution: Inspeção-Geral de Finanças  
Coordinator: José António Magalhães Oliveira  
Start: April 2017. Completion: September 2017.
32. Student: Patrícia Monteiro Negrão (45703)  
Title: Business Process Mining  
Proponent institution: Novabase Business Solutions  
Coordinator: Bruno Antunes  
Start: October 2017. Completion: February 2018.
33. Student: Maria Inês Branco Azevedo e Menezes (45612)  
Title: Wheel of Fortune in Gamification.  
Proponent institution: Novabase Collab  
Coordinator: Nuno Ricardo Centeio  
Start: October 2017. Completion: February 2018.
34. Student: Diogo Rafael Rebocho Silvério (45679)  
Title: Workforce Backoffice em HTML5.  
Proponent institution: Novabase Nbo  
Coordinator: Nuno Filipe Monteiro Galveias  
Start: March 2018. Completion: July 2018.

35. Student: Inês Raquel de Almeida Lopes Nunes (47867)  
Title: Estagio Developer  
Proponent institution: Banco ATLANTICO Europa  
Coordinator: Nuno Silva  
Start: March 2018. Completion: July 2018.
36. Student: Miguel Teodoro Moreira (50170)  
Title: Novabase/DSI - Implementação de chatbot  
Proponent institution: Novabase-Nbo  
Coordinator: Teresa Costa  
Start: March 2019. Completion: July 2019.
37. Student: Tiago André Melo Lopes (50289)  
Title: Regulation Report Designer  
Proponent institution: Novabase-Nbo  
Coordinator: António Bráz  
Start: March 2019. Completion: July 2019.
38. Student: Ana Maria da Silva Cristão (50450)  
Title: Desenvolvimento de Business Intelligence  
Proponent institution: HYPNOTIC BI  
Coordinator: Gonçalo Pinheiro  
Start: October 2019. Completion: February 2020.
39. Student: Miguel Santana de Jesus (49875)  
Title: Desenvolvimento Mobile e Web  
Proponent institution: HYPNOTIC BI  
Coordinator: Gonçalo Pinheiro  
Start: October 2019. Completion: February 2020



## 6. Research Activities

### 6.1 Research Projects

I performed different roles in the 18 projects I was involved in, such as main proponent, coordinator, team leader, task leader, invited researcher, or participant researcher. Most of the projects were funded.

#### 6.1.1 Projects as main proponent, coordinator, team leader or task leader

1. NFR4MDD: How do companies deal with NFR in MDD. Participant institutions: Universitat Politècnica de Catalunya (Coordinator), Universidade Nova de Lisboa, Vienna University of Technology, Universitat Oberta de Catalunya, University of L'Aquila, University of Twente, Technische Universität München, Inria, Mines Nantes & LINA, Universidad de Málaga. No funding. **Participation as leader of the Portuguese team.** 2014-2016.
2. AspectWeb: Developing Web Applications with Aspects. Funded by GRICES/SECyT. Participants: UNL, and Lifia, Universidad Nacional de La Plata, Argentina. **Participation as coordinator of the Portuguese team.** 2008-2010.
3. SOFTAS: Software Development with Aspects. Funded by the Portuguese Science and Technology Foundation (FCT/MCES). Project ref POSI/EIA/60189/2004. Partners: Universidade Nova de Lisboa, Universidade do Minho, Escola Superior de Tecnologia e Gestão de Beja, Escola Superior de Tecnologia de Castelo Branco, Navegação Aérea de Portugal (NAV), LINCIS. **Participation as task leader.** Coordination: Ana Moreira. From April 2005 to March 2008.
4. Integrating Requirements Analysis Techniques with Aspects: The TROPOS case. Funded by Programme CAPES/GRICES. Project ref 4.1.3/CAPES/CPLP. Partners: Universidade Nova de Lisboa, Universidade Federal de Pernambuco (Brazil). **Participation as a Coordinator.** From June 2005 to May 2007.
5. Aspect-Oriented Software Engineering for COTS Components. Funded by CRUP (Conselho de Reitores de Universidades Portuguesas), Bilateral Luso-French Programme. Project ref F-12/05. Partners: Universidade Nova de Lisboa, University of Pau, France. **Participation as a Coordinator.** From January 2005 to December 2005.
6. Agile requirements analysis, Integrated action between Portugal and France, funded by CRUP (Conselho de Reitores de Universidades Portuguesas). **Participation as a Coordinator of the Portuguese team.** 2003.

#### 6.1.2 Projects as invited researcher

1. *ADAPT@CLOUD*: Granted by the Ministry of Economy and Competitiveness (CICYT project), with ref. TIN2017-84550-R) 2018-2020, Principal Investigator: Silvia Abrahão. Researchers from Universitat Politècnica de València and 2 researchers from Universidade Nova de Lisboa. João Araujo and Ana Moreira participated both as representants of the Portuguese team.
2. *VALUE@CLOUD: Model-Driven Incremental Development of Cloud Services Oriented to the Customer's Value*. Granted by the Ministry of Economy and Competitiveness (CICYT project), with ref. TIN2013-46300-R, 2014-2017, Principal Investigator:

Silvia Abrahão. Number of researchers: 10 researchers from Universitat Politècnica de València and 2 researchers from Universidade Nova de Lisboa. João Araujo and Ana Moreira participated both as representants of the Portuguese team.

### 6.1.3 Projects as partner

1. **MULDRE: Multidimensional Analysis of Requirements Level Trade-Offs.** Funded by Engineering and Physical Sciences Research Council (EPSRC), UK. Project ref EPSRC EP/C003330/1. Partners: Lancaster University, UK (Awais Rashid, principal investigator), Universidade Nova de Lisboa (collaborator). Participation as a researcher. From January 2005 to December 2006.

### 6.1.4 Projects as participant researcher

1. *PASEV Patrimonialization of Évora's Soundscape (1540 - 1910)*, Universidade de Évora, Universidade NOVA de Lisboa, (Feb 2019 - Feb 2022), Project of the regional OP Lisboa 2014/2020, ALT20-03-0145-FEDER-028584, Fundação para a Ciência e Tecnologia (FCT), <https://pasev.hcommons.org>
2. *Model-Driven Development of Aspect-Oriented Configurable Software Components for (Embedded) Real-Time Systems.* Funded by CRUP (Conselho de Reitores de Universidades Portuguesas), Bilateral Luso-Spanish Programme. Partners: Universidade de Cantabria, Spain. Participating as researcher. 2011-2013.
3. *BATICS: Software Modeling of graphical user interfaces*, financiado pela FCT/MCES. Participation as investigator. Other participant institutions: University of Geneva. Participation as a researcher. Coordinator: Vasco Amaral. October 2007 to September 2009.
4. *AMPLE: Aspect-Oriented, Model-Driven Product Line Engineering.* STREP (European Union Programme). Participants: Lancaster University (UK), Universidade Nova de Lisboa (Portugal), Darmstadt University of Technology (Germany), Institut National de Recherche en Informatique et en Automatique, INRIA (France), Universiteit Twente (Holland), Universidad de Málaga, (Spain), HOLOS (Portugal), SAP (Germany), Siemens Aktiengesellschaft (Germany). Participation as a researcher. Coordinator: Dr. Awais Rashid, Lancaster University. **€400,000** (total project amount 3 M€). From October 2006 to September 2009.
5. *ASSD: Aspect Specification for the Space Domain. ESA- INNOVATION TRIANGLE INICIATIVE (ITI).* Participants: European Space Agency (ESA), Instituto de Desenvolvimento de Novas Tecnologias (UNINOVA), Fundação da Faculdade de Ciências e Tecnologia (FFCT). Participation as a researcher. Coordinator: Prof. Dr. Ana Moreira. **€150,000**. From March 2006 to February 2007.
6. *Identification of concerns and refactoring in aspect-oriented systems.* Funded by Programme CAPES/GRICES. Participants: Universidade Federal de Rio Grande do Sul (Brazil) and Universidade Nova de Lisboa (Portugal). Participation as a researcher. Coordinator: Prof. Dr. Pedro Guerreiro. From June 2006 to May 2008.
7. *COMPETISOFT: Mejora de procesos para fomentar la competitividad de la pequeña y mediana industria del software de Iberoamérica.* Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo (CYTED). 16 participants. Participation as a researcher. Coordinator: Prof. Dr. Mário Piattini (Universidad Castilla La-Mancha). From January 2006 to December 2008.

8. *Component-Based Aspect-Oriented Software Development: from Requirements to Implementation*. Funded by CRUP (Conselho de Reitores de Universidades Portuguesas), Bilateral Luso-Spanish Programme. Project ref E-72/05. Partners: Universidade Nova de Lisboa, Universidade de Málaga, Spain. From January 2005 to December 2005.
9. *TRICTSME (Training in the use of Information and Communication Technologies for SMEs)*, Program Leonardo da Vinci. Participation as a researcher, from July 1999 to June 2001.

## 6.2 Publications

My publications are organised in the following lists: Journals; Book Chapters; Conferences; Workshops; National Iberian and Latin America; Thesis; Technical Reports; Others. Table 2 shows the list of publications that justify the h-index of 29 and respective citations, according to Scholar Google. Paper reference is composed of the section number plus the paper number in the respective section.

**Table 2.** List of publications with highest citations.

Paper ref	Title	Citations	Year
6.2.3 [79]	Modularisation and composition of aspectual requirements	580	2003
6.2.3 [80]	Early aspects: A model for aspect-oriented requirements engineering	380	2002
6.2.1 [28]	Discovering early aspects	238	2006
6.2.3 [74]	Multi-dimensional separation of concerns in requirements engineering	207	2005
6.2.3 [81]	Crosscutting quality attributes for requirements engineering	195	2002
6.2.1 [29]	Scenario modelling with aspects	163	2004
6.2.3 [76]	Modeling and composing scenario-based requirements with aspects	156	2004
6.2.4 [50]	Aspect-oriented requirements with UML	148	2002
6.2.1 [23]	MATA: A unified approach for composing UML aspect models based on graph transformation	118	2009
6.2.1 [31]	Addressing ICTs skill challenges in SMEs: insights from three country investigations	108	2002
6.2.3 [75]	A concern-oriented requirements engineering model	100	2005
6.2.3 [44]	VML*—a family of languages for variability management in software product lines	77	2009
6.2.3 [59]	An expressive aspect composition language for UML state diagrams	68	2007
6.2.7 [6]	Early aspects: The current landscape	67	2005
6.2.4 [49]	Identifying aspectual use cases using a viewpoint-oriented requirements method	58	2003
6.2.3 [43]	Multi-view composition language for software product line requirements	54	2009
6.2.3 [70]	Modeling volatile concerns as aspects	52	2006
6.2.5 [38]	An Aspectual Use-Case Driven Approach.	51	2003

6.2.1 [18]	Relating feature models to other models of a software product line	46	2010
6.2.1 [21]	Model-driven development for early aspects	43	2010
6.2.1 [20]	Requirements modeling with the aspect-oriented user requirements notation (AoURN): a case study	43	2010
6.2.4 [46]	Using aspects to develop built-in tests for components	38	2003
6.2.4 [52]	A requirements model for quality attributes	38	2002
6.2.1 [16]	AoURN-based modeling and analysis of software product lines	36	2012
6.2.4 [27]	Visualizing aspect-oriented goal models with aogrl	36	2007
6.2.3 [42]	Towards modular i* models	34	2010
6.2.4 [32]	On the contributions of an end-to-end aosd testbed	33	2007
6.2.3 [54]	A Model-driven Approach for Software Product Lines Requirements Engineering.	32	2008
6.2.4 [34]	Integration of Aspects with i* Models	31	2006
6.2.4 [55]	Formalizing sequence diagrams	29	1998

### 6.2.1 Journals

Table 3 shows the list of papers according to the classification of CORE. Some of the journals are not classified at CORE.

**Table 3.** List of journals according to the CORE classification

Classification (CORE)	Papers
A*	[3, 8]
A	[5, 6, 15]
B	[2, 4, 9, 11, 17, 21, 24, 28]
C	[14, 16, 27, 29, 32]

1. D. Silveira, E. Loiola, J. oão Araújo, A. Moreira, P. Fernandes, "Towards a Reusable Business Process Modelling Approach", International Journal of Business Process Integration and Management (IJBPIIM), Inderscience Publishers Ltd. 2020.
2. E. Gonçalves, C. Almendra, M. Goulão, J. Araújo, J. Castro, Using Empirical Studies to Mitigate Symbol Overload in iStar Extensions, Journal of Software Systems and Modeling, Vol. 10270, Number: 770. 12 December 2019. (CORE B)
3. D. Ameller, X. Franch, C. Gomez, S. Martínez-Fernandez, J. Araujo, S. Biffl, J. Cabot, V. Cortellessa, D. Mendez Fernandez, A. Moreira, H. Muccini, A. Vallecillo, M. Wimmer, V. Amaral, W. Bohm, H. Bruneliere, L. Burgueno, M. Goulão, S. Teufl, L. Berardinelli: Dealing with Non-Functional Requirements in Model-Driven Development: A Survey, IEEE Transactions on Software Engineering (early access), 2019, (CORE A\*) DOI 10.1109/TSE.2019.2904476.

<https://ieeexplore.ieee.org/document/8665968>

**\*\*Also accepted for the track *Journal First* at ICSE 2020 (42<sup>nd</sup> Int. Conference on Software Engineering), Seoul, South Korea, May 2020.**

4. E. Gonçalves, M. Antonio de Oliveira, I. Monteiro, J. Castro, J. Araujo, Understanding what is important in iStar extension proposals: the viewpoint of researchers, *Requirements Engineering Journal*, Springer, 24(1): 55-84 (2019)
5. E. Souza, A. Moreira, J. Araujo, S. Abrahão, E. Insfran, D. da Silveira: Comparing Business Value Modeling Methods: A Family of Experiments, *Information and Software Technology*, Elsevier, 104: 179-193 (2018).
6. E. Gonçalves, J. Castro, J. Araujo, T. Heineck, A Systematic Literature Review of iStar extensions, *Journal of Systems and Software*, Elsevier, 137: 1-33 (2018).
7. A. Sabino, P. Poseiro, A. Rodrigues, M. Teresa Reis, C. Juana Fortes, R. Reis, J. Araujo: Coastal risk forecast system. *Journal of Geographical Systems* 20(2): 159-184 (2018)
8. C. Gralha, J. Araujo, M. Goulão, Metrics for measuring complexity and completeness for social goal models. Elsevier, *Information Systems (CORE A\*)*. 53: 346-362 (2015)
9. L. Antonelli, G. Rossi, J. Leite, J. Araujo, "Early Identification of Crosscutting Concerns with the Language Extended Lexicon", *Requirements Engineering Journal (REJ) (CORE B)*, Editor: Peris Loucopoulos, 20(2): 139-161 (2015).
10. M. Urbietta, A. Oliveira, J. Araujo, A. Rodrigues, A. Moreira, A. E. Gordillo, G. Rossi: Web-GIS models: accomplishing modularity with aspects. *Innovations in Systems and Software Engineering (ISSE)*, Springer, 10(1): 59-75 (2014).
11. M. Alferez, R. Bonifácio, L. Teixeira, P. R. G. Accioly, U. Kulesza, A. Moreira, J. Araujo, P. Borba: Evaluating scenario-based SPL requirements approaches: the case for modularity, stability and expressiveness. *Requirements Engineering Journal (REJ)*, Special Issue on Requirements Engineering in Software Product Line Engineering. Guest Editors: Emilio Insfran, Gary Chastek, Patrick Donohoe, Julio Cesar Leite, Springer, 19(4): 355-376 (2014)
12. R. Monteiro, J. Araujo, V. Amaral, M. Goulão, P. Patrício, "Adding Interoperability to Requirements Models", *Software Quality Professional*, Vol. 15(4), Editor-in-Chief: Mark Paulk, September 2013.
13. A. Rodrigues, S. Machado Silva, J. Araujo, "Visualization of Geo-referenced Entity: An Aspect-Oriented Pattern", *IADIS International Journal on Computer Science and Information Systems*, Vol. 8 (1), pp. 79-96, 2013.
14. M. Urbietta, G. Rossi, S. E. Gordillo, Armanda Rodrigues, J. Araujo, and A. Moreira, "An Aspect-Oriented Approach for Spatial Concerns in Web Applications", *Journal of Universal Computer Science*, vol. 19, no. 1, pp. 110-131, 2013.
15. E. Piveta, A. Moreira, M. Pimenta, J. Araujo, P. Guerreiro, R. Tom Price, "An Empirical Study of Aspect-Oriented Metrics", *Science of Computer Programming*, Elsevier, 2012. (CORE A)
16. G. Mussbacher, J. Araujo, D. Amyot, A. Moreira, "AoURN-based Modeling and Analysis of Software Product Lines", *Software Quality Journal*, to appear in 2011. (CORE C)
17. S. Agostinho, A. Moreira, A. Marques, J. Araujo, R. Ferreira, R. Raminhos, R. Ribeiro, I. Brito, P. Chevalley, "Aspect-Oriented Specification: a Case Study in Space Domain", *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 20(6), pp. 783-808, 2010. (CORE B)
18. F. Heidenreich, P. Sanchez, J. Santos, S. Zschaler, M. Alferez, J. Araujo, L. Fuentes, U. Kulesza, A. Moreira, and A. Rashid "Relating Feature Models to Other Models of a Software Product Line: A Comparative Study of FeatureMapper and VML\*\*",

