

Department of Information and Communication Technologies

Welcome session PhD program 13th October 2016



Outline


- Department of Information and Communication Technologies (DTIC)
- PhD program
- Research seminars
- Teaching assistance
- International DTIC
- Welcome



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A background network diagram with blue nodes and connecting lines, overlaid with a light gray grid.

 **Universitat
Pompeu Fabra
Barcelona**

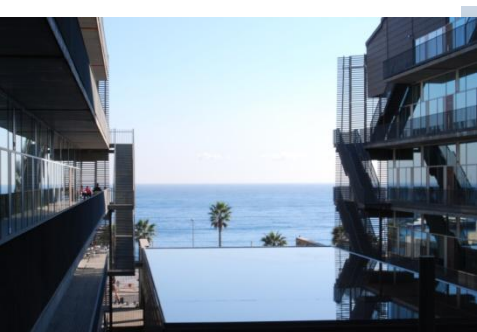
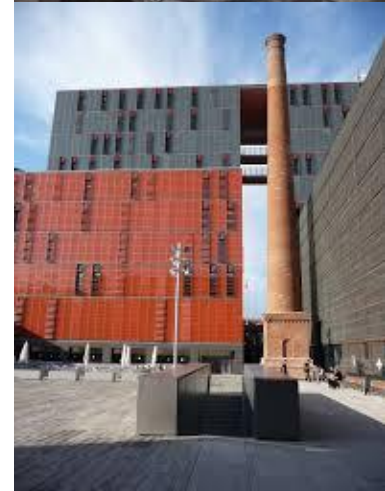
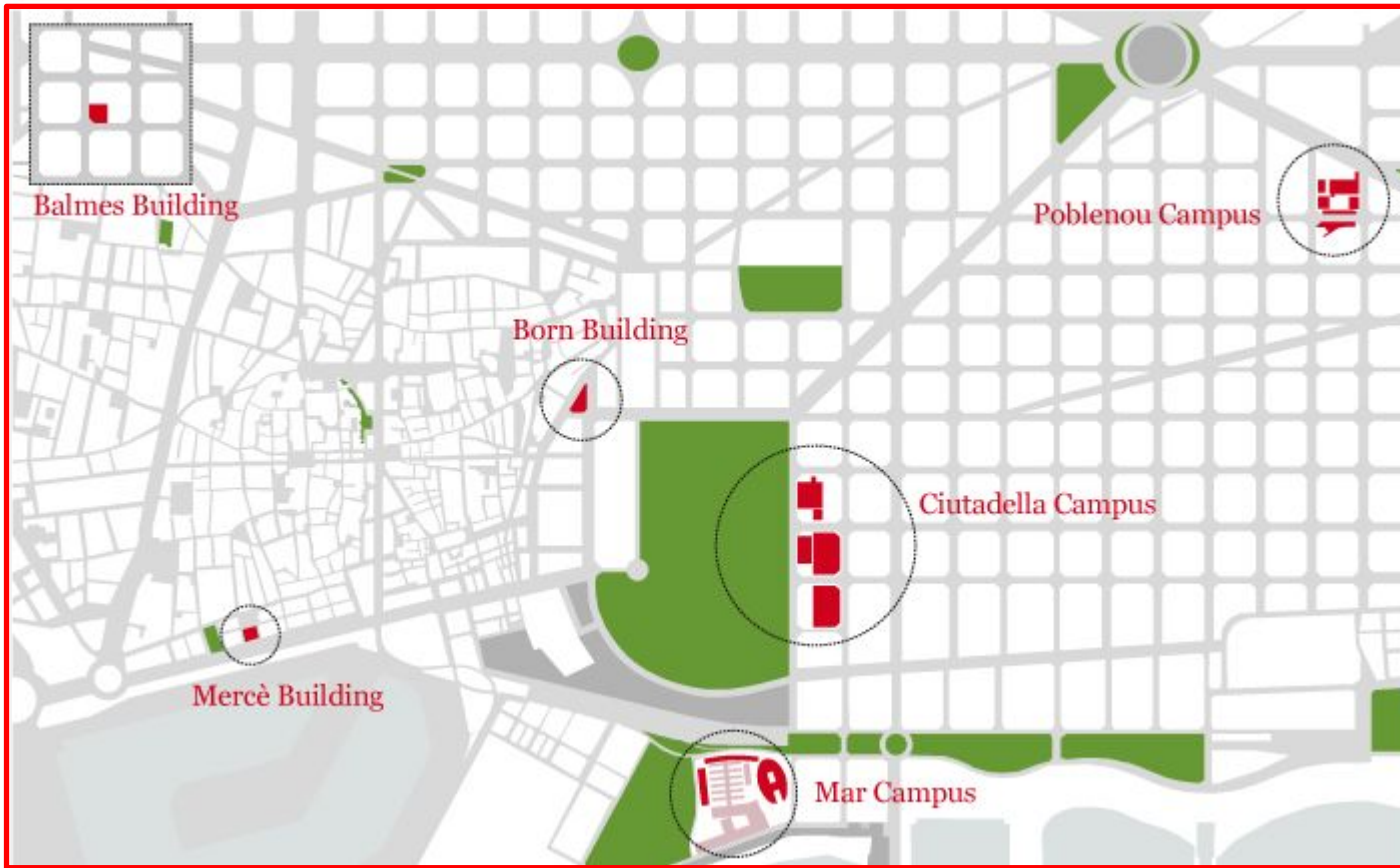
DTIC

**DEPARTMENT
OF INFORMATION
& COMMUNICATION
TECHNOLOGIES**

15/16



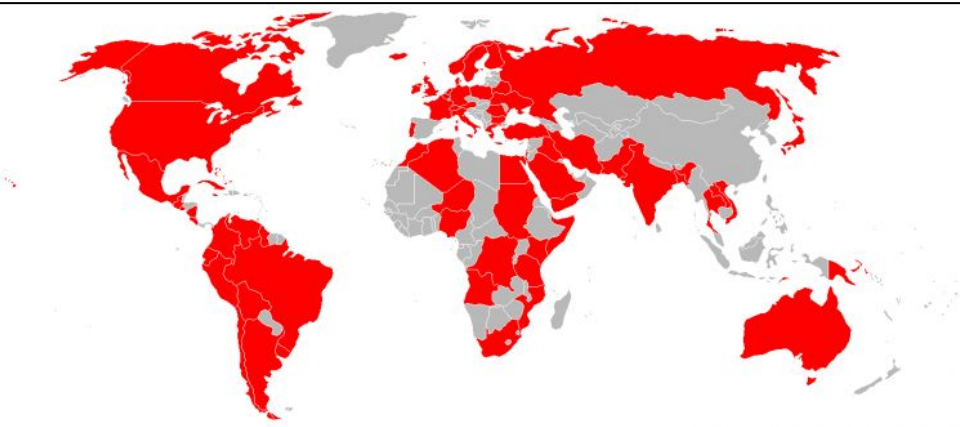
Welcome!



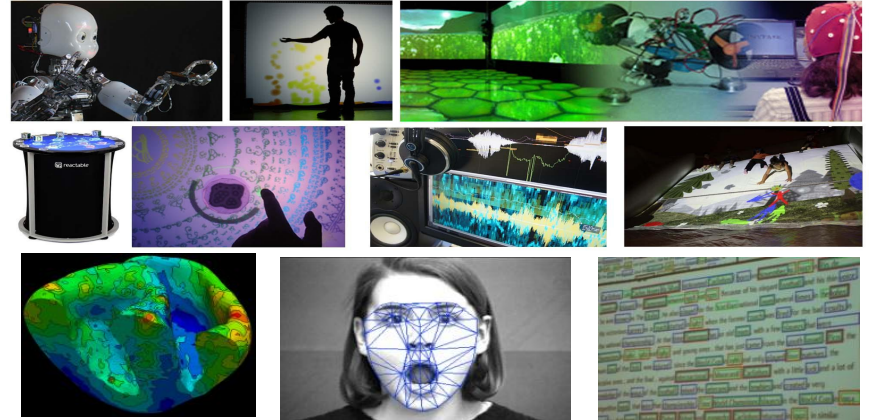


Key DTIC values

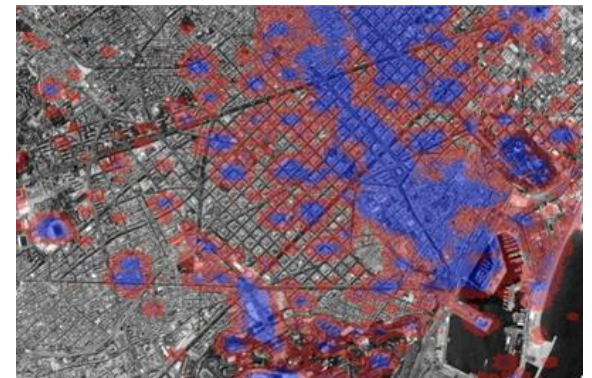
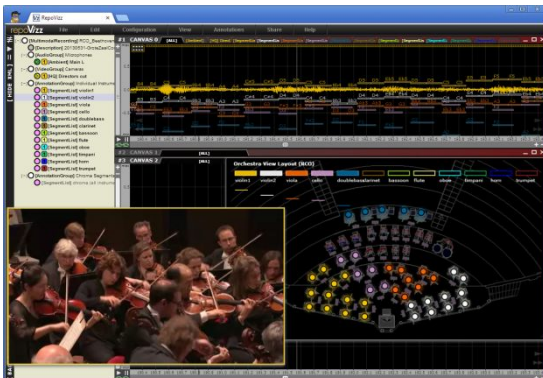
Global



Interdisciplinary



Wide range of areas of application and research around ICT



Education

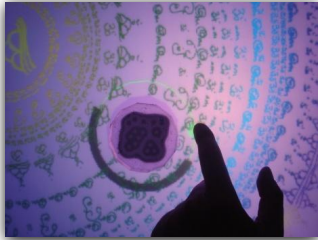
Undergraduate Programs

- Bachelor's degree in Biomedical Engineering
- Bachelor's degree in Computer Engineering
- Bachelor's degree in Telecommunications Network Engineering
- Bachelor's degree in Audiovisual Systems Engineering
- Bachelor's degree in Mathematical Engineering on Data Science (2017-2018)

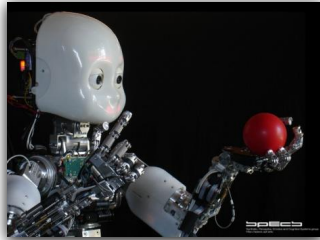


Postgraduate Education

Research Master's Degrees



Master in Sound and Music Computing



Master in Cognitive Systems and Interactive Media



Master in Intelligent Interactive Systems



<https://www.youtube.com/watch?v=FjAuggfITVE>



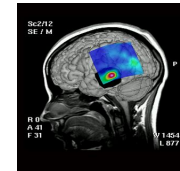
Master in Brain and Cognition



Master in Computer Vision



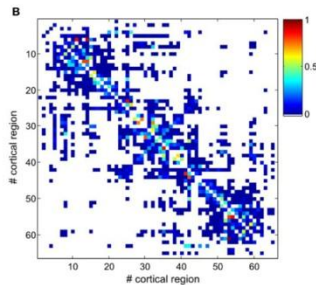
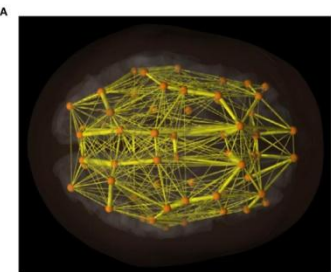
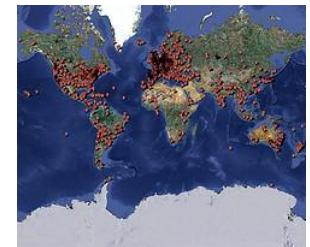
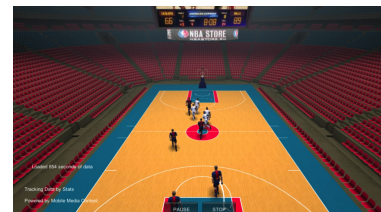
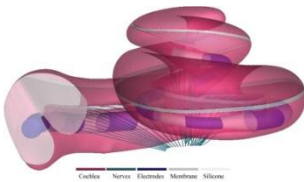
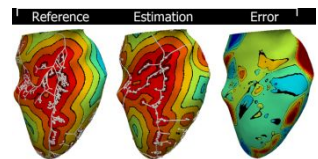
Master in Wireless Communications



Master in Computational Biomedical engineering

PhD Program in Information and Communication Technologies

- AUDIOVISUAL TECHNOLOGIES
- COGNITIVE AND INTELLIGENT SYSTEMS
- COMMUNICATIONS AND NETWORKS
- COMPUTATIONAL BIOLOGY AND BIOMEDICAL SYSTEMS
- BRAIN AND COGNITION





Research groups

COGNITIVE AND INTELLIGENT SYSTEMS

Cognition , Computation and Robotics
Artificial Intelligence and Theoretical Computer Science
Natural Language Processing
Ubiquitous Computing
Information Retrieval and Data Mining
Cognitive Multimedia Technologies

COMMUNICATIONS AND NETWORKS

Network Technologies and Strategies
Wireless Communications
Wireless Networking
Information Theory and Coding

BRAIN AND COGNITION

Language and Comparative Cognition
Multisensory Research
Speech Acquisition, Perception, Production
Reasoning and Infant Cognition

AUDIOVISUAL TECHNOLOGIES

Image Processing and Computer Vision
Image Processing for Enhanced Cinematography
Music Technology Group (Audio and Signal Processing,
Music and Machine Learning, Music Information
Research Lab, Music and Multimodal Interaction)
Human-Computer Interaction, Graphics and Educational
Technologies

COMPUTATIONAL BIOLOGY AND BIOMEDICAL SYSTEMS

Computational Neuroscience
Analysis of Biomedical Data
Non-linear signal analysis
Instrumentation and Biomedical Electronics
Simulation, Imaging and Modelling for Biomedical
Systems

<http://portal.upf.edu/web/etic/research-areas>

Key facts

People

- Tenured Faculty: 44 (*)
- > 250 full-time research staff, > 40% international
- Undergraduate Students: 888
- Master and Ph.D. Students: 340, > 60% international

(*) previous positions: Stanford, Cambridge, IBM Watson Research, Bell Labs, New York University, ETH Zürich, Univ. College London, Minnesota University, etc



European Research Council
Established by the European Commission

Supporting top researchers
from anywhere in the world

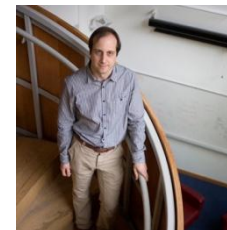
Research

- Research incomes: 15.6 M€ / year (2014)
- [67 FP7 projects participated](#) and coordinated by 26 staff members (> 60% UPF EU funds) including [13 prestigious ERC Grants](#), the [Human Brain Project](#)
- Absolute leader in Spain, > **5% of all the funds obtained by Spanish Universities, Maria de Maeztu Strategic Program in Data-Driven Knowledge Extraction.**
- Consolidated scientific productivity ~200 articles/year, > 75% Q1 international journals
- 50% scientific papers and articles with at least one international collaborator



External Advisory Board

- [Prof. Elisa Bertino](#) - Professor at the Department of Computer Science, **Purdue University**, Director of the Cyber Center (Discovery Park) and Research Director of CERIAS
- [PhD. Ioannis Maghiros](#) - Head of Information Society Unit. Institute for Prospective Technological Studies. **DG JRC - European Commission**
- [Prof. Alison Noble](#) - Technikos Professor of Biomedical Engineering and Director of Institute of Biomedical Engineering. **University of Oxford**
- [PhD. Nuria Oliver](#) - Scientific Director for Data Mining, User Modeling, Mobile HCI & Multimedia. **Telefónica R&D**
- [PhD. Antonio Torralba](#) - Associate Professor (MIT). Computer Science and Artificial Intelligence Laboratory. Dept. of Electrical Engineering and Computer Science. **Massachusetts Institute of Technology**
- [Prof. Shimon Ullman](#) - Samy and Ruth Cohn Professor of Computer Science. Department of Computer Science And Applied Mathematics **Weizmann Institute of Science**
- [Prof. Moshe Vardi](#) - Director of the **Ken Kennedy Institute for Information Technology**
- [PhD. Robert Zatorre](#) - International Laboratory for Brain, Music and Sound Research (BRAMS), BRAMS Co-Director, Professor, Dept. of Neurology and Neurosurgery. **McGill University**





Industry relation

A Department well connected internationally (selected)



NATIVE INSTRUMENTS



with strong local links (selected)



medical imaging

2014 2015



Càtedras
Telefónica



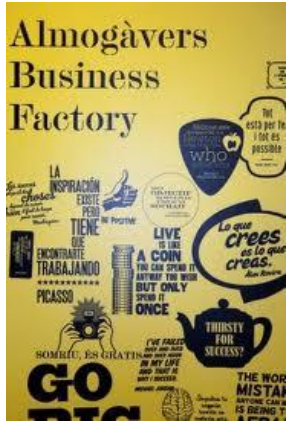
Social Innovation in Education





Entrepreneurship

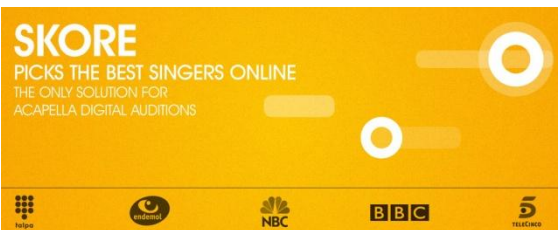
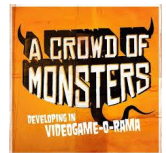
Incubation spaces and support to entrepreneurs



Barcelon**a**ctiva



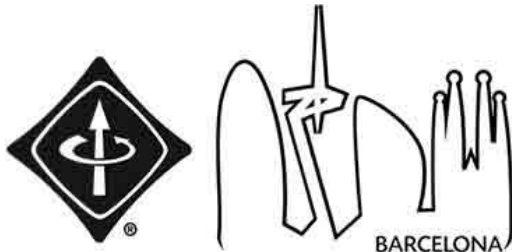
Spin-offs & Start ups





Events organized by DTIC

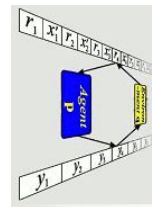
- Nov. 14, COST IACR [School](#) on Randomness in Cryptography, Barcelona.
- Nov. 28-29, [Workshop on Audiovisual Speech Processing & Language Learning](#), Barcelona.
- Dec. 3-4, [European Workshop on Reinforcement Learning](#) (EWRL 2016, collocated with NIPS2016, Barcelona)
- Dec. 12-15, [IEEE International Conference on Data Mining](#), ICDM 2016, Barcelona.



ICDM 2016
IEEE International Conference on Data Mining



CBC
CENTER FOR BRAIN & COGNITION
SAP
SPEECH ACQUISITION & PERCEPTION GROUP



**European Workshop
On
Reinforcement Learning**





Events in UPF and outside

 **WebRTC meetup**
— Barcelona —
Wednesday, March 4th 2015

 **Universitat Pompeu Fabra. Poble Nou Auditorium. Roc Boronat, 138, Barcelona**

 **Nearest station:**
L1 Glories (L1 is available in Pl. Espanya)

 **FREE shuttle from Fira**
3.50PM departs from Private Shuttle area zone B

Map at: <http://shuttle.quobis.com>
3.30PM meeting point at Quobis booth #CS60-30

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sonar 2014 +D

- A pioneer music festival leader in Europe
- **Sonar+D (2013):** 121.594 accreditations, ~ 100 countries participated, and ~1.600 companies registered (47% music, 22% technology, 16% mkt and design, 9% media, 6% institutions and universities)

NIPS 2016
BARCELONA · SPAIN · DECEMBER 5 - 10 | <http://nips.cc>



Student-driven activities

Deep Learning Study Group

<https://portal.upf.edu/web/mdm-dtic/deep-learning>

Contact aurelio.ruiz@upf.edu / ramon.nogueira@upf.edu to join the distribution list and info

Women in ICT and research

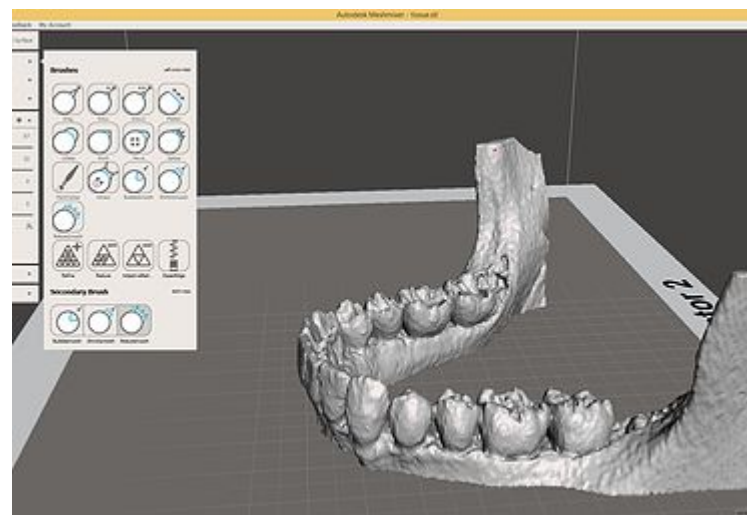
<https://portal.upf.edu/web/mdm-dtic/gender-and-ict>

Gender & Science Journal Club
feminist.jc.upf@gmail.com

New distribution list

<https://groups.google.com/a/llista.upf.edu/forum/#!forum/woman.etic>

Medical Images 3D Printing Course



<http://medmake.wix.com/medmake>





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Academic coordinator: emilia.gomez@upf.edu

Administrative coordinator: lydia.garcia@upf.edu



PhD alumni



X. Amatriain (PhD 2004), VP of Engineering at **Quora (Los Gatos, CA)** – prev. Research Director at Netflix



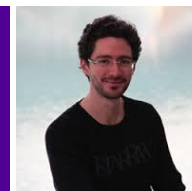
Óscar Celma, (PhD 2008), Director of Research at **Pandora (Oakland, CA)**



Joan Serrà (PhD 2011), **Telefónica Research**, Barcelona

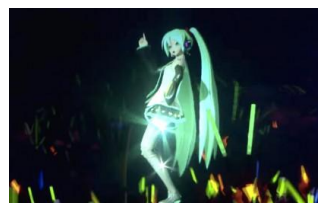


Luz Rello (PhD 2014), now at **Carnegie Mellon**, Ashoka Fellow and **Co-Founder Change Dyslexia**



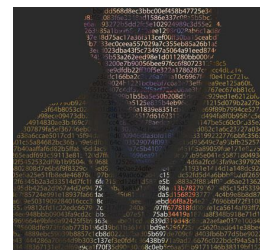
BBVA Innova MX Challenge 2014, Innova Big Data 2013, Europeana Hack4Europe, Sonar Award, etc

Luca Chiarandini (PhD 2014), now at **YouTube Zurich**



Japan Institute of Invention and Innovation, National Commendation for Invention 2013

