FACULDADE DE
CIÊNCIAS E TECNOLOGIA
UNIVERSIDADE NOVA DE LISBOA

PhD Program in Electrical and Computer Engineering

(3rd cycle – Bologna model)

Report Year 8

Prepared by

Luis M. Camarinha-Matos
Coordinator of the program
21 December 2016

TABLE OF CONTENTS

1. BRIEF HISTORY 3
2. ORGANIZATIONAL STRUCTURE 4
3. CANDIDATES ACCEPTED IN 2015/2016 5
4. CURRICULUM STRUCTURE 6
4.1 Modus operandi 6
4.2 Edition of 2008/2009 11
4.3 Edition of 2009/2010 11
4.4 Edition of 2010/2011 12
4.5 Edition of 2011/2012 13
4.6 Edition of 2012/2013 14
4.7 Edition of 2013/2014 14
4.8 Edition of 2014/2015 15
4.9 Edition of 2015/2016 16
5. FINISHED THESES AND AWARDS 17
6. SUPERVISION AND MONITORING 21
6.1 Supervisors, TACs, and research topics 21
6.2 Annual Progress Reports 29
6.3 Conditions for PhD supervision 34
7. CANDIDATES 2016/2017 35
7.1 Applicants 35
7.2 Assistance to foreign students 35
8. CONCLUDING REMARKS 37
ANNEX – Thesis submission guidelines 39

New students in 2015/2016:	**17**
Total enrolled students in 2016/2017:	**104 ***
Finished thesis in 2016:	**9**
Finished thesis since 2009:	**60**

* *This number does not yet include all new students that joined the program in 2016/2017 as the enrollment process is still going on.*

1. BRIEF HISTORY

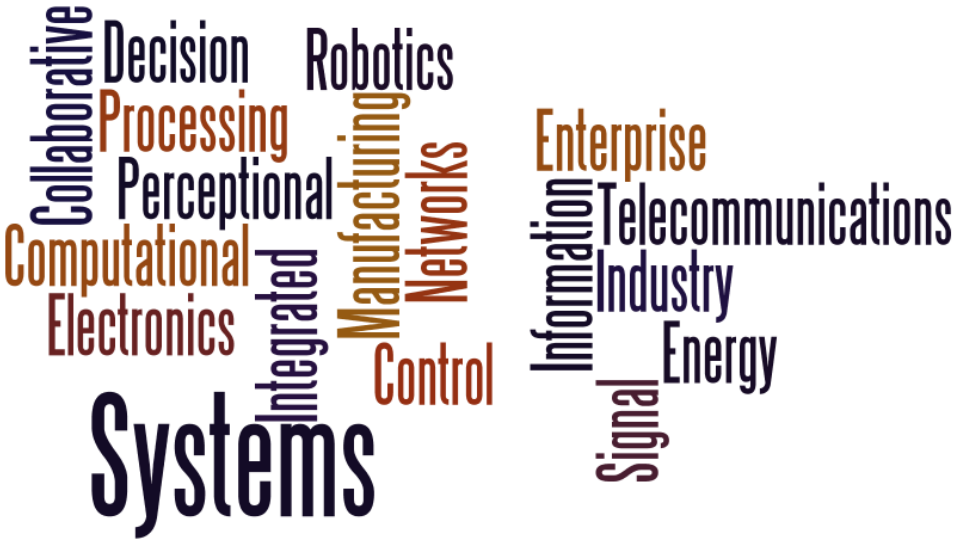
The PhD Program in Electrical and Computer Engineering in its current format, which is adapted to the Bologna model, started in the academic year of 2008/2009. It is starting now its 9th edition.

The inaugural sessions of previous editions took place on:

- 1st edition: 17 Nov 2008.
- 2nd edition: 25 Nov 2009.
- 3rd edition: 16 Dec 2010.
- 4th edition: 9 Jan 2012.
- 5th edition: 14 Jan 2013.
- 6th edition: 6 Jan 2014.
- 7th edition: 6 Jan 2015.
- 8th edition: 15 Jan 2016.

The edition of 2016/2017 (9th edition) is scheduled to start on 16 January 2017.

As some candidates took longer to formalize their enrollment in the Academic Office (e.g. in some cases they had to wait for the defense of the MSc thesis, others had to wait for VISA to Portugal), it was not possible to start the fomal activities earlier. Nevertheless, some preparatory activities (e.g. Advanced Topics courses), which have a tutorial nature started in the last quarter of 2016.



2. ORGANIZATIONAL STRUCTURE

Coordinator:
- Prof. Dr. Luis M. Camarinha-Matos

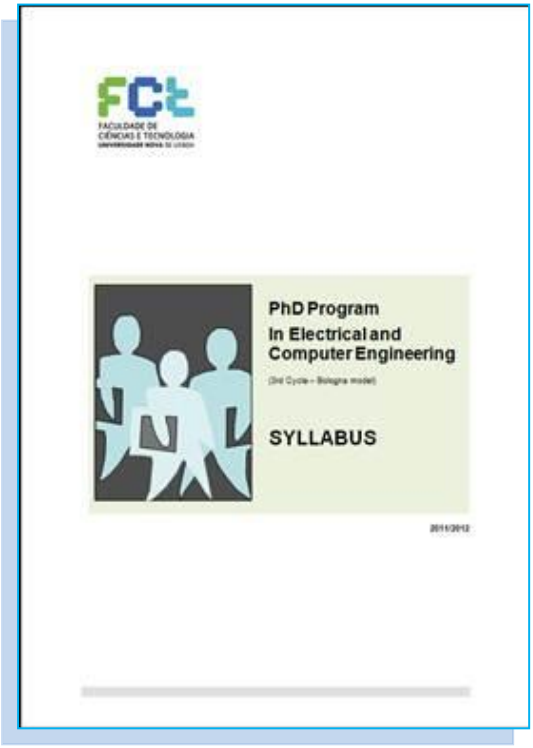
Scientific Committee of PDEEC:
- Chair: Prof. Dr. Luis M. Camarinha-Matos
- Members: Prof.s Dr.s Rui Neves da Silva, José Barata Oliveira, João Martins, João Goes, Paulo Pinto (till Aug 2016), Ricardo Gonçalves, Rui Dinis (since Sep 2016)

Secretarial support:
- Helena Inácio

Site:
In order to both support dissemination of the program and provide a repository of information for the students, there is a specific site:

http://sites.fct.unl.pt/doutoramento-engenharia-electrotecnica-computadores

Complementarily, two main reports provide base information on the program contents: Guide of the PhD Program (in Portuguese and English) and *Syllabus* (in English).



3. CANDIDATES ACCEPTED IN 2015/2016

Regarding the 8th edition of PDEEC, there were **26** candidates (19 in the first phase and 7 in the second phase). After the selection process, **18** candidates were accepted by the Scientific Committee (12 in the 1st phase and 6 in the 2nd), out of which **15** formalized their enrollment. Additionally, **2** other candidates were accepted under a dual PhD program (cooperation between FCT-UNL and 2 Brazilian universities), totalling **17** new PhD students.

Taking into account the analysis of the candidates CV the following individual study plans were established:

Table 1 – PhD students enrolled in the 7th edition of the program

Nº	Name	SRMT	EM	DC	RP	FO	AT cd	AT el	AT en	AT sp	AT cn	AT rim	AT cps	AT iis	AT tel	Specialization
48978	Adriano Manuel Alves Ferreira (a)															Robotics and Integrated Manufacturing
49139	Anselmo Rafael Cukla (b)															Robotics and Integrated Manufacturing
48689	Fernando Jorge Chapita de Castro Monteiro															Energy
48872	José Teixeira Gonçalves															Energy
48895	Kankam Okatakyie Adu-Kankam															Enterprise Collborative Networks
48801	Luis Miguel Gomes Tavares															Electronics
48305	Luís Miguel do Rosário Irio															Telecommunications
49014	Mafalda Palma da Silva Viola Parreira Rocha (a)															Robotics and Integrated Manufacturing
48938	Majid Zamiri															Enterprise Collborative Networks
48855	Masoomeh Ramezani															Enterprise Collborative Networks
48833	Márcio José Moutinho da Ponte (b)															Industrial Information Systems
48995	Miguel de Lima Teixeira (a)															Electronics
48917	Nagavenkat Kumar Gaddam															Energy
48884	Nuno Ricardo Zacarias Ramos															Industrial Information Systems
49015	Pedro Miguel Lima Monteiro (a)															Robotics and Integrated Manufacturing
49030	Ricardo Alexandre Fernandes da Silva Peres (a)															Robotics and Integrated Manufacturing
48889	Shabnam Pasandideh															Enterprise Collborative Networks

Equivalence
To be done

(a) 2nd phase
(b) Dual PhD in collaboration with another university in Brazil (Universidade Federal do Rio Grande do Sul, Universidade Federal do Oeste do Pará)

In terms of geographical origin, the **candidates** had the following distribution:

- Angola: 1
- Brazil: 2
- Ghana: 1
- India: 3
- Iran: 8
- Portugal: 11

Among the **enrolled** students, we have:

- Angola: 1
- Brazil: 2
- Ghana: 1
- India: 1
- Iran: 3
- Portugal: 9

Some of the accepted candidates did not formalized their enrolment, either due to economic problems or difficulty in getting visa to Portugal.

4. CURRICULUM STRUCTURE

4.1 Modus operandi

Similar to previous editions, and taking into account the number of registered students for each course, some courses included formal lectures, while others were organized as self-study units (individual guided studies and interaction with professors assigned to each topic).

Courses with formal lectures

Lectures were organized in a concentrated mode (daily from16:00 to 20:00) during a period between the 1st and 2nd semesters.
Similar to previous editions, the lectures were offered in English.

Scientific Research Methodologies and Techniques
This course included 30 h (14 modules) lectured during Jan 2016.
This course is a fundamental element to let students acquire a "scientific research culture" and to learn how to organize their research work. Received feedback from students continues to be very positive.

Supporting materials are available at:
https://sites.google.com/a/uninova.pt/cam/teaching/srmt

A total of **16** students concluded this course in 2016 (average grade 15 in 20).

The course was mostly lectured by Prof. Camarinha-Matos, with a partial contribution of Prof.s Rita Ribeiro, Rui Neves-Silva and Ricardo Gonçalves in module 14 (Project Proposals Preparation) and corresponding evaluation.

Entrepreneurship Methods
This course included 30 h (15 modules) lectured during Feb 2016.
In order to complement the expertise available in the Department of Electrical Engineering, some invited external experts contributed with lectures on selected topics:

- Dr. Javad Jassabi (Uninova)
- Prof. Costa Pereira (Univ. Lusofona)
- Prof. Paulo Pinho (FE-UNL)
- Sales Gomes (BRISA)
- José Damião (Madan Park)
- Prof. Victor Santos (Universidade Europeia)
- Dr. José Silva Lopes (FCT-UNL)
- Dr. Manuel Masseno (IPB)
- Prof. A. Brandão Moniz (FCT-UNL)
- Nuno Frazão (IES)

The course was coordinated by Prof.s José Barata and Camarinha-Matos.
The following topics were lectured by members of the Electrical Engineering Department:
- Prof. José Barata – Introduction and Base Concepts
- Prof. Luis M. Camarinha-Matos – Innovation in Networks
- Prof. Pedro Sousa– Strategy and Leadership
- Prof.s Pedro Sousa, José Barata, Javad Jassbi and Tiago Cardoso – Elevator Pitch.

A total of **14** students concluded this course in 2016 (average grade 14.7 in 20).

Doctoral Conference

Due to the specific nature of this course, it has a mixed structure: a few plenary lectures for the introduction of the main concepts and principles, followed by parallel working groups focused on the various specific aspects of the organization of an international conference.

With reference to the **7th edition**, the activities of this course started in June 2015 and ended in April 2016 (the conference was held on 11-13 Apr 2016).

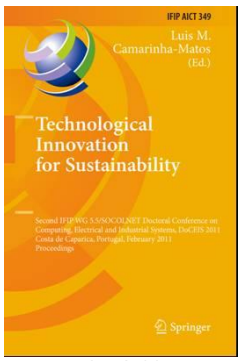
Similar to previous editions, the conference had an international scope and was technically co-sponsored by 3 international societies:

- SOCOLNET – Society of Collaborative Networks
- IFIP – International Federation for Information Processing, WG 5.5
- IEEE, Industrial Electronics Society.

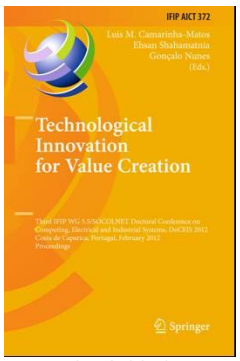
The conference proceedings continued to be published by Springer, under theIFIP AICT (Advances in ICT) series (indexed in **Web of Science, SCOPUS and DBLP**).

Proceedings:

DoCEIS 2010



DoCEIS 2011

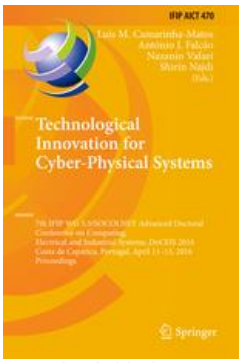


DoCEIS 2012

DoCEIS 2013

DoCEIS 2014

DoCEIS 2015



DoCEIS 2016

The general theme of the 2016 edition was "**Technological Innovation for Cyber-Physical Systems**".

For the 7th edition a total of **116** submissions from **25** countries were received. This included the following authors per country:

Algeria – 2
Austria – 6
Brazil – 16
Canada – 3
Czech Republic – 2
Estonia – 3
Finland – 2
France – 1
Germany – 10
Ghana – 3
Greece – 2
India – 2
Iran – 3
Italy – 2
Kazakhstan – 3
Portugal – 161
Romania – 7
Russia – 6
Saudi Arabia – 2
Serbia – 1
Slovakia – 3
Slovenia – 1
Spain – 4
Sweden – 1
UK - 3

After double blinded peer reviewing, the International Program Committee accepted 53 papers (29 as full papers, 24 as shorter papers) for inclusion in the conference program. Among these, **17** papers were contributed by PDEEC.

In addition to the presentations of technical papers, the conference also included:

- 3 invited keynotes:
  - Cyber-Physical Systems – more than just a technology challenge - Prof. Michael Henshaw, UK
  - The Challenges of Communicating Science to the Public - Prof. António Granado, Portugal
  - FPGA-based controllers for embedded power systems – Prof. Eric Monmasson, France
- 1 Panel on “Doctors in industry” (Testimonies of former PhD students, entrepreneurs and companies).
- 2 Working Sessions (on Innovation and Intellectual Property)
- "Dialogue session" wit presentation and discussion of 11 posters on PhD works in their early phases – topic, research questions, hypotheses (10 from PDEEC).

Similar to previous years, this edition was highly successful, according to received feedback from the participants.

14 students completed this course in 2016 (average grade: 16.8 in 20). A few students still need to deliver some evaluation elements (to be completed in the next edition).

Regarding the various editions of DoCEIS, in addition to the books sold worldwide by Springer, the electronic version of the papers is having a **large number of downloads**:

Data provided by Springer (as of 19 Dec 2016):

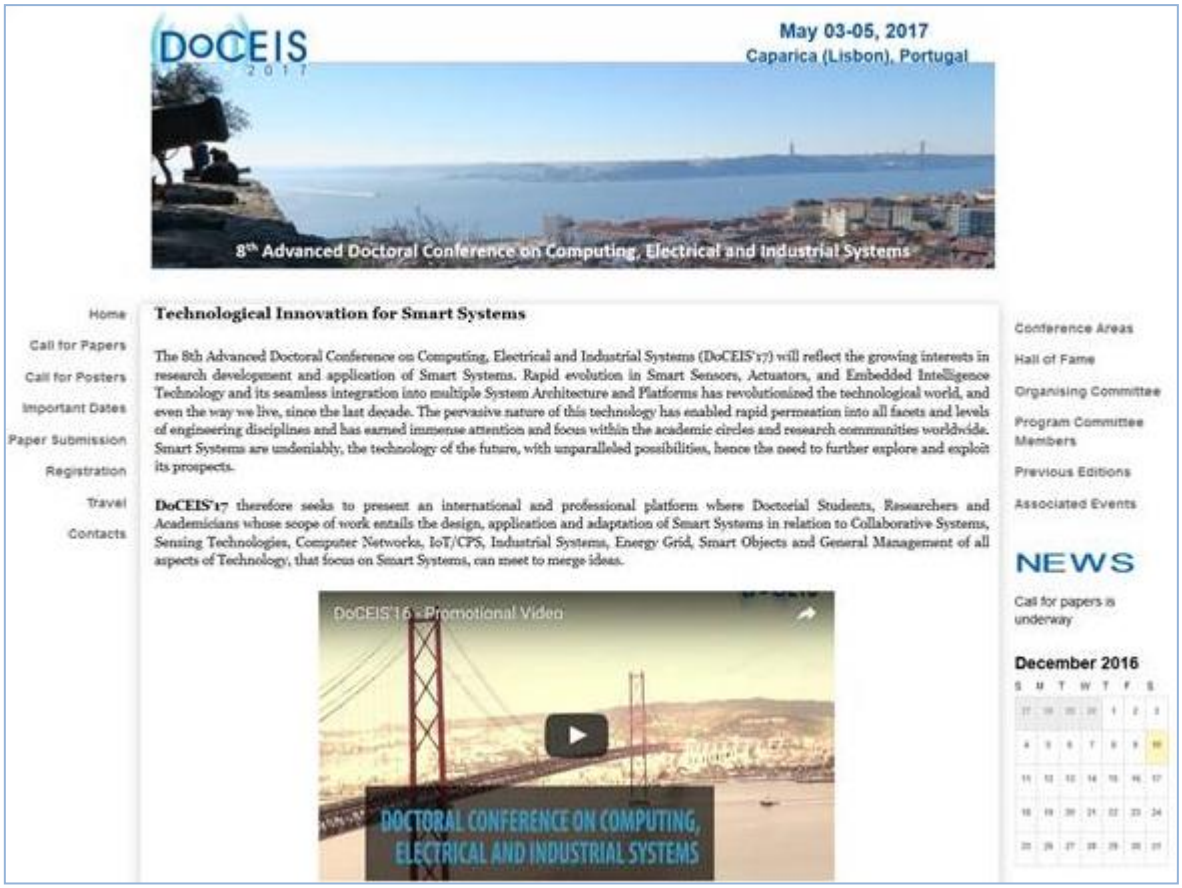
Edition	Chapter downloads	Since
DoCEIS’10	**66 160**	April 2010
DoCEIS’11	**77 789**	April 2011
DoCEIS’12	**57 709**	April 2012
DoCEIS’13	**155 081**	April 2013
DoCEIS’14	**66 333**	April 2014
DoCEIS’15	**43 014**	April 2015
DoCEIS’16	**12 133**	April 2016

The **8th edition** of the conference - **DoCEIS'17** – started to be prepared in May 2016, and it shall take place in Hotel da Costa da Caparica, on 3-5 May 2017.

The theme chosen for this edition is:
"**Technological Innovation for Smart Systems**".

This edition is coordinated by Prof.s L.M. Camarinha-Matos (*Conference chairman*), L. Gomes (*Organization chairman*), P. Pereira (*Associated activities chairman*), and J. Goes (*Finantial chairman*).

For this edition, we are in the process of receiving submissions.



The proceedings are also expected to be published as a book by Springer, under the AICT series.

The conference site is available at:
http://sites.uninova.pt/doceis

Free Option
Since this is a course that can be freely selected from any other courses offered by FCT at the PhD level, students are typically integrated in those courses and follow the normal program and evaluation rules of those courses.

Courses organized in a self-study / tutorial mode

This group includes the courses:

- Advanced Topics (9 options, to select one according to the specialization area)
- Research planning (leading to the Thesis Plan).

Advanced Topics

Regarding these courses, students are supposed to follow and individual study plan according to the list of selected topics for each specialization area (as described in the *Syllabus* of PDEEC) and interact with the professors in charge of those topics (also indicated in the *Syllabus*).

Some of these course continue with some delays, as students do not have to follow a strict schedule. This situation also affects the progress on the Research Planning course.

In this area it is necessary to have a more active involvement of the professors associated to each topic in order to gurantee a more effective and timely progress.

Research Planning

This "course" is equivalent to a work load of one semester full time, and involves the identification of the research question(s) and hypothesis(es), study and synthesis of the state of the art, and elaboration of the research plan. This work needs to be developed by the student in close interaction with the supervisor. The result, should be a Thesis Plan to be discussed with the Thesis Accompanying Committee in a public seminar.

10 students completed this course in 2016 (average grade: 17.7 in 20).

It seems there is an excess of grades of 18, 19 and 20, which does not seem consistent with the long delays in performing the thesis plan.

According to the PhD Program Regulations, the PhD students have up to 24 months to submit the report and apply for this public discussion (which, in principle, should happen between month 12 and month 24).

However, most students continue taking too long to finish their plans. The supervisors have a relevant role in this process. Only with a continuous monitoring and support from the supervisor it will be possible to reduce the traditionally excessive time spent with this activity.

The limit of 24 months should be seen as an exception and not the norm. The desirable norm should be to finish all courses in 12 months (except for students in part-time).

Unfortunately we have observed that some supervisors are not performing the expected supervision in this area, resulting in considerable delays.

Some supervisors also guide the students to include substantial research results in the Thesis Plan, which is not the intention for such Plan and has the negative consequence of leading to excessive delays.

TACs are now being asked to not focus on research results but rather on the key components expected in a thesis plan.

The Thesis Accompanying Committees (TACs) have been playing an important role in the improvement of the quality of the PhD research work. There are, however, a few cases in which the TAC assessement reports are too short and thus not providing useful guidance to the student. This situation needs to be fixed.

In order to improve the situation, a revised template for the TAC's annual report was prepared, asking for more detailed assessment on specific items.

In some areas there is an excessive repetition of the same names in the TACs of those areas. Although it might be difficult to find additional experts for some topics, it is **necessary to diversify the composition of the TACs** in order to guarantee the necessary independent assessment. As such, supervisors are asked to make an effort in this direction.

4.2 Edition of 2008/2009

Situation of the PhD students enrolled in 2008/2009 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
30064	Ana Inês da Silva Oliveira															2016
29714	Carlos Jorge da Cunha Matos															Suspended
30074	Carlos Manuel de Melo Agostinho															2012
30069	Daniel José M. Foito															2015
29760	David Duarte Pereira Inácio															2014
30068	Ezequiel Vale Carvalho															2015
30065	Filipa Alexandra Moreira Ferrada															
29588	Filipe André de Sousa Figueira Barata															2015
30073	João Filipe S. Sarraipa															2013
29586	João Paulo Machado Mendes															
30070	José Carlos de Ponte Ribeiro															
30063	José Inácio Pinto Rosado Rocha															
30066	Luis Domingos Ribeiro															2012
30004	Luís Miguel Bentes Moita Flores											N				Suspended
29770	Nuno Alexandre Soares Domingues															2015
30067	Pedro Miguel Ribeiro Pereira															2013
30137	Raúl Eduardo Capela Tello Rato															2011
29768	Ruben Duarte Dias da Costa															2014
30072	Sérgio Miguel da Silva Onofre															
30040	Tiago José Monteiro Baptista Cabral Ferreira															

Finished course

Got equivalence

Waiting for public defense

N — Course not yet finished (delayed)

Note: PhD students that have quit were removed from this table.

12 students finshed their thesis till now. Even considering that most of the remaining ones are part-time students, it is expectable that most will finish during next year.

One student has not yet (officially) finished all courses!
It is necessary that his supervisor (José Barata) **checks the situation. Apparently he finished the course but the grade cannot be registered until he pays the annual fees.**

Two students are **suspended**, probably because they have not yet paid the annual fee.

4.3 Edition of 2009/2010

Situation of the PhD students enrolled in 2009/2010 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
33253	Ana Sofia Fachada Fernandes (a)															2010
32555	Anabela Monteiro Gonçalves Pronto (a)															2010
33254	António Manuel Vieira Pombo															2015
32618	Carlos Manuel Ferreira Carvalho															2011
33240	Dora Helena Avelar Gonçalves (c)				N			N								Suspended
32608	Edinei Santin															2014
33224	Eduardo Adelino Mateus Nunes Eusébio				N											Suspended
33490	Eduardo Manuel Ferreira Morais Pinto (b)				N											
32678	Elena Nikolaevna Baikova															
33249	Fernando Joaquim Ganhão Pereira															
32574	Filipe de Carvalho Moutinho															2014
33270	Francisco José Dinis de Sousa Fernandes Ganhão															2014
32552	Francisco Manuel Mendes da Silva Pina	N	N	N	N											Suspended
32571	Gonçalo Moreira Cândido (a)															2013
32725	Joao Miguel Ferreira Caldas da Costa															Suspended
32590	João Carlos Ferreira de Almeida Casaleiro															2015
32697	João Manuel Ferreira Martins				N											Suspended
32734	João Pedro Abreu de Oliveira (a)															2010
33572	José Alberto Oliveira Lima															2016
33271	José Miguel Ferreira Preto Marques Luzio															2014
33268	José Pedro Magalhães Lucas	N		N	N								N			Suspended
32606	José Rui Barbosa Custódio (a)															2011
32585	José Xavier Ferreira Da Silva (d)												N			Suspended
32564	Manuel Augusto Vieira															2012

33102	Marco António da Luz Delgado	N	N		N											Suspended
32612	Maria da Graça Vieira de Brito Almeida															2015
32632	Maria do Carmo Marques (a)															2012
32607	Michael Figueiredo (a)															2012
32643	Miguel Bacelar de Sousa Carneiro			N	N					N						Suspended
32617	Miguel Ramos Pereira (a)															2013
32613	Nuno Paulo Real da Veiga Cardoso				N											
32626	Patricia Alexandra Pires Macedo (a)															2011
32733	Pedro Jorge Cristina Mendes		N	N	N	N						N				Suspended
33331	Pedro José Ambrósio Lobato (a)															2015
32577	Pedro Miguel Figueiredo Amaral (a)															2013
33101	Pedro Miguel Negrão Maló (a)															2013
32566	Raul Figueiredo Cordeiro Magalhães Correia															
33103	Regina Maria Frei Santos Barbosa (a)															2010
32719	Rui Manuel Carvalho dos Santos Azevedo Antunes (a)															
33332	Silviano Francisco Santos Rafael (a)															2010
32656	Svetlana Roudolfovna Chemetova															
32550	Tiago Oliveira Machado de Figueiredo Cardoso (a)															2012
32584	Vitor Manuel de Oliveira Fialho															

Equivalence

Finished course

N — Course not yet finished (delayed)

(a) Student from pre-Bologna program (does not have to do the courses part)
(b) Entered in the 2nd phase
(c) Changed specialization area (new area: Electronics)
(d) Changed specialization area; as such he needs to do the Advance Topics in the new area

26 students finshed their thesis till now. Nevertheless it should be noted that some of them were transferred from the pre-Bologna program, and thus have started before 2009.

As most of the remaining ones are part-time students, it is desirable that most will finish soon.

As shown in the above table, there are **unacceptable delays** regarding some courses, namely in what concerns the Research Planning. It is also the case that there was not much progress in solving these cases since last year. Nevertheless, it should be noted that most of these students are **part-time** students.

It is necessary that both the supervisors and the TACs more carefully check what is happening with the courses not finished yet. Several annual assessment reports prepared by TACs state that the students accomplished the planned activites, while in fact they are considerably late.

In the case a thesis plan is not available yet (10 students), the TACs and supervisors should assess whether the student has the capacity to continue or not; or if the supervisors are able to guide these students. It is <u>not acceptable</u> that after 7 years there is no thesis plan yet. Either the student or the supervisor are underperforming.

Several students are **suspended**, mostly because they have not yet paid the annual fee. There are also a few cases that seem to have quit, but they did not formalize their withdrawal from the program.

4.4 Edition of 2010/2011

Situation of the PhD students enrolled in 2010/2011 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
35499	Blazej Nowacki															2016
34339	Ehsan Shahamatnia															
34752	Gonçalo Nuno Nascimento Ventura de Brito Nunes			N	N	N	N									Suspended
35122	Hugo Tito Cordeiro															2016
35771	Ivan Iuri Alves Bastos (a)															2015
35831	João Luís Alvernaz de Melo (a)															
35719	João Tiago Vieira de Sousa Virote			N	N											Suspended

35171	Magno Edgar da Silva Guedes	N		N	N	N						N				Suspended
35276	Manuel Fernandes Carvalho			N	N	N								N		Suspended
35852	Mário Jorge Saldanha Couto Alves (a)			N	N	N		N								
35768	Mohammad Hadi Nategh (a)	N		N	N						N					Suspended
35666	Nuno Miguel Abreu Luís															2015
35208	Pedro Mendes de Lacerda Peixoto de Magalhães															
38741	Raúl Manuel Mendes Dionisio (b)															2011
35661	Rogério Alexandre Botelho Campos Rebelo															2016
33761	Somayeh Abdollahvand															
35851	Vitor Manuel Guerra Vaz da Silva (a)															2015

Equivalence

Finished course

N Course not yet finished (delayed)

(a) Entered in the 2nd phase
(b) Student from pre-Bologna program (does not have to do the courses part)

7 students finshed their thesis till now.

Also in this edition there are unacceptable **major delays** regarding the conclusion of some courses.

It is necessary that both the supervisors and the TACs more carefully check what is happening with the courses not finished yet. Several annual assessment reports prepared by TACs state that the students accomplished the planned activites, while in fact they are considerably late.

In the case a thesis plan is not available yet (6 students), the TACs and supervisors should assess whether the student has the capacity to continue or not; or if the supervisors are able to guide these students. It is not acceptable that after 6 years there is no thesis plan yet.

Some students are **suspended**, mostly because they have not yet paid the annual fee. At least one has quit but didn't formalize the withdrawal yet.

4.5 Edition of 2011/2012

Situation of the PhD students enrolled in 2011/2012 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
38744	Carlos Eduardo Dias Coutinho (a)															2013
38070	Fábio José Pinto da Silva															2015
38345	Fernando Luís Lourenço Ferreira															2015
38960	Joaquim Moreira Lima (b)				N											
38346	José Alexandre Pires Ferreira															
38996	Luis Miguel Rego Pires (b)				N											
38876	Maria Paula de Brito Graça (b)															
38050	Massimiliano Zanin															2014
38690	Miguel Alexandre Sousa Ferro de Beça															2016
38980	Miguel Pinto Campilho Gomes (b)				N											
38728	Nuno Manuel Ortega Amaro															2015
38972	Raúl Eduardo Capela Tello Rato (a) (c)															2012
38691	Rui Alexandre Neves Medeiros				N	N			N							
38049	Sebastian Scholze															
38184	Sudeep Ghimire															2016
37772	Tahereh Nodehi															2014
38063	Vasco Miguel Delgado Gomes				N	N										

Equivalence

Finished course

N Course not yet finished (delayed)

(a) Student from pre-Bologna program (does not have to do the courses part)
(b) Entered in the 2nd phase

(c) Self-supervised

A positive aspect is that **9** students of this edition already finshed their thesis till now.

Also in this edition there are **major delays** regarding the conclusion of some courses.

It is necessary that both the supervisors and the TACs more carefully check what is happening with the courses not finished yet.

In the case a thesis plan is not available yet (5 students), the TACs and supervisors should assess whether the student has the capacity to continue or not; or if the supervisors are able to guide these students. It is not acceptable that after 5 years there is no thesis plan yet (even if some of them are part-time students).

4.6 Edition of 2012/2013

Situation of the PhD students enrolled in 2012/2013 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
41203	Ali Abdollahy Gharbali				N											
41185	António Eduardo Carreiro Furtado															
40964	Catarina Inês Marques de Lucena															2016
41116	Eduardo José Resende Ortigueira															
41189	Fábio Emanuel Pais Januário															
41159	Hamidreza Tolue Joe Forush Tusi	N	N	N	N	N	N									Suspended
41192	Hugo Alexandre de Andrade Serra															
41071	João Francisco Martinho Lêdo Guerreiro															2016
40662	Luis Filipe Romba Jorge				N	N			N							Suspended
41199	Nuno Manuel Gonçalves Vilhena				N											
40905	Nuno Miguel Silvério Barrento				N											Suspended
41200	Pedro Miguel Lucas Arsénio															
41430	Ricardo André Martins Mendonça				N											
41198	Rui Miguel Amaral Lopes															
41507	Slavisa Tomic															

Equivalence

Finished course

N — Course not yet finished (delayed)

A positive aspect is that 1 student of this edition already finshed her thesis.

Also in this edition there are **major delays** regarding the conclusion of some courses

It is necessary that both the supervisors and the TACs more carefully check what is happening with the courses not finished yet.

In the case a thesis plan is not available yet (5+1 students), the TACs and supervisors should assess whether the student has the capacity to continue or not; or if the supervisors are able to guide these students. It is not acceptable that after 4 years there is no thesis plan yet (even if some of them are part-time students).

One student has quit but didn't formalize the withdrawal yet.

4.7 Edition of 2013/2014

Situation of the PhD students enrolled in 2013/2014 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
43945	André Dionísio Bettencourt da Silva Rocha				N	N										

44429	Edgar Miguel Felício Oliveira da Silva (a)				N											
43962	Elsa Maria Marcelino de Jesus				N									N		
43621	Francisco Antero Cardoso Marques				N	N						N				Suspended
43984	Frederico João Gonçalves dos Santos Branco Martins	N	N	N	N	N			N							Suspended
43619	Giovanni Di Orio				N	N						N				Suspended
44089	Kevin Pierre Nagorny				N	N						N				
43582	Leonardo Pedro Donas-Boto Vilhena Martins															
44126	Mário Rui Monteiro Marques															
44154	Nuno Rúben Ferreira Pereira				N											
44090	Oliver Kotte			N	N	N	N									Suspended
44107	Sérgio Duarte Correia			N	N	N	N									Suspended
44173	Thais Andrea Baldissera (a)															

Equivalence
Ongoing
Finished course
N Course not yet finished (delayed)

(a) Entered in the 2nd phase

Only 3 students finished all courses!
Even if some students are part-time students, by now all courses should have been completed and the Thesis Plan should be available.
It is necessary that the supervisors check the situation.

It looks like that in several cases the supervisors are guiding the students to invest on the research activities before having a research plan approved, a situation that needs to be fixed!

One student has quit but didn't formalize the withdrawal yet. Some are suspended because they have not yet paid the annual fee.

4.8 Edition of 2014/2015

Situation of the PhD students enrolled in 2014/2015 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
46574	Ana Paula Pinto Correia				N			N								
46657	André Filipe Lopes Lourenço				N	N						N				
46416	António Jorge Teixeira Falcão			N	N	N								N		
46560	Artem Artemovych Nazarenko															
46316	Bruno Augusti Mozzaquatro															
46490	Bruno Miguel Pereira de Almeida	N	N	N	N	N										Suspended
46533	Esmaeil Kondori			N	N	N	N									
46471	Miguel Duarte Madeira Fernandes				N			N								
46575	Milica Marikj			N	N	N									N	Suspended
46581	Nazanin Vafaei				N											
46678	Paulo Alves Figueiras				N									N		
46348	Raquel Alexandra Abrantes Melo				N									N		Suspended
46651	Shirin Najdi				N	N				N						
46324	Vagner Savegnago Schaefer				N				N							

Only **2** students finished all courses!
In fact some of them progressed very little during this year, although some of them have a scholarship to be fully dedicated to the PhD.

All courses should have been finished (except perhaps in the case of part-time students).
It is necessary that the supervisors check the situation.

It looks like that also in this edition, some supervisors continue guiding the students to invest on the research activities before having a research plan approved, a situation that needs to be fixed!

4.9 Edition of 2015/2016

Situation of the PhD students enrolled in 2015/2016 regarding the courses component:

Nº	Name	MTIC	ME	CD	PI	OL	TAcd	TAel	TAen	TAps	TArc	TArmi	TAscp	TAsii	TAtel	Graduated
48978	Adriano Manuel Alves Ferreira (a)					N						N				
49139	Anselmo Rafael Cukla (b)															
48689	Fernando Jorge Chapita de Castro Monteiro				N	N			N							Supended
48872	José Teixeira Gonçalves				N											
48895	Kankam Okatakyie Adu-Kankam				N	N										
48801	Luis Miguel Gomes Tavares				N			N								
48305	Luís Miguel do Rosário Irio					N										
49014	Mafalda Palma da Silva Viola Parreira Rocha				N	N										
48938	Majid Zamiri				N	N										
48855	Masoomeh Ramezani				N	N										
48833	Márcio José Moutinho da Ponte (b)															Suspended
48995	Miguel de Lima Teixeira				N	N										
48884	Nuno Ricardo Zacarias Ramos				N	N								N		Suspended
49015	Pedro Miguel Lima Monteiro				N	N										
49030	Ricardo Alexandre Fernandes da Silva Peres				N	N						N				
48889	Shabnam Pasandideh				N	N										Suspended

None of the students finished all courses!
In fact some of them progressed very little during this year, although some of them have a scholarship to be fully dedicated to the PhD.

Doctoral Conference (CD) course is ongoing (planned to end in May 2017). But the other courses should have been finished (except in the case of part-time students).
It is necessary that the supervisors check the situation.

It looks like that also in this edition, some supervisors are guiding the students to invest on the research activities before having a research plan approved, a situation that needs to be fixed!

Various students are suspended because they have not yet paid the annual fee.

5. FINISHED THESES AND AWARDS

The following theses were concluded since the Bologna model was adopted:

Theses finished in 2010: 11

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2010
33103	Regina Maria Frei Santos Barbosa	José Barata Oliveira		17-05-2010
653	João Almeida Rosas	Luis Camarinha Matos		15-06-2010
33253	Ana Sofia Fachada Fernandes	José Manuel Fonseca	Paulo Jorge Gomes Lisboa	08-10-2010
705	João Murta Pina	Leão Rodrigues		25-11-2010
647	Ana Rita Campos	Rui Neves-Silva		26-11-2010
676	Anikó Costa	Luis Gomes		30-11-2010
33332	Silviano Francisco Santos Rafael	Armando Pires	Steiger Garção / Paulo José da Costa Branco	13-12-2010
32555	Anabela Monteiro Gonçalves Pronto	M.Ventim Neves	Leão Rodrigues	14-12-2010
673	André Mora	José Manuel Fonseca		16-12-2010
704	Rui Tavares	Nuno Paulino		17-12-2010
32734	João Pedro Abreu de Oliveira	Adolfo Steiger Garção	João Goes	20-12-2010

Theses finished in 2011: 3

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2011
32626	Patricia Alexandra Pires Macedo	Luís Camarinha Matos		13-07-2011
525	Raúl Dionísio	Leão Rodrigues		13-12-2011
32606	José Rui Barbosa Custódio	João Goes		21-12-2011

Theses finished in 2012: 7

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2012
32632	Maria do Carmo Marques	Rui Neves-Silva		12-01-2012
30066	Luís Domingos Ferreira Ribeiro	José Barata Oliveira		12-01-2012
38972	Raúl Eduardo Capela Tello Rato	(Self-supervised)		02-03-2012
32607	Michael Figueiredo	João Goes	Guiomar G. Andrade Evans	09-03-2012
32550	Tiago Oliveira Machado de Figueiredo Cardoso	Luís Camarinha Matos		17-04-2012
32564	Manuel Augusto Vieira	Paula Louro Antunes	Adolfo Steiger Garção	9-10-2012
30074	Carlos Manuel de Melo Agostinho	Ricardo Gonçalves		15-10-2012

Theses finished in 2013: 7

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2013
32617	Miguel Ramos Pereira	Luís Bernardo	Rui Dinis	08-01-2013
30073	João Filipe dos Santos Sarraipa	Ricardo Gonçalves		10-01-2013
38744	Carlos Eduardo Dias Coutinho	Ricardo Gonçalves	Adina-Georgeta Bratu Cretan	10-01-2013
32577	Pedro Miguel Figueiredo Amaral	Paulo Pinto		11-01-2013
32571	Gonçalo Moreira Cândido	José Barata Oliveira		03-12-2013
30067	Pedro Miguel Ramos Pereira	Maria Helena Fino	M. Ventim Neves	17-12-2013
33101	Pedro Miguel Negrão Maló	Steiger Garção		20-12-2013

Theses finished in 2014: 9

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2014
33270	Francisco José Dinis de Sousa Fernandes Ganhão	Rui Dinis	Luís Bernardo	06-06-2014
32618	Carlos Manuel Ferreira Carvalho	Nuno Paulino		15-07-2014
32574	Filipe de Carvalho Moutinho	Luís Gomes		24-07-2014
33271	José Miguel Ferreira Preto Marques Luzio	Rui Dinis	Paulo Montezuma	10-11-2014
29768	Ruben Duarte Dias da Costa	Celson Lima	Steiger Garção	24-11-2014
38050	Massimiliano Zanin	Pedro Sousa	Stefano Boccaletti	05-12-2014
37772	Tahereh Nodehi	Ricardo Gonçalves		09-12-2014
32608	Edinei Santin	João Goes	Luís Oliveira	16-12-2014
29760	David Inácio	M.Ventim Neves	João Murta Pina / Alfredo Álvarez Garcia	18-12-2014

Theses finished in 2015: 14

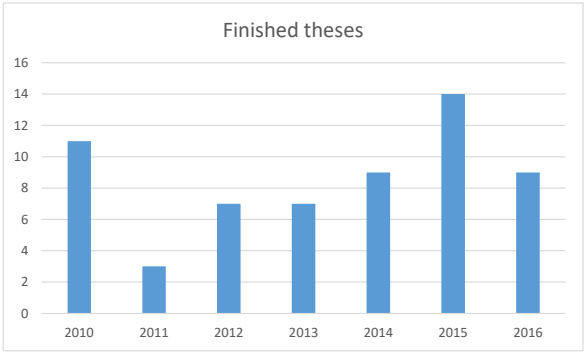
Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2015
32612	Maria da Graça Vieira de Brito Almeida	José Manuel Fonseca	Fernando Manuel Fernandes Melicio	26-01-2015
30068	Ezequiel Francisco do Vale Carvalho	M.Ventim Neves	Jorge Alberto Mendes de Sousa	20-07-2015
38345	Fernando Luís Lourenço Ferreira	Ricardo Gonçalves		20-07-2015
30069	Daniel José Medronho Foito	João Martins	José Henrique Querido Maia	21-07-2015
33331	Pedro José Ambrósio Lobato	Armando Pires	João Martins	21-07-2015
33254	António Manuel Vieira Pombo	Victor Manuel de Carvalho Fernão Pires	João Murta Pina	17-11-2015

32590	João Carlos Ferreira de Almeida Casaleiro	Luís Bica Oliveira		24-11-2015
29588	Filipe André de Sousa Figueira Barata	Rui Neves-Silva		01-12-2015
38070	Fábio José Pinto da Silva	Rui Dinis	Paulo Montezuma de Carvalho	10-12-2015
38728	Nuno Manuel Ortega Amaro	João Murta Pina	João Martins/José Maria Ceballos Martínez	14-12-2015
29770	Nuno Alexandre Soares Domingues	João Joanaz de Melo	Rui Neves-Silva	16-12-2015
35851	Vitor Manuel Guerra Vaz da Silva	Maria Manuela Vieira	Manuel Martins Barata	17-12-2015
35771	Ivan Iuri Alves Bastos	Luís Bica Oliveira	Manuel de Medeiros Silva	21-12-2015
35666	Nuno Miguel Abreu Luís	Rodolfo Oliveira	Rui Dinis	21-12-2015

Theses finished in 2016: 9

Nº	Name	Supervisor	Co-supervisor(s)	Theses in 2016
33572	José Alberto Oliveira Lima	João Martins	Celson Lima	08-04-2016
35499	Blazej Nowacki	Nuno Paulino	João Goes	11-05-2016
30064	Ana Inês da Silva Oliveira	Luis Camarinha Matos		22-06-2016
35661	Rogério Alexandre Botelho Campos Rebelo	Luis Gomes	Anikó Costa	28-07-2016
38690	Miguel Alexandre Sousa Ferro de Beça	Ricardo Gonçalves	Adina-Georgeta Bratu Cretan	22-09-2016
40964	Catarina Inês Marques de Lucena	Ricardo Gonçalves	João Filipe dos Santos Sarraipa	07-12-2016
38184	Sudeep Ghimire	Ricardo Gonçalves	António Carlos Bárbara Grilo	07-12-2016
35122	Hugo Tito Cordeiro	Carlos Eduardo de Meneses	José Manuel Fonseca	16-12-2016
41071	João Francisco Martinho Lêdo Guerreiro	Rui Dinis	Paulo Montezuma	20-12-2016

The numbers of the last four years show that we are reaching a **reasonable number of theses per year**, although the duration of each one is still excessive (on average).



Since several questions have been raised lately about the structure of the theses as well as the process of submitting a thesis. As such, a document on **Guidelines for thesis preparation** was elaborated (ANNEX).

AWARDS

Some students of PDEEC have got paper awrds in international peer reviewed conferences. **Congratulations** to them and their supervisors!

Sudent: 43582 **Leonardo Martins** *Supervisors:* José Manuel Fonseca, André Sanchez Ribeiro *Award:* ***Best Student Paper Award*** SIMULTECH 2016 - 6th International Conference on Simulation and Modeling Methodologies, Technologies and Applications, 31 Jul 2016, Lisbon, Portugal	
Sudent: 41071 **João Guerreiro** *Supervisors:* Rui Dinis, Paulo Montezuma *Award:* ***Best paper award*** Conference IEEE Vehicular Technology Conference 2016, 6-9 Sep 2016, Boston, USA *Paper*: "Optimum Performance and Spectral Characterization of CE-OFDM Signals" (*João Guerreio, Rui Dinis, Paulo Montezuma*)	
Sudent: 44173 **Thais Baldissera** *Supervisor:* Luis M. Camarinha-Matos *Award:* ***Best Student Paper Award*** PRO-VE 2016 - 17th IFIP WG 5.5 Working Conference on Virtual Enterprises, 3-5 Oct 2016, Porto, Portugal *Paper*: "Services Personalization Approach for a Collaborative Care Ecosystm" (*Thais A. Baldissera, Luis M. Camarinha-Matos)*	

6. SUPERVISION AND MONITORING

6.1 Supervisors, TACs, and research topics

The following tables show the situation of each student:

Edition of 2008/2009:

				TAC			
Nº	Name	Specialization	Thesis title (tentative)	Chair	Supervisor	Co-supervisor	External member
30064	Ana Inês da Silva Oliveira	Collaborative Enterprise Networks	An environment to support negotiation and contracting in collaborative networks	José Barata Oliveira	Luis Camarinha Matos		Henrique O'Neill
29737	Carla Solange Pires Correia Viveiros	Control and Decision	Fault tolerant control approaches – application to structural faults	Luís Gomes	Luís Palma	José Igreja	Alberto Jorge Lebre Cardoso
29714	Carlos Jorge de Cunha Matos	Signal Processing	Fractional-order linear systems implementation	Fernando Coito	Manuel Ortigueira	Octávio Páscoa Dias	José A. Tenreiro Machado
30074	Carlos Manuel de Melo Agostinho	Industrial Information Systems	Sustainability of systems interoperability in dynamic business networks	A. Steiger Garção	Ricardo Gonçalves		Ricardo Chalmeta
30069	Daniel José Medronho Foito	Energy	Máquina de Indução no Aproveitamento de Energias Renováveis	M.Ventim Neves	João Martins	José Querido Maia	Vitor Fernão Pires
29760	David Duarte Pereira Inácio	Energy	Estudo do Motor em Disco com o Rotor em Alumínio e em Supercondutor Multi-semente	Anabela Pronto	M.Ventim Neves	Alfredo Álvarez Garcia (ext) João Murta Pina	António Dente
30068	Ezequiel Francisco do Vale Carvalho	Energy	A Integração do Veículo Eléctrico no Sistema Eléctrico Nacional	João Martins	M.Ventim Neves	José Alberto Sousa	João Paulo da Silva Catalão
30065	Filipa Alexandra Moreira Ferrada	Collaborative Enterprise Networks	Emotions-oriented monitoring system of collaborative networks	José Barata Oliveira	Luis Camarinha Matos		Henrique O'Neill
29588	Filipe André de Sousa Figueira Barata	Control and Decision	Control of distribution networks with demand side management	João Martins	Rui Neves-Silva		José Manuel Igreja
30073	João Filipe dos Santos Sarraipa	Industrial Information Systems	Semantics adaptability for systems interoperability	A. Steiger Garção	Ricardo Gonçalves		Hervé Panetto
29586	João Paulo Machado Mendes	Energy	Modulador Híbrido de potência pulsada para aplicações médicas - O uso de semicondutores com linhas de transmissão	Luís Camarinha Matos	Luís Manuel Redondo	Manuela Vieira	Elmano da Fonseca Margato
30070	José Carlos de Ponte Ribeiro	Computational and Perceptional Systems	Exploração de diferentes semânticas na construção estruturada de modelos em redes de Petri e sua aplicação no desenvolvimento de sistemas embutidos	Luís Camarinha Matos	Luís Gomes	Fernando Manuel Melício	João Paulo Mestre Barros
30063	José Inácio Pinto Rosado Rocha	Computational and Perceptional Systems	System design optimization using real time genetic algorithm hardware implementations	João Goes	Luís Gomes	Octávio Páscoa Dias	Manuel Barata
30066	Luís Domingos Ferreira Ribeiro	Robotics and Integrated Manufacturing	Diagnosis in Evolvable Assembly Systems	Luís Camarinha Matos	José Barata Oliveira		Carlos Baptista Cardeira
30004	Luís Miguel Bentes Moita Flores	Robotics and Integrated Manufacturing	Evolvable/reconfigurable control architecture for complex and heavy manufacturing shopflor	Pedro Sousa	José Barata Oliveira		Mauro Onori
30067	Pedro Miguel Ribeiro Pereira	Electronics	Projecto de osciladores LC controlados por tensão por utilização de técnicas de optimização	Fernando José Almeida Vieira do Coito	Maria Helena Silva Fino	Mário Fernando Ventim Neves	João Vaz
29768	Ruben Duarte Dias da Costa	Industrial Information Systems	A framework to support semantic enhancement of knowledge in collaborative engineering projects	José Barata Oliveira	Celson Lima	A. Steiger Garção	Paulo Rupino
30072	Sérgio Miguel da Silva Onofre	Computational and Perceptional Systems	Arquitectura de Referência para Sistemas Físicos Monitorados por Sensores	José Barata Oliveira	Pedro Sousa	João Paulo Pimentão	Ernestina Menasalvas
30040	Tiago José Monteiro Baptista Cabral Ferreira	Computational and Perceptional Systems	Reference architecture for maintainability and reliability systems	João Paulo Pimentão	Pedro Sousa	José Barata Oliveira	Ernestina Menasalvas

Edition of 2009/2010:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
33254	António Manuel Vieira Pombo	Energy	Planeamento multiobjectivo de sistemas em redes de distribuição	João Martins	Vitor Manuel de Carvalho Fernão Pires	João Murta Pina	Humberto Manuel Matos Jorge
32618	Carlos Manuel Ferreira Carvalho	Electronics	CMOS indoor light energy harvesting system for wireless sensing applications	João Goes	Nuno Paulino		Jorge Fernandes
33240	Dora Helena Avelar Gonçalves	Control and Decision	Análise Transiente de fotodíodos de a-Si:H para aplicações da optoelectrónica		Alessandro Fantoni (ext)	Manuela Vieira	
32608	Edinei Santin	Electronics	A built-in Self-Test Technique for High Speed Analog-to-Digital Converters	Nuno Paulino	João Goes	Luís Oliveira	Jorge M. dos Santos Ribeiro Fernandes
33224	Eduardo Adelino Mateus Nunes Eusébio	Energy	Agentes comerciais no mercado de energia eléctrica		Jorge Alberto Mendes Sousa (ext)	Mário Fernando Ventim Neves	
32678	Elena Nikolaevna Baikova	Energy	Energy distribution by high-power high-frequency wireless methods	Fernando Coito	Stanimir Valtchev	Vitor Pires	Duarte de Mesquita e Sousa
33249	Fernando Joaquim Ganhão Pereira	Computational and Perceptional Systems	Petri nets and reconfigurable computing platforms	Aniko Katalin Horvath da Costa	Luís Gomes		Ricardo J. Machado
32574	Filipe de Carvalho Moutinho	Computational and Perceptional Systems	Petri Nets and heterogeneous distributed embedded systems design	Aniko Katalin Horvath da Costa	Luís Gomes		João Miguel Fernandes
33270	Francisco José Dinis de Sousa Fernandes Ganhão	Telecommunications	Cross-Layer design and optimization for power-efficient low earth orbit satellit	Paulo da Costa Luís da Fonseca Pinto	Rui Dinis	Luís Bernardo	Nuno M. Branco Souto
32552	Francisco Manuel Mendes da Silva Pina	Energy					
32590	João Carlos Ferreira de Almeida Casaleiro	Electronics	MOSFET - only radio receiver	João Carlos Palma Goes	Luís Oliveira		Manuel Medeiros Silva
32697	João Manuel Ferreira Martins	Electronics	Using reconfigurable computing to improve the performance of massively parallel processing architectures		Mário Pereira Véstias (ext)	Manuela Vieira	
32725	João Miguel Ferreira Caldas da Costa	Control and Decision	Classification and Analysis of Sleep Spindles	Adelino Rocha Ferreira da Silva	Manuel Ortigueira	Maria Teresa Aguiar dos Santos Paiva	António Serralheiro
33271	José Miguel Ferreira Preto Marques Luzio	Telecommunications	High efficiency transmission techniques for broadband wireless systems	Luís Filipe Lourenço Bernardo	Rui Dinis	Paulo Montezuma	João Marques Silva
33268	José Pedro Magalhães Lucas	Computational and Perceptional Systems	Behavioral model for distributed automation systems	José António Barata de Oliveira	Luís Gomes	João Martins	Paulo Leitão
32585	José Xavier Ferreira da Silva	Telecommunications	Computacional intelligence in space weather prediction for aviation	José Manuel Matos Ribeiro da Fonseca		Ivan Dorotovic	Luis Correia
33572	José Alberto Oliveira Lima	Energy	Real-time intelligent optimization and learning for intelligent buildings	José António Barata de Oliveira	João Martins	Celson Lima	Paulo Rupino
32564	Manuel Augusto Vieira	Electronics	Three transducers for one photo detector: essays for optical communication	Ricardo Luís Rosa Jardim Gonçalves	Paula Louro Antunes (ext)	A. Steiger Garção	Manuel Martins Barata
32612	Maria da Graça Vieira de Brito Almeida	Computational and Perceptional Systems	Image Processing for Displacement Measurements	André Teixeira Bento Damas Mora	José Manuel Fonseca	Fernando Manuel Melício	Arnaldo Joaquim Abrantes
32643	Miguel Bacelar de Sousa Carneiro	Processamento de Sinais	Automatic sleep stage classification using electroencephalography (EEG) signal analysis		Arnaldo Batista	Manuel Ortigueira	
32613	Nuno Paulo Real Veiga Cardoso	Signal Processing	High-frequency electrocardiogram wavelet analysis	Rui Manuel Leitão Santos Tavares	Arnaldo Batista	Manuel Ortigueira	Maria Cristina E. B. Prista Caetano
32733	Pedro Jorge Cristina Mendes	Robotics and Integrated Manufacturing			José Barata Oliveira		
33331	Pedro José Ambrósio Lobato	Energy	A Máquina eléctrica de relutância comutada - análise de funcionamento como gerador em aproveitamentos eólicos	Mário Fernando Ventim Neves	Armando Pires (ext)	João Martins	Joaquim António F. Gonçalves Dente

32566	Raúl Figueiredo Cordeiro de Magalhães Correia	Computational and Perceptional Systems	Euronet Lab a cloud V-Lab Environment	Luis Gomes	José Manuel Fonseca	Andrew Donnellan (ext)	Amine Bergia
33332	Silviano Francisco dos Santos Rafael	Energy	Controlo de posição angular de uma máquina eléctrica de relutância comutada 8/6	Fernando Coito	Armando Pires (ext)	Steiger Garção / Paulo José Costa Branco (ext)	Joaquim A. Fraga Gonçalves Dente
32656	Sveltana Roudolfovna Chemetova	Energy	Estimação de padrões de consumo de energia eléctrica	João Miguel Murta Pina	Paulo Jorge da Costa Santos (ext)	M. Ventim Neves	Jorge Alberto Mendes de Sousa
32584	Vitor Manuel de Oliveira Fialho	Electronics	Estudo e optimização do ruído de fase em osciladores locais para comunicação sem fios	Luís Augusto Bica Gomes de Oliveira	Fernando M-Ascenso Fortes (ext)	Manuela Vieira	Mário Vestas
33490	Eduardo Manuel Ferreira Morais Pinto	Robotics and Integrated Manufacturing	Cooperation in multi-ambient swarm robots	Luís Manuel Camarinha de Matos	José Barata Oliveira		Jorge Manuel Miranda Dias

Note: José Xavier Ferreira da Silva no longer has supervisor, as he is not contactable for a long time.

As shown in the above table, some students from 2009/2010 still **do not have a TAC**, which is not acceptable!

Its is absolutely urgent that their supervisors submit the proposals for TACs.

Francisco Pina has lost his supervisor due to his underperformance during the last years. It is unclear if he intends to continue.

Edition of 2010/2011:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
35499	Blazej Nowacki	Electronics	Design of sigma-delta modulators for analog-to-digital conversion intensively using passive switched-capacitor circuits	João Pedro Abreu de Oliveira	Nuno Filipe Silva Veríssimo Paulino	João Carlos Palma Goes	Jorge Manuel Correia Guilherme
35662	Edgar Miguel Felício Oliveira da Silva	Industrial Information Systems	Plataforma adaptativa orientada aos serviços, para interoperabilidade sustentada	Adolfo Sanchez Steiger Garção	Ricardo Luís Rosa Jardim Gonçalves		João Pedro Mendonça de Assunção da Silva
34339	Ehsan Shahamatnia	Industrial Information Systems	Automatic solar feature characterization and tracking	José Manuel Fonseca	Rita Ribeiro	Ivan Dorotovic (ext)	João Fernandes
34752	Gonçalo Nuno Nascimento Ventura de Brito Nunes	Control and Decision	Topologias multi-agente em redes de sensores e actuadores sem fios: aplicação ao controlo tolerante a falhas	Rui Alexandre Nunes Neves-Silva	Paulo José Carrilho de Sousa Gil	Alberto Jorge Lebre Cardoso (ext)	Mário José Gonçalves Cavaco Mendes
35122	Hugo Tito Cordeiro	Signal Processing	Reconhecimento de patologias da voz usando técnicas de procesamento da fala	André Mora	Carlos Eduardo de Meneses Ribeiro (ext)	José Manuel Fonseca	Isabel Cristina Ramos Peixoto Guimarães
35771	Ivan Iuri Alves Bastos (a)	Electronics	MOSFET-only low noise amplifiers	João Carlos Palma Goes	Luís Augusto Bica Gomes de Oliveira	Manuel de Medeiros Silva (ext)	Jorge Manuel Ribeiro dos Santos
35831	João Luís Alvernaz de Melo (a)	Electronics	Design of a low cost CMOS modulator for class D audio power amplifiers with very high efficiency	João Pedro Abreu de Oliveira	Nuno Filipe Silva Veríssimo Paulino	João Carlos Palma Goes	Marcelino Bicho dos Santos
35719	João Tiago Vieira de Sousa Virote	Control and Decision	Methodologies for optimal control of networked distributed systems		Rui Alexandre Nunes Neves-Silva		
35171	Magno Edgar da Silva Guedes	Robotics and Integrated Manufacturing	Analysis of operator's behaviors in working places		José António Barata de Oliveira		
35276	Manuel Fernandes Carvalho	Industrial Information Systems	Algoritmo de aprendizagem automática para construção de variáveis linguísticas para sistemas de monitorização			Manuel Barata (ext)	
35852	Mário Jorge Saldanha Couto Alves (a)	Computational and Perceptional Systems	Power supply of sensory systems units, based on alternative energy sources		José Miguel Costa Dias Pereira (ext)	José Manuel Fonseca	
35666	Nuno Miguel Abreu Luís	Telecommunications	Medium Access Control Design for Distributed Opportunistic Radio Networks	Luis Bernardo	Rodolfo Alexandre Duarte Oliveira	Rui Miguel H. Dias Morgado Dinis	Paulo Marques
35208	Pedro Mendes de Lacerda Peixoto de Magalhães	Energy	Control and demand-oriented optimization of photovoltaic-thermal (PV-T) solar collectors	Fernando J. Almeida Vieira Coito	João Francisco Alves Martins	António Joyce (ext)	António Gomes Martins

35661	Rogério Alexandre Botelho Campos Rebelo	Computational and Perceptional Systems	Petri nets and human-system interactions design	Luis Palma	Luís Filipe Santos Gomes	Aniko K. Horvath da Costa	João Paulo Barros
33761	Somayeh Abdollahvand	Electronics	Design of high-performance low-noise and low-power mixed-signal CMOS circuits employing self-biasing and low-voltage techniques	Luis Oliveira	João Carlos Palma Goes	Luís F. S. Gomes	José Soares Augusto
35851	Vitor Manuel Guerra Vaz da Silva (a)	Electronics	Demultiplexing optical communications with visible light selector	Rui Tavares	Manuela Vieira	Manuel Martins Barata (ext)	João M.Serra

Note: Manuel Fernandes Carvalho no longer has supervisor, as he is not contactable for a long time.

As shown in the above table, 4 students from 2010/2011 still **do not have a TAC**, which is not acceptable!

Its is urgent that their supervisors submit the proposals for TACs.

Manuel Fernandes Carvalho lost his supervisor due to lack of performance of the student.

Edition of 2011/2012:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
38744	Carlos Eduardo Dias Coutinho (a)	Industrial Information Systems	(Transição pré-Bolonha) NEGOSEIO: Framework for the Sustainability of Model-oriented Enterprise Interoperability		Ricardo Gonçalves	Adina-Georgeta Bratu Cretan (ext)	
38070	Fábio José Pinto da Silva	Telecommunications	Users and Channel Estimation for Network Diversity Multiple Access	Rodolfo Alexandre Duarte Oliveira	Rui Dinis	Paulo Montezuma Carvalho	Francisco Cercas
38345	Fernando Luís Lourenço Ferreira	Computational and Perceptional Systems	Framework for knowledge Management based on Neuroscience Models	João Martins	Ricardo Gonçalves		Pedro Santos Pinto Gamito
38960	Joaquim Moreira Lima (b)	Energy	Distributed power generation in smart grids	João Carlos Palma Goes	José Barata	João Martins	Rui Gameiro Castro
38346	José Alexandre Pires Ferreira	Industrial Information Systems	Monitoring morphisms to support sustainable interoperability of networked enterprise systems	José Barata Oliveira	Ricardo Gonçalves	Carlos Manuel Melo Agostinho (ext)	João Pedro Mendonça de Assunção da Silva
38996	Luis Miguel Rego Pires (b)	Electronics	Ultra-low power RF CMOS digital transceiver using parametric signal conversion in nano-scale CMOS technology	João Carlos da Palma Goes	João Pedro Oliveira		Jorge Manuel Correia Guilherme
38876	Maria Paula de Brito Graça (b)	Collaborative Enterprise Networks	Performance Indicators for Collaborative Business Ecosystems	João Martins	Luis Camarinha Matos		António Abreu
38050	Massimiliano Zanin	Computational and Perceptional Systems	Complex networks and data mining: toward a new perspective for the understanding of complex systems	Luis Camarinha Matos	Pedro Sousa	Stefano Boccaletti (ext)	Ernestina Menasalvas
38690	Miguel Alexandre Sousa Ferro de Beça	Industrial Information Systems	Framework to facilitate the discovery of data sources using semantic web principles	José Barata Oliveira	Ricardo Gonçalves	Adina-Georgeta Bratu Cretan (ext)	João Pedro Mendonça de Assunção da Silva
38980	Miguel Pinto Campilho Gomes (b)	Electronics	Automated flat circuit-level topology generation		Rui Santos Tavares	João Goes	
38728	Nuno Manuel Ortega Amaro	Energy	Superconducting Magnetic Energy Storage (SMES) for power quality applications	Mário Ventim Neves	João Murta Pina	José Ceballos Martínez (ext) + João Martins	Victor Fernão Pires
38972	Raúl Eduardo Capela Tello Rato (a)(c)	Signal Processing	Formalização da tolerância à ausência de dados do processamento de sinais discretos		(self-supervised)		
38691	Rui Alexandre Neves Medeiros	Energy	Wireless energy transfer for robotic purposes	Fernando Coito	Stanimir Valtchev	Mário Rui Melício da Conceição (ext)	Victor Manuel Fernandes Mendes
38049	Sebastian Scholze	Industrial Information Systems	Efficient embedded services applying context awarenes for agile manufacturing	Luís Manuel Camarinha Matos	José Barata		Edmundo Monteiro
38184	Sudeep Ghimire	Industrial Information Systems	Self-* Framework for service system	João Goes	Ricardo Gonçalves	António C. Bárbara Grilo	Ricardo Jorge Silvério de Magalhães Machado

37772	Tahereh Nodehi	Computational and Perceptional Systems	A new MDA-SOA framework for intercloud interoperability	José Barata Oliveira	Ricardo Gonçalves		João Pedro Mendonça de Assunção da Silva
38063	Vasco Miguel Delgado Gomes	Industrial Information Systems	A framework to support standard-based communication between the heterogeneous building-related systems	Ricardo Luís Rosa Jardim Gonçalves	Celson Pantoja Lima (ext)	João Martins + Paul Nicolae Borza (ext)	Silvio Mariano

(a) From pre-Bolonha
(b) Entered in the 2nd phase
(c) Self-supervised

As shown in the above table, 1 student from 2011/2012 still **does not have a TAC**, which is not acceptable!

Its is urgent that his supervisors submit the proposal for the TAC.

Edition of 2012/2013:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
41203	Ali Abdollahy Gharbali	Signal Processing	Biomedical Signal Processing		José Manuel Fonseca		
41185	António Eduardo Carreiro Furtado	Telecomunicações	Advanced PHY/MAC design for infrastructure-less wireless networks	Luís Filipe Lourenço Bernardo	Rodolfo Oliveira	Rui Dinis	Pedro Joaquim Amaro Sebastião
40964	Catarina Inês Marques de Lucena	Industrial Information Systems	Semantic adaptation of knowledge representation systems	João Francisco Alves Martins	Ricardo Gonçalves	João Filipe dos Santos Sarraipa (ext)	Teresa Cristina de Freitas Gonçalves
41116	Eduardo José Resende Ortigueira	Electronics	Wideband Oscillators Synchronized by a magnetic nano-oscillator	João Carlos Palma Goes	Luís Oliveira	Jorge Manuel dos Santos Ribeiro Fernandes (ext)	Igor Filanovski
41189	Fábio Emanuel Pais Januário	Control and Decision	Resilient control systems over wireless sensor and actuator networks: a multi-agent based approach	Luís Filipe Santos Gomes	Paulo Gil	Alberto Jorge Lebre Cardoso (ext)	Mário José Gonçalves Cavaco Mendes
41159	Hamidreza Tolue Joe Forush Tusi	Control and Decision					
41192	Hugo Alexandre de Andrade Serra	Electronics	Design of switched-capacitor filters using low gain amplifiers in advanced CMOS technologies	João Pedro Abreu de Oliveira	Nuno Paulino		Nuno Cavaco Gomes Horta
41071	João Francisco Martinho Lêdo Guerreiro	Telecommunications	Optimum performance and sub-optimal receivers for OFDM signals	Rodolfo Alexandre Duarte Oliveira	Rui Dinis	Paulo Montezuma	Marco Cravo Gomes
39264	Konstantin Firsanov			ERASMUS			
40662	Luis Filipe Romba Jorge	Energy	Wireless power transfer in polyphase systems with optimized control	Fernando Coito	Stanimir Valtchev	Mário Rui Melício da Conceição (ext)	Victor Manuel Fernandes Mendes
41199	Nuno Manuel Gonçalves Vilhena	Energy	Contribution for the study of integration of the saturated cores fault current limiters in electrical distribution grids	João Francisco Alves Martins	João Murta Pina	Anabela Pronto + Alfredo Álvarez García (ext)	Antonio Morandi
40905	Nuno Miguel Silvério Barrento	Control and Decision	Train detection and location system based on acoustics		Fernando Coito		
41200	Pedro Miguel Lucas Arsénio	Energy	Contribution for the study of inductive fault current limiters in distribution electric grids	João Martins	João Murta Pina	Anabela Pronto + Alfredo Álvarez García (ext)	Istvan Vajda
41430	Ricardo André Martins Mendonça	Robotics and Integrated Manufacturing	Framework for swarm cognition		José Barata Oliveira	Pedro Figueiredo Santana (ext)	
41198	Rui Miguel Amaral Lopes	Energy	Gestão de energia em edifícios no contexto da internet of things	Luís Filipe Santos	Celson Lima (ext)	João Martins + Daniel	João Peças Lopes

				Gomes		Aelenei (ext)	
41507	Slavisa Tomic	Telecommunications	Cognitive radio	Paulo Montezuma Carvalho	Marko Beko	Rui Dinis	Fernando Duarte Nunes

Apparently H. Tusi has quit, but he didn't formalize his withdrawal.

As shown in the above table, 4 students from 2012/2013 still **do not have a TAC**, which is not acceptable!

Its is urgent that their supervisors submit the proposals for TACs.

Edition of 2013/2014:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
43945	André Dionísio Bettencourt da Silva Rocha	Robotics and Integrated Manufacturing	An architecture for self-organizing conveyor-based material handling systems	Ricardo Gonçalves	José Barata Oliveira	Luis Domingos Ribeiro (ext)	Paulo Leitão
44429	Edgar Miguel Felício Oliveira da Silva (a)	Computational and Perceptional Systems	A multi criteria co-design for cyber-physical systems				
43962	Elsa Maria Marcelino de Jesus	Industrial Information Systems	Knowledge-based framework for an effective technology transfer from research to industry	Anabela Monteiro Gonçalves Pronto	Ricardo Gonçalves		João Pedro Mendonça da Silva
43621	Francisco Antero Cardoso Marques	Robotics and Integrated Manufacturing	Context-aware navigation for long lasting operation of multi-robot systems	Luis Gomes	José Barata Oliveira	Pedro Figueiredo Santana (ext)	Victor José de Almeida e Sousa Lobo
43984	Frederico João Gonçalves dos Santos Branco Martins	Energy					
43619	Giovanni Di Orio	Robotics and Integrated Manufacturing	Self-adaptable production systems	Pedro Sousa	José Barata Oliveira		Luis Domingos Ribeiro
44089	Kevin Pierre Nagorny	Robotics and Integrated Manufacturing	Service Oriented architecture based manufacturing to support product life-cycle	Pedro Sousa	José Barata Oliveira	Armando Walter Colombo (ext)	Luis Domingos Ferreira Ribeiro
43582	Leonardo Pedro Donas-Boto Vilhena Martins	Computational and Perceptional Systems	Study of the kinetics of asymmetric disposal of aggregates in cell division and its correlation to functional aging in vivo measurements, one event at a time	André Teixeira Bento Damas Mora	José Manuel Fonseca	André Sanchez Ribeiro (ext)	Adriano José Alves de Oliveira Henriques
44126	Mário Rui Monteiro Marques	Control and Decision	Model Reference for USV	José António Barata de Oliveira	Fernando Coito	Victor José de Almeida e Sousa Lobo (ext)	António Joaquim dos Santos Serralheiro
44154	Nuno Rúben Ferreira Pereira	Electronics	Design of analog-to-digital converters with embedded mixing for ultra-low-power	Rui Dinis	João Goes		Jorge Manuel Ribeiro Fernandes
44090	Oliver Kotte	Control and Decision	Contextual computation for decision support in mobile environments		Rui Neves Silva		
44107	Sérgio Duarte Correia	Control and Decision					
44173	Thais Andrea Baldissera (a)	Collaborative Enterprise Networks	Personalization and evolution of collaborative business services	Rita A. Ribeiro	Luis M. Camarinha-Matos		Patrícia Alexandra de Pires Macedo

(a) Started in the 2nd semester

As shown in the above table, **4** students from 2013/2014 still **do not have a TAC**, which is a situation that needs to be fixed!

3 students have not proposed a **supervisor** yet. This situation cannot continue and needs to be solved **urgently**.

Edition of 2014/2015:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
46574	Ana Paula Pinto Correia	Electronics	A paradigm shift in the design of analog circuits targeting nano-scale CMOS and large-scale TFT technologies	João Pedro Abreu de Oliveira	João Carlos Palma Goes	Pedro Miguel C. Barquinha (ext)	Vitor Manuel Grade Tavares
46657	André Filipe Lopes Lourenço	Robotics and Integrated Manufacturing					
46416	António Jorge Teixeira Falcão	Industrial Information Systems	Innovative Methods for Visualisation & Correlation of Large Scale Connected Object Data		Maria Rita Sarmento de Almeida Ribeiro		
46560	Artem Artemovych Nazarenko	Collaborative Enterprise Networks	Collaborative cyber-physical systems	Luís Filipe Santos Gomes	Luís Manuel Camarinha de Matos		Patrícia Alexandra de Pires Macedo
46316	Bruno Augusti Mozzaquatro	Industrial Information Systems	A framework to improve security and privacy on the Internet of Things	Anabela Monteiro Gonçalves Pronto	Ricardo Luís Rosa Jardim Gonçalves	João Francisco Alves Martins	Bruno Andò
46490	Bruno Miguel Pereira de Almeida						
46533	Esmaeil Kondori	Control and Decision	Dynamic Multiple Criteria Decision Making for Risk Management		Pedro Alexandre da Costa Sousa		
46471	Miguel Duarte Madeira Fernandes	Electronics	High Efficiency Transceivers Blocks designed in modern CMOS technologies	João Pedro Abreu de Oliveira	Luís Augusto Bica Gomes de Oliveira	João Carlos da Palma Goes	Michael Figueiredo
46575	Milica Marikj	Telecommunications					
46581	Nazanin Vafaei	Collaborative Enterprise Networks	Improving normalization techniques to use in Decision Support Systems		Rita A. Ribeiro	Luís Manuel Camarinha de Matos	
46678	Paulo Alves Figueiras	Industrial Information Systems	Multi-source Big Data Fusion Driven Proactivity for Intelligent Mobility		Ricardo Luís Rosa Jardim Gonçalves		
46348	Raquel Alexandra Abrantes Melo	Industrial Information Systems	Orchestration of Things		Ricardo Luís Rosa Jardim Gonçalves	Carlos M. Melo Agostinho (ext)	
46651	Shirin Najdi	Signal Processing	Feature Selection in Sleep Stage Classification		José Manuel Matos Ribeiro da Fonseca		
46324	Vagner Savegnago Schaefer	Energy	Comfort and energy efficiency in service buildings	Ricardo Gonçalves	João Francisco Alves Martins		Celson Pantoja Lima

Most students do not have CAT yet. It is **urgent to solve this issue**.

3 students have not proposed a **supervisor** yet. This situation cannot continue and needs to be solved **urgently**.

Edition of 2015/2016:

				TAC			
Nº	**Name**	**Specialization**	**Thesis title (tentative)**	**Chair**	**Supervisor**	**Co-supervisor**	**External member**
48978	Adriano Manuel Alves Ferreira (a)	Robotics and Integrated Manufacturing					

49139	Anselmo Rafael Cukla (b)	Robotics and Integrated Manufacturing			(Supervisors from Brazil)	José Barata	
48689	Fernando Jorge Chapita de Castro Monteiro	Energy	Smart Heritage Buildings Cooperation		João Francisco Alves Martins		
48872	José Teixeira Gonçalves	Energy			Stanimir Stoyanov Valtchev	Frede Blaabjerg	
48895	Kankam Okatakyie Adu-Kankam	Collaborative Enterprise Networks	Collaborative Networks in Energy Management		Luis Camarinha-Matos		
48801	Luis Miguel Gomes Tavares	Electronics	Optimal sparsity bases for Compressed Sensing application to Cognitive Radio Spectrum Sensing		José António Beltran Gerald	João Carlos Palma Goes	
48305	Luís Miguel do Rosário Irio	Telecommunications	Interference Characterization in Advanced Wireless Communication Systems	Rui Miguel Henriques Dias Morgado Dinis	Rodolfo Alexandre Duarte Oliveira		Francisco António Bucho Cercas
49014	Mafalda Palma da Silva Viola Parreira Rocha	Robotics and Integrated Manufacturing					
48938	Majid Zamiri	Collaborative Enterprise Networks					
48855	Masoomeh Ramezani	Collaborative Enterprise Networks	Collaborative Networks and Disruptive Environments		Luis Camarinha-Matos		
48833	Márcio José Moutinho da Ponte (b)	Industry Information Systems			(Supervisors in Brazil)	Ricardo Gonçalves	
48995	Miguel de Lima Teixeira	Electronics	Neuro-Inspired Ultra-low-power CMOS Electronic System (mW range) for ECG and BMI Applications		João Carlos Palma Goes	José Carlos Príncipe	
48884	Nuno Ricardo Zacarias Ramos	Industry Information Systems					
49015	Pedro Miguel Lima Monteiro	Robotics and Integrated Manufacturing					
49030	Ricardo Alexandre Fernandes da Silva Peres	Robotics and Integrated Manufacturing					
48889	Shabnam Pasandideh	Collaborative Enterprise Networks					

7 students have not proposed a **supervisor** yet. This situation cannot continue and needs to be solved **urgently**.

Students coming from the old pre-Bologna program do not need to have a TAC.