- Transactions on Aspect-Oriented Software Development, Springer, Vol. 7, pp. 69-114, 2010.
19. S. Firmenich, G. Rossi, M. Urbietta, S. E. Gordillo, C. Challiol, J. Nanard, M. Nanard, J. Araujo, "Engineering Concern-Sensitive Navigation Structures, Concepts, Tools and Examples", *Journal of Web Engineering*, Rinton Press, 9(2): 157-185, Junho de 2010.
  20. G. Mussbacher, D. Amyot, J. Araujo, A. Moreira, "Requirements Modeling with the Aspect-oriented User Requirements Notation (AoURN): A Case Study", *Transactions on Aspect-Oriented Software Development*, Springer, Vol 7, pp. 23-68, 2010.
  21. P. Sánchez, J. Magno, A. Moreira, L. Fuentes, J. Araujo, "Model-Driven Development for Early Aspects", *Information & Software Technology*, Vol. 52(3), pp. 249-273, 2010. (CORE B)
  22. A. Moreira, J. Araujo, "The Need for Early Aspects", 3rd Summer School on Generative and Transformational Techniques in Software Engineering (GTTSE), LNCS, Springer, J.M.Fernandes, R.Lämmel, J.Visser, J. Saraiva (Eds.), 1st Edition, pp. 386-407, 2009.
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### 6.2.2 Book Chapters

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2. M. Lencastre, J. Araujo, A. Moreira, J. Castro, "Aspects Composition in Problem Frames", in Aspect-Oriented Requirements Engineering, Springer, 2013. ISBN 978-3-642-38639-8.
3. P. Sanchez, A. Moreira, J. Araujo, L. Fuentes, "Mapping Aspects from Requirements to Architecture", in Aspect-Oriented Requirements Engineering, Springer, 2013. ISBN 978-3-642-38639-8.
4. A. Moreira, J. Araujo, J. Whittle, M. Goulão, "Using Aspects to Model Volatile Concerns", in Aspect-Oriented Requirements Engineering, Springer, 2013.
5. A. Sardinha, A. Rashid, A. Moreira, J. Araujo, R. Chitchyan, "Conflict Identification with EA-Analyser", in Aspect-Oriented Requirements Engineering, Springer, 2013. ISBN 978-3-642-38639-8.
6. I. Sofia Brito, A. Moreira, R. Ribeiro, J. Araujo, "Handling Conflicts in Aspect-Oriented Requirements Engineering", in Aspect-Oriented Requirements Engineering, Springer, 2013. ISBN 978-3-642-38639-8.
7. S. Zschaler, P. Sánchez, M. Alférez, J. Santos, A. Moreira, J. Araujo, U. Kulesza and L. Fuentes. Variability Management, in "Aspect-Oriented, Model-Driven Software Product Lines: the AMPLE way", edited by: Awais Rashid, Jean-Claude Royer, Andreas Rummler (Eds), Cambridge Univ. Press, 2011.
8. A. Pimentel, R. Ribeiro, A. Moreira, J. Araujo, J. Santos, M. Alférez, U. Kulesza, A. Costa, "Hybrid Assesment Method for SPL", em "Aspect-Oriented, Model-Driven Software Product Lines: the AMPLE way", edited by: Awais Rashid, Jean-Claude Royer, Andreas Rummler (Eds), Cambridge University Press, 2011.
9. M. Alferez, A. Moreira, V. Amaral, J. Araujo, "Model-Driven Requirements Specification for Software Product Lines", Model-Driven Domain Analysis and Software Development: Architectures and Functions, Information Science Reference, ISBN 978-1-61692-874-2, Hershey, New York, EUA, 2011.
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11. A. Moreira, J. Araujo, "Generating Object-Z Specifications from Use Cases", Enterprise Information Systems, Editor: Joaquim Filipe, Kluwer Academic Publishers, Dordrecht/Boston/London, 2000. ISBN: 0-7923-6239-X.

### 6.2.3 Conferences

Table 4 shows the list of A\*, A and B papers according to the classification of CORE. Some of the conferences are not classified at CORE.

**Table 4.** List of journals according to the CORE classification

Classification (CORE)	Papers
A*	[9]
A	[3, 4, 5, 7, 8, 13, 17, 18, 25, 29, 30, 59, 62, 70, 74, 75, 76, 79, 80, 85]
B	[1, 2, 6, 10, 11, 12, 14, 16, 19, 20, 21, 22, 23, 24, 31-38, 41-45, 49, 52, 54, 55, 58, 61, 65, 68, 72, 73, 77, 81, 82]

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2. Enyo Gonçalves, João Araujo, Jaelson Castro, A Process to Support the Creation of iStar Extensions, ACM SAC Conference (SAC'20), Brno, Czech Republic, April 2020,.
3. Nelly Condori-Fernández, João Araújo, Alejandro Catalá, Patricia Lago, Towards a non-functional requirements discovery approach for persuasive systems. SAC 2020. March 2020, pp. 1418-1420 (Poster)
4. E. Gonçalves, J. Araujo and J. Castro, iStar4RationalAgents: Modeling Requirements of Multi-Agent Systems with Rational Agents, Short Paper, ER 2019 – 38th International Conference on Conceptual Modeling, Salvador, Bahia, Brazil, November 2019.
5. C. Flório, M. Lencastre, J. Pimentel and J. Araujo, iStar-p: A Visual Model for Requirements Prioritization, Short Paper, ER 2019 – 38th International Conference on Conceptual Modeling, Salvador, Bahia, Brazil, November 2019.
6. C. Gralha, M. Goulão, J. Araujo: Analysing gender differences in building social goal models: a quasi-experiment, RE 2019, Jeju, South Korea, IEEE Computer Society, September 2019. (**Candidate to best paper award**)
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9. M. Santos, C. Gralha, M. Goulão, J. Araujo and A. Moreira, On the Impact of Semantic Transparency on Understanding and Reviewing Social Goal Models, RE 2018, Banff, Canada, August 2018.
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11. I. Sofia Brito, J. María Conejero, A. Moreira, J. Araujo: A concern-oriented sustainability approach. IEEE Computer Society, RCIS 2018: 1-12
12. C. Borges, J. Araujo and A. Rodrigues. 2018. ACM SAC Conference, Pau, France, April 9-13, 2018 (SAC'18), 8 pages. DOI: 10.1145/3167132.3167321
13. V. Mendoza, D. S. Silveira, M. L. Albuquerque, and J. Araujo. 2018. In Proceedings of ACM SAC Conference, Pau, France, April 9-13, 2018 (SAC'18), 8 pages. DOI: 10.1145/3167132.3167139.
14. E. Souza, S. Abrahão, A. Moreira, E. Insfran and J. Araujo Evaluating the Efficacy of Value-driven methods: A Controlled Experiment, Conference: 26th International



- Conference on Information Systems Development (ISD 2017), Larnaca, Cyprus, September 2017.
15. E. Souza, A. Moreira and J. Araujo, Aligning business models with requirements models, 14th European Mediterranean & Middle Eastern Conference on Information Systems (EMCIS 2017), Coimbra Portugal, 7-8 September 2017.
  16. F. Wanderley, E. Souza, M. Goulão, J. Araujo, G. A. Cysneiros Filho, A. Misra: Requirements Engineering for Cloud Systems: A Mapping Study Design. ICCSA (6) 2017: 335-349
  17. J. Medeiros, A. Vasconcelos, M. Goulão, C. Silva, J. Araujo: An approach based on design practices to specify requirements in agile projects. SAC 2017, March 2017, pp. 1114-1121
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  20. E. Loiola, D. Silveira, J. Araujo, A. Moreira, “Business Process Families: a Case Study in the Brazilian Public Sector”, CAiSE 2016, Industry Track, Slovenia, 13-16 June 2016.
  21. R. Duarte, D. Silveira, J. Araujo, F. Wanderley, “Towards a Non-conformity Detection Method between Conceptual and Business Process Models”, RCIS 2016, Grenoble, France, 1-3 June 2016.
  22. D. Bombonatti, C. Gralha, A. Moreira, J. Araujo, M. Goulão, “Usability of Requirements Techniques - A Systematic Literature Review”, 31st ACM Symposium on Applied Computing - Requirements Engineering Track, Pisa, Italy, April 2016. Pp. 1270-1275
  23. D. Ameller, X. Franch, C. Gómez, J. Araujo, R. Berntsson-Svensson, S. Biffl, J. Cabot, V. Cortellessa, M. Daneva, D. Méndez Fernández, A. Moreira, H. Muccini, A. Vallecillo, M. Wimmer, V. Amaral, H. Brunelière, L. Burgueño, M. Goulão, B. Schätz, S. Teufl, “Handling non-functional requirements in Model-Driven Development: An ongoing industrial survey”, RE 2015, Ottawa, Canada, pp. 208-213
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  25. F. Soares, J. Araujo, F. Wanderley, VoiceToModel: an approach to generate requirements models from speech recognition mechanisms. SAC 2015, Salamanca, Spain, April 2015, pp.1350-1357.
  26. C. Gralha, M. Goulão, J. Araujo, “Identifying Modularity Improvement Opportunities in Goal-Oriented Requirements Models”, CAiSE 2014, Thessaloniki, Greece, June 2014, pp. 91-104. **(Best Paper Award)**
  27. F. Wanderley, D. Silva da Silveira, J. Araujo, A. Moreira, E. Guerra, “Experimental Evaluation of Conceptual Modelling through Mind Maps and Model Driven Engineering”. ICCSA (5) 2014, Springer, pp. 200-214
  28. A. Sabino, A. Rodrigues, J. Araujo, P. Poseiro, M. Teresa Reis, C. Juana Fortes, Wave Overtopping Analysis and Early Warning Forecast System. ICCSA (1) 2014, Springer, pp. 267-282

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30. P. Espada, M. Goulão, J. Araujo, "A Framework to Evaluate Complexity and Completeness of KAOS Goal Models", CAiSE, Valencia, Spain, Springer, June 2013, pp. 562-577.
31. F. Dantas, A. Garcia, J. Whittle, J. Araujo, "Enhancing Design Models with Composition Properties: A Software Maintenance Study", MODULARITY: AOSD'13, ACM Press, Fukuoka, Japan, 24-29 March 2013.
32. F. Wanderley, D. Silva da Silveira, J. Araujo, A. Moreira, "Transforming creative requirements into conceptual models", IEEE Research Challenges on Information Systems (RCIS 2013), Paris, France, May 2013, pp. 1-10.
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34. A. Santos, F. Gaia, E. Figueiredo, P. Santos Neto, J. Araujo, "Test-based SPL Extraction: An Exploratory Study", 28th Symposium on Applied Computing, ACM SAC 2013, Coimbra, Portugal, ACM Press, March 2013.
35. C. Grueau, J. Araujo, "Towards A Domain Specific Modeling Language For Agent-Based Models In Land Use Science", Poster, 28th Symposium on Applied Computing, ACM SAC 2013, Coimbra, Portugal, ACM Press, March 2013.
36. Sara Silva, João Araujo, Armanda Rodrigues, Matias Urbieta, Ana Moreira, Silvia Gordillo and Gustavo Rossi, "Reuse of Spatial Concerns Based on Aspectual Requirements Analysis Patterns", IEEE Reserch Chalenges on Information Systems (RCIS 2012), Valencia, Spain, 16-18 May 2012.
37. P. Patrício, V. Amaral, J. Araujo, R. Monteiro, "Towards a Unified Goal-Oriented Language", 35th Annual IEEE International Computer Software and Applications Conference (COMPSAC 2011), ACM Press, Munich, Germany, 18-21 July 2011.
38. P. Varela, J. Araujo, I. Brito, A. Moreira, "Aspect-Oriented Analysis for Software Product Lines Requirements Engineering", 26th Symposium on Applied Computing, ACM SAC 2011, TaiChung, Taiwan, 21-24 March 2011, ACM Press, pp. 654-671.
39. R. Argenton Ramos, J. Brelaz de Castro, J. Araujo, F. M. R. Alencar, "Towards the improvement of use case models: the AIRDoc process", Poster, 26th Symposium on Applied Computing, ACM SAC 2011, TaiChung, Taiwan, 21-24 March 2011, ACM Press, pp. 708-709.
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42. A. Sofia Penim, J. Araujo, "Identifying and Modeling Aspectual Scenarios with Theme and MATA", 25th Symposium On Applied Computing (ACM SAC 2010), Sierre, Switzerland, March 2010.
43. Fernanda Alencar, Jaelson Castro, Marcia Lucena, Emanuel Santos, Carla Silva, João Araujo, Ana Moreira, "Towards Modular i\* Models", 25th Symposium On Applied Computing (ACM SAC 2010), Sierre, Switzerland, March 2010.
44. M. Alférez, J. Santos, A. Moreira, A. Garcia, U. Kulesza, J. Araujo, V. Amaral, "Multi-View Composition Language for Software Product Line Requirements", 2nd International Conference on Software Language Engineering, Springer-Verlag, October 2009.
45. S. Zschaler, P. Sanchez, J. Santos, M. Alférez, A. Rashid, L. Fuentes, A. Moreira, J. Araujo, U. Kulesza, "VML\* – A Family of Languages for Variability Management in Software Product Lines", 2nd International Conference on Software Language Engineering, Springer-Verlag, October 2009.
46. E. Piveta, M. Pimenta, J. Araujo, A. Moreira, P. Guerreiro, R. Price, "Representing Refactoring Opportunities", The 24th Annual ACM Symposium on Applied Computing, Object-Oriented Programming Languages and Systems Track, Honolulu, Hawaii, USA, 9-12 March 2009.
47. C. Nunes, J. Araujo, V. Amaral, C. Silva, "A Domain Specific Language for the I\* Framework", 11th International Conference on Enterprise Information Systems (ICEIS 2009), Milan, Italy, 6–10 May 2009.
48. A. Rodrigues, J. Araujo, "VAODA: A Viewpoint and Aspect-Oriented Domain Analysis Approach", 11th International Conference on Enterprise Information Systems (ICEIS 2009), Milan, Italy, 6–10 May 2009.
49. A. Oliveira, M. Urbietta, J. Araujo, A. Rodrigues, A. Moreira, S. Gordillo, G. Rossi, "Modelling Location-Aware Behaviour in Web-GIS Using Aspects", 11th International Conference on Enterprise Information Systems (ICEIS 2009), Milan, Italy, 6–10 May 2009.
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52. M. Lencastre, A. Moreira, J. Araujo, J. Castro "Aspects Composition in Problem Frames", Poster at 16th IEEE International Requirements Engineering Conference (RE 2008), Barcelona, Spain, IEEE Computer Society, September 2008.
53. E. Piveta, J. Araujo, M. Pimenta, A. Moreira, P. Guerreiro, R. Price, "Searching for Opportunities of Refactoring Sequences: Reducing the Search Space", 32nd Annual IEEE International Computer Software and Applications Conference (COMPSAC 2008), IEEE Computer Society, Turku, Finland, July 28 – August 1, 2008.
54. Carla Silva, Fernanda Alencar, Joao Araujo, Ana Moreira, Jaelson Castro, "Tailoring an Aspectual Goal-oriented Approach to Model Features", 20th International Conference on Software Engineering and Knowledge Engineering (SEKE 2008), Redwood City, San Francisco Bay, USA, 1-3 July, 2008.

55. Mauricio Alferez, Uira Kulesza, Andre Sousa, Joao Santos, Ana Moreira, Joao Araujo, Vasco Amaral, "A Model-driven Approach for Software Product Lines Requirements Engineering", 20th International Conference on Software Engineering and Knowledge Engineering (SEKE 2008), Redwood City, San Francisco Bay, USA, 1-3 July, 2008.
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57. S. Agostinho, A. Moreira, A. Marques, J. Araujo, I. Brito, R. Ferreira, R. Raminhos, J. Kovačević, R. Ribeiro and P. Chevalley, "A Metadata Driven Approach for Aspect-Oriented Requirements Analysis", 10th International Conference on Enterprise Information Systems (ICEIS 2008), Barcelona, Spain, 12-16, June 2008.
58. E. Piveta, R. Price, A. Moreira, J. Araujo, P. Guerreiro, M. Pimenta, Ranking Refactoring Patterns using the Analytical Hierarchy Process, 10th International Conference on Enterprise Information Systems (ICEIS 2008), Barcelona, Spain, 12-16, June 2008.
59. J. Ribeiro, J. Araujo, "AspOrAS: A requirements agile approach based on scenarios and aspects", IEEE Research Challenges on Information Systems, RCIS 2008, Marrakech, Morocco, 3-6 June 2008.
60. J. Whittle, A. Moreira, J. Araujo, P. Jayaraman, A. Elkhodary, R. Rabbi, "An Expressive Aspect Composition Language for UML State Diagrams". ACM/IEEE MoDELS 2007, Springer, Lecture Notes in Computer Science, 3-5 October 2007. pp. 514-528.
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63. Carla Silva, João Araujo, Ana Moreira, Jaelson Castro, "Designing Social Patterns using Advanced Separation of Concerns", CAiSE 2007, Trondheim, Norway, 11-15 June 2007.
64. André Marques, Ricardo Raminhos, Ricardo Ferreira, Rita Ribeiro, Sérgio Agostinho, João Araujo and Ana Moreira, "Aspect-Oriented Analysis Applied to the Space Domain", ICEIS 2007, 12-16 June 2007.
65. R. Chitchyan, A. Rashid, A. Moreira, J. Araujo, P. Clements, E. Baniassad, B. Tekinerdogan, "Early Aspects at ICSE 2007: Workshop on Aspect-Oriented Requirements Engineering and Architecture Design", ICSE Companion 2007, IEEE Computer Society, May 2007, pp. 127-128
66. F. M. R. Alencar, A. Moreira, J. Araujo, J. Castro, R. Ramos, Carla T. L. L. Silva: Dealing with the i\* Models with Aspects. IEEE Reserch Chalenges on Information Systems, RCIS 2007, Ouarzazate. Morocco, April 2007, pp. 367-372.

