

# Intl Mobility with USA Universities

## February 2024

### ETSETB 2<sup>nd</sup> call for mobility

**Prof. Eduard Alarcón**, USA liaison ETSETB, former Associate Dean Intl ETSETB, CFIS adjunt Dean.

**Prof. Israel Martín**, Assoc. Dean Intl

**Araceli Ortiz**, Mobility admin head

**Eva Salvador**, Institutional Mobility Office



**UNIVERSITAT POLITÈCNICA  
DE CATALUNYA  
BARCELONATECH**

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- Research-oriented Master's thesis
- Research-oriented Bachelor's thesis
  - J1 visiting scholar visa
  - Student has to cover living expenses, but TA / RA possible.
- No courses
  - Would require expensive tuition
  - Would require special visa
- No MoU: acceptance on a one-by-one ahdoc basis



# Requisites



- Academic file
- Research experience
- Genuine willingness to continue a research path



- Northeastern University –Boston–
  - signal processing for underwater communications (M. Stojanovic)
  - biomedical image/video processing (D. Erdogmuz)
  - energy-harvesting wireless sensor networks (K. Chowdhury)
  - THz wireless networks (J.M Jorner)
  - ML Computer vision (O. Camps)
  - Signal processing (P. Closas)



Northeastern University

- Massachusetts Institute of Technology – MIT Cambridge
  - Computer graphics and massive-data distributed image processing (A. Torralba)
  - Complex aerospace systems (E. Crawley)
  - Optoelectronic chips (Rajeev Ram)



Massachusetts  
Institute of  
Technology

- UMASS, Boston

- Electromagnetism, photonics, radar (S. Frasier, P. Siqueira)





- Georgia Tech, Atlanta
  - NoCs for AI/ML accelerators (both ECE/CS) (T. Krishna)
- Poly Brooklyn, NY
  - Power conversion for Energy systems (D. Czarkowski)
- The University of Utah, Salt Lake City
  - Neuromuscular disorders, physiological monitoring, system identification. (Benjamin Sanchez)





- University of Illinois Urbana-Champaign
  - Wireless network-on-chip for massive-core computer architecture (J. Torrellas)
- Los Alