



**Universitat**  
de les Illes Balears

Departament  
de Ciències Matemàtiques  
i Informàtica

# PhD Studies on Information and Communication Technologies

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[www.uib.cat](http://www.uib.cat)

<http://eddoctorat.uib.eu/en/doctorat/TTIN/>

# Main features

- **Information and Communication Technologies (ICT) PhD programme**
  - Diverse research field
    - Computer scientists / engineers
    - Mathematicians
    - Telecommunications / Electronics engineers
- **Ultimate goal:**
  - Original piece of research work:  
preparation, report writing and public defense
- In the meantime, **additional** research-oriented training activities
- **Timeline:**
  - Full-time student: 3 years (+ 2 extensions: 1 year each) [max. 5 yr.]
  - Part-time student: 5 years (+ 2 extensions: 2 years, 1 year) [max. 8 yr.]

# Research lines

## SYSTEMS

- Networks and communications
- Sustainability and energy efficiency
- Performance engineering
- Distributed embedded systems

## MATHEMATICAL METHODS

- Fuzzy logic and information fusion
- Dynamic systems
- Computational biology

## COMPUTER VISION AND ROBOTICS

- Computer vision
- Digital image processing and analysis
- Industrial, mobile, and service robotics

## SOFTWARE METHODS

- Information engineering
- Software engineering
- Human-computer interaction
- Computer graphics

❖ Typically, **research groups** laboratories/equipment **support the research lines**

[www.uib.cat](http://www.uib.cat)

<http://edocorat.uib.eu/en/doctorat/TTIN/>

# Training activities

- **Generic** (optional – care with announcement at EDUIB website)
  - Communication skills in English: Written and Oral expression I [30h]
  - Communication skills in English: Written and Oral expression II [30h]
  - Ethics and integrity in scientific research [30h]
  - Entrepreneurship [30h]

Offered by EDUIB, schedule available at the beginning of each academic year

More information at [http://eddoctorat.uib.es/es/Activitats\\_Formatives/](http://eddoctorat.uib.es/es/Activitats_Formatives/)

Registration at [https://postgrau.uib.es/doctorado\\_actividad\\_formativa/listado](https://postgrau.uib.es/doctorado_actividad_formativa/listado)

[www.uib.cat](http://www.uib.cat)

<http://eddoctorat.uib.eu/en/doctorat/TTIN/>

# Training activities

- **Specific** (compulsory)
  - Attendance to department-organized **seminars** [10h]
    - Announcements sent regularly through a distribution list (your email addresses)
    - Other possibilities: e.g. attendance to Winter/Summer Schools
    - Attendance to congress presentations not allowed
  - Review of the **state of the art** (SOA) of a research topic
    - Make a convincing report (1-2 pages is difficult to be credible as a SOA)
    - Typically, chapter 2 of the thesis report
  - Preparation and presentation of **scientific communications**
    - Conference paper / journal paper
    - Posters, abstracts, patents texts, etc. can be complementary but not the main contribution
    - Try to be the main contributor (i.e. first author in some research areas)

# Training activities

- **Specific** (optional – care with announcement at EDUIB website)
  - Models of technology transfer
    - 30h course, typically offered by EDUIB
  - Pre-doctoral **stay** in a research center
    - 160h
    - Although 3 months required to apply for the **International PhD mention**

# Supervision

- Thesis **tutor**
  - Guidance during PhD studies
- Thesis **supervisor**
  - Responsible for scientific quality of the research performed
- Every year while within the programme, the PhD student is requested to submit to the Academic Committee (AC):
  - **Research plan** (1st year, next years only for relevant updates)
  - Thesis **supervisor report** on research progress (next years)
  - **Document of activities**
    - enumeration of generic and specific activities performed during the previous year
    - include for assessment only those activities which belong to the ICT programme

# Available information

EDUIB website:

<http://www.uib.cat/doctorat/TTIN>

<http://www.uib.es/es/doctorat/TTIN>

<http://www.uib.eu/en/doctorat/TTIN>



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## Doctoral School of the University of the Balearic Islands

Provide an academic and administrative organizational model around doctoral studies in order to ensure the quality of academic offer.