Nº	Name	Specialization	Thesis title (tentative)	Supervisor	Co-supervisor
32734	João Pedro Abreu de Oliveira	Electrónica	Conversão Analógico-Digital de elevada velocidade para receptores digitais ultra-wideband em tecnologia CMOS NanoMétrica com recurso a técnicas passivas para muito baixo consumo	Adolfo Steiger Garção	João Goes
33103	Regina Maria Frei Santos Barbosa	Robótica e Manufactura Integrada	Self-Organisation in Evolvable Production Systems	José Barata Oliveira	
32555	Anabela Monteiro Gonçalves Pronto	Energia	Análise de perdas em sistemas de energia que empregam materiais supercondutores de alta temperatura	M.Ventim Neves	Leão Rodrigues
33253	Ana Sofia Fachada Fernandes	Sistemas Computacionais e Percepcionais	Prognostic modelling of breast cancer patients - a benchmark of predictive models with external validation	José Manuel Fonseca	Paulo Jorge Gomes Lisboa

32626	Patricia Alexandra Pires Macedo	Redes Colaborativas Empresariais	Value systems in collaborative networks	Luís Camarinha Matos	
32632	Maria do Carmo Marques	Controlo e Decisão	Risk based Decision Support System for Life-cycle Management of Industrial Plants	Rui Neves-Silva	
32577	Pedro Miguel Figueiredo Amaral	Telecomunicações	Multipath inter-domain policy routing	Paulo F. Pinto	
32617	Miguel Ramos Pereira	Telecomunicações	Time diversity solutions to cope with lost packets	Luís Bernardo	Rui Dinis
32607	Michael Figueiredo	Electrónica	Reference-Free High-Speed CMOS Pipeline Analog-to-Digital Converters	João Goes	Guiomar G. Andrade Evans (ext)
32571	Gonçalo Moreira Cândido	Robótica e Manufactura Integrada	Semantic SOA Application to support agile reconfiguration in industrial automation	José Barata Oliveira	
33101	Pedro Miguel Negrão Maló	Sistemas de Informação Industriais	Uma arquitectura distribuida interoperável com noção contexto e baseada em serviços para trabalho colaborativo de equipas em ambientes móveis	A. Steiger Garção	
32550	Tiago Oliveira Machado de Figueiredo Cardoso	Redes Colaborativas Empresariais	Proactive services in collaborative networks	Luís Camarinha Matos	
32719	Rui Manuel Carvalho dos Santos Azevedo Antunes	Controlo e Decisão	Controlo em Sistemas de Interacção Humano-Máquina	Luis Palma	Hermínio Duarte Ramos
32606	José Rui Barbosa Custódio	Electrónica	Ultra-Low Power-and-Area CMOS RF and Baseband Circuits for Biomedical Applications	João Goes	

6.2 Annual Progress Reports

According to the Deliberation of the Scientific Council 1/CC/2010:

"All PhD students of FCT-UNL must elaborate an **annual progress report**, which needs to be accompanied by an assessment of the supervisor or supervisors.
*This report, together with the **assessment report from the supervisor(s)** and **assessment report from the thesis accompnying committee** (when it exists), shall be sent to the Coordinator of the PhD Program up to 2 months after the end of the academic year.*
In case any of the assessment reports considers there is insufficient progress, such assessment shall be communicated to the student.
*The PhD Program **Coordinator** will **check the report** and send it, together with the assessment reports, to the Academic Office.*
The check of the annual report by the Scientific Council as foreseen in the internal regulation 3/CC/FCT/2006 and in art. 23.º of Law 216/92 of 13 October, is delegated in the Coordinator of the PhD Program."

According to a more recent deliberation, the progress reports shall be scanned and uploaded in the CLIP system. **PhD students cannot submit their theses if the progress reports are not available and properly registered in CLIP.**

The situation regarding the progress reports is the following:

Edition of 2008 / 2009:

Nº	Name	Annual Progress Report								
		2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
30064	Ana Inês da Silva Oliveira	✓	✓	✓	✓	✓	✓	✓		Finished
29714	Carlos Jorge de Cunha Matos		✓							
30074	Carlos Manuel de Melo Agostinho	✓	✓	✓						Finished
30069	Daniel José Medronho Foito	✓	✓	✓	✓	✓	✓	✓		Finished
29760	David Duarte Pereira Inácio	✓	✓	✓	✓	✓	✓			Finished
30068	Ezequiel Francisco do Vale Carvalho	✓	✓	✓	✓	✓	✓	✓		Finished
30065	Filipa Alexandra Moreira Ferrada	✓	✓	✓	✓	✓	✓	✓	✓	
29588	Filipe André de Sousa Figueira Barata	✓	✓	✓	✓	✓	✓	✓		Finished
30073	João Filipe dos Santos Sarraipa	✓	✓	✓	✓					Finished
29586	João Paulo Machado Mendes	✓	✓	✓	✓	✓	✓	✓		
30070	José Carlos de Ponte Ribeiro	✓	✓	✓	✓	✓	✓	✓	✓	
30063	José Inácio Pinto Rosado Rocha	✓	✓	✓	✓	✓	✓	✓	✓	
30066	Luís Domingos Ferreira Ribeiro	✓	✓							Finished
30004	Luís Miguel Bentes Moita Flores	✓	✓							
29770	Nuno Alexandre Soares Domingues	✓	✓	✓	✓	✓	✓	✓		Finished
30067	Pedro Miguel Ribeiro Pereira	✓	✓	✓	✓					Finished
30137	Raúl Eduardo Capela Tello Rato	✓	✓	✓	✓					Finished
29768	Ruben Duarte Dias da Costa	✓	✓	✓	✓	✓	✓			Finished
30072	Sérgio Miguel da Silva Onofre	✓	✓	✓	✓	✓	✓	✓	✓	
30040	Tiago José Monteiro Baptista Cabral Ferreira	✓	✓	✓	✓					

Various students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Edition of 2009/2010:

Nº	Name	Annual Progress Report						
		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
33253	Ana Sofia Fachada Fernandes (a)								Finished
32555	Anabela Monteiro Gonçalves Pronto (a)								Finished
33254	António Manuel Vieira Pombo	✓	✓	✓	✓	✓	✓		
32618	Carlos Manuel Ferreira Carvalho	✓	✓	✓	✓				Finished
33240	Dora Helena Avelar Gonçalves	✓	✓	✓	✓	✓			
32608	Edinei Santin	✓	✓	✓	✓	✓			Finished
33224	Eduardo Adelino Mateus Nunes Eusébio	✓	✓						
33490	Eduardo Manuel Ferreira Morais Pinto	✓	✓	✓	✓	✓			
32678	Elena Nikolaevna Baikova	✓	✓	✓	✓	✓	✓	✓	
33249	Fernando Joaquim Ganhão Pereira	✓	✓	✓	✓	✓	✓	✓	
32574	Filipe de Carvalho Moutinho	✓	✓	✓	✓	✓			Finished
33270	Francisco José Dinis de Sousa Fernandes Ganhão	✓	✓	✓	✓				Finished
32552	Francisco Manuel Mendes da Silva Pina								
32571	Gonçalo Moreira Cândido (a)								Finished
32590	João Carlos Ferreira de Almeida Casaleiro	✓	✓	✓	✓	✓	✓		Finished
32697	João Manuel Ferreira Martins	✓		✓	✓	✓			
32725	João Miguel Ferreira Caldas da Costa	✓	✓						
32734	João Pedro Abreu de Oliveira (a)								Finished
33572	José Alberto Oliveira Lima	✓	✓	✓	✓	✓	✓		
33271	José Miguel Ferreira Preto Marques Luzio	✓	✓	✓	✓	✓			Finished
33268	José Pedro Magalhães Lucas	✓							

32606	José Rui Barbosa Custódio (a)							Finished
32585	José Xavier Ferreira da Silva	✓						
32564	Manuel Augusto Vieira	✓	✓	✓				Finished
33102	Marco António da Luz Delgado							
32612	Maria da Graça Vieira de Brito Almeida	✓	✓	✓	✓	✓		Finished
32632	Maria do Carmo Marques (a)							Finished
32607	Michael Figueiredo (a)							
32643	Miguel Bacelar de Sousa Carneiro	✓						
32617	Miguel Ramos Pereira (a)							Finished
32613	Nuno Paulo Real Veiga Cardoso	✓	✓	✓	✓	✓	✓	
32626	Patricia Alexandra Pires Macedo (a)							Finished
32733	Pedro Jorge Cristina Mendes							
33331	Pedro José Ambrósio Lobato	✓	✓	✓	✓	✓	✓	Finished
32577	Pedro Miguel Figueiredo Amaral (a)							Finished
33101	Pedro Miguel Negrão Maló (a)							Finished
32566	Raúl Figueiredo Cordeiro de Magalhães Correia	✓	✓	✓	✓	✓	✓	
33103	Regina Maria Frei Santos Barbosa (a)							Finished
32719	Rui Manuel Carvalho dos Santos Azevedo Antunes (a)							
33332	Silviano Francisco dos Santos Rafael (a)	✓						Finished
32656	Sveltana Roudolfovna Chemetova	✓	✓	✓	✓	✓	✓	✓
32550	Tiago Oliveira Machado de Figueiredo Cardoso (a)							Finished
32584	Vitor Manuel de Oliveira Fialho	✓	✓	✓	✓	✓	✓	

(a) Student from pre-Bologna program

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Edition of 2010/2011:

Nº	Name	Annual Progress Report						
		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
35499	Blazej Nowacki	✓	✓	✓	✓	✓		Finished
34339	Ehsan Shahamatnia	✓	✓	✓	✓	✓		
34752	Gonçalo Nuno Nascimento Ventura de Brito Nunes	✓						
35122	Hugo Tito Cordeiro	✓	✓	✓	✓	✓	✓	
35771	Ivan Iuri Alves Bastos (a)	✓	✓	✓	✓	✓		Finished
35831	João Luís Alvernaz de Melo (a)	✓	✓	✓	✓	✓		
35719	João Tiago Vieira de Sousa Virote	✓						
35171	Magno Edgar da Silva Guedes *							
35276	Manuel Fernandes Carvalho *							
35852	Mário Jorge Saldanha Couto Alves (a)	✓	✓	✓	✓	✓		
35768	Mohammad Hadi Nategh (a) *							
35666	Nuno Miguel Abreu Luís	✓	✓	✓	✓	✓		Finished
35208	Pedro Mendes de Lacerda Peixoto de Magalhães	✓	✓	✓	✓	✓	✓	
38741	Raúl Manuel Mendes Dionisio (b)							Finished
35661	Rogério Alexandre Botelho Campos Rebelo	✓	✓	✓	✓	✓		Finished
33761	Somayeh Abdollahvand	✓	✓	✓	✓	✓		
35851	Vitor Manuel Guerra Vaz da Silva (a)	✓	✓	✓	✓	✓		Finished

* Apparently M. Guedes and M. Carvalho have quit, but they didn't formalize their withdrawal.

(b) Student from pre-Bologna program

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Edition of 2011/2012:

Nº	Name	Annual Progress Report					
		2011/12	2012/13	2013/14	2014/15	2015/16	
38744	Carlos Eduardo Dias Coutinho (a)						Finished
38070	Fábio José Pinto da Silva	✓	✓	✓	✓		Finished
38345	Fernando Luís Lourenço Ferreira	✓	✓	✓	✓		Finished
38960	Joaquim Moreira Lima (b)	✓	✓	✓			

38346	José Alexandre Pires Ferreira	✓	✓	✓	✓	✓	
38996	Luis Miguel Rego Pires (b)						
38876	Maria Paula de Brito Graça (b)	✓	✓	✓	✓		
38050	Massimiliano Zanin	✓	✓	✓	✓		Finished
38690	Miguel Alexandre Sousa Ferro de Beça	✓	✓	✓	✓		Finished
38980	Miguel Pinto Campilho Gomes (b)	✓	✓	✓	✓		
38728	Nuno Manuel Ortega Amaro	✓	✓	✓	✓		Finished
38972	Raúl Eduardo Capela Tello Rato (a) (c)						Finished
38691	Rui Alexandre Neves Medeiros	✓	✓	✓	✓		
38049	Sebastian Scholze	✓	✓	✓			
38184	Sudeep Ghimire	✓	✓	✓	✓	✓	Finished
37772	Tahereh Nodehi	✓	✓	✓	✓		Finished
38063	Vasco Miguel Delgado Gomes	✓	✓	✓	✓		

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Edition of 2012/2013:

Nº	Name	Annual Progress Report				
		2012/13	2013/14	2014/15	2015/16	
41203	Ali Abdollahy Gharbali			✓		
41185	António Eduardo Carreiro Furtado	✓	✓	✓	✓	
40964	Catarina Inês Marques de Lucena	✓	✓	✓	✓	Finished
41116	Eduardo José Resende Ortigueira	✓	✓	✓	✓	
41189	Fábio Emanuel Pais Januário	✓	✓	✓	✓	
41159	Hamidreza Tolue Joe Forush Tusi					
41192	Hugo Alexandre de Andrade Serra	✓	✓	✓	✓	
41071	João Francisco Martinho Lêdo Guerreiro	✓	✓	✓	✓	Finished
39264	Konstantin Firsanov	Erasmus				
40662	Luis Filipe Romba Jorge	✓	✓	✓	✓	
41199	Nuno Manuel Gonçalves Vilhena	✓	✓	✓		
40905	Nuno Miguel Silvério Barrento	✓	✓			
41200	Pedro Miguel Lucas Arsénio	✓	✓	✓		
41430	Ricardo André Martins Mendonça	✓	✓			
41198	Rui Miguel Amaral Lopes	✓	✓	✓	✓	
41507	Slavisa Tomic	✓	✓	✓	✓	

* Apparently H. Tusi has quit, but he didn't formalize his withdrawal.

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

There are still a few cases of TACs that do not pay attention to the curricular structure of the program and state that the student has achieved all objectives even when he/she has not finished all courses.

Edition of 2013/2014:

Nº	Name	Annual Progress Report			
		2013/14	2014/15	2015/2016	
43945	André Dionísio Bettencourt da Silva Rocha	✓			
44429	Edgar Miguel Felício Oliveira da Silva	✓			
43962	Elsa Maria Marcelino de Jesus	✓	✓	✓	
43621	Francisco Antero Cardoso Marques	✓			
43984	Frederico João Gonçalves dos Santos Branco Martins				
43619	Giovanni Di Orio	✓			
44089	Kevin Pierre Nagorny	✓			
43582	Leonardo Pedro Donas-Boto Vilhena Martins	✓	✓	✓	
44126	Mário Rui Monteiro Marques	✓	✓	✓	
44154	Nuno Rúben Ferreira Pereira	✓	✓		
44090	Oliver Kotte				*
44107	Sérgio Duarte Correia				
44173	Thais Andrea Baldissera	✓	✓	✓	

* Apparently O. Kotte has quit, but he didn't formalize his withdrawal.

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

There are still a few cases of TACs that do not pay attention to the curricular structure of the program and state that the student has achieved all objectives even when he/she has not finished all courses.

Edition of 2014/2015:

Nº	Name	Annual Progress Report	
		2014/15	2015/16
46574	Ana Paula Pinto Correia	✓	✓
46657	André Filipe Lopes Lourenço		
46416	António Jorge Teixeira Falcão	✓	
46560	Artem Artemovych Nazarenko	✓	✓
46316	Bruno Augusti Mozzaquatro	✓	✓
46490	Bruno Miguel Pereira de Almeida		
46533	Esmaeil Kondori		
46471	Miguel Duarte Madeira Fernandes	✓	
46575	Milica Marikj		
46581	Nazanin Vafaei	✓	✓
46678	Paulo Alves Figueiras	✓	✓
46348	Raquel Alexandra Abrantes Melo	✓	
46651	Shirin Najdi		
46324	Vagner Savegnago Schaefer	✓	✓

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Edition of 2015/2016:

Nº	Name	Annual Progress Report
		2015/16
48978	Adriano Manuel Alves Ferreira (a)	
49139	Anselmo Rafael Cukla (b)	
48689	Fernando Jorge Chapita de Castro Monteiro	✓
48872	José Teixeira Gonçalves	
48895	Kankam Okatakyie Adu-Kankam	✓
48801	Luis Miguel Gomes Tavares	✓
48305	Luís Miguel do Rosário Irio	✓
49014	Mafalda Palma da Silva Viola Parreira Rocha	
48938	Majid Zamiri	✓
48855	Masoomeh Ramezani	✓
48833	Márcio José Moutinho da Ponte (b)	
48995	Miguel de Lima Teixeira	✓
48884	Nuno Ricardo Zacarias Ramos	✓
49015	Pedro Miguel Lima Monteiro	
49030	Ricardo Alexandre Fernandes da Silva Peres	
48889	Shabnam Pasandideh	

Several students (as well as their supervisors and TACs) have not submitted the annual reports, in spite of being warned for being late.

