Department of Information and Communication Technologies

Welcome session PhD program  15th October 2015
Outline

• Department of Information and Communication Technologies (DTIC)
• PhD program
• Research seminars
• Teaching assistance
• International DTIC
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Welcome!
Key DTIC values

A global community

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 Sciences
• Bachelor's degree in Telematics Engineering
• Bachelor's degree in Audiovisual Systems Engineering

• (Pending approval) Bachelor’s degree in Data Science
Postgraduate Education

Research Master’s Degrees

- Master in Sound and Music Computing
- Master in Cognitive Systems and Interactive Media
- Master in Intelligent Interactive Systems
- Master in Brain and Cognition
- Master in Computer Vision
- Master in Wireless Communications

PhD Program in Information and Communication Technologies

https://www.youtube.com/watch?v=FjAuggflTVE

2016-17 (pending approval) Master in Computational Biomedical engineering
Research

• AUDIOVISUAL TECHNOLOGIES
• COGNITIVE AND INTELLIGENT SYSTEMS
• COMMUNICATIONS AND NETWORKS
• COMPUTATIONAL BIOLOGY AND BIOMEDICAL SYSTEMS
• BRAIN AND COGNISSION
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

AUDIOVISUAL TECHNOLOGIES
- Image Processing and Computer Vision
- Image Processing for Enhanced Cinematography
- Sound and Music Computing
- Human-Computer Interaction, Graphics and Educational Technologies

COMMUNICATIONS AND NETWORKS
- Network Technologies and Strategies
- Wireless Communications
- Wireless Networking
- Information Theory and Coding

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

BRAIN AND COGNITION
- Language and Comparative Cognition
- Multisensory Research
- Speech Acquisition, Perception, Production
- Reasoning and Infant Cognition

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

Research
• Research incomes: 15.6 M€ / year (2014)
  67 FP7 projects participated and coordinated by 26 staff members (> 60% UPF EU funds) including 9 prestigious ERC Grants and the Human Brain Project
  Absolute leader in Spain, > 5% of all the funds obtained by Spanish Universities
• Consolidated scientific productivity around 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)

with strong local links (selected)
Entrepreneurship

Incubation spaces and support to entrepreneurs

Spin-offs & Start ups
Large events

Seventh International Conference on Tangible, Embedded and Embodied Interaction
http://www.tei-conf.org/13/home

CARS 2015
Computer Assisted Radiology and Surgery
29th International Congress and Exhibition
June 24-27, 2015
Barcelona, Spain
http://www.cars-int.org/

ISIT 2016
IEEE International Symposium on Information Theory
http://www.isit2016.org/
Other events

Events at UPF and outside

WebRTC meetup
Barcelona

Universitat Pompeu Fabra, Poble nou
Av. Diagonal, 647
Barcelona

Upcoming event: From Pyla to
3.5077 N, 2.3012 W
Map at: https://upf.bitcoin.com
2016 WebRTC meetup at UPF booth #C30-23

SPONSORS

upf
Universitat Pompeu Fabra
Barcelona

Quobis

tokbox

Oracle

Dialogic

Open Bitcoin Day - October 1st

OPEN CITIES
Student-driven activities

Female python developers

Medical Images 3D Printing Course

http://medmake.wix.com/medmake

http://www.meetup.com/es/PyLadies-BCN/
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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

Luca Chiarandini (PhD 2014), now at YouTube Zurich

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

M. Signorini, current PhD student, Chief Security Analyst at Excalibur

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

- Anita Borg Memorial Scholarships

- 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:
1. Thesis work

Year 4:
1. Possible extension

http://portal.upf.edu/web/etic/doctorat
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 (with your supervisor).
• Presentations scheduled in June (September).
• Send the jury a report 7-10 days before the presentation.
  • 15-20 min. presentation + 10 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.
Formative Seminars (2014-15) to prepare PhD proposal

• The basics of good science communication.
Formative Seminars (2014-15)
for your career