## Doctoral Degree in Information and Communications Technology (TTIN)

Academic year 2017-18

[The programme](#)

[Descriptor](#)

[Training activities](#)

[Lines of research](#)

[Results](#)

[Technical details](#)

### High-quality official study

Legislation requires that official Spanish degree programmes receive a positive assessment from the National Agency for Quality Assessment and Accreditation (ANECA, by its Spanish acronym). This process is known as verification, and it serves to ensure that education programmes are properly designed to provide the competencies and reach the learning goals around which the programmes are built.

The European Higher Education Area requires that there be a **system in place** to ensure the quality of degree programmes.

The doctorate programme is subject to constant assessment and improvement processes that guarantee that it maintains a certain level of prestige and renown in Europe. You can see the results of the assessment processes in the [results section](#).



### Engineering and Architecture

**Certification coordinator** Dr. Alberto Ortiz Rodríguez

**Corresponding centre** Doctoral School

**Precio de la tutela** por año académico €210.00

**Precio de la tutela y conceptos administrativos** por año académico €270.60

Information on [registration and enrolment](#)



# Administrative issues

Information at DMI website:

<http://dmi.uib.cat/Doctorat>

<http://dmi.uib.es/Doctorat>

<http://dmi.uib.eu/Doctorat>

– **Compilation** of most relevant information

- Regulation
- Useful links



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## Department of Mathematics and Computer Science

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## PhD Studies in Information and Communications Technologies

The goal of the Information and Communication Technologies (ICT) PhD Programme is to provide the PhD student with advanced, specialized and multidisciplinary skills in different topics related to information and communications technologies. The main objective is training researchers in innovative techniques and technologies, both at the theoretical and experimental levels, with a high degree of professional specialization.

### Generic regulations:

- Regulation of Spanish Official PhD Studies (RD 99/2011, 28 January 2011, BOE 35) <<http://www.boe.es/boe/dias/2011/02/10/pdfs/BOE-A-2011-2541.pdf>>
- Generic regulation of PhD Studies at UIB (AGREEMENT 23 March 2015, UIB Gazette [FOU] 414) <<https://seu.uib.cat/fou/acord/113/11330.html>>
  - Enrolment conditions of UIB students, partial and full-time students <[http://estudis.uib.es/es/informacioperalumnes/Normativa/Regim\\_permanencia\\_Minim\\_credits/](http://estudis.uib.es/es/informacioperalumnes/Normativa/Regim_permanencia_Minim_credits/)>
  - Obligations of PhD students as for recording their research activities (AGREEMENT 5 July 2011, UIB Gazette [FOU] 351) <<https://seu.uib.cat/fou/acord/98/9864.html>>
  - Procedures of the UIB PhD Studies School (EDUIB) <<http://eddoctorat.uib.eu/en/Procediments/>>
  - Access to the PhD Studies web application <<https://postgrau.uib.eu>>

### Specific regulations and helping documents:

- Web page of ICT PhD Programme at EDUIB <<http://eddoctorat.uib.eu/en/doctorat/TTIN/>>
- ICT PhD Programme help/guidance document (Excerpt of UIB general and specific regulations for ICT programme) <[document](#)>
- Administrative steps of the ICT PhD Programme <[document](#)>

# Administrative issues

- Help/guidance document:

	Doctorando	Tutor	Director	Comisión académica (CA)	EDUIB
Pre-inscripción y primera matrícula	Pre-inscripción (ver calendario EDUIB)				
					Otorga acceso como doctorando UIB
				Realiza admisión al programa de doctorado en función de su adecuación al perfil. En caso necesario, puede recomendar complementos de formación específicos.	
	Se matricula de doctorado (ver calendario EDUIB) Decide la <u>dedicación</u> : * <u>tiempo completo</u> : a contar desde la matrícula = 3 años (periodo ordinario) 1+1 años (prórrogas) * <u>tiempo parcial</u> : a contar desde la matrícula = 5 años (periodo ordinario) 2+1 años (prórrogas) Se inscribe en las <u>actividades formativas</u> que lo requieran (a lo largo de los estudios de doctorado) Firma la <u>carta de tesis</u> (una vez tiene director asignado)	Firma la carta de tesis	Firma la carta de tesis	Nombra tutor (inmediatamente tras la admisión y en función de la línea de investigación) e informa a la EDUIB Nombra director (< 6 meses) e informa a la EDUIB adjuntando el CV del director Autoriza dedicación y realiza informe (previa petición de EDUIB por demanda doctorando) Autoriza prórrogas y realiza informe (previa petición de EDUIB por demanda doctorando) Autoriza baja por 1+1 años y realiza informe (previa petición de EDUIB por demanda doctorando)	Ratifica el nombramiento del tutor  Ratifica el nombramiento del director  Ratifica la dedicación en base al informe de la CA  Ratifica las prórrogas en base al informe de la CA  Ratifica las bajas en base al informe de la CA

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### Generic regulations:

- Regulation of Spanish Official PhD Studies (RD 99/2011, 28 January 2011, BOE 35)  
<img alt="PDF icon" data-bbox="511 638 524 651"/> [>](http://www.boe.es/boe/dias/2011/02/10/pdfs/BOE-A-2011-2541.pdf)
- Generic regulation of PhD Studies at UIB (AGREEMENT 23 March 2015, UIB Gazette [FOU] 414)  
<img alt="HTML icon" data-bbox="511 684 524 697"/> [>](https://seu.uib.cat/fou/acord/113/11330.html)
  - Enrolment conditions of UIB students, partial and full-time students  
<img alt="HTML icon" data-bbox="546 724 559 737"/>  [>](https://seu.uib.cat/fou/acord/98/9864.html)
  - Procedures of the UIB PhD Studies School (EDUIB) <img alt="HTML icon" data-bbox="574 794 587 807"/>  [>](https://postgrau.uib.eu)

### Specific regulations and helping documents:

- Web page of ICT PhD Programme at EDUIB <img alt="HTML icon" data-bbox="511 884 524 897"/>  [document](#)]
- Administrative steps of the ICT PhD Programme [ [document](#)]

# Administrative issues

Administrative steps  
of the ICT PhD  
programme:

- Make them through  
<https://postgrau.uib.es>



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Palma, 20 de diciembre de 2017

Este documento relaciona los diferentes trámites que puede necesitar realizar un doctorando del Programa de Doctorado en Tecnologías de la Información y las Comunicaciones (TIC), así como la documentación a adjuntar en cada caso de acuerdo con la normativa actualmente vigente (se destaca *en itálica* para cada caso).

Prácticamente, todos los trámites se realizan a través del portal <https://postgrau.uib.cat> / <https://postgrau.uib.es> / <https://postgrau.uib.eu> de la EDUIB. Los modelos/formularios necesarios están accesibles a través de la página web del programa de doctorado en TIC: <http://dmi.uib.cat/Doctorat>, <http://dmi.uib.es/Doctorat>, <http://dmi.uib.eu/Doctorat>.