J. Bonada (PhD 2009), **DTIC-UPF**, co-founder of **VoctroLabs Systems**



NOKIA Bell Labs

M. Signorini (PhD 2015), now at **Nokia Bell Labs**, Security Research Engineer

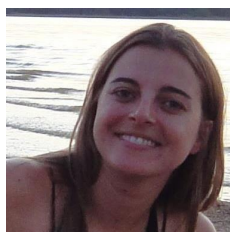


PhD alumni

- Google scholarships <https://www.womentechmakers.com/scholars>
<https://www.google.com/studentswithdisabilities-europe/>
- Facebook fellowships (deadline November 1st)
<https://research.facebook.com/programs/fellowship/>
- Scholarship recipients and finalists from UPF:



Luz Rello



Susan Moller Ferreira



Ping Xiao



PhD Program in ICTs: Structure

Year 1:

1. Research seminars
2. Preparation of PhD proposal

Year 2 and 3:

3. Thesis work

Year 4:

4. Possible extension (+1 year)



Year 1: PhD Proposal

- Show your ability to undertake original research at the PhD level:
 1. Understand the state of the art: know related work and people in your topic.
 2. Make scientific contributions to the SOTA: know your thesis, goals, plans, methods and expected contributions (and how to demonstrate it).
 3. Show writing and communication skills for dissemination and publication.



Year 1: PhD Proposal

Procedure

- Jury made of 3 members (including your supervisor).
- Presentations scheduled in July (September).
- Send the jury a report 7-10 days before the presentation.
 - 15-20 min. presentation + 15 min. questions on the presentation and the written document.
- The jury has some time to deliberate.
- You will be provided with some feedback.
- If not pass → 6 months for another evaluation.

Some administrative procedures to bear in mind

phdprogram.ict@upf.edu

- Yearly enrollment, **from 1 to 10 of October**.
- The Doctorate and Postgraduate Academic Committee (CAlPiD) of the Department is the responsible of the approval of procedures like: change of supervisors, request of joint supervisors, extensions for theses deposits and authorization of thesis deposits and defenses. Monthly meetings.
- Keep updated your **Doctoral Activities Document** and **Research Plan**. Access through the menu of Campus Global (*Academic Sec. Doctorate*).



Doctorate Academic Secretary

University Guide

Summary of actions by a doctoral student

Information and academic procedures

Registration 2016-2017

Student Card

Activities Document and Research Plan (Only students of RD99/2011)

Academic transcript

Amendments to Personal/Financial Details

Fee Refund

Academic Transcript: Application

Format of the Doctoral Thesis and TDX repository

Thesis Reading Certificate: application

The Doctoral Diploma: Application

Outstanding promissory notes

Grants and Aid

Regulations

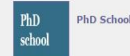
Academic Calendar



Contact

Jaume I Building (Ciutadella Campus)
Ramón Trias Fargas, 25-27
08005 Barcelona

Related websites



Doctorate Academic Secretary

University Guide Home > Activities Document and Research Plan (Only students of RD99/2011) > Access to the application

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Academic Calendar

Access to the IT module

ACCESS TO YOUR ACTIVITIES DOCUMENT AND RESEARCH PLAN

CLICK HERE !

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 - ESTUDIANTS
 - ACTIVITATS
 - LA UNIVERSITAT
 - EDIFICIS CAMPUS
 - ESTUDIS
 - RECERCA I INNOVACIÓ
 - AGORA
 - Espai llure
 - Forum solitari
 - GRUPS
 - ACCÉS DIRECTE
 - Facultats i Escoles
 - Departaments, instt.
 - Síndic de Greuges
 - Vistes UPF (A-Z)
 - Plànol Info. Estudiant PIE





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Coordinator: aurelio.ruiz@upf.edu



Research Seminars

Coordinator: aurelio.ruiz@upf.edu

https://portal.upf.edu/web/etic/i_research_seminars

	Type	Speaker	Title	Abstract	Biography	Host
October						
13th October 15:30 hours Room 55.309 	Phd Research Seminar	Emilia Gomez, Miquel Oliver, Miguel Angel González Ballester, Vanesa Dazam Davinia Hernández-Leo & Aurelio Ruiz	Welcome Session for PhD Students	<i>Important information about academic and organizational aspects of the doctoral program and the department. Meet your colleagues</i>		Today's ETIC Streaming
20th October 15:30 hours Room 52.323 	Phd Research Seminar	Aurelio Ruiz Universitat Pompeu Fabra	Introduction to PhD training seminars series 2016/2017 for 1st year PhD students.			
24th October 12:00 hours Room 55.309 	Phd Research Seminar	Angela Dobeles Deputy Head (Research & Innovation) The School of Economics, Finance & Marketing, RMIT University, Australia	The Women and Research Newsletter: fostering an active and inclusive research environment in order to enhance high quality research output.			Emília Gómez
25th October 15:30 hours Room 55.410	Invited Research Seminar	Christian Bick College of Engineering, Mathematics and Physical Sciences - University of Exeter	Dynamics of Phase Oscillators with Generalized Coupling	Abstract>>	Short Bio>>	Ralph Andrzejak
31th October 11:00 hours Room 55.410 	Invited Research Seminar	Oliver Bones University of Salford, UK	Towards an evidence-based taxonomy of everyday sounds	Abstract>>	Short Bio>>	Frederic Font