67. I. Brito, A. Moreira, J. Araujo, "Tool Support for Aspect-Oriented Requirements", The 10th IASTED International Conference on Software Engineering and Applications, Dallas, Texas, USA, 13-15 November 2006.
68. I. Brito, A. Moreira, J. Araujo, "Tool Support for Aspect-Oriented Requirements", The 10th IASTED International Conference on Software Engineering and Applications, Dallas, Texas, USA, 13-15 November 2006.
69. J. Araujo, J. Whittle, A. Moreira, "Choosing the Right Time to Compose Aspectual Scenarios", 30th Annual International Computer Software and Applications Conference (COMPSAC 2006), Chicago, Illinois, USA, IEEE Computer Society, 17-21 September 2006.
70. F. Alencar, A. Moreira, J. Araujo, J. Castro, C. Silva, J. Mylopoulos, "Using Aspects to Simplify i\* Models" (Poster), 14th IEEE International Requirements Engineering Conference (RE 2006), Minneapolis, USA, IEEE Computer Society, September, 2006.
71. A. Moreira, J. Araujo, J. Whittle, "Modeling Volatile Concerns as Aspects", 18th Conference on Advanced Information Systems Engineering (CAiSE 2006), Luxembourg, Lecture Notes in Computer Science, Springer, 5-9 June 2006.
72. K. Kang, J. Araujo, "Cultural Aspects on International E-commerce sites and Aspect-oriented Requirements Engineering", The International Conference on e-Learning, e-Business, Enterprise Information Systems, e-Government, and Outsourcing (EEE'06), Las Vegas, EUA, 26-29 June 2006.
73. R. Raminhos, M. Pantoquilha, J. Araujo, A. Moreira, "A Systematic Analysis Patterns Specification", International Conference on Enterprise Information Systems, Paphos, Cyprus, May 2006.
74. K. Kang, J. Araujo, "Cultural issues on Global Websites and Aspect-Oriented requirements Engineering", 5th International Business Information Management Association Conference: The Internet & Information Tecnology in Modern Organizations (IBIMA 2005), Cairo, Egypt, 13-15 December 2005.
75. A. Moreira, A. Rashid J. Araujo, "Multi-Dimensional Separation of Concerns in Requirements Engineering", 13th IEEE International Requirements Engineering Conference (RE 2005), Paris, France, IEEE Computer Society, 29 August - 2 September, 2005.
76. A. Moreira, J. Araujo, A. Rashid, "A Concern-Oriented Requirements Engineering Model", 17th Conference on Advanced Information Systems Engineering (CAiSE 2005), Porto, Portugal, Lecture Notes in Computer Science, Springer, 13-17 June 2005.
77. J. Araujo, J. Whittle, D. Kim, "Modeling and Composing Scenario-Based Requirements with Aspects", The 12th IEEE International Requirements Engineering Conference (RE2004), Kyoto, Japan, IEEE Computer Society, September 2004.
78. A. Moreira, J. Araujo, "Handling Unanticipated Requirements Change with Aspects", Software Engineering and Knowledge Engineering Conference (SEKE'04), Banff, Canada, June 2004.
79. J. Araujo, "Tutorials at the UML 2003 Conference", Proceedings of 6th International Conference on The Unified Modeling Language (UML 2003), San Francisco, USA, Lecture Notes in Computer Science (LCNS 2863), Springer-Verlag, 2003
80. A. Rashid, A. Moreira, J. Araujo, "Modularisation and Composition of Aspectual Requirements", AOSD 2003, Boston, USA, ACM Press, 17-21 March, 2003.

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82. A. Moreira, J. Araujo, I. Brito, "Crosscutting Quality Attributes for Requirements Engineering", Software Engineering and Knowledge Engineering Conference (SEKE), Ischia, Italy, 15-19 July 2002.
83. M. Lencastre, F. Santos, J. Araujo, "A Process Model for FEM Simulation Support Development", Summer Computer Simulation Conference (SCSC 2002), San Diego, California, 14-18 July 2002.
84. J. Araujo, A. Moreira, "Handling mutual exclusion in UML class diagrams", International Conference on Enterprise Information Systems (ICEIS'01), Setúbal, Portugal, July 2001.
85. J. Araujo, V. Machado, "Adopting E-Commerce in SMEs: The Common Problems and Training Needs", Business Information Technology Management: Enabling Cultural Awareness - BITWorld 2001, American University, Cairo, Egypt, 4-6 June 2001.
86. J. Araujo, A. Moreira, "Specifying the Behaviour of UML Collaborations Using Object-Z", Association for Information Systems, 2000 Americas Conference on Information Systems (AMCIS), Object-Oriented Software Development, Mini-Track, Long Beach, California, USA, 10-13 August 2000.
87. J. Araujo, A. Moreira, P. Sawyer, "Specifying Persistence, Class Views and Excluding Classes for UML", 12th International Conference on Software Engineering and its Applications, Paris, December 1999.
88. A. Moreira, J. Araujo, "Generating Object-Z Specifications from Use Cases", International Conference on Enterprise Information Systems (ICEIS'99), Setúbal, Portugal, March 1999.
89. J. Araujo, P. Sawyer, "Generating Object-Oriented Formal Specifications from Process Sequence Diagrams", 11th International Conference on Software Engineering and its Applications, Paris, December 1998.

#### **6.2.4 Workshops**

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8. Integrating Object-Oriented Analysis and Formal Specification, João Araujo Jr., Pete Sawyer, Technical report (CSEG/19/96), Lancaster University, UK, 1996.

### 6.2.8 Others

1. J. Araujo, "Tutorials at the UML 2003 Conference", *6<sup>th</sup> International Conference on the Unified Modeling Language (UML 2003)*, *Lecture Notes on Computer Science 2863*, San Francisco, USA, Springer-Verlag, 20-24 October 2003, pp. 410-413.
2. J. Araujo, J. Whittle, A. Toval, R. France, "Workshop on Integration and Transformation in UML models", *ECOOP 2002 Workshop Reader*, *Lecture Notes on Computer Science 2548*, Springer-Verlag, 2002, pp. 184-191.

## 6.3 Post-graduation supervision

### 6.3.1 MSc

I supervised and co-supervised more than 30 dissertations. Most of them got a publication at a conference. Some of them got publications at CORE A conference (CAiSE, RE).

#### *Concluded thesis (FCT/UNL):*

1. "A Requirements Modeling Language for GIS", Roberto Veloso, Co-supervisor: Prof.<sup>a</sup> Armanda Rodrigues. Approved with 18 (out of 20). 28 November 2019.
1. "Framework de avaliação da complexidade e facilidade de compreensão de modelos BPMN", Ana Raquel Ribeiro Henriques, Co-supervisor: Miguel Goulão. Approved with 17 (out of 20). 21 December 2018.
2. "An approach to reuse business process models". Pedro Fernandes, Co-supervisor: Prof. Denis Silveira. Approved with 17 (out of 20). 21 December 2017
3. "A Language for Modeling Emotional Requirements in Videogames", Gonçalo Migueis, Co-supervisor: Prof. Ana Moreira. Approved with 18 (out of 20). 16 May 2017.
4. "Evaluation of Usability of Requirements Model", Mafalda Santos. Role of Co-supervisor. Main supervisor: Prof. Miguel Goulão. Approved with 20 (out of 20). 9 May 2017. Publication at RE'16 main track.
5. "Requirements Elicitation for Emergency Systems using Social Networks", Cláudio Borges. Co-supervisor: Prof. Armanda Rodrigues. Approved with 17 (out of 20). November 2017.
6. "A MDD framework for Behaviour Driven Development", António Silva. Co-supervisor: Fernando Wanderley. Approved with 19 (out of 20). November 2014. Publication at RE'16 main track.
7. "Using Speech Recognition in Requirements Engineering", Fábio Soares. Co-supervisor: Fernando Wanderley. Approved with 19 (out of 20). November 2014. Publication SAC'15.
8. "Evaluating i\* models", Catarina Gralha Almeida. Co-supervisor. Main supervisor: Prof. Dr. Miguel Goulão. Approved with 19 (out of 20). November 2014. Publication CAISE'14.
9. "Improving the quality of goal-oriented models", Patrícia Espada, Co-supervisor. Main supervisor: Prof. Dr. Miguel Goulão. Approved with 19 (out of 20). May 2012. Publication at CAiSE'13.
10. "Modeling volatile concerns in geospatial applications", Sara Patrícia Rovisco Farto Machado Silva (30225). Co-supervisor: Prof. Dr. Armanda Rodrigues. Approved with 18 (out of 20). April 2010. Publication RCIS'12.
11. "Uma Linguagem de Domínio Específico para AORE", Ana Rita Duarte Oliveira (30226). Co-supervisor. Prof. Dr. Vasco Amaral. Approved with 19 (out of 20). April 2010. Publication Workshop REV'10.
12. "Adapting Theme to SPL", Inês Carvalho Nunes Simão (27179). Approved with 18 (out of 20). April 2010. Publication SAC'13.



13. “Model-Driven Requirements Engineering: the case of the goal oriented approaches”, Rui Pedro Chambel Monteiro (27240). Co-supervisor. Vasco Amaral. Approved with 18 (out of 20). March 2010.
14. “Unifying Goal-oriented Languages: The Case of KAOS and i\* approaches”, Pedro Patrício (26183), Co-supervisor. Main supervisor: Prof. Doutor Vasco Amaral. Approved with 18 (out of 20). April 2010. Publication COMPSAC’11.
15. “Extending AORA for SPL”, Patrícia Isabel Barrocas Varela (27180), Co-supervisors: Prof.<sup>a</sup> Doutora Ana Maria Dinis Moreira e Prof.<sup>a</sup> Doutora Isabel Sofia Sousa Brito. Approved with 17 (out of 20). April 2010. Publication SAC’11.
16. “Integrating KAOS with Aspectual Scenarios”, Cátia Vanessa Sena da Silva Reis de Oliveira (26897). Result: approved with 15 (out of 20). November 2009
17. “AspectMapping - Modular GIS Applications with Aspects”. Ana Isabel Durão Mata de Oliveira (26496), co-supervision. Main supervisor: Armanda Rodrigues “Towards a DSL based on the i\* framework”. Approved with 16 (out of 20). November 2009.
18. Carlos Miguel Marques Martins Simões Nunes (26861), A Domain Specific Language for i\*, co-supervisor: Vasco Amaral. Approved with 16 (out of 20). Publication ICEIS’09.
19. “Viewpoints and Goals: Towards an Integrated Approach”. Manuel Filipe Prista Lucas Conrado Pimenta (26224). Result: approved with 16 (out of 20). April 2009. Publication at CIBSE’10.
20. “Tailoring KAOS for Product Lines”. Dagmar do Rosário Mendes Cristovão Baptista (26105), co-orientador: Carla Silva. Approved with 16 (out of 20). April 2009. Publication CAPSIS’09.
21. “Multi-Criteria Analysis for Architectural Choices in Software Product Lines”, Afonso Pimentel, (26180). Co-supervisors: Ana Moreira e Rita Ribeiro. Approved with 16 (out of 20). April de 2009. Publication book chapter Aspect-Oriented RE, Springer, 2013.
22. “Integrating the Theme Approach with Aspectual Scenarios”. Ana Sofia Conceição Penim (26222), Approved with 16 (out of 20). April 2009. Publication SAC’10.
23. “Adapting the i\* Framework for Product Lines”. Sandra Isabel Alves António (26294), co-orientador: Carla Silva. Approved with 16 (out of 20). April 2009. Publication ER’09 workshops.
24. “Towards a DSL based on KAOS goal and agent oriented paradigms”. Ana Cristina de Freitas Dias (26434), co-supervision. Main supervisor: Vasco Amaral. Approved with 16 (out of 20). April 2009. Publication RCIS’09.
25. “Integrating Problem Frames and Aspects”. Gustavo Salvador Marques (26498), co-supervisor: Maria Lencastre. Approved with 17 (out of 20). April 2009. Publication SBES’09.
26. “From aspectual requirements to multi-agent architectures: a model-driven approach”, Pedro Dias (26175), co-supervisors: Carla Silva, Ana Moreira. Approved with 15 (out of 20). November 2008. Publication CIBSE’11.
27. “Domain Analysis with Aspects”. António Pedro Rodrigues. Result: approved with 15 (out of 20). November 2008. Publication ICEIS’11.
28. “Integrating KAOS with Aspects”. André Tiago Varejão Gil (12952). Approved with 15 (out of 20). November 2008. Publication Early aspects workshop.

29. “Traceability with MDD in Aspect-oriented product lines”. João Pedro Gomes Paula Santos (26554), co-supervisor. Main supervisor: Ana Moreira. Approved with 17 (out of 20). November 2008. Publication MoDRE at RE’11.
30. “Paving the way from Requirements to Architecture -- From AORA to an improved AspectualACME”, João Nuno Baptista de Azevedo Morais Marques (26570), co-orientador. co-supervisor. Main supervisor: Ana Moreira. Approved with 13 (out of 20). October 2008.
31. “COMBO - COMPOSITION BY OBJECTIVES”, André Gonçalves Marques (24161). Co-supervisor. Main supervisor Ana Moreira. Approved with Very good. December 2008. Publication at Early Aspects @ICSE’08.
32. “Asporas: An agile method bases on aspects and scenarios”, João Carlos Ribeiro. Approved with Very good, January 2007. Publication at RCIS’08.
33. “Vision: a viewpoint based requirements method”, Paulo Coutinho. Local: FCT/UNL. Approved with Very good, June 2003. Publication at AWRE’03

### ***Ongoing***

2. Cláudia magalhães, “A Machine Learning-based approach to Identifying Cloud Service Requirements”.
3. Diogo Albuquerque, “Elicitation, Prioritization and Trade-off Analysis of Sustainability Requirements”, Co-supervisor. Prof<sup>a</sup>. Ana Moreira (main supervisor).

## **6.3.2 PhD**

### **Completed**

1. *Quality Evaluation of Requirements Models: the case of Goal Models and Scenarios*  
 Student: Catarina Gralha de Almeida.  
 Local: Departamento de Informática, da Faculdade de Ciências e Tecnologia, da Universidade Nova de Lisboa.  
 Role: Co-Supervision with Miguel Goulão since 2014. Publication at RE’16, RE’18, ICSE’19 (CORE A\*), RE’19 (candidate to best paper award).
2. *An Approach to Guide iStar extensions*  
 Student: Enyo Gonçalves  
 Local: Universidade Federal de Pernambuco, Brazil.  
 Role: Co-Supervisor with Prof. Jaelson Castro, from 2016 to 2019. Publication JSS, REJ
3. *Coordination in Business Process Models: fragments in BPMN to address dependencies on information quality*  
 Student: Charlie Silva Lopes  
 Local: Universidade Federal de Pernambuco, Brazil.  
 Role: Co-Supervisor with Prof. Denis Siveira from 2016 to 2018. Paper submitted.
4. *Evaluation of Requirements Techniques with Aspects,*  
 Student: Ricardo Argenton Ramos.  
 Role: Co-supervisor with Prof. Dr. Jaelson Castro.

In the context of the project CAPES/GRICES “Integração de Técnicas de Requisitos com Aspectos: o Caso TROPOS”, Nº 129/05, March 2006 to February 2008.

Publications at SAC, SugarLoafPlop, IDEAS’08 (**Best Paper Award**)

5. *Designing Multi-Agent Systems with Aspects,*

Student: Carla Taciana Lima Lourenço Silva.

Co-supervision with Prof. Dr. Jaelson Castro.

Status: Concluded and approved, April 2007.

In the context of the project CAPES/GRICES “Integração de Técnicas de Requisitos com Aspectos: o Caso TROPOS”, Nº 129/05, January April 2006.

Publications at CAISE, SEKE, IJAOS, SBES.

6. *Conceptualization of an environment for the development of simulators based on finite element method,*

Maria Lencastre Pinheiro Menezes e Cruz.

Co-supervision with Prof. Dr. Jaelson Castro.

Status: Concluded and approved, February 2004, Centro de Informática, Universidade Federal de Pernambuco, Recife, Brazil.

Publications at CIBSE, Expert Systems, SCSC’02

## Ongoing

1. *An Accessibility Requirements Engineering Framework (Provisional title)*

Student: Darliane Goes Miranda.

Local: Departamento de Informática, da Faculdade de Ciências e Tecnologia, da Universidade Nova de Lisboa.

Role: Supervisor since March 2019.

2. *A Cognitive Requirements Language Framework (Provisional title)*

Student: Fernando Wanderley.

Local: Departamento de Informática, da Faculdade de Ciências e Tecnologia, da Universidade Nova de Lisboa.

Role: Supervisor since 2013. Publications at RCIS, SAC, MoDRE’14, ICCSA’14 (Best Paper Award).

3. *A Domain Specific Framework for Emergency Systems (Provisional title)*

Student: Cedric Grueau.

Local: Departamento de Informática, da Faculdade de Ciências e Tecnologia, da Universidade Nova de Lisboa.

Role: Supervisor since 2013. Publications at AGILE PhD School, DS at ER, SAC’13.

## 6.3.3 Post-Doc

1. Denis Silva da Silveira, "An Approach to Modularize Business Processes", funded by CAPES, Brazil. Supervisor. September 2015 to August 2016. Publication at CAiSE’16, Industry Track, RCIS’16.

2. Eliane Loiola, “Technologies to Support Business Processes Reuse”, funded by *Banco Central do Brasil*. Supervisor. September 2015 to March 2016. Publication at CAiSE’16.
3. Carla Taciana Lima Lourenço Silva, “Evaluating the use of aspects in multi-agent systems”, in the context of the project CAPES/GRICES “Integração de Técnicas de Requisitos com Aspectos: o Caso TROPOS”, Nº 129/05. Supervisor. August 2007 to July 2008. Publication at CAiSE’07, SEKE’08, IJAOSSE’09.
4. Maria Lencastre Pinheiro Menezes e Cruz, “Exploiting Reuse techniques with Aspects”, in the context of the project CAPES/GRICES “Integração de Técnicas de Requisitos com Aspectos: o Caso TROPOS”, Nº 129/05. Co-supervision with Ana Moreira (main supervisor). January-September 2008. Publication Expert Systems.

## 6.4 Recognition by the International Scientific Community

### 6.4.1 Prizes

1. **Best paper award:** Dorgival Netto, Carla Silva, João Araujo: Identifying How the Brazilian Software Industry Specifies Legal Requirements. Simpósio Brasileiro de Engenharia de Software, SBES 2019, Salvador Brazil, September 2019, pp. 181-186.
2. **Best paper award:** Eric Souza, Ana Moreira, João Araujo: Aligning Business Models with Requirements Models. EMCIS 2017, September 2017, pp.545-558.
3. **Best paper award:** Catarina Gralha, Miguel Goulão, João Araujo: Identifying Modularity Improvement Opportunities in Goal-Oriented Requirements Models. CAiSE 2014, Thessaloniki, Greece, June 2014, pp. 91-104.
4. **Best paper award:** Fernando Wanderley, Denis Silva da Silveira, João Araujo, Ana Moreira, Eduardo Guerra: Experimental Evaluation of Conceptual Modelling through Mind Maps and Model Driven Engineering. ICCSA (5) 2014, Springer, pp. 200-214
5. **The Most Influential Paper**, at AOSD 2013, Fukuoka, Japan, March 2013.
6. **Best paper award:** Ricardo Ramos, Jaelson Castro, João Araujo, Ana Moreira, Fernanda Alencar, R. Penteado, “Early Aspects Refactoring”, 11º Workshop Iberoamericano de Ingeniería de Requisitos y Ambientes Software (IDEAS’08), Recife, Brazil, Feb. 2008.
7. **Best paper award:** Pablo Sanchez, J. Magno, L. Fuentes, A. Moreira and J. Araujo, "Towards MDD transformations from AO Requirements into AO Architecture", 3rd European Workshop on Software Architecture (EWSA 2006), at the French Conference on Software Architecture (CAL), Nantes, France, 4-5 September 2006.
8. **Software Premium Award**, The Institution of Electrical Engineers (IEE), 41st IEE Appleton Lecture, Savoy Place, Londres, United Kingdom, 12 January 2006.

### 6.4.2 Editing

#### Books

1. Aspect-Oriented Requirements Engineering, book co-edited by Ruzanna Chitchyan, Ana Moreira, João Araujo, Awais Rashid. Springer Published in 2013.

## Journals

1. João Araujo, Nelly Condori-Fernández, Nelly Bencomo, Toacy C. Oliveira, Jose Luis de la Vara, Isabel Sofia Brito, Miguel Goulão, Santiago Matalonga: Special Section on the 18th Ibero-American Conference on Software Engineering (CIBSE'15). *Journal of Object Technology* 15(3) (2016)
2. *Transactions on Aspect Oriented Software Development (TAOSD)*, Special Issue on Early Aspects, Springer, co-editado por J. Araujo e E. Baniassad. A ser publicado em 2007.

## Proceedings of Conferences and Workshops

1. Ana Moreira, Gunter Mussbacher, João Araujo, Pablo Sánchez: 9<sup>th</sup> International Workshop on Model-Driven Requirements Engineering (MoDRE). RE Workshops, Jeju, South Korea, 2019
2. Beatriz Marín, Isabel Sofia Brito, Miguel Katrib Mora, Andreia Malucelli, Estefanía Serral, Giovanni Giachetti, João Araujo, Miguel Goulão, Claudia P. Ayala, Marcela Genero, Vitor Silva Souza: Proceedings of the XXII Iberoamerican Conference on Software Engineering, CibSE 2019, La Habana, Cuba, April 22-26, 2019. Curran Associates 2019, ISBN 978-1-5108-8795-4
3. Ana Moreira, Gunter Mussbacher, João Araujo, Pablo Sánchez: 8<sup>th</sup> International Workshop on Model-Driven Requirements Engineering (MoDRE). RE Workshops, Banff, Canada, 2018.
4. Barbara Paech, Jane Hayes, Ana Moreira, João Araujo: **25<sup>th</sup> IEEE International Requirements Engineering Conference, RE 2017**, Lisbon, Portugal, September 4-8, 2017. IEEE Computer Society, 2017.
5. Ana Moreira, Gunter Mussbacher, João Araujo, Pablo Sánchez: Sixth International Workshop on Model-Driven Requirements Engineering (MoDRE), RE Workshops, Beijing, China, 2016.
6. Ana Moreira, Pablo Sánchez, Gunter Mussbacher, João Araujo (Eds.): IEEE 5th International Model-Driven Requirements Engineering Workshop, MoDRE 2015, 25 August, 2015, Ottawa, Canada. IEEE 2015, ISBN 978-1-5090-0110-1
7. João Araujo, Nelly Condori-Fernández, Miguel Goulão, Santiago Matalonga, Nelly Bencomo, Toacy C. Oliveira, Jose Luis de la Vara, Isabel Sofia Brito, Leandro Antonelli, Ernesto Pimentel, Juan Jose Miranda, Marcos Kalinowski, Oscar Pastor, Luis Olsina, Renata S. S. Guizzardi, Sergio España, Ernesto Cuadros-Vargas: Proceedings of the XVIII IberoAmerican Conference on Software Engineering, CibSE 2015, Lima, Peru, Apr 22-24, 2015. Curran Associates, Inc. 2015, ISBN 978-1-5108-0387-9.
8. Ana Moreira, Pablo Sánchez, Gunter Mussbacher, João Araujo (Eds.): IEEE 4th International Model-Driven Requirements Engineering Workshop, MoDRE 2014, 25 August, 2014, Karlskrona, Sweden. IEEE 2014, ISBN 978-1-4799-6343-0
9. Ana Moreira, Gunter Mussbacher, João Araujo, Nelly Bencomo, Pablo Sánchez (Eds.): International Workshop on Model-Driven Requirements Engineering, MoDRE 2013, Rio de Janeiro, Brasil, July 15, 2013. IEEE 2013, ISBN 978-1-4799-0946-9
10. Antonio Brogi, João Araujo, Raquel Anaya (Eds.): XII Conferencia Iberoamericana de Software Engineering (CIBSE 2009), Medellín, Colombia, Abril 13-17, 2009. 2009

11. João Araujo, Amador Durán Toro, João Falcão e Cunha (Eds.): WER05 - Workshop em Engenharia de Requisitos, Porto, Portugal, June 13-14, 2005. 2005, ISBN 972-752-079-0.

### 6.4.3 Program Committees

#### ACM SRC

1. ACM Student Research Competition, MoDELS 2015, Ottawa, Canada, 2015.
2. ACM Student Research Competition, MoDELS 2014, Valencia, Spain, 2014.

#### Program boards of Conferences

1. **Program Board**, IEEE 4<sup>th</sup> Research Challenges on Information Systems (RCIS 2014), Morocco, 2014.
2. **Program Board**, 21<sup>st</sup> IEEE International Requirements Engineering Conference (RE'13), Rio de Janeiro, Brazil.
3. **Program Board**, IEEE Research Challenges on Information Systems (RCIS 2013), Paris, France, 2013.

#### PC Chair

1. (PC Co-Chair) XVIII Congresso Ibero-americano em Software Engineering, Lima, Peru, 23-25 April 2015
2. (PC Co-chair), *12º Conferência Iberoamericana de Ingeniería de Requisitos y Ambientes Software* (IDEAS 2009), Medellín, Colômbia, 13-17 April 2009. <http://ideas09.eafit.edu.co/>

#### Program Committees of Conferences

1. ICSE 2021 NIER: 43<sup>rd</sup> International Conference on Software Engineering 2021 - New Ideas and Emerging Results, 2021.
2. 39<sup>th</sup> International Conf. on Conceptual Modeling (ER 2020), Vienna, Austria, November 2020.
3. 7th International Conference on ICT for Sustainability, Bristol, UK, June 2020.
4. 14<sup>th</sup> Research Challenges on Information Systems (RCIS 2020), Limassol, Cyprus, May 2020.
5. 32<sup>nd</sup> International Conference on Advanced Information Systems Engineering (CAISE'2020), Grenoble, France, June 2020.
6. 27<sup>th</sup> IEEE International Requirements Engineering Conference (RE'20), RE@NEXT Track, Zurich, Switzerland, September 2020.
7. 23<sup>rd</sup> Iberoamerican Conference on Software Engineering (CIbSE 2020), Requirements Engineering Track, Curitiba, Brazil, April 2018.
8. 26<sup>th</sup> International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'20), Pisa, Italy, March 2020.
9. ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Brno, Czech Republic, March 2020.

10. 38<sup>th</sup> International Conf. on Conceptual Modeling (ER 2019), Salvador, Brazil, November 2019.
11. 26<sup>th</sup> IEEE International Requirements Engineering Conference (RE'19), RE@NEXT Track, Jeju, Korea, September 2019.
12. 12th International Conference on the Quality of Information and Communications Technology (QUATIC 2019), Ciudad Real, Spain, September 11-13, 2019
13. 28<sup>th</sup> International Conference on Information Systems Development (ISD2019), Toulon, France, August 2019.
14. 31<sup>st</sup> International Conference on Advanced Information Systems Engineering (CAISE'2019), Roma, Italy, June 2019.
15. 25<sup>th</sup> International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'19), Essen, Germany, March 2019.
16. 27<sup>th</sup> International Conference on Information Systems Development (ISD2018), Lund Sweden, August 2018.
17. 37<sup>th</sup> International Conf. on Conceptual Modeling (ER 2018), Xian, China, November 2018.
18. 30th International Conference on Advanced Information Systems Engineering (CAISE'2018), Tallinn, Estonia, 11-15 June 2018.
19. Conferencia Iberoamerica de Software Engineering (CIbSE 2018), Requirements Engineering Track, April 2018.
20. 24<sup>th</sup> International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'18), Utrecht, Holland, March 2018.
21. 36<sup>th</sup> International Conf. on Conceptual Modeling (ER 2017), Japan, November 2017.
22. 23<sup>rd</sup> International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'17), Essen, Germany, March 2017.
23. ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Marrakech, Morocco, April 2017.
24. Conferencia Iberoamerica de "Software Engineering"- Co-located with 39th ACM/IEEE International Conference on Software Engineering (CIbSE 2017@ICSE 2017), Requirements Engineering Track, May 2017.
25. 24<sup>th</sup> IEEE International Requirements Engineering Conference (RE'16), Beijing, China, September, 2016.
26. 35<sup>th</sup> International Conf. on Conceptual Modeling (ER 2016), Japan, October 2016.
27. ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2016), Saint Malo, France, October 2016.
28. 22<sup>nd</sup> International Working Conference on Requirements Engineering: Foundation for Software Quality, REFSQ'16, Gothenburg, Sweden, March 2016.
29. 6<sup>th</sup> International Conference on Model and Data Engineering (MEDI'2016), Aguadulce, Almería, Spain, 21-23 September 2016.
30. 34<sup>th</sup> International Conf. on Conceptual Modeling (ER 2015), Stockholm, Sweden, October 2015.
31. IEEE 4<sup>th</sup> Research Challenges on Information Systems (RCIS 2015), France, 2015.

32. ACM/IEEE 17<sup>th</sup> International Conference on Model Driven Engineering Languages and Systems (MoDELS 2014), Valencia, Spain, October 2014.
33. 33<sup>rd</sup> International Conf. on Conceptual Modeling (ER 2014), USA, October 2014.
34. 22<sup>nd</sup> IEEE International Requirements Engineering Conference (RE'14), Sweden.
35. XIX Jornadas de Ingeniería del Software y Bases de Datos (JISBD 2014), Cádiz, Spain, 16-19 September 2014.
36. ACM/IEEE 16<sup>th</sup> International Conference on Model Driven Engineering Languages and Systems (MoDELS 2013), October 2013. <http://www.modelsconference.org/>
37. 32<sup>nd</sup> International Conference on Conceptual Modeling (ER 2013), Hong Kong, China, 11-13 November 2013. <http://www.hkws.org/conference/er2013/index.php>
38. 25<sup>th</sup> Conference on Advanced Information Systems Engineering (CAiSE 2013), Valencia, Spain, 2013.
39. 12<sup>th</sup> ACM International Conference on Aspect-Oriented Software Development – Modularity (AOSD 2013), Japan, March 2013.
40. 20<sup>th</sup> IEEE International Requirements Engineering Conference (RE'12), Chicago, USA.
41. IEEE 4<sup>th</sup> Research Challenges on Information Systems (RCIS 2012), Valencia, Spain, 2012.
42. ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Trento, Italy, 25-29 March 2012. <http://sac2012.ecomp.poli.br/comitee>
43. ACM Symposium on Applied Computing (SAC), Programming for Separation of Concerns (PSC) Track, Trento, Italy, 25-29 March 2012. <http://www.dmi.unict.it/~tramonta/sac/>
44. IEEE 4<sup>th</sup> Research Challenges on Information Systems (RCIS 2011), Guadeloupe, France, 2011.
45. 25<sup>th</sup> Brazilian Symposium on Software Engineering SBES 2011, São Paulo, Brazil, 26-30 September 2011, [http://www.each.usp.br/cbsoft2011/portugues/sbes/comites\\_sbes\\_pt.html](http://www.each.usp.br/cbsoft2011/portugues/sbes/comites_sbes_pt.html)
46. IEEE 4<sup>th</sup> Research Challenges on Information Systems (RCIS 2010), Nice, France, 2010.
47. 18<sup>th</sup> IEEE International Requirements Engineering Conference (RE'10), Sydney, Australia.
48. XIV Jornadas de Ingeniería del Software y Bases de Datos, San Sebastián, 8-11 September 2009. <http://www.mondragon.edu/jisbd2009/comitejisbd.shtml>
49. IEEE Third Research Challenges on Information Systems (RCIS 2009), Fez, Marrocos, 22-24 April 2009. <http://www.farcampus.com/rcis/committee.php>
50. 8<sup>th</sup> ACM International Conference on Aspect-Oriented Software Development (AOSD 2009), Charlottesville, Virginia, USA, 2-6 March 2009. <http://www.aosd.net/2009/aosd2009.pdf>
51. ACM/IEEE 11<sup>th</sup> International Conference on Model Driven Engineering Languages and Systems (MoDELS 2008), Toulouse, France, 28 Spetember - 3 October 2008. <http://www.modelsconference.org/>



52. *21º Simpósio Brasileiro de Engenharia de Software (SBES 2007)*, João Pessoa, Brazil, October 2007.
53. *IEEE 6<sup>th</sup> International Conference on the Quality of Information and Communications Technology, QUATIC 2007*, Lisboa, Portugal, 12-14 Spetember 2007.
54. *20º Simpósio Brasileiro de Engenharia de Software (SBES 2006)*, Florianópolis, Brazil, 16-20 October 2006.
55. *XI Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2006)*, Sitges, Spain, 3-6 October 2006.
56. *5<sup>as</sup> Jornadas Iberoamericanas de Ingeniería de Software e Ingeniería de Conocimiento (JIISIC 2006)*, Puebla, México, 1-3 February 2006.
57. (Tutorials selection committee) *8<sup>th</sup> International Conference on Model-Driven Engineering Languages and Systems (MoDELS'05)*, Montego Bay, Jamaica, 2-7 October 2005.
58. *19º Simpósio Brasileiro de Engenharia de Software (SBES 2005)*, Uberlândia, Brazil, 3-7 October 2005.
59. *X Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2005)*, Granada, Spain, 14-16 September 2005.
60. *4<sup>as</sup> Jornadas Iberoamericanas de Ingeniería de Software e Ingeniería de Conocimiento (JIISIC 2004)*, Madrid, Spain, 3-5 November 2004.
61. *18º Simpósio Brasileiro de Engenharia de Software (SBES 2004)*, Brasília, Brazil, 18-22 October 2004.
62. *Encontro para a Qualidade nas Tecnologias de Informação e Comunicações (QUATIC 2004)*, Porto, Portugal, 18-20 October 2004.
63. *Posters e Demos, na 7<sup>th</sup> International Conference on the Unified Modeling Language (UML 2004)*, Lisboa, Portugal, 10-15 de Outubro 2004.
64. *3<sup>as</sup> Jornadas Iberoamericanas de Ingeniería de Software e Ingeniería de Conocimiento (JIISIC 2003)*, Valdivia, Chile, 26-28 November 2003.
65. *Tutorials, 17º Simpósio Brasileiro de Engenharia de Software (SBES 2003)*, Manaus, Brazil, 6-10 October 2003.
66. *17º Simpósio Brasileiro de Engenharia de Software (SBES 2003)*, Manaus, Brazil, 6-10 October 2003.
67. *2<sup>as</sup> Jornadas Iberoamericanas de Ingeniería de Software e Ingeniería de Conocimiento (JIISIC 2002)*, Salvador, Brazil, de 30 October - 1 November 2002.
68. *VI Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2001)*, Almagro (Ciudad Real), Spain, 21-23 November 2001.
69. *1<sup>as</sup> Jornadas Iberoamericanas de Ingeniería de Software e Ingeniería de Conocimiento (JIISIC 2001)*, Buenos Aires, Argentina, 13-15 June 2001.
70. *4º Encontro para a Qualidade nas Tecnologias de Informação e Comunicações (QUATIC 2001)*, Lisboa, Portugal, 12-14 March 2001.

### **Program Committees of Workshops**

1. *DISE19 (Workshop Data-driven Software Engineering)*, 6<sup>th</sup> International Conference on Information Management and Big Data, Lima, Peru, August 21-23, 2019

2. First International Modularity in Modelling Workshop (MOMO), co-located with the 15<sup>th</sup> International Conference on Modularity (MODULARITY 2016), Malaga, Spain, March 2016.
3. 2<sup>nd</sup> International Workshop on Requirements Engineering Practices on Software Product Line Engineering (REPOS 2013), RE 2013, Rio de Janeiro, Brazil, July 2013.
4. First International Workshop on Requirements Engineering Practices on Software Product Line Engineering (REPOS 2012), SPLC 2012, Salvador, Brazil, 4 September 2012.
5. 4<sup>th</sup> International Workshop on Managing Requirements Knowledge (MaRK11), Workshop do IEEE RE'11, Trento, Italy, September de 2011.
6. Agile Requirements Engineering Workshop (AREW11), Workshop ECOOP'11, Lancaster, UK, July 2011.
7. 2<sup>nd</sup> International Workshop on The Web and Requirements Engineering (WeRE'11). In conjunction with 11th International Conference on Web Engineering (ICWE 2011), Paphos, Cyprus, 20-21 July 2011.
8. XIV Workshop em Engenharia de Requisitos (WER 2011), Rio de Janeiro, Brazil, April 2011.
9. XII Workshop em Engenharia de Requisitos (WER 2009), Valparaíso, Chile, 16-17 July 2009. <http://www.labada.inf.utfsm.cl/wer/>
10. *Workshop Latino-Americano de Desenvolvimento de Software Orientado a Aspectos* (LA-WASP 2008), *22º Simpósio Brasileiro de Engenharia de Software* (SBES 2008), Campinas, Brazil, 13-14 October 2008.
11. XI Workshop em Engenharia de Requisitos (WER 2008), Barcelona, Spain, 12-13 Setembro 2008. <http://sites.upc.edu/~www-gessi/wer08/>
12. Workshop on Ontologies and Metamodeling for Software and Data Engineering" (WOMSDE), no *22º Simpósio Brasileiro de Engenharia de Software* (SBES 2008), Campinas, Brazil, October 2008.
13. *11º Workshop Iberoamericano de Ingeniería de Requisitos y Ambientes Software* (IDEAS 2008), Recife, Brazil, February 2008.
14. Workshop on Ontologies and Metamodeling for Software and Data Engineering" (WOMSDE), *21º Simpósio Brasileiro de Engenharia de Software* (SBES 2007), João Pessoa, Brazil, October 2007.
15. *Workshop Latino-Americano de Desenvolvimento de Software Orientado a Aspectos* (LA-WASP 2007), *21º Simpósio Brasileiro de Engenharia de Software* (SBES 2007), João Pessoa, Brazil, October 2007.
16. *X Workshop em Engenharia de Requisitos* (WER 2007), Toronto, Canadá, June 2007. <http://www.cin.ufpe.br/~wer07/index.html>
17. *10º Workshop Iberoamericano de Ingeniería de Requisitos y Ambientes Software* (IDEAS 2007), Isla Margarita, Venezuela, May 2007.
18. *IX Workshop em Engenharia de Requisitos* (WER 2006), Rio de Janeiro, Brazil, 13-14 July 2006. <http://www.ime.uerj.br/~vera/WER06/>
19. (PC Co-chair), *VIII Workshop em Engenharia de Requisitos* (WER 2005), Porto, Portugal, June 2005. <http://gnomo.fe.up.pt/~wer2005/>

20. *Faculty Member, Doctoral Symposium, 18<sup>th</sup> Conference on Advanced Information Systems Engineering (CAiSE 2006)*, Luxemburgo, 5-6 June 2006.
21. *8<sup>o</sup> Workshop Iberoamericano de Ingeniería de Requisitos y Ambientes Software (IDEAS 2006)*, La Plata, Argentina, 24-28 April 2006.
22. *2<sup>o</sup> Workshop Brasileiro de Desenvolvimento de Software Orientado a Aspectos (WASP 2005), 19<sup>o</sup> Simpósio Brasileiro de Engenharia de Software (SBES 2005)*, Uberlândia, Brazil, 3 October 2005.
23. *Faculty Member, Doctoral Symposium, 17<sup>th</sup> Conference on Advanced Information Systems Engineering (CAiSE 2005)*, Porto, Portugal, 13-14 June 2005.
24. *VII Workshop em Engenharia de Requisitos (WER 2004)*, Tandil, Argentina, 9-10 December 2004. <http://www.exa.unicen.edu.ar/wer2004/>
25. *2<sup>nd</sup> Iberian Workshop on Aspect Oriented Software Development (DSOA 2004), 9<sup>as</sup> Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2004)*, Málaga, Spain, 10 November 2004.
26. *1<sup>o</sup> Workshop Brasileiro de Desenvolvimento de Software Orientado a Aspectos (WASP 2004), 18<sup>o</sup> Simpósio Brasileiro de Engenharia de Software (SBES 2004)*, Brasília, Brazil, 18 October 2004.
27. *Doctoral Symposium, na 7<sup>th</sup> International Conference on the Unified Modeling Language (UML 2004)*, Lisbon, Portugal, 10 October 2004.
28. *VI Workshop em Engenharia de Requisitos (WER 2003)*, Piracicaba, São Paulo, Brazil, 27-28 November 2003.
29. *Workshop on Critical Systems Development with UML, 6<sup>th</sup> International Conference on the Unified Modeling Language (UML 2003)*, San Francisco, USA, 20-24 October 2003.

#### **6.4.4 Invited peer review**

##### **Journals**

1. *Journal of Software Engineering Research and Development*, Springer. Editor: Beatriz Marin, Isabel Brito. October 2019.
2. *Journal of Systems and Software*, Elsevier, Editor-in-chief: Eduardo Almeida, 2019.
3. *Requirements Engineering Journal (REJ)*, Springer. Editors: Pericles Loucopoulos, 2019.
4. *Journal of Software Engineering Research and Development*, Springer. Editor: Gleison Santos. June 2017.
5. *Transactions on Software Engineering and Methodology*, ACM, David S. Rosenblum, Editor-in-Chief, May 2017.
6. *Requirements Engineering Journal (REJ)*, Springer. Editors: Didar Zowghi and Vincenzo Gervasi, 2015.
7. *Science of Computer Programming (SCP)*, Elsevier. Editor: Ana Cavalcanti, 2015.
8. *Journal of Systems and Software*, Elsevier, Editor-in-chief: Hans van Vliet, 2015.
9. *Transactions on Software Engineering*, IEEE, Editor: John Grundy, 2014.
10. *Software Quality Journal*, Springer, Editors: Marjan Mernik, Vasco Amaral, 2014.

11. Requirements Engineering Journal (REJ), Springer. Editor: Jane Cleland-Huang, 2013.
12. Software and System Modeling (SoSyM). Springer. Editor: J. Bruel, 2013.
13. Science of Computer Programming, Elsevier, Editor: Bran Selic, 2013.
14. IET Software. Editor-in-Chief: Irene Garrigos, 2011.
15. Journal of Universal Computer Science (JUCS). Editor: Hermann Maurer, 2011.
16. Requirements Engineering Journal (REJ). Springer, Editor: Jane Cleland-Huang, 2011.
17. Requirements Engineering Journal (REJ). Springer, Editors: Rafael Capilla, Dr. Muhammad Ali Babar, Oscar Pastor, 2011.
18. Journal of Universal Computer Science (JUCS). Managing Editors: Hermann Maurer, 2011.
19. Transactions on Aspect Oriented Software Development (TAOSD), Springer, Editor: Jorg Kienzle, 2010.
20. Science of Computer Programming, Elsevier, Editor: Dan Berry, 2010,
21. IEEE Transactions on Software Engineering, IEEE, Editor: Tetsuo Tamai, 2009.
22. ACM Computing Surveys, Editor: Valerie Issarny, 2009.
23. Software and System Modeling (SoSyM), Springer, Editor: Gregor Engels, 2008.
24. ACM Computing Surveys, ACM, Editor: Valerie Issarny, 2008.
25. Software and System Modeling (SoSyM) Springer, Editor: Martin Gogolla, 2008.
26. The Computer Journal, Oxford Press, Editor: Fionn Murtagh, 2007.
27. IEEE Software, Special issue on “Software Quality Requirements: How to balance competing priorities”, IEEE Computer Society, Editors: Jane Cleland-Huang, J. David Blaine, 2007
28. International Journal on Agent-Oriented Software Engineering (IJAOSE), special issue on Multi-Agent Systems and Software Architecture, Volume 1(4). Editor Danny Weyns, 2007.
29. Institution of Engineering and Technology (IET). Editor: Pete Sawyer. 2007.
30. Transactions on Aspect Oriented Software Development (TAOSD), Springer, Editors: A. Rashid, M. Aksit. Volume 3880, 2006.
31. Journal of Brazilian Computer Society (JBCS). Editor: Alessandro Garcia, Volume 11, N° 3, 2006.
32. IEEE Software. Editor: Arthur Pyster, Richard Thayer, 2 Volume 22, N° 5, 2005.
33. Software and System Modeling (SoSyM) publicada pela Springer (em <http://www.sosym.org>). Editors: Thomas Baar e Ana Moreira (2005), Ana Moreira (2003), Brian Henderson-Sellers (2002).
34. CLEI Electronic Journal June 2002 (Editors: Juan Carlos Augusto e Sílvia Teresita Acuña. Special issue with the best papers of 1<sup>st</sup> Ibero American Conference on Software and Knowledge Engineering, evento paralelo da 13<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE 2001), Buenos Aires, Argentina, 13-15 June 2001.
35. *IEEE Software*, edição especial sobre *Usability Engineering*. Editors: Natalia Juristo, Helmut Windl, Larry Constantine. Volume 18, N° 1, January/February de 2001.

## **Workshop, Tutorial and Demos proposals**

1. Workshops 21st *International Requirements Engineering Conference* (RE 2013), Rio de Janeiro, Brazil, 2013.
2. Workshops 20th *International Requirements Engineering Conference* (RE 2012), Chicago, USA, 2012.
3. Tutorials 14th *International Conference on Model-Driven Engineering Languages and Systems* (MoDELS'11), Auckland, NZ, 2011.
4. Tutorials *Brazilian Conference on Software: Theory and Practice* (CBSOFT), Salvador, Brazil, 2010.
5. Workshops 17th *International Requirements Engineering Conference* (RE 2009), Atlanta, USA, 2009.
6. Demos *International Conference Software Engineering* (ICSE 2008), Leipzig, Alemanha, May 2008.
7. Demos *13ª Jornadas de Ingeniería de Software y Bases de Datos* (JISBD 2008), Gijón, Spain, September 2008.
8. Tutorials *8th International Conference on Model-Driven Engineering Languages and Systems* (MoDELS'05), Montego Bay, Jamaica, 2-7 October 2005.
9. Tutorials *7th International Conference on the Unified Modeling Language* (UML 2004), Lisbon, Portugal, 10-15 October 2004.
10. Tutorials *6th International Conference on the Unified Modeling Language* (UML 2003), San Francisco, USA, 20-24 October 2003.
11. Tutorials *17º Simpósio Brasileiro de Engenharia de Software* (SBES 2003), Manaus, Brazil, 6-10 October 2003.
12. Workshops *16th European Conference on Object-Oriented Programming* (ECOOP 2002), Málaga, Spain, 10-14 June 2002.
13. Workshops *14th European Conference on Object-Oriented Programming* (ECOOP 2000), Cannes, France, 12-16 June 2000.

## **Invited to evaluate papers of Conferences and Workshops**

1. *33rd International Conference on Software Engineering* (ICSE 2011), Hawaii, USA, 21-28 May 2011.
2. *10th International Conference on Aspect-Oriented Software Development* (AOSD 2010), Rennes, France, March 2010.
3. *23rd European Conference on Object-Oriented Programming* (ECOOP'09), Genova, Italy, 6-10 July 2009.
4. *7th International Conference on Aspect-Oriented Software Development* (AOSD 2008), Bruxelas, Bélgica, April 2008.
5. *10th International Conference on Model-Driven Engineering Languages and Systems* (MoDELS'07), Nashville, USA, October 2007.
6. *19th Conference on Advanced Information Systems Engineering* (CAiSE 2007), Trondheim, Noruega, 11-15 June 2007.

7. *18<sup>th</sup> Conference on Advanced Information Systems Engineering (CAiSE 2006)*, Luxemburgo, 5-9 June 2006.
8. *8<sup>th</sup> International Conference on Model-Driven Engineering Languages and Systems (MoDELS'05)*, Montego Bay, Jamaica, 2-7 October 2005.
9. *17<sup>th</sup> Conference on Advanced Information Systems Engineering (CAiSE 2005)*, Porto, Portugal, 13-17 June 2005.
10. *2<sup>nd</sup> IEEE International Conference on Software Engineering and Formal Methods*, Beijing, China, 26-27 September 2004.
11. *VIII Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2003)*, Alicante, Spain, 12-14 November 2003.
12. *6<sup>th</sup> International Conference on the Unified Modeling Language (UML 2003)*, San Francisco, USA, 20-24 October 2003.
13. *3<sup>rd</sup> International Conference on Application of Concurrency to System Design (ACSD 2003)*, Guimarães, Portugal, 18-20 June 2003.
14. *5<sup>th</sup> International Conference on the Unified Modeling Language (UML 2002)*, Dresden, Alemanha, October 2002.
15. *16<sup>th</sup> European Conference on Object-Oriented Programming (ECOOP 2002)*, Málaga, Spain, 10-14 June 2002.
16. *24<sup>th</sup> International Conference on Software Engineering (ICSE 2002)*, Miami, USA, 19-25 May 2002.
17. *4<sup>th</sup> International Conference on the Unified Modeling Language (UML 2001)*, Toronto, Canadá, 1-5 October 2001.
18. *Workshop on Practical UML-Based Rigorous Development Methods - Countering or Integrating the extremists*, na *4<sup>th</sup> International Conference on the Unified Modeling Language (UML 2001)*, Toronto, Canada, 1-5 October 2001.
19. *15<sup>th</sup> European Conference on Object-Oriented Programming (ECOOP 2001)*, Budapest, Hungary, 18-22 June 2001.
20. *V Jornadas de Ingeniería de Software y Jornadas de Bases de Datos*, Valladolid, Spain, 8-10 November 2000.
21. *3<sup>rd</sup> International Conference on the Unified Modeling Language (UML 2000)*, York, United Kingdom, 2-6 October 2000.
22. *14<sup>th</sup> European Conference on Object-Oriented Programming (ECOOP 2000)*, Cannes, France, 12-16 June 2000.
23. *Americas Conference on Information, Systems (AMCIS 2000)*, Long Beach, California, USA, 10-13 August 2000.

#### **6.4.5 Participation in Juries**

##### **PhD**

1. Jury Member of Doctoral Dissertation in Computer Science of Eric Rocha de Souza, entitled "A Value-Driven Framework mfor Software Architecture", Departamento de Informática, FCT/Universidade Nova de Lisboa, Portugal, December 2019.