- The basics of good science communication.
- Career Paths for Scientists - The Quest for the Best Alternative
- Leadership and culture
- How to prepare a good scientific poster
- Open to new ideas!
Dissemination: PhD Workshop

- March 11th 2016:
  - 47 posters in 2015
  - 6 awards (sponsored)
- Interested in joining the organizing committee?

https://phdworkshop2015dticupf.wordpress.com/
#dticphdworkshop2015
Dissemination: Research in 4 minutes

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

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Coordinator: azadeh.faridi@upf.edu
Welcome to the research seminars website of UPF's Department of Communication and Information Technologies. The seminars are held weekly on Thursdays at 3:30pm, unless otherwise mentioned, and are open to the public. If you would like to receive the seminar announcements, please send an email to the seminar coordinator.

**Note to the Speakers:**

The research seminars also constitute a course in our Master's and PhD programs. The audience have a sound technical background, but many of them might not be familiar with the specific topics of your talk. Therefore, we would like to ask you to try to tailor your talk to a general audience and to avoid entering high technical details as much as possible.

Please kindly provide us with the title and abstract of your talk one week before your talk, the latest, by filling out the Seminar Details Form.

The talks are given in English and have a duration of one hour, including the time for questions. In order to avoid last minute technical problems it is highly advisable to set the equipment 10-15 minutes before the beginning of the talk. This can be arranged with either the seminar coordinator or you host.

The seminar room is equipped with a video projector and a PC with CD reader, USB port, Internet access, and an overhead projector. If possible, try to plug a laptop directly to the video projector. If you need any other equipment for your presentation, please contact the seminar coordinator.

Please note that most of the talks will be videoconferenced with University of València.

**Note to the Registered Students:**

As part of the requirement for passing the seminar course, you need to attend at least 16 seminars. A sign up sheet will be posted in class in the first 10 minutes of each talk.

In addition to the attendance requirement, you will need to write a 4-page report on a seminar of your choice. Please try to let the seminar coordinator know of your decision in the week following the seminar. You can change your decision later if a talk on a more interesting topic for you comes up later in the year. It is highly recommended that you contact the speaker for getting the material you might need as early as possible. The reports can be written in groups of two or individually.

If you are a master's student, your final grade will be the grade you receive for the report, provided that you meet your attendance requirement. If you do not meet the attendance requirement, there will be a penalty on your grade proportional to the number of missing attendances.

If you are a PhD student, you will be evaluated by only a pass/fail grade. You will pass the course only if you submit an acceptable report AND you meet your attendance requirement.

For more details, see these slides.

The research seminars are currently coordinated by Azadeh Faridi.

Coordinator: azadeh.faridi@upf.edu
Related 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
PhD Grants

- DTIC grants:
  - RDI (40h teaching duties)
  - Full (60h teaching duties)
- FPU = 120 h (2nd+3rd+4th years)
  - 30<h/year<60
- FI (<30h 1rst year && <60h 2nd and others)
- FPI (<60h/year)

Mandatory

Optional
Teaching

Not only go to class, but carefully prepare and teach them, correct labs and exercises
Languages

- First/second year courses in Spanish or Catalan
- Spanish/Catalan/English to Communicate in class
- After first year, Spanish/Catalan is a requirement to renew contracts
• Is your teaching assignment clear to you?

• If not, send an email to
  sotsdireccio.docenciadtic@upf.edu or
  jana.safrankova@upf.edu
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, [http://www.usquidesup.upf.edu/en/node/848](http://www.usquidesup.upf.edu/en/node/848)

• **Teaching Quality & Innovation Support Unit (DTIC/ESUP)**
  • In our building!
  • Pedagogue: Verónica Moreno (55.307)
  • Director/ViceDean for teaching: Davinia Hernández-Leo (55.408)
  • Contact: usquid.esup@upf.edu
  • Resources:
    • iTeaching AG
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• Website: www.upf.edu/internationaldtic

HOW WE CAN HELP YOU

• **IDTIC Advisers:** Jana Safrankova & Vanessa Jimenez
• **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.
Enjoy your stay and welcome!

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

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