Formative Seminars for your career

- Science communication.
- Reproducible research
- Data management
- Intellectual property
- Gender issues in research
- Career paths
- Ethical issues

All topics to be prepared in the context of your research proposal

Open to new ideas!

Next 20/10 Introduction to the course - Compulsory attendance



Dissemination: PhD Workshop

- March 2017:
 - 66 posters in 2016
 - Students from QMUL
 - 6 awards (sponsored)
- Interested in joining the organizing committee?



<https://phdworkshop2015dticupf.wordpress.com/>

https://portal.upf.edu/web/etic_doctoral_workshop/home

**2016,
march,
11th.**

**Campus de la
Comunicació**

**Sala
Polivalent**
*Tanger
Building*

**ETIC 4th
doctoral
student
workshop.**





Dissemination: Research in 4 minutes

- UPF competition to explain your research in 4 minutes competition
- Awards

EXPLIQUEM
LA NOSTRA
RECERCA





Research Seminars

DTIC Integrative Seminars

<https://portal.upf.edu/web/etic/integrative-research-seminars>

CBC Seminars

<http://cbc.upf.edu/activities?language=en>



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Vanesa.daza@upf.edu

Vice-director of DTIC, teaching

- DTIC grants:
 - PIFF1 (60h/year teaching duties)
 - PIFF2 (40h/year teaching duties)
 - FPU ($x + y + z = 120, 30 \leq x, y, z \leq 60$)
 - FI, FPI, ...
 - Others (Industrial, PIFF3, ...)
- } NO teaching

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- } NO teaching
↑
paid extra 70€/hr
check with your
supervisor
and contact me

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 check with your
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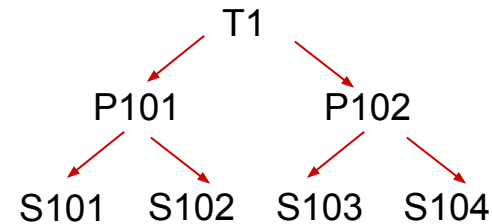
FI ≤ 30 (1st year)
 ≤ 60 (2nd, 3rd year)
 FPI ≤ 60

What does "an hour" mean?

Not only **going to class**, but carefully **prepare** and **teach** them, **correct** labs and exercises.

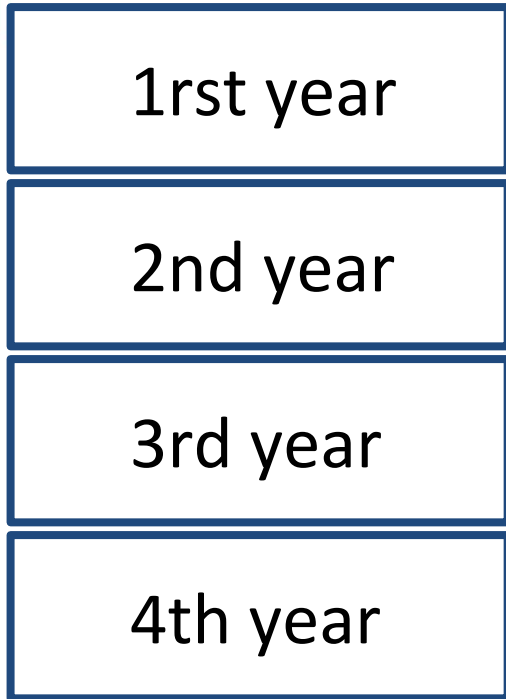


Usually **seminars** or **practices** in **1-2** subjects.
 Details directly from the subject **coordinator**.