2. Jury Member of Doctoral Dissertation in Computer Science of Jéssyka Flavyanne Ferreira Vilela, "UNI-REPM SCS: A Safety Maturity Model for Requirements Engineering Process", Supervisor: Prof. Jaelson Castro, Centro de Informática, UFPE, Brazil, 13<sup>th</sup> December 2018.
3. Jury Member of Doctoral Dissertation in Computer Science of Mahwish Kundi, "Requirements Elicitation Using FrameNet Frames", University of Leicester, United Kingdom, July 2018
4. Jury Member of Doctoral Dissertation in Computer Science of Gabriela Souza "Contextual Goal Models for Dynamic Software Product Lines", Supervisor: Prof. Carla Silva, Centro de Informática, UFPE, Brazil, September 2017.
5. Jury Member of Doctoral Dissertation in Computer Science of Monique Conceição Soares, "An Ontology for Self-Adaptive Systems", Supervisors: Prof. Dr. Jaelson Castro and Carla Silva, Centro de Informática, UFPE, Brazil, September 2017.
6. Jury Member of Doctoral Dissertation in Computer Science of André Monteiro de Oliveira Restivo, entitled "Incremental Modular Testing in Aspect Oriented Programming", Faculdade de Engenharia, Universidade do Porto, Portugal, June 2016.
7. Jury Member of Doctoral Dissertation in Computer Science of Jorge Barreiros, entitled "User-centric Product Derivation in Software Product Lines", Departamento de Informática, FCT/Universidade Nova de Lisboa, Portugal, October 2015.
8. Jury Member of Doctoral Dissertation in Computer Science of Manzoor Ahmad, entitled "Modeling and Verification of Functional and Non Functional Requirements of Ambient, Self-Adaptive Systems", Universite de Toulouse Le Mirail, Toulouse, France, 7 October 2013.
9. Jury Member of Doctoral Dissertation in Computer Science of Edward Mauricio Alférez Salinas, entitled "Derivation and Consistency Checking of Models in Early Software Product Line Engineering", Departamento de Informática, FCT/Universidade Nova de Lisboa, Portugal, 14 December 2012.
10. Jury Member of Doctoral Dissertation in Computer Science of Adrián Fernández Martínez, entitled "A Usability Inspection Method for Model-driven Web Development Processes", Universitat Politècnica de València, Spain, 17 November 2012.
11. Jury Member of Doctoral Dissertation in Computer Science of Safoora Shakil-Khan, entitled, "Composing Requirements Dependencies across Architectural Views for Improving Change Impact Analysis", Lancaster University, UK, 29 May 2012.
12. Jury Member of Doctoral Dissertation in Computer Science of Abel Gómez Llana, entitled, "Model-Driven Software Product Line Engineering: System Variability View and Process Implications", Universitat Politècnica de València, Spain, 2 March 2012.
13. Jury Member of Doctoral Dissertation in Computer Science of José Luis de la Vara, entitled "Business Requirements Specification process-based and object-oriented conceptual modeling of information systems", Universitat Politècnica de Valencia, Spain, July 21, 2011.
14. Jury Member of Doctoral Dissertation in Computer Science of Joaquín Lasheras Velasco, a thesis entitled "Framework for the reuse of security requirements", Universidad de Murcia, Spain, July 13, 2011.

15. Jury Member of Doctoral Dissertation in Computer Martha Tabares, entitled "Patterns of traceability to Control Evolution of Multidimensional concerns", Universidad Nacional de Colombia, Medellin, Colombia, 8 October 2009.
16. Jury Member of of Doctoral Dissertation entitled "A Systematic Language Engineering Approach for Prototyping Domain Specific Modelling Languages", by Luís Venceslau Pedro, Faculté des Sciences de l'Université de Genève, Switzerland, 23 January 2009.
17. Jury Member of the thesis entitled "GENA – A Generative Variability Approach for Aspect-Oriented Programming", by Neil Anthony Loughran, Computing Department, Lancaster University, United Kingdom, 12 December 2008.
18. Jury Member of the thesis entitled, "Aspect-Oriented Requirements Analysis", by Isabel Sofia Brito Departamento de Informática, Universidade Nova de Lisboa, 18 July 2008.
19. Jury Member of the thesis entitled "ATRIUM – Architecture Traced from Requirements by applyIng a Unified Methodology", by Elena María Navarro Martínez, Departamento de Sistemas Informáticos, Universidad Castilla – La Mancha, 24 May 2007.
20. Jury Member of the thesis entitled "Editar Novamente – onze textos do teatro português do século XVI", by José António Camilo Guerreiro Camões, Faculdade de Letras, Universidade de Lisboa, 13 December 2006.
21. Jury Member of the thesis entitled "Integration of System Requirements and Multi-Agent Software Architectures", by Lúcia Rosangela David Bastos, Centro de Informática, Universidade Federal de Pernambuco, Brazil, 22 August 2005.

#### **PhD – External Reviewer**

1. External reviewer, PhD Thesis in Computer Science of Alfonso de la Vega Ruiz entitled "Domain-Specific Languages for Data Mining Democratisation", Universidad de Cantabria, Spain, April 2019.
2. External reviewer, PhD Thesis in Computer of Jose Maria Conejero entitled "The crosscutting Pattern: A Conceptual Framework for the Analysis of Modularity across Software Development Phases", Universidad de Extremadura, Spain, 2010.
3. External reviewer PhD Thesis in Computer Pablo Sanchez, entitled "Almadraba - Model-Driven Development of Aspect-Oriented Executable UML Models", Universidad de Málaga, Spain, August 2009.
4. External reviewer of the PhD thesis of Jani Metsa entitled "Aspect-oriented approach to testing - Experiences from a smartphone product family", Tampere University of Technology, Finland, 2009.
5. External reviewer of the PhD thesis of Fernando Molina titled "A Proposal for the alignment of Requirements and models in Model Driven Engineering", University of Murcia, Spain, October 2009.

#### **PhD – Qualification Jury**

1. Gabriela Guedes de Souza, "Modelling, configuring and evolving requirements of dynamic SPL", Supervisors: Prof. Dr. Carla Silva, Centro de Informática, UFPE, Brazil, April 2016.



2. Monique Conceição Soares, “An Ontology for Self-Adaptive Systems”, Supervisors: Prof. Dr. Jaeslon Castro and Carla Silva, Centro de Informática, UFPE, Brazil, April 2016.
3. Clarice Marinho Martins de Castro, “On the Characterization of Cloud Computing as a Service and with Respect to the Supply of Digital Content”, Supervisor: Prof. Dr. Ruy José Guerra Barretto de Queiroz, Centro de Informática, UFPE, Brazil, July 2013.

## MSc

1. President of the jury of the master thesis in computer science, Gil Godinho Vieira Rodrigues Alves, "Interactive and Live Program Construction", supervised by Prof. Teresa Romão and João Seco, FCT/NOVA, December 2019.
2. Jury of the master thesis in computer science, Aline Ferreira Barbosa, “Artefatos instrucionais para a análise de conflitos na Engenharia de Requisitos com base na CNV”, supervised by Prof. Maria Lencastre, Programa de Pós-Graduação Acadêmica em Engenharia de Computação, Universidade de Pernambuco, Brazil, August 2019.
3. Jury member of the master thesis in computer science, Ernani César Dos Santos, "APLICAÇÃO DE TÉCNICAS DE TESTES DE ACEITAÇÃO AUTOMATIZADOS PARA ESPECIFICAÇÃO DE SOFTWARE EM EDITAIS DE LICITAÇÃO". Supervisor: Prof. Patricia Vilain, Universidade Federal de Santa Catarina, 25th February 2019.
4. President of the jury of the master thesis in computer science, António José Gonçalves Costa e Silva (36564), "Localização e tradução automática em plataformas mobile" supervised by Prof. J. Seco, FCT/Universidade Nova of Lisbon, December 2018.
5. President of the jury of the master thesis in computer science, Fábio Soldado (36564), "Heterogeneous Computing with an Algorithmic Skeleton Framework " supervised by Prof. H. Paulino, FCT/Universidade Nova of Lisbon, July 2015.
6. President of the jury of the master thesis in computer science, Luis Miguel da Silva Reis (42295), "Predicting the occupancy levels of parking areas" directed by Prof. J. Pires, FCT/Universidade Nova of Lisbon, June 2015.
7. President of the jury of the master thesis in computer science of André Nunes Garvin (37740), "Healing Replicas in the Replication Component Software System" directed by Prof. Nuno Preguiça, FCT/Universidade Nova of Lisbon, November 2013.
8. President of the jury of the master thesis in computer science, Luis Pedro Albano Ramos (30226), "Academic performance standards in higher education", supervised by Prof. Joao Carlos Gomes Moura Pires, FCT/Universidade Nova de Lisboa, 9 of July 2013.
9. External examiner of the thesis entitled *An Aspect-Oriented Infrastructure for Design by Contract in Java*, Sérgio Agostinho, FCT/Univesidade Nova de Lisboa, 25 June 2008.
10. External examiner of the thesis entitled *Zás – An Aspect-Oriented Access Control Framework*, Paulo Zenida, Instituto Superior de Ciências do Trabalho e da Empresa (ISCTE), 19 February 2008.
11. External examiner of the thesis entitled *Tesouro para uma Base de Dados de Teatro*, Faculdade de Letras, Cláudia Oliveira, Universidade de Lisboa, 15 January 2003.

12. External examiner of the thesis entitled *Plataforma de Apoio à Integração de Normas: ISO 10303 (STEP) e ISO 13584 (Plib)*, Rui Manuel Leitão Tavares, iFCT/Univesidade Nova de Lisboa, 26 June 2001.

#### **6.4.6 Networks**

1. NAPIRE (Naming the Pain in Requirements Engineering) is a globally distributed family of surveys on Requirements Engineering (RE) practices and problems, initiated by Daniel Méndez and Stefan Wagner in 2012. I joined the network in 2016.  
NaPiRE is an academic (non-profit and open) endeavour which aims at establishing the first holistic theory on industrial practices and problems in RE. I was invited to participate in this network as a team member and one of the country (Portugal) representatives. The network involves members from Argentina, Australia, Austria, Brazil, Canada, China, Cuba, Ecuador, Estonia, Finland, Germany, Italy, India, Japan, Luxembourg, Netherlands, New Zeland, Norway, Portugal, Spain, Sweden, Switzerland, UK, Uruguay, USA. (<http://www.mendezfe.org/projects/napire/>)
2. The AOSD group of DI/FCT/UNL was a member of the European Network of Excellence on Aspect-Oriented Software Development, invited by Prof. Awais Rashid, Lancaster University, United Kingdom, from August 2008 to June 2011.

#### **6.4.7 Consultant and Evaluator of Projects**

1. Member of the Computer Science Review Panel, Academy of Finland, Finnish Government, Finland, 2020.
2. Evaluation of bilateral projects under International Scientific Cooperation Agreements, for the biennium 2017-2018, Portugal-Hungary, FCT, 2017.
3. Evaluation: FONCYT, Fondo para la Investigacion Científica y Tecnologica da Argentina, Ministério de Ciencia, Tecnologia y Innovacion Productiva, Argentina, 2016
4. Evaluation: FONCYT, Fondo para la Investigacion Científica y Tecnologica da Argentina, Ministério de Ciencia, Tecnologia y Innovacion Productiva, Argentina, 2010
5. AspectLab-Bis, SBO-programme office, Institute for the Promotion of Innovation by Science and Technology in Flanders (IWT-Flanders), Belgium.
6. Evaluation of a France-Chile cooperation project, the ECOS-CONICYT Committee. Project name: "ASPIRE: Assess, Visualize and Reengineer Software Engineering processes", June 2010.
7. Project assessment (private) under the invitation of SI & DT Quadro Estratégico de Referência Nacional (QREN), Portugal, 2010.
8. Evaluation as external auditor of projects financed by the National Fund for Scientific and Technological Development (FONDECYT), Chilean Government Commission for Scientific and Technological Development (CONICYT), Chile, 2008.
9. Evaluation: EVOLVE (Evolutionary Verification, Validation and Certification), invited by Quadro Estratégico de Referência Nacional (QREN), Portugal, April 2008.
10. Project assessment (private) under the invitation of SI & DT Quadro Estratégico de Referência Nacional (QREN), Portugal, 2007.

11. Consultant of "MMEDUSA- Marco Metodologico para el desarrollo de aplicaciones utilizando la aproximacion de aspectos", Medellin, Colombia, December 2007.

## 6.5 Prototypes Developed

Prototypes developed as the results of projects and MSc dissertations where I was supervisor or co-supervisor. Tools, such as **istarLab tool**, **modularKAOS**, **KAOS editor**, **iStar editor**, were used in the courses of *Software Engineering* and *Requirements engineering and Software Design* and *Requirements and Software Architecture*. Most of them were all presented in conferences with peer review like ACM SAC 15 (VoiceToModel), SAC'13 (Theme-SPL), SAC'11 (PLAORA) COMPSAC'11 (UGL), SLE'09 (VML4RE), RE'10 (MDGORE, as poster), RCIS'15 (BehaviorMap), ICEIS'09 (iStar editor), CAiSE'13 (modulaKAOS), CaiSE'14 (istarLab), AOSD'03 (Arcade), and book chapter (HAM, Aspect-Oriented RE, Springer), RCIS'09 (KAOS editor).

### **WebGIS IRML:WebGIS Interface Requirements Modeling Language**

**Description :** *The WebGIS IRML eclipse plugin allows specifying and modeling interface requirements for Geographic Information Systems*

**Date:** 2019

**Authors:** Roberto Veloso, João Araujo, Armanda Rodrigues

### **VEL (Videogame Emotion Language) tool**

**Description :** *The VEL eclipse plugin allows specifying and modeling emotional requirements Video Game Industry*

**Date:** 2017

**Authors:** Gonçalo Miguéis, João Araujo, Ana Moreira

### **VoiceToModel**

**Description:** an approach to generate requirements models from speech recognition mechanisms for accessibility purposes.

**Date:** 2015

**Authors:** Fábio Soares, João Araujo

### **BehaviorMap**

**Description:** A user-centered behavior language.

**Date:** 2015

**Authors:** António Silva, João Araujo

### **istarLab tool**

**Description :** *The istarLab eclipse plugin allows specifying requirements using the i\* approach. This prototype also includes integrated completeness and complexity metrics collection facilities. Current version by Catarina Gralha.*

**Link:** <https://github.com/microlina/iStarLab>

**Date :** 2015

**Authors :** Catarina Gralha, João Araujo, Miguel Goulão.

### **modularKAOS**

**Description :** *The modularKAOS eclipse plugin allows specifying requirements using the KAOS approach. This prototype also includes integrated completeness and complexity metrics collection facilities.*

**Date :** May 2012

**Authors :** Patricia Espada, Rui Monteiro, Ana Dias, João Araujo, Miguel Goulão, Vasco Amaral.

**Theme-SPL (Theme approach for Software Product Lines)**

**Description:** Tool support to derive feature models from Theme models.

**Date:** 2010

**Authors:** Agnes Simon, João Araujo

**UGL (Unifying Goal Language)**

**Description:** *This prototype implements the unifying goal oriented language.*

**Date:** 2010

**Authors:** Peter Patrick, Vasco Amaral, João Araujo

**MDGORE (Model-Driven Goal Oriented Requirements Engineering)**

**Description :** The prototype to transform KAOS goal models to I \* models.

**Date :** 2010

**Authors :** Rui Monteiro, João Araujo, Vasco Amaral.

**PLAORA (Product Line Aspect-Oriented Requirements Analysis)**

**Description :** The prototype that extends the AORA approach to SPL.

**Date :** 2010

**Authors :** Patricia Varela, João Araujo, Ana Moreira, Isabel Brito.

**VML4RE-Variability Modelling Language for Requirements Engineering**

**Description :** The prototype to support product derivation of requirements models in SPL by using the domain-specific language. AMPLE project.

**Date :** 2009

**Authors :** Mauricio Alférez, Ana Moreira, João Araujo, Joao Santos.

**HAM Hybrid Assessment Method**

**Description :** *HAM Tool implements the Multi-Criteria Decision Making method Hybrid Assessment Method. Built in the context of the AMPLE project.*

**Date :** 2009

**Authors :** Mauricio Alférez, Ana Moreira, João Araujo, Joao Santos.

**KAOS Editor**

**Description :** *The visual editor for the KAOS goal-oriented language.*

**Date :** 2009

**Authors :** Ana Dias, Vasco Amaral, João Araujo.

**IStar Editor**

**Description :** *The visual editor for the i \* goal-oriented language.*

**Date :** 2009

**Authors :** Carlos Nunes, João Araujo, Vasco Amaral.

**Arcade (Aspectual Requirements Composition and Decision support tool)**

**Description:** Arcade makes it possible to define the viewpoint requirements, aspectual requirements and composition rules using pre-defined templates.

**Date:** 2003

**Authors:** Awais Rashid, Ana Moreira, João Araujo.

**Combo for AORA**

**Description:** The Language and tool support for Multi-Dimensional Composition by Objectives in Aspect-Oriented Requirements Analysis.

**Date:** 2008

**Authors:** André Marques, Ana Moreira, Isabel Brito, Joao Araujo.

## 7 Other Relevant Activities

### 7.1 Member of Committees and Organization of Conferences, Panels and Workshops

#### 7.1.1 Steering committees

1. Member of the *Steering Committee International Requirements Engineering Conference (RE)* since 2015.
2. Member of the *Steering Committee* of Ibero-American Conference of Software Engineering (CIbSE) since 2009.
3. President of the *Steering Committee* of workshop series Early Aspects: 2009-2011.

#### 7.1.2 Conferences

1. (*Track co-chair*) ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Limassol, Cyprus, April 2019.
2. (*Track co-chair*) Conferencia Iberoamerica de "Software Engineering" (CIbSE 2019), Requirements Engineering Track, Havana, Cuba, April 2019.
3. (*Local chair*) VL/HCC Conference, Lisbon, Portugal, 1-4 Outubro 2018.
4. (*Track co-chair*) IEEE QUATIC, Requirements Engineering Track, Coimbra, Portugal, September 2018.
5. (*Track co-chair*) ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Pau, France, April 2018.
6. (**General Co-Chair**), **IEEE 25<sup>th</sup> International Requirements Engineering Conference (RE'17), Lisbon, Portugal, September 2017.**
7. (*Member of Local Organization Committee*) The 9th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS), Lisbon, Portugal, June 2017.
8. (*Doctoral Symposium Co-Chair*), IEEE 24<sup>th</sup> International Requirements Engineering Conference (RE'16), Beijing, China, September 2016.
9. (*Track co-chair*) ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Pisa, Italy, 4-8 April 2016.
10. (*Track co-chair*) ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Salamanca, Spain, 13-17 April 2015.
11. (*Track co-chair*), ACM Symposium on Applied Computing (SAC), Requirements Engineering Track, Gyeongju, Korea, 24-28 March, 2014
12. (*Co-Publicity Chair*), 25<sup>th</sup> European Conference on object-oriented Programming (ECOOP 2011), Lancaster, UK, 25-29 July 2011.
13. (*Demonstrations Co-Chair*), International Conference on Aspect-Oriented Software Development (AOSD 2011), Porto de Galinhas, Brazil, 10-15 March 2011.
14. (*Workshop Co-Chair*), IEEE 16<sup>th</sup> International Requirements Engineering Conference (RE'10), Sydney, Australia, October 2010.

15. (*Co-Publicity Chair*), Onward! 2009, Sponsored by ACM SIGPLAN em co-operação com SIGSOFT, *Co-located with OOPSLA 2009*, Orlando, Florida, 25–29 October 2009. <http://www.onward-conference.org>.
16. (*Co-Publicity Chair*), IEEE International conference on Software Engineering (ICSE 2009), Vancouver, Canadá, May 2009.
17. (*Workshop Chair*), da *XIII Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2008)*, Gijon, Spain, October 2006.
18. (*Co-Publicity Chair*), ACM/IEEE *16<sup>th</sup> International Requirements Engineering Conference (RE'08)*, Barcelona, Spain, October 2008.
19. (*Co-Publicity Chair*), ACM/IEEE *8<sup>th</sup> International Conference on Model-Driven Engineering Languages and Systems (MoDELS'05)*, Montego Bay, Jamaica, 2-7 October 2005.
20. (*Co-Publicity Chair*), ACM/IEEE *7<sup>th</sup> International Conference on the Unified Modeling Language (UML 2004)*, Lisboa, Portugal, 10-15 October 2004.
21. (*Tutorials Chair*), ACM/IEEE *6<sup>th</sup> International Conference on the Unified Modeling Language (UML 2003)*, San Francisco, USA, 20-24 October 2003.

### 7.1.3 Panels

1. Moderator of the Panel “What Early Aspects can do for Software Product Lines”, workshop Early Aspects, International conference on Software Engineering (ICSE 2008), Leipzig, Alemanha, May 2007. Participants: Jon Whittle (Lancaster University, UK), Jean-Marc Jezequel (IRISA, France), Awais Rashid (Lancaster University, UK).
2. Organizer of the Panel “The Future of Aspect Modeling: Will MDD absorb it?”, *10<sup>th</sup> ACM/IEEE International Conference on Model-Driven Engineering Languages and Systems (MoDELS'05)*, Nashville, USA, 1-5 October 2007. Participants: Kevin Sullivan, Robert France, Jon Whittle, Jeff Gray.
  - Abstract: “Currently there are some young and promising approaches in software development, such as Model-Driven Development (MDD), and Aspect-Oriented Software Development (AOSD). While MDD focus on the systematic use of models, where the software is built through a chain of model transformations, AOSD aims to offer enhanced mechanisms to identify, model and compose crosscutting concerns. But what AOSD proposes doesn't it involve just a specific kind of modelling? And regarding composition, isn't it a special kind of model transformation? If these questions are true, will MDD absorb AOSD in the end? If not, what are then the true crosscutting relationships between MDD and AOSD?”

### 7.1.4 Workshops

1. *2nd International Workshop on Empirical Methods in Conceptual Modeling (EmpER'19)*, (Co-located with ER 2019), Salvador, Brazil, November 2019. Organizers: Sotirios Liaskos (York University), João Araujo (FCT/UNL), Jennifer Horkoff (Chalmers and University Gothenburg).
2. *9<sup>th</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2018, Jeju, South Korea, 2019. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter

- Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria), Nelly Bencomo (Aston University).
3. *8<sup>th</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2018, Banff, Canada, 2018. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  4. *6<sup>th</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2016, Beijing, China, 2016. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  5. *5<sup>th</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2015, Ottawa, Canada, 2015. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  6. *4<sup>th</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2014, Karlskrona, Sweden, 2014. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  7. *3<sup>rd</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2013, Rio de Janeiro, Brazil. 2013. Organizers: João Araujo, Ana Moreira (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  8. *2<sup>nd</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2012, Chicago, USA. 2012. Organizers: João Araujo (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria).
  9. *1<sup>st</sup> Workshop on Model-Driven Requirements Engineering*, co-located with RE 2011, Trento, Italy. 2011. Organizers: João Araujo (FCT/UNL), Gunter Mussbacher (Carleton University), Pablo Sanchez (University of Cantabria), Ana Moreira (FCT/UNL). <http://cserg0.site.uottawa.ca/modre2011/>
  10. *Workshop on Agile Requirements Engineering*, co-located with ECOOP 2011, Lancaster, Reino Unido. Julho de 2011. Organizers: Pete Sawyer, Ricardo Gacitua (Lancaster University), Emmanuel Letier (University College of London), João Araujo (FCT/UNL),.
  11. *Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design*, co-located with AOSD 2011, Porto de Galinhas, Brazil. March 2011. Organizers: João Araujo (FCT/UNL), Pablo Sanchez (Universidad de Málaga), Carla Silva (UFPB), Uirá Kulesza (UFRN), Alberto sardinha (IST).
  12. *Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design*, co-located with ICSE 2009, Vancouver, Canada. May 2009. Organizers: Monica Pinto (Universidad de Malaga), Ruzanna Chitchyan (Lancaster University), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong), Awais Rashid (Lancaster University).
  13. *Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design*, co-located with AOSD 2009, Charlottesville, USA, March 2009. Organisers: Alessandro Garcia, (Univeristy of Lancaster), Nan Niu (University of Toronto), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL).
  14. *Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design*, co-located with Software Product Lines Conference 2008, Limerick, Irlanda, 8-12 September 2008. Organisers: Vander Alves (Fraunhofer IESE, Germany), Christa Schwanninger (Siemens AG, Germany), Bedir Tekinerdogan



- (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong), Awais Rashid (Lancaster University).
15. Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design, co-located with ICSE 2008, Leipzig, Germany, May 2008. Organisers: Monica Pinto (Universidad de Malaga), Ruzanna Chitchyan (Lancaster University), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong), Awais Rashid (Lancaster University).
  16. Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design, co-located with AOSD 2008, Brussels, Belgium, March 2008. Organisers: Gunter Mussbacher (University of Ottawa), Jon Whittle (Lancaster University), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong), Awais Rashid (Lancaster University).
  17. Workshop on Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design, 29th International Conference on Software Engineering (ICSE 2007), Minneapolis, USA, May 2007. Organisers: João Araujo (FCT/UNL), Ruza Chitchyan (Lancaster University), Ana Moreira (FCT/UNL), Bedir Tekinerdogan (University of Twente), Awais Rashid (Lancaster University), Paul Clements (Carnegie Mellon University's Software Engineering Institute), Elisa Baniassad (Chinese University of Hong Kong). <http://early-aspects.net/>
  18. 10<sup>th</sup> International Workshop On Early Aspects, co-located with AOSD 2007, Vancouver, Canada. March 2007. Organisers: Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong)
  19. 4<sup>th</sup> Iberian Workshop on Aspect Oriented Software Development (DSOA 2006), X Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2006), Sitges, Barcelona, Spain, 3 October 2006. Organisers: João Araujo (FCT/UNL), Elena Navarro (University of Castilla-La Mancha), Monica Pinto (University of Malaga), Juan Hernandez (University of Extremadura).
  20. Early Aspects 2006, workshop of ICSE'06, Shanghai, China, May 2006. Organisers: Paul Clements (SEI), João Araujo (FCT/UNL), Ana Moreira (FCT/UNL), Elisa Baniassad (Chinese University of Hong Kong), Bedir Tekinerdogan (University of Twente), Awais Rashid (Lancaster University).
  21. Early Aspects 2006: Traceability of Aspects in the Early Life Cycle, workshop of AOSD'06, Bonn, Germany. March 2006. Organisers: Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), João Araujo (FCT/UNL), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong).
  22. Early Aspects 2005: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of OOPSLA, San Diego. USA, October 2005. Organisers: João Araujo (FCT/UNL), Paulo Merson (SEI), Paul Clements (SEI), Elisa Baniassad (Chinese University of Hong Kong).
  23. Aspects and Software Product Lines: An Early Aspects Workshop, at SPLC-Europe 2005, Rennes, France, September 2005. Organisers: João Araujo (FCT/UNL), Ana Moreira (FCT/UNL), Bedir Tekinerdogan (University of Twente), Awais Rashid (Lancaster University), Paul Clements (SEI), Elisa Baniassad (Trinity College).

24. 3<sup>rd</sup> Iberian Workshop on Aspect Oriented Software Development (DSOA 2005), X Jornadas de Ingeniería de Software y Bases de Datos (JISBD 2005), Granada, Espanha, September 2005. Organisers: João Araujo (FCT/UNL), Elena Navarro (University of Castilla-La Mancha), Monica Pinto (University of Malaga), Fernano Figueroa (University of Extremadura).
25. VIII Workshop on requirements Engineering (WER 2005), Programme Committee co-chair, Porto, Portugal, co-located with CAiSE 2005, 13-14 June, 2005.
26. Early Aspects 2005: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of 4<sup>th</sup> International Conference on Aspect-Oriented Software Development, Chicago, Illinois, March 2005. Organisers: João Araujo (FCT/UNL), Ana Moreira (FCT/UNL), Bedir Tekinerdogan (University of Twente), Awais Rashid (Lancaster University), Paul Clements (SEI), Elisa Baniassad (Trinity College).
27. Early Aspects 2004: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of OOPSLA, Vancouver, Canada, October 2004. Organisers: João Araujo (FCT/UNL), Ana Moreira (FCT/UNL), Bedir Tekinerdogan (University of Twente), Awais Rashid (Lancaster University), Paul Clements (SEI), Elisa Baniassad (Trinity College).
28. Early Aspects 2004: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of the 3<sup>rd</sup> International Conference on Aspect-Oriented Software Development, Lancaster, UK, 22-26 March 2004. Organisers: João Araujo (FCT/UNL), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), Paul Clements (SEI).
29. Early Aspects 2003: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of the 2<sup>nd</sup> International Conference on Aspect-Oriented Software Development, 17-21 March 2003, Boston, USA, Organisers: João Araujo (FCT/UNL), Awais Rashid (Lancaster University), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), Paul Clements (SEI).
30. WITUML: Workshop on Integration and Transformation in UML models, workshop of ECOOP 2002, Málaga, Spain, June, 2002. Organisers: João Araujo (FCT/UNL), Robert France (Colorado University), Jonathan Whittle (NASA), Ambrosio Toval (University of Murcia).
31. Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design, workshop of the 1<sup>st</sup> International Conference on Aspect-Oriented Software Development, University of Twente, Enschede, Holland, 22-26 April 2002. Organisers: João Araujo (FCT/UNL), Awais Rashid (Lancaster University), Bedir Tekinerdogan (University of Twente), Ana Moreira (FCT/UNL), Jeff Gray (Vanderbilt University), Jan Gerben Wijnstra (Philips Research Laboratories), Paul Clements (SEI).
32. WTUML: Workshop on Transformations in UML, satellite event of ETAPS (The European Joint Conferences on Theory and Practice of Software), Genova, Italy, April 2001, Organisers: João Araujo (FCT/UNL), Ana Moreira (FCT-UNL), Robert France (Colorado University), Jonathan Whittle (NASA), Ambrosio Toval (University of Murcia).

## **7.2 Generation of Overheads for FCT/UNL from Courses**

### **7.2.1 Bachelor of Aeronautical and military Technologies of ESTMA/AFA**

Within the context of the Protocol between the DI and the school of Military Aviation Technology of the Air Force Academy, I was allocated by the DI to teach subjects in the course of Bachelor of Aeronautical and Military Technologies, TINF specialty of that institution. Initially I was responsible for the discipline of System Analysis I (duration of 4 hours a week), subsequently also spent teaching the discipline of System Analysis II (duration of 4 hours per week). My percentage of participation varied between 7 and 8 percent. The values obtained by FCT in overheads or funding ranged between 22.000,00€ and 43.500,00€ per year.

#### **Anos Lectivo de 2009/2010**

1st Semester:

- System Analysis II

#### **Academic year 2008/2009**

2nd Semester:

- System Analysis I

#### **Academic year 2007/2008**

1st Semester:

- System Analysis II

2nd Semester:

- Análise de Sistemas I

#### **Academic year 2006/2007**

1st Semester:

- System Analysis II

2nd Semester:

- System Analysis I

#### **Academic years from 2002/2003 to 2004/2005**

1º Semester:

- System Analysis II

#### **Academic years 2000/2001, 2001/2002 and 2005/2006**

2nd Semester:

- System Analysis 1

### **7.2.2 Course at Industry**

- Enterprise: PDSL - Papelaco Equipamentos para Teletreamento de Informação, S.A.
- Discipline : Object-Oriented Analysis and Design, 40 hours.
- December 1998 and January 1999.
- Amount: ~4000,00 euros~

## 7.3 Tutorials

1. M. Peixoto, C. Silva (Presenter), J. Araujo, T. Gorschek, Privacy Requirements Specification, CBSOFT, Salvador, Brazil, September 2019.
2. M. Peixoto, C. Silva, J. Araujo, "Privacy requirements specification with privacy criteria: an agile method", Workshop on Requirements Engineering (WER'19), Recife Brazil, 13 August 2019.
3. J. Araujo, A. Moreira, G. Mussbacher and P. Sanchez, "Model-Driven Requirements Engineering", MODELS 2014, Valencia, Spain, September 30, 2014.
4. J. Araujo, A. Moreira, G. Mussbacher and P. Sanchez, "Model-Driven Requirements Engineering", RE 2014, Karlskrona, Sweden, August 26, 2014.
5. J. Araujo, J. Bruel and M. Goulão "Model-Based Systems Requirements with Quality", XVII Congresso Ibero-americano em Software Engineering (CIbSE'14), Pucón, Chile, April 23-25 2014.
6. J. Araujo, J. Bruel, "Model-Based Systems Requirements", Tutorial at 21<sup>st</sup> International Requirements Engineering Conference (RE 2013), Rio de Janeiro, Brazil, July 2013.
7. João Araujo, Ana Moreira, John Wittle, "Aspect-Oriented Requirements Analysis Modelling with Scenarios", XIII Congresso Ibero-americano em Software Engineering (CIbSE'10), Cuenca, Ecuador, 12-16 April 2010.
8. C. Silva, J. Castro, J. Araujo, A. Moreira, F. Alencar X. Franch, "Aspects in requirements Engineering: a goal oriented perspective". *12<sup>o</sup> Conferência Iberoamericana de Ingeniería de Requisitos y Ambientes Software (IDEAS 2009)*, Medellin, Colombia, 13-17 April 2009.
9. J. Whittle, J. Araujo, A. Moreira, "Aspect-Oriented Modeling", Tutorial no ACM/IEEE 11<sup>th</sup> International Conference on Model Driven Engineering Languages and Systems (MoDELS 2008), Toulouse, France, October 2008.
10. J. Araujo, A. Moreira, J. Whittle, G. Mussbacher, "Aspect-Oriented Requirements Engineering with Scenarios", Tutorial at Seventh International Conference on Aspect-Oriented Software Development (AOSD 2008), Brussels, Belgium, 31 March 2008.
11. J. Castro, C. Silva, J. Araujo, A. Moreira, F. Alencar, R. Ramos, "Aspectos na Engenharia de Requisitos: Uma Perspectiva Orientada a Objetivos", Tutorial at 22<sup>o</sup> Simpósio Brasileiro de engenharia de Software (SBES 2008), Campinas, Brazil, 2008.
12. J. Araujo, A. Moreira, J. Whittle, "Aspect-Oriented Requirements Engineering with Scenarios", Tutorial at 15th International Requirements Engineering Conference (RE 2006), Delhi, India, 15 October 2007.
13. A. Rashid, A. Moreira, J. Araujo, R. Chitchyan, "Aspect-Oriented Requirements Engineering ", Tutorial at 14th International Requirements Engineering Conference (RE 2006), IEEE Computer Society, Minneapolis, USA, 12 September 2006.