**1. Solicitud de pre-admisión para concurrir a convocatorias de contratos pre-doctorales/becas**

**\*\* Utilizar instancia genérica UIB**

*Copias de extractos de expedientes académicos y/o titulaciones que acrediten la situación académica del solicitante*

**2. Asignación de codirector(es) de tesis / reasignación de tutor**

**\*\* Utilizar formulario específico**

**3. Firma de la carta de tesis (entregar en EDUIB)**

**\*\* Utilizar formulario específico**

# Administrative issues

Information at  
DMI website:















<http://dmi.uib.cat/Doctorat>


<http://dmi.uib.es/Doctorat>

<http://dmi.uib.eu/Doctorat>

## Formularios:

(hay que revisar el documento "Trámites específicos" para saber la documentación a aportar en cada caso)

- Instancia genérica UIB [ documento]
- Solicitud de asignación de co-director(es) de tesis doctoral [ documento]
- Reasignación de tutor [ documento]
- Carta de tesis [ documento]
- Solicitud de autorización para realizar una estancia pre-doctoral [ documento]
- Solicitud de prórroga [ documento]
- Solicitud de acceso a la condición de estudiante a tiempo parcial [utilizar instancia genérica UIB]
  - Informe del(de los) director(es) sobre su conocimiento del cambio de condición [ documentos]
- Solicitud de baja temporal [utilizar instancia genérica UIB]
- Plan de investigación [ documentos]
  - Informes del tutor y del(de los) director(es) que valida el plan de investigación [ documentos]
- Documento de actividades [ documentos]
  - Resumen de seminario/conferencia [ documentos]
  - Informe del(de los) director(es) que valida el estado del arte [ documentos]
  - Informe del(de los) director(es) que valida la contribución del doctorando a un artículo [ documentos]
- Informe del(de los) director(es) del estado de la investigación [ documentos]

Listado de directores y especialidades [ documento]

# Administrative issues

- **Pass annual assessments**
  - At least one activity, do not deliver an empty document of activities!
  - Time extension grants can depend on annual assessments
- **Complete activities before thesis deposit**
  - Attendance to seminars [10 hr]
  - Conference/journal publications
  - State of the art of a research topic
  - Pre-doctoral stay in a research center if wish to request the International PhD mention
- **Show research activity** even for finished compulsory activities is good practice
  - Do not deliver an empty document of activities!

# Administrative issues

- Try to **deliver** the documentation at the time of the annual assessment
  - Warning 1 month before deadline
  - 1st year → research plan + document of activities
  - Next years → document of activities + progress report from thesis supervisor(s)
- **Right** documentation speeds up process
  - Refer to document: “Administrative steps of the ICT PhD programme”
- Avoid **mixing** documents in one single PDF:
  - e.g. certificate of attendance and summary for a seminar in a single PDF
  - use ZIP instead if necessary
- **Only enumerate** activities included in the ICT programme:
  - Attendance to seminars, schools or generic courses (English, Ethics, Models of tech. transfer, ...)
  - State of the art of a research topic
  - Publications
  - Pre-doctoral research stays

# Thesis defense

## 1. **Monograph** or **compendium** (latter form should be an extraordinary measure)

- Compendium:
  - At least 2 journal papers Q1/Q2
  - Thesis report organized as: general index + summary + introduction/state of art + thesis goals + methodology [optional, although advised] + papers + discussion/conclusions
  - Co-authors of papers have to agree on the main authorship of the PhD student

## 2. **External review**

- Thesis draft
- Supervisor(s) report(s)
- List of 5 external reviewers, to choose 2 by EDUIB [to be delivered to Academic Committee)
- If reviewer(s) recommend changes:
  - PhD student has to modify the thesis accordingly
  - PhD student has to report how changes have been incorporated
  - Supervisor(s) have to validate the modifications and the new version of the thesis



# Thesis defense

## 3. Thesis deposit

- Final version of the thesis report (ensure the cover is the one requested by UIB)
- CV of PhD student
- Proposal of a pannel of experts (tribunal):
  - 3x main set
  - 3x spare set
  - Cannot contain external reviewers
- Suitability reports for each member of the tribunal
- TDX repository forms filled
- Deposit duration: 10 natural days
- If no changes requested, the defense of the dissertation is authorized
- The defense has to take place in less than 3 months ahead



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