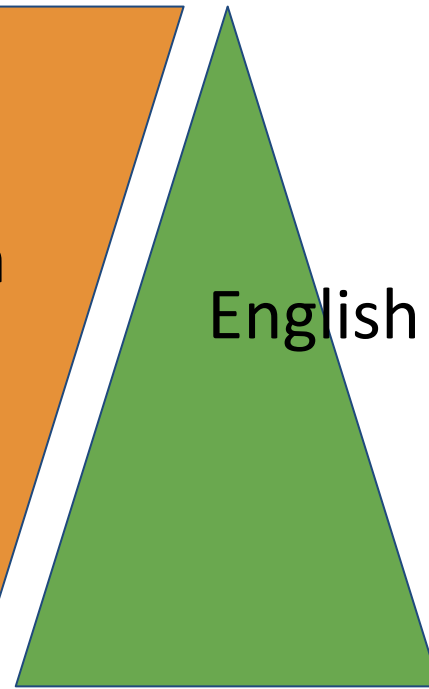
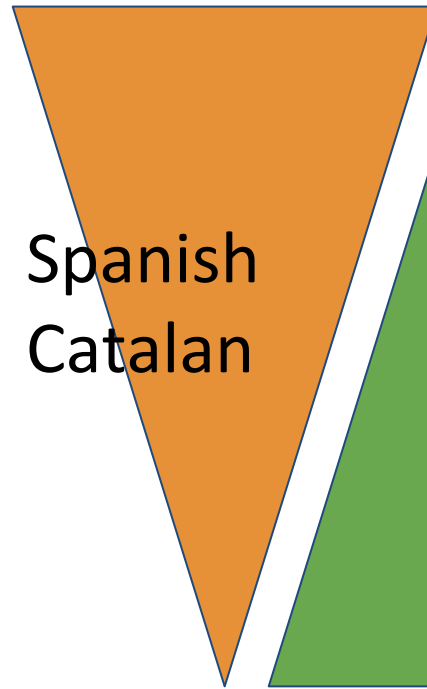




UNDERGRADUATE



Languages



MASTERS



After first year, Spanish/Catalan is a **requirement to renew contracts** **ONLY FOR DTIC GRANTS!!**

https://www.upf.edu/pei/en/cursos/espanyol/programa_institucionalupfespanyol/blocHTML.html

We **refund** first year if you **pass!!**



Teaching

- ❑ Is your teaching assignment clear to you?
- ❑ Do you prefer other courses for next years?
<https://portal.upf.edu/web/etic/undergraduate-studies>
- ❑ ...

- ❑ Send us an email to sotsdireccio.docenciadtic@upf.edu



Vanesa Daza




Jana Safrankova



Lluís Bosch



Teaching organisation and support

- What do you need to know?
 - Practical aspects for the first day of class
 - Basic aspects around teaching organisation and regulation
 - Teaching support tools (Aula Global, etc.)
 - Teaching support services (USQUID, CQUID, La Factoria)
 - See, https://portal.upf.edu/web/usquid-etic/teaching_esup
- Teaching Quality & Innovation Support Unit
- In our building!
 - Pedagogue: Verónica Moreno (55.307) 
 - Director/ViceDean for teaching: Davinia Hernández-Leo (55.402)
 - Contact: usquid.esup@upf.edu
 - Resources:
 - <http://www.usquidesup.upf.edu/en/>



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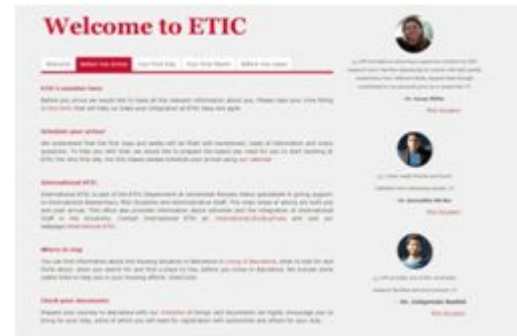


- Website : www.upf.edu/internationaldtic
- E-mail: international.dtic@upf.edu
- Office: 55.014

HOW WE CAN HELP YOU

- **IDTIC Advisers:** Jana Safrankova & Lluís Bosch
- **Support:** Before arriving to DTIC (visas and immigration), staying (NIE, Renewals, Invitation Letters, Social Security Number, Health care, Bank account, Taxes, Registration with the local council) and leaving . **Important ! [Checking list Summary](#)**
- **[Congress Attendance and Short Stay Visa Application](#)**
- **Ambassadors**
- **Bridge programs :** welcome, facebook in order to effectively integrate International Staff and PhD Students into the culture language and academic environment prior to and during full stay.

Welcome to ETIC



- **Website :** etic/welcome_to_etic
- **Contact:** montserrat.serrano@upf.edu & vanessa.jimenez@upf.edu
- **Office:** 55.020

HOW WE CAN HELP YOU

- **ETIC's member form :** Please take your time filling in [this form](#) that will help us make your integration at ETIC easy and agile.
- Access to the facilities offices [UPF's red card](#).
- Workplace
- UPF e-mail account
- Campus Global: www.upf.edu
- Intranet
- WiFi network: event@upf : upfabra10



Enjoy your stay and welcome!

<http://www.upf.edu/etic/>



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