Students from the pre-Bologna program:

Nº	Name	Annual Progress Report							
		2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	
32734	João Pedro Abreu de Oliveira								Finished
33103	Regina Maria Frei Santos Barbosa								Finished
32555	Anabela Monteiro Gonçalves Pronto	✓							Finished
33253	Ana Sofia Fachada Fernandes								Finished
32626	Patricia Alexandra Pires Macedo	✓							Finished
32632	Maria do Carmo Marques	✓							Finished
32577	Pedro Miguel Figueiredo Amaral	✓	✓						Finished
32617	Miguel Ramos Pereira	✓							Finished
32607	Michael Figueiredo	✓	✓						Finished
32571	Gonçalo Moreira Cândido	✓							Finished
33101	Pedro Miguel Negrão Maló	✓	✓	✓	✓				Finished
32550	Tiago Oliveira Machado de Figueiredo Cardoso	✓							Finished
32719	Rui Manuel Carvalho dos Santos Azevedo Antunes	✓	✓	✓	✓	✓	✓	✓	
32606	José Rui Barbosa Custódio								Finished

6.3 Conditions for PhD supervision

Based on the experience of the previous years, and in order to improve the quality of the supervision process, the Scientific Committee of PDEEC decided (in 2014) to define more strict conditions under which it will approve future proposals for PhD supervision:

1) Limits

A supervisor should not have more than 6 PhD students full-time under his/her supervision.
In the case of co-supervision, each student counts 50%.
Similarly for the case of part-time students.

2) Required experience and activity

Similar to what is practiced in many other universities, the Scientific Committee considers that junior doctors without supervision experience should not start as main supervisors. Furthermore, a PhD supervisor needs to be an active researcher with adequate productivity. Therefore, **in order to qualify as main supervisor** a doctor should:

- Have successfuly supervised / co-supervised at least one student.
- Have at least 2 journal papers indexed in the Science Citation Index during the last 3 years.

Unexperienced doctors candidate to a first supervision should:

- Be co-supervisors (naturally in collaboration with an experienced supervisor).
- Have at least 2 journal papers indexed in the Science Citation Index during the last 3 years.

3) Performance regarding the annual progress reports

In spite of the many requests from the Program Coordinator and Secretarial support, we continue noticing that a large number of students are not submitting their annual progress reports (and supervisor's/TAC assessment) on time. In order to improve this situation, any future proposal coming from a supervisor with missing reports **will be kept suspended** until the situation is resolved.

Conditions 1) and 2) started to be applied in 2014/2015.

Condition 3) was not yet applied, giving the supervisors another opportunity to solve the pending cases. However, most problems remain and thus this condition had to be implemented since 2015/2016.

7. CANDIDATES 2016/2017

7.1 Applicants

For the new academic year (9th edition), PDEEC received the following applications:

- Phase 1: 10
- Phase 2: 4
- Phase 3: 6

The received applications had the following geographic origin:

- Angola: 1 (accepted: 0)
- Ghana: 2 (accepted: 1)
- Iran: 4 (accepted: 4)
- Nigeria: 2 (accepted: 2)
- Oman: 1 (accepted: 1)
- Portugal: 9 (accepted: 5)

Out of these, the Scientific Committee accepted the following 13 candidates:

Phase 1:	Mojtaba Pouyan
	Ricardo Falé de Carvalho Madeira
	Rui Miguel Lopes Borrego
	Florindo Miguel de Matos Canas
	Farshid Norouzi
	James Adu Ansere
Phase 2:	Mohd Ahsan Kabir Rizvi
	Andreia Filipa Valada Pereira Artífice
	Adriana Mar Brazuna de Jesus
Phase 3:	Mohammad Julashokri
	Kelechi Emerole
	Chikadibia Franklin Chukwuma
	Mohammadhassan Abdollahi Sofla

It is still unclear how many of the accepted candidates will actually enrol in the program, as some of them are waiting for visa to come to Portugal, and others are waiting for confirmation of a scholarship. The process of getting a **visa,** which is not at all agilized by our Embassies and Ministry of Foreign Affairs (through "SEF"), is a major obstacle for the smooth starting of each academic year.

In comparison with previous years, there was a reduction in the number of applicants. One possible reason is the difficulty in getting scholarships.
The fact that the application periods also changed this year might have had some influence.

7.2 Assistance to foreign students

Foreign students face a number of difficulties when dealing with the Portuguese bureaucracy. As such it would be important to have an Office / Service, **preferably at the Faculty level**, to support these students. The support services could include, for instance:

a) Support during application phase
   - – Provision of elements to get the visa at Portuguese embassies.
   - Establishment of contacts with SEF (Serviço de Estrangeiros e Fronteiras) to expedit the visa granting processes.
   - Assistance with (initial) accommodation search and booking.
   - Provision of information about possible scholarships and other resources.
   - Assistance regarding the official documents the candidates need to bring.

b) Support on arrival
   - Guided tour through the campus and assistance with enrollment process
   - Help with accommodation
   - Assistance with the processes to get fiscal number, bank account, etc.
   - Assistance with transportation tickets and options
   - Help interfacing the social security and health care services
   - Etc.

c) During the stay
   - Assistance with family issues (kinder-garden, etc.)
   - Help interfacing the various services of FCT
   - Guidance for those that want to stay in Portugal after finishing the PhD
   - Etc.

Currently, foreign students ask help from the program coordinator and/or supervisor, but this is not enough.

A suggestion to create such office was made to the Direction of FCT, but no answer was received yet.

8. CONCLUDING REMARKS

Considering the status described above and the acquired experience with previous editions, it is possible to draw some conclusions:

- **Attraction of candidates**. So far, PDEEC was successful in attracting candidates, namely in comparison with other sectors of the Faculty, and in comparison with similar programs in other national universities. Nevertheless, for the 9th edition, there is a reduction of the number of applicants, being still unclear how many of them will actually enroll.

- **Recruitment space.** In order to guarantee sustainability, specially in a period of economic crisis, it is necessary to reconsider the traditional recruitment space, as well as the profile of potential candidates. A stronger emphasis needs to be put in two directions:
  - recruitment of foreign candidates, and
  - increasing the number of PhDs in cooperation with industry.

  The recruitment of foreign students contributes to a cultural enrichment and the introduction of new experiences and working methods. A higher percentage of foreign students will also contribute to increase the external visibility and prestige of our program. A higher percentage of PhDs developed in an industrial context will contribute to re-enforce links with companies, faciliate research that addresses relevant societal challenges, and might mitigate the economic constraints. There are however a number of obstacles:

  - Our embassies, as it is the case of the Portuguese Embassy in Tehran, make it very difficult for candidates to get a visa to study in Portugal. PDEEC has attracted a good number of Iranian candidates every year, probably as a result of the good references given by other Iranian students already in Portugal, but only in a few cases it was possible to overcome the obstacles raised by our Emabssy. FCT-UNL should implement more pro-active mechanisms to help overcoming these difficulties. In fact, similar to other universities, **FCT should have an Office to** really **support foreign students** during all phases of their career with us.
  - Some foreign candidates are not able to find a scholarship or fund themselves. As such, we often loose some candidates with very good potential.
  - Current regulations of FCT-UNL limiting the number of years that a student can be in the part-time regime (or at least making it more bureaucratically complicated), do not facilitate the process of having PhD research in industrial contexts. Such limits can be overcome, but it requires additional bureaucracy and does not give a signal that such type of PhDs is welcome.

- **Annual tuition fee**. The possibility of having the tuition fee waived has been a key element in the attraction of candidates from the academic staff of the Polytechnic Institutes of Lisbon and Setubal. However, this market is exhausted now. Taking into account the importance of PhD students for the Faculty (contributors to publications, researchers in projects, re-enforcement of research teams, help in attracting new projects, etc., thus contributing significantly to the ranking of the university), it would make sense to reconsider the current policy regarding tuition fees, namely when we consider the competition at the European level.

  - In various European countries, with universities that are better positioned in most of the international rankings, PhD students do not pay tuition fee. That is the case, for instance, of Netherlands in which not only they don't pay but even receive a good salary. The recent decision of our university to keep the tuition fee for foreign students (not members of the European Union) equal to the fee for national students is a good progress, but other "creative" options should be considered.
  - Apparently, students associated to a research center of FCT-UNL might apply for a 50% reduction of the tuition fee. However the process is not well-known yet.
  - Current efforts of the Center of Technology and Systems, namely through colleagues with H2020 projects, to provide some scholarships are regarded as a very valuable contribution.

- On the other hand, the waving of tuition fee (namely in the case of special protocols with Polytechnic Institutes) should be cancelled in case the student does not achieve a reasonable progress.

- **Quality of supervision**. It is necessary to continue the efforts towards improving the role of the supervisors and TACs in the monitoring of the progress of students, namely in the first year. Most students do not finish the courses part in the first year, as planned in the program, and this needs to be changed. It seems that **most supervisors only care for the research part** of the work and pay little attention to the delays in the courses part.
  - Delays in finishing the courses part will definitelly affect the quality of the research, as those initial studies are supposed to provide a sound basis for the research work.
  - A particularly critical situation refers to the *Research Planning* activity and the preparation of its main outcome, the **Thesis Plan**, to be defended in a public seminar. Many students, often influenced by their supervisors, postpone the defense of their Thesis Plan to a very late stage. In these cases, although the corresponding reports might impress by the amount of research done, they **completely fail** the purpose of a Thesis Plan. Sometimes these plans are submitted so late that there is not much chance of the TAC making any feasible suggestions any more. **It is therefore necessary that all supervisors pay more attention to this issue and properly perform their supervision role.**
  - In a few cases, there are supervisors with an excess of students under their supervision. Our experience shows that often this leads to a less effective supervision. It is necessary to clearly distinguish between the capability of performing an effective scientific supervision, and the economic capacity to attract collaborators when supervisors have funded projects! The fact that a supervisor is successful in attracting substantial amounts of money **is not** an automatic guarantee that he/she is able to supervise a large number of students with the required scientific quality. During the first editions of the program, some *soft approaches* were attempted to improve this situation, although not always successful. The new criteria adopted by the Scientific Committee of PDEEC regarding approval of supervision proposals, which are in line with common practices in various other universities, are expected to have a positive effect. **Nevertheless this issue is rather delicate and requires continuous attention**.

- **Joint PhDs**. Current regulations at UNL regarding joint PhDs do not facilitate the establishement of agreements with other universities. Although some of the academic staff of the Electrical Engineering Department have good international links and are involved in some co-supervision activities with other universities, this is done at individual level, without direct benefit to FCT-UNL. For the first time we managed to get 2 of these agreements, but the process was rather slow. Considering the importance of re-enforcing international cooperation links, this area should deserve more attention from FCT-UNL in order to establish agile procedures.

- **A word of appreciation**. A special “thank you” to the secretarial support provided by Mrs Helena Inacio. Along the years, she has always been tremendously efficient and a great support, in spite of being overloaded with other duties. A “thank you” also to the colleagues members of the Scientific Committee, which have been very effective in responding to all requests and thus greatly contributed to the smooth running of the program.

The importance of PDEEC

High quality Doctoral Programs are fundamental for the strategy of any “research-oriented university”. PhD research works are important instruments in the creation of new knowledge and preparation of scientific publications. The first editions of PDEEC clearly show such evidence, with a substantial increase of the scientific productivity of our Department.

On the other hand, the external feedback from colleagues of other universities regarding the structure and ambition of our program, has been very positive. As such, our Department should continue dedicating significant efforts to this initiative. The investments in PDEEC are likely to have a high return.

ANNEX

PhD Program in Electrical and Computer Engineering

THESIS SUBMISSION GUIDELINES

2016/2017

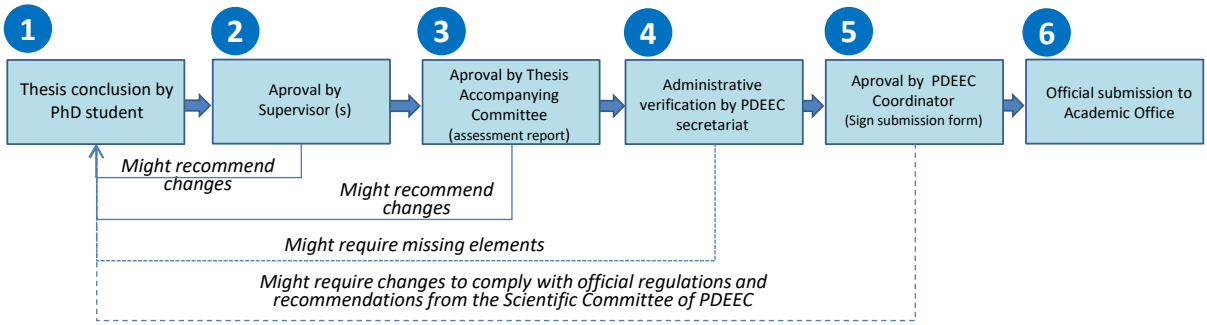
Prepared by
Luis M. Camarinha-Matos
(Verified by the Scientific Committee of PDEEC)

Along the years it has been observed that some supervisors and PhD students have some difficulty in properly following the various procedural steps related to the thesis submission and evaluation.

This difficulty often causes additional delays with an obvious negative impact on the life of the PhD candidates.

The following guidelines are thus prepared in order to provide a quick guide for the various processes of this last phase of the PhD work.

PhD DISSERTATION SUBMISSION STEPS



1

- **PhD Student**: After finishing the thesis writing, must verify that the Guidelines for Thesis Preparation, as well as the formatting rules of UNL, are strictly followed.
- Must also prepare his/her CV and a list of publications (ensuring that the required publications are available).

2

- **Supervisor(s)**: Either agree(s) that the dissertation is ready to be submitted or require(s) further improvements, giving specific guidance on what to improve.

3

- **TAC**: All members of the Thesis Accompanying Committee individually assess the quality of the document.
- If they agree that the document is ready for public defense, they shall jointly issue an assessment report, using a specific template.
- Alternatively they may recommend further improvements, giving specific guidance on what to improve.

4

- **PDEEC Secretariat**: Verifies if all pre-requirements for thesis submission are fulfilled. Namely, checks:
  - If the Student finished all courses of the program.
  - If all annual Progress Reports have been submitted.
  - If all relevant information items (thesis title, abstract, etc.) are included in CLIP system.
  - If all elements (copies of the dissertation, in paper and electronic, CV, TAC assessment report, list of publications, thesis submission form) are provided.

5

- **PDEEC Coordinator**: Verifies:
  - If the package of submission documents is complete.
  - If the PhD student has the required number of publications.
  - If the thesis follows the guidelines issued by the Scientific Committee of the program.
- If all elements are correct, the “thesis submission form” is signed by the Coordinator.
- In case any element fails, the PhD student is asked to solve the pending issues.

6

- **PhD Student**: Delivers the full package to the Academic Office – Post-Graduation Unit.

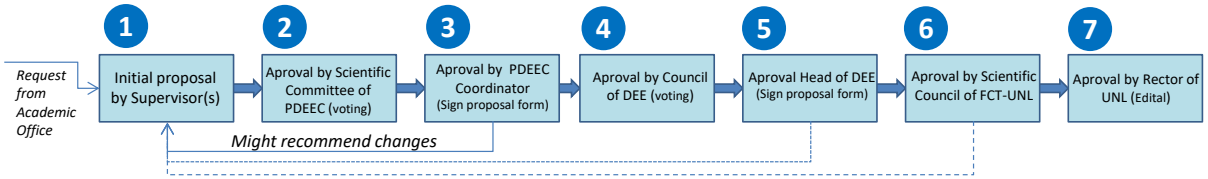
Duration: The overall duration of this process depends on the number of feedback loops that are necessary and the time required for assessment in steps 2, 3, and 5. Typically the student should consider, at least, a window of 1.5 to 3 months.

Every academic year, FCT-UNL defines a deadline for theses’ submission in that year. Please notice that such deadline refers to step 6.

Tips to reduce this duration:

- Make sure that all recommendations and guidelines are strictly followed.
- Try to get a fast response from the Supervisor and TAC (steps 2 and 3).
- A complete draft of the thesis can be submitted to TAC even before the final “cosmetic formatting” – which can help gaining some time – but this submission should only happen with the agreement of the Supervisor.

JURY PROPOSITION STEPS



1

- **Supervisor(s)**: Although the formal proposition of the Jury starts with the Coordinator, it is common practice that an initial (pre-)proposal is made by the supervisor(s), following the requirements for Jury composition.
- The Supervisor(s) shall also contact the suggested members to check about their willingness to participate in such panel. Note: Since the final decision regarding the Jury will only take place at a later stage, this contact should not be a formal invitation but rather a prospective contact to check if they agree to be part of the proposal.

2

- **SC.PDEEC**: The Scientific Committee of the program, on request of the Coordinator, check the proposed Jury, namely in terms of compliance with the Law, and having a composition that gives guarantees of a proper assessment of the thesis work.
- The SC may suggest modifications to the Jury proposal (adding / removing members).

3

- **PDEEC Coordinator**: In case of positive assessment from the SC of the program, the Coordinator formalizes the "Jury proposal" by signing the corresponding form.
- Note: *According to the PhD regulations of UNL, the Jury proposal is made by the Coordinator after consulting with the Supervisor and the SC of the program.*

4

- **DC.DEE**: The members of the Department Council (of DEE) are asked to vote yes/no the "Jury proposal".

5

- **Head of DEE**: In case of a positive vote of the Department Council, the Head of department also signs the Jury proposal document which is then submitted to the Academic Office and Scientific Council of FCT-UNL.

6

- **SC.FCT**: The Scientific Council of the faculty approves or requests changes to the Jury proposal.
- This step is typically done by the Permanent Commission of the SC. Only in case any issue is raised, the proposal is analyzed by the plenary of the SC.

7

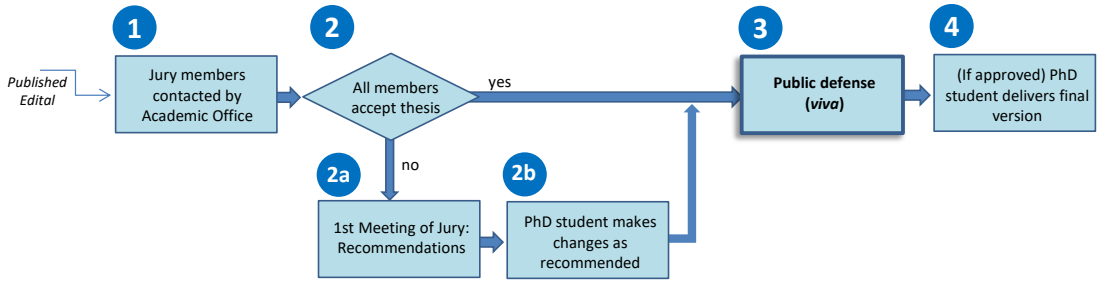
- **Rectorate**: In case the Jury proposal is approved at the Rectorate level, then it is made public through the publication of a public Notice ("Edital").

Duration: Typically the student should expect a window of 1 to 1.5 months.

Tips to reduce this duration:

- Make sure that the initial (pre-)proposal follows both the legal requirements and the recommendations of the Scientific Committee of the program.
- Besides the legal requirements [at least two main opponents, one supervisor, and an additional member], the SC.PDEEC has been using the following practice:
  - Although not required by Law, it is recommended to include in the Jury both the President and the External Member of the TAC. These members have closely followed the research work and thus are well prepared to make a sound assessment.
  - In addition to the minimal requirements, it is recommended to include one or two additional external members, experts in the specialization area of the PhD (but not necessarily working on the specific topic of the thesis) and that have no relationships to the PhD work or the host research group.
  - A balance between internal and external members shall be tried.
  - It should be avoided to have always the same names for the Jurys in a given area. Diversification is strongly recommended.
  - Since the Rector usually delegates the presidency of the Jury in the Dean of FCT-UNL, and the Dean often sub-delegates the presidency in a full professor, it is recommended to include at least one full professor in the Jury. This professor can be from DEE or another department of FCT, always trying to have one familiar with the specialization area.
- According to the Law, in case there are more than one supervisor (co-supervisors), only one - either the supervisor or one (of the) co-supervisor(s) - can be part of the Jury.

PhD DISSERTATION EVALUATION STEPS



1

- **Academic Office**: After the "Edital" announcing the Jury has been published, the Academic Office contacts the members of the Jury, sending them the thesis, the candidate's CV and a proposal regarding the main opponents, and asking their opinion. A response letter template is provided.

2

- **Jury**: Each member of the Jury assesses the thesis regarding its suitability to be discussed in a public event, and also expresses his/her agreement (or not) regarding the proposed main opponents.
- In case of unanimous acceptance, the process goes to step 3; otherwise to step 2a.

2a

- **Jury**: In case there is no unanimous agreement, a formal meeting is organized to discuss the thesis and decide which improvements to require from the candidate.
- A report with those recommendations is issued and the PhD student is given a period of time to make the changes (usually 3 months).

2b

- **PhD Student**: Makes the changes according to the recommendations of the Jury and resubmits the improved version (after getting the agreement of the supervisor) within the specified time limit.

3

- **Jury + PhD Student + PDEEC Secretariat**: The public event for thesis defense ("viva") is scheduled. The event takes up to 3 hours.
- When scheduling the public event, and while trying to minimize the waiting time for the candidate, it is necessary to take into account the availability of the members of the Jury as well as the availability of the PhD defense room.

4

- **PhD Student**: After the PhD defense (and in case of success), the new doctor shall prepare and submit a final version of the thesis according to the requirements of UNL, and making any changes that might have been recommended during the defense.
- Request diploma.

Duration: Typically the student should expect a window of 1.5 to 3 months (in case the thesis is accepted for public defense without changes). In case changes are required, it will typically take around 6 months.

Tips to reduce this duration:

- As soon as the Jury is approved by the university, the Supervisor may (informally) send in advance an electronic copy of the thesis to the various members so that they can start assessing it even before the official contact from the Academic Office.
- During this period, the Supervisor can also informally check the availability of the members of the Jury (and also the availability of the PhD defense room) in order to make a pre-booking.
- After the members of the Jury are given a reasonable time to check the thesis, the Supervisor can informally interact with them to make sure that all of them send the response letter in the shortest possible time.

Guidelines for the elaboration of PhD theses

(Elaborated by the Scientific Committee of PDEEC)

1. Legal context

The elaboration of a PhD thesis in Electrical and Computer Engineering needs to comply with the Portuguese legal framework, which is in line with the Bologna process. This framework establishes the requirements for awarding the PhD title:

Dec.-Lei 74/2006, Art. 28º	*(Free translation)*
1—O grau de doutor é conferido aos que demonstrem: a. Capacidade de compreensão sistemática num domínio científico de estudo; b. Competências, aptidões e métodos de investigação associados a um domínio científico; c. Capacidade para conceber, projectar, adaptar e realizar uma investigação significativa respeitando as exigências impostas pelos padrões de qualidade e integridade académicas; d. Ter realizado um conjunto significativo de trabalhos de investigação original que tenha contribuído para o alargamento das fronteiras do conhecimento, parte do qual mereça a divulgação nacional ou internacional em publicações com comité de selecção; e. Ser capazes de analisar criticamente, avaliar e sintetizar ideias novas e complexas; f. Ser capazes de comunicar com os seus pares, a restante comunidade académica e a sociedade em geral sobre a área em que são especializados; g. Ser capazes de, numa sociedade baseada no conhecimento, promover, em contexto académico e ou profissional, o progresso tecnológico, social ou cultural. 2—O grau de doutor é conferido num ramo do conhecimento ou numa sua especialidade.	1—The PhD degree is awarded to those candidates who demonstrate: a. The capacity for a systematic understanding of a scientific field; b. Competences, skills and research methods associated with a scientific field; c. Ability to conceive, design, adapt, and perform a significant research, respecting the academic levels of quality and integrity; d. To have done a significant amount of original research that has contributed to the expansion of the frontiers of knowledge, part of which merits national or international dissemination in peer reviewed publications ; e. To be able to critically analyze, evaluate and synthesize new and complex ideas; f. To be able to communicate with his/her peers, the academic community and society in general on the specialization area; g. To be able to promote, both in the academic and professional contexts, the technological, social or cultural progress under the framework of a knowledge-based society; 2— The doctorate degree is conferred in a field of knowledge or in one of its specialization areas.

Two modalities are allowed for the thesis:

- Elaboration of a dissertation
- Compilation of a set of relevant publications.

Dec.-Lei 230/2009, Art. 31º	*(Free translation)*
1 — O ciclo de estudos conducente ao grau de doutor integra a **elaboração de uma tese original** especialmente elaborada para este fim, adequada à natureza do ramo de conhecimento ou da especialidade. 2 — Em alternativa, em **condições de exigência equivalentes**, e tendo igualmente em consideração a natureza do ramo de conhecimento ou da especialidade, o ciclo de estudos conducente ao grau de doutor pode, nas condições previstas no regulamento de cada instituição de ensino superior, ser integrado: *a)* Pela compilação, devidamente enquadrada, de um conjunto coerente e relevante de trabalhos de investigação, já objecto de publicação em revistas com comités de selecção de reconhecido mérito internacional; *b)* …	1 — The cycle of studies leading to a doctoral degree entails the preparation of an original thesis especially elaborated for this purpose, and appropriate to the branch of knowledge or specialization area. 2 — Alternatively, in **equivalent demand conditions**, and also taking into account the nature of the branch of knowledge or specialization area, the cycle of studies leading to a doctoral degree can, in accordance with the regulations of each higher education institution, be composed of: a) A properly framed compilation of a coherent and relevant set of research, already subject of publication in journals with peer reviewing of internationally recognized merit; b) …

2. Recommended guidelines

Modality 1: Elaboration of a dissertation

When: This is the recommended modality for the PhD theses in Electrical and Computer Engineering at FCT-UNL.

Typical structure: Although the specific structure of each thesis as well as the titles of each section shall be defined by the candidate, following the advice of his/her supervisor(s), and taking into account the specific nature of the performed work, a typical structure can include:

- Preliminaries
  [*Abstract in Portuguese and English, Acknowledgements, Table of contents, List of Figures, List of Tables, Glossary, ...]*
- Introduction
  [*Motivation, Research question(s), Hypothesis(es), research method, Structure of the dissertation, etc.*]
- Background information (optional)
  [*An optional section, especially in the case of research of a multi-disciplinary nature, giving a brief overview of the other disciplinary area(s) to facilitate understanding of the thesis by experts in Electrical and Computer Engineering*]
- Literature review
  [*Comprehensive synthesis of the state of the art related to the thesis, showing a critical spirit, and identifying current gaps / limitations. A good number of recent references shall be included; in other words, the literature review should not only reflect the state of the art when the PhD program started. This section will show the capacity of systematic understanding, critical analysis and synthesis*][Hint: *this chapter should be equivalent to a substantial journal survey paper*]
- Conceptual contribution
  [*Formulation of concepts, definitions, theories; Elaboration of innovative frameworks, models, architectures*]
- Experimental developments
  [*High-level (cleaned up) description of the research experiment*]
- Validation / Discussion
  [*Section collecting (enough) evidence, using a proper (systematic) method, to validate the hypothesis(es); Organized argumentation to convince the other researchers about the validity of the thesis*]
- Conclusions and future work
  [*What is the strongest and most important statement that you can make from your work? set of recommendations (to overcome limitations) or directions for future research (maybe new directions opened by this work)*]
- References
- Annexes (optional)
  [*Only if necessary to convince the reader or help others replicate the experiments. E.g. Implementation details, Detailed experimental data, etc.*]

Size: A typical size for an engineering thesis is between **150** and **200** pages.

Language: **English** is recommended, as it allows wider dissemination. Alternatively, **Portuguese** can be used.

Requirements before submission: In order to submit the dissertation, the candidate must have:

- Finished all courses of the PhD program.
- At least **1** article (as first author) in a peer-reviewed journal in the Science Citation Index, and some papers in relevant peer-reviewed and indexed conferences. Only published or definitely accepted articles can be considered.
  Materials from publications of the candidate can be reused in the preparation of the chapters of the dissertation.
- Submitted all annual progress reports.
- A positive endorsement by the Thesis Accompanying Committee, stating that the dissertation is ready for public defence.

Modality 2: Compilation of a set of relevant publications

When: Although allowed, this modality is **not** recommended for a PhD in Electrical and Computer Engineering at FCT-UNL and shall only be used in exceptional cases. In any case, this modality shall never be taken as a less demanding option.

Typical structure: In order to organize a proper compilation of materials, the following structure is recommended:

- Preliminaries
  [*Abstract in Portuguese and English, Acknowledgements, Table of contents, List of Figures, List of Tables, Glossary, ...]*
- Introduction
  [*Motivation, Research question(s), Hypotheses, research method, Structure of the dissertation*]
- Background information (optional)
  [*An optional section, especially in the case of research of a multi-disciplinary nature, giving a brief overview of the other disciplinary area(s), to facilitate understanding of the thesis by experts in Electrical and Computer Engineering*]
- Summary of achievements
  [An extended summary (>= 20 pages) of the main innovative achievements]
- Literature review [including references] (conditional)
  [*Comprehensive synthesis of the state of the art related to the thesis, showing a critical spirit, and identifying current gaps / limitations. A good number of recent references shall be included; in other words, the literature review should not only reflect the state of the art when the PhD program started. This section will show the capacity of systematic understanding, critical analysis and synthesis*]
  [*This section can be skipped in case the candidate has published a substantial journal article of the type "literature survey"*]
- Navigation map
  [*A brief and well organized map guiding the reader through the attached papers, identifying the original contributions in those publications*]
- Collection of relevant journal articles
  [*Journal articles already published or definitely accepted where the PhD contributions and their validation are detailed*]
- Conclusions and future work
  [*What is the strongest and most important statement that you can make from your work? set of recommendations (to overcome limitations) or directions for future research (maybe new directions opened by this work)*]
- Annexes (optional)
  [*Impact of published works, e.g. citations to the included publications, number of downloads, etc.*]

Language: **English** is recommended, as it allows wider dissemination. Alternatively, **Portuguese** can be used.

Requirements before submission: In order to submit the compilation/dissertation, the candidate must have:

- Finished all courses of the PhD program.
- At least **3 articles** (as first author) of substantial size (typically >=16 pages each) in relevant peer-reviewed journals in the Science Citation Index, and several papers in relevant peer-reviewed and indexed conferences. Only published or definitely accepted articles can be included.
  Small journal articles will not count for the above number.
  In case the chapter on Literature Review is not included, then **1** additional journal survey article (>= 16 pages) [with the candidate as 1st author] is needed.
- Submitted all annual progress reports.
- A positive endorsement by the Thesis Accompanying Committee, stating that the dissertation is ready for public defence.