## 7.4 Invited talks

### 7.4.1 Panels

1. *Aspect-oriented Modeling: What, Why and How*, at 7<sup>th</sup> International Conference on the Unified Modeling Language (UML 2004), Lisbon, Portugal, 14 October 2004. Moderator: Prof. Robert France (*Colorado State University*).

### 7.4.2 Workshops, Seminars and Conferences

1. *On the Evolution and Quality of Requirements: Industry's Reality and Academia's Efforts*, **Keynote** of 22<sup>nd</sup> Workshop on Requirements Engineering, Recife, Brazil, 16 August 2019
2. *On the Quality of Requirements Goal Models*, at the Dagstuhl Seminar "Next Generation Domain Specific Conceptual Modeling: Principles and Methods", **Schloss Dagstuhl**, Germany, November 2018.
3. *On the Quality of Requirements: the Case of Goal Models*. **Keynote** 5th International Workshop on Conceptual Modeling in Requirements and Business Analysis (MREBA 2018). Co-Located with ER 2018, Xi'an, China, 22 October 2018.
4. *iStar Extensions: Looking back and thinking about the future*. **Keynote** of 10<sup>th</sup> International i\* (iStar) Workshop, in-conjunction with the 29th International Conference on Advanced Information Systems Engineering (CAiSE'17), Essen, Germany, 12-13 June, 2017.
5. *Model-Driven Engineering for Scenario-Based Requirements Analysis*, **Keynote** of 1<sup>o</sup> Workshop sobre Desafios de Engenharia de Requisitos em Pernambuco (I WDPER), Recife, Brazil, 7 May 2012.
6. *Model-Driven Engineering and Requirements Engineering: A Perfect Match?*, **Keynote** at XV Ibero-American Conference on Software Engineering, Buenos Aires, Argentina, 26 April 2012.

### 7.4.3 Seminars at Universities

1. *On the Quality of Requirements Goal Models*, Centro de Informática (CIn), Universidade Federal de Pernambuco (UFPE), Recife, Brazil, 7 February 2019.
2. *On the Impact of Semantic Transparency on Understanding and Reviewing Social Goal Models*, Centro de Informática (CIn), Universidade Federal de Pernambuco (UFPE), Recife, Brazil, 22 August 2018.
3. *On the usability of RE techniques: the case of improving comprehension of i\* models by using views*, Centro de Informática (CIn), Universidade Federal de Pernambuco (UFPE), Recife, Brazil, 15 September 2017.
4. *Social Goal Modeling and Quality*, Centro de Informática, Universidade Federal de Pernambuco (UFPE), Recife, Brazil, 1 December 2015.
5. *Model-Driven Requirements Engineering and Quality*, Universidade de Brasília, Brasília, Brazil, 26 November 2015
6. *Quality of Goal-Oriented Modeling*, PUC-Rio, Brazil, 17 November 2015.

7. *Model-Driven Requirements Engineering and Quality*, McGill University, September 2015.
8. *Imperfections of Transformations in Model-Driven Requirements Engineering*, Seminar at Computing Department, Lancaster University, UK, 30 May 2012.
9. *Model-Driven Engineering and Aspect-Oriented Requirements Engineering*, Seminar at Centro de Informática, Universidade Federal de Pernambuco (UFPE), Recife, Brazil, 9 May 2012.
10. *Challenges in Model-Driven Requirements Engineering*, **Keynote** at Workshop on Software Engineering, Programming Language Lab (LLP), Universidade Federal de Minas gerais (UFMG), 4 May 2012.
11. *Model-Driven Requirements Engineering*, Seminar at Pontíficia Universidade Católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, 11 April 2012.
12. *Mixing Requirements Engineering Approaches with Aspects: Is it Worth it?*, Aspect Oriented Modeling Workshop, invited by Jorg Kienzle, Bellairs Institute, Barbados, 7 April 2009.
13. *An Evolutionary Model of Requirements Correctness with Early Aspects*, Laboratório de Engenharia de Requisitos, Centro de Informática, Universidade Federal de Pernambuco, Recife, Brazil, 22 August 2007.
14. *A Concern-Oriented Requirements Engineering Model*, Laboratorio de Investigación y Formación en Informática Avanzada (LIFIA), da Universidade Nacional de La Plata, Argentina, invited by Prof. Dr. Gustavo Rossi, 19 August 2005.
15. *Requirements Engineering and Early Aspects – an Overview*, Laboratorio de Investigación y Formación en Informática Avanzada (LIFIA), da Universidade Nacional de La Plata, Argentina, invited by Prof. Dr. Gustavo Rossi, 15 August 2005.
16. *Engenharia de Requisitos Orientada a Aspectos*, Seminário do Laboratório de Engenharia de Requisitos (LER), Centro de Informática, Universidade Federal de Pernambuco, Brazil, invited by Prof. Dr. Jaelson Castro, August 2005.
17. *Scenario Modeling with Aspects*, Seminário do Centre for Object Technology, Applications and Research (COTAR), Departamento de Engenharia de Software, Universidade de Tecnologia de Sydney, Australia, invited by Prof. Dr. Brian Henderson-Sellers, 5 April 2005.
18. *Early Aspects in Use Case Models*, Seminário da Faculdade de Tecnologia da Informação (FIT), Universidade de Tecnologia de Sydney, Australia, invited by Prof<sup>a</sup>. Dr<sup>a</sup>. Didar Zowghi, 30 March 2005.
19. *Early Aspects in Requirements Engineering*, Seminar (RE@UTS), Departamento de Engenharia de Software, Universidade de Tecnologia de Sydney, Australia, invited by Prof<sup>a</sup>. Dr<sup>a</sup>. Didar Zowghi, 18 March 2005.
20. *Modeling and Composing Aspectual Scenarios Using Pattern Specifications*, Seminar CITI, Departamento de Informática, Universidade Nova de Lisboa, Caparica, Portugal, 12 January 2005.
21. *Using Pattern Specifications as Aspects to Model and Compose Scenario-Based Requirements*, Centro de Informática, Universidade Federal de Pernambuco, Recife, Brazil, invited by Prof. Dr. Paulo Borba, 22 December 2004.

22. *Early Aspects: Aspect-Oriented Requirements Engineering and Architecture Design*, Laboratório de Engenharia de Requisitos, Universidade Federal de Pernambuco, Recife, Brazil, invited by Prof. Dr. Jaelson Castro, August 2003.
23. *A Model for Aspect-Oriented Requirements Engineering*, Laboratório de Engenharia de Requisitos, Universidade Federal de Pernambuco, Recife, Brazil, a convite do Prof. Dr. Jaelson Castro, 23 August 2002.
24. *Coordination contracts and crosscutting requirements*, University of Lancaster, Lancaster, United Kingdom, a convite do Prof. Dr. Awais Rashid, 3 July 2002.
25. *Metamorfose: Um Método de Análise e Especificação de Requisitos Orientado a Objectos*, Departamento de Informática, Faculdade de Ciências, Universidade de Lisboa, 11 March 1998.
26. *Metamorfose: Um Método de Análise e Especificação de Requisitos Orientado a Objectos*, Departamento de Matemática, Universidade de Aveiro, May 1996.

## **7.5 Summer Schools: Participation in organizing committees**

1. Organizing Committee Member (Publicity Chair) and program Committee, 4th Domain Specific Modeling, International Summer School (DSM-TP 2013), Santiago de Compostela, Spain, 2-6 September 2013.
2. Organizing Committee Member (Publicity Chair) and program Committee, 3rd Domain Specific Modeling, International Summer School (DSM-TP 2012), Lisbon, Portugal, 8-13 September 2012.
3. Member of the program Committee, 2nd Domain Specific Modeling, International Summer School (DSM-TP 2011), Lisbon, Portugal, 12-16 September 2011.
4. Member of the program Committee, 1st Domain Specific Modeling, International Summer School (DSM-TP 2010) Lisbon, Portugal, September 2010.

## **7.6 Academic Service**

### **7.6.1 Committees at FCT**

1. Member of the Board of the Doctoral Programme, Departamento de Informática FCT/UNL, since January 2020.
2. Member of the Board of the FCT/UNL Library, since February 2013.
3. Member of the selection committee of the internships proposals of the computer science Department of the FCT/UNL, in 2013.
4. Member of the selection committee of the internships proposals of the computer science Department of the FCT/UNL, in 2012.
5. Member of the selection committee of the internships proposals of the computer science Department of the FCT/UNL in 2011.
6. Member of the Organizing Committee (Web Chair) Concurso de Programação da Nova (CPN) in 2004.

7. Member of the Organizing Committee (Web Chair) Concurso de Programação da Nova (CPN) in 2003.
8. Membro da Organização da ExpoFCT em várias edições.

### **7.6.2 External Services**

1. Named Expert of the 9th Circuit Court, 2nd Section of the District of Lisbon, under the statement of the Head of the Department of Informatics of the FCT/UNL, in June 2001.
2. Establishing contacts with several companies, from supervising student internships and participating in projects: NOVABASE, Hypnotic, Banco Atlântico Europa, Siemens, Opensoft, Army Geographic Institute, Oracle, Portugal telecom, SAP, the Port administration of Lisbon (APL).

## **7.7 Missions**

### **7.7.1 Erasmus**

1. Staff Mobility for teaching, Merging Voices Programme. Destination: Ateneo University, Manila, Philippines, 1-15 July 2019.
2. Staff Mobility, Erasmus Mundus, BE MUNDUS mobility programme. Destination: Universidade Federal de Pernambuco, Recife, Brazil. From 18<sup>th</sup> July 2014 till 21<sup>st</sup> August 2014.

### **7.7.2 Universities**

1. Visit to the Universidade Federal de Pernambuco (UFPE), Recife Brazil, as Visiting Professor of the Informatics Center (CIn), invited by Prof. Carla Silva, 1 December 2018 to 28 February 2019.
2. Visit to the Universidade Federal de Pernambuco (UFPE), Recife Brazil, to be part of 2 viva juries and give a seminar to the Informatics Center (CIn), invited by Prof. Dr. Jaelson Castro and Prof. Carla Silva, 11-15 September 2017.
3. Visit to the Universidade Federal de Pernambuco (UFPE) and the University of Pernambuco (UPE), Recife Brazil, with the aim of continuing developing research, with the team of Prof. Dr. Jaelson Castro and Prof. Maria Lencastre, 30 October 2015 to 4 January of 2016.
4. Visit to the Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, with the aim of developing research work with the team of Prof. Dr. Julio Leite, November 2015.
5. Visit to the Universidade de Brasília (UnB), Brazil, with the aim of developing research work with the team of Prof. Dr. Rodrigo Bonifácio, November 2015.
6. Visit to the University of McGill, Canada, with the purpose of developing research in the field of aspects, with Prof. Gunter Mussbacher, in September 2015.



7. Visit to the Universidade Federal de Pernambuco (UFPE) and the University of Pernambuco (UPE), Recife Brazil, with the aim of developing research, with the team of Prof. Dr. Jaelson Castro and Prof. Mary Lancaster, 20 July to 20 August of 2013.
8. Visit to Lancaster University, United Kingdom, to participate on a jury of PhD, present a seminar and meet with the Profs. Drs. Jon Whittle and Awais Rashid to discuss future collaboration, 28 to 30 may 2012.
9. Visit to the Universidade Federal de Pernambuco (UFPE) and the University of Pernambuco (UPE), Recife Brazil, with the aim of developing research and participate in the 1st Workshop on Challenges in requirements engineering of Pernambuco (I WDPER), with the team of Prof. Dr. Jaelson Castro and Prof. Mary Lancaster, 30 March to 14 may 2012.
10. Visit to the Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Brazil, with the aim of developing research work with the team of Prof. Dr. Eduardo Figueiredo, 2 to 5 may 2012.
11. Visit to the Pontifícia Universidade católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil, with the aim of developing research work with the team of Prof. Dr. Alessandro Garcia, 10 to 15 April 2012.
12. Visit to the Chinese University of Hong Kong, China, with the aim of developing research in the field of aspects, with Prof. Elisa Baniassad, in January 2009.
13. Visit to the University of Ottawa, Canada, for the purpose of developing research in the field of aspects, with Prof. Daniel Amyot, in November 2008.
14. Visit to the Laboratorio de Investigación y Formación en Informática Avanzada (LYFIA), National University of La Plata, Argentina, with the aim of developing research in the area of web applications and, at the invitation of Professor Gustavo Rossi, August 2005.
15. Visit to the University of Lancaster, United Kingdom, with the aim of developing research partnerships in the area of aspect-oriented requirements engineering, with Professor Awais Rashid, February 2003.
16. Visit to the University of Lancaster, United Kingdom, to conduct research in the area of aspect-oriented requirements, with Professor Awais Rashid, July 2002.
17. Visit to the University of Lancaster, United Kingdom, with the aim of promoting research cooperation between members of the two institutions, with teachers, doctors Peter Sawyer and Awais Rashid, May 2000.

### **7.7.3 Project meetings**

1. Visit to the Universidade Federal do Rio Grande do Sul in Porto Alegre, Brazil, in July 2009, in the framework of the project "identification of interests and Refactoring in aspect-oriented systems". CAPES/GRICES Program.
2. Participation in the Aspect Oriented Modeling Workshop (AMPLE Project), Bellairs Research Institute, McGill University, Barbados, 5-12 April 2009.
3. Review meeting at European Community, Brussels, Belgium, under the project AMPLE, in November 2008.
4. Visit to Lancaster University, United Kingdom, to meeting the project AMPLE, in September 2008.

5. Visit to the Universidade Federal de Pernambuco, Brazil, with the aim of developing research, with the team of Professor Jaelson Castro, under the project "Integrating Requirements Analysis Techniques with Apects: The TROPOS case", CAPES/GRICES program, August 2008.
6. Visit to Lancaster University, United Kingdom, to meeting under the AOSD-Europe Network of Excellence representing UNL as a new Member, in August 2007.
7. Visit to the University of Darmstadt, Germany, to the project AMPLE meeting, in February 2008.
8. Review meeting at European Community, Brussels, Belgium, under the project AMPLE, in November 2007.
9. Visit to Lancaster University, United Kingdom, to meeting the project AMPLE, in September 2007.
10. Visit to Lancaster University, United Kingdom, to meeting the project AMPLE, in June 2007.
11. Visit to the Universidad de Málaga, Spain, to meeting the project AMPLE, in April 2007.
12. Visit to Siemens AG, Munich, Germany, to meeting the project AMPLE in January 2007
13. Visit to Lancaster University, United Kingdom, to meeting the project AMPLE, in October 2006.
14. Visit to the University of Pau, France, with the aim of developing research in the area of COTS components and aspects, with Prof. Jean-Michel Bruel, under the Portuguese-French integrated actions (action N° F-12/05) of CRUP, February 2006.
15. Visit to the Universidade Federal de Pernambuco, Brazil, with the aim of developing research, with the team of Professor Jaelson Castro, under the project "Integrating Requirements Analysis Techniques with Apects: The TROPOS case", funded by CAPES/GRICES, August 2005.
16. Visit to the University of technology, Sydney, Australia, from late February to mid May 2005, in the framework of the activities of sabbatical leave, with the aim of developing research and to promote cooperation between members of the two institutions. Didar Zowghi Doctor teacher, who worked as a Hostess during my stay at the University.
17. Visit to the University of Lancaster, United Kingdom, with the aim of developing research partnerships in the area of aspect-oriented requirements engineering, with Professor Awais Rashid, July 2004.
18. Visit to the University of Pau, France, to develop research partnerships in the area of requirements and aspects, with Prof. Jean-Michel Bruel, under the Portuguese-French integrated actions (action N° F-23/03) the CRUP, April 2004.
19. Visit to the University of Pau, France, with the aim of conducting research in the area of requirements and aspects, with Prof. Jean-Michel Bruel, French-Portuguese integrated actions (action N° F-23/03) the CRUP, June 2003.

## **7.8 Performance Assessment: Teaching, Research, Extension & Management**

The Assessment Coordinating Council (CCA) of the FCT/UNL is in charge of the process of performance evaluation (in teaching, research, extension and management) to all the teachers who do so from 2004 to 2007, 2008 and 2009, and from 2010 to 2012. The assessments during these periods have been completed. In accordance with article 21 of RAD of UNL, with any necessary adaptations detailed in the document of the Scientific Council which regulates the evaluation periods, from 2004-2007 can be assigned 3 points in a year, to a maximum of 5% of evaluable teachers this year, and in the 2008-2009 biennium can be assigned 3 points in a year to a maximum of 30% of the evaluable and 2 points to a maximum of 60% of teachers available. As a result of the application of this process, my assessment and allocation of points from 2004 to 2007, 2008 to 2009, 2010 to 2012 and 2013-2015 in each of the years is given below.

1. Evaluation in the period 2004 to 2007: excellent.
2. Evaluation in the period 2008 to 2009: excellent.
3. Evaluation in the period 2010 to 2012: excellent.
4. Evaluation in the period 2013 to 2015: excellent.
5. Evaluation in the period 2016 to 2018: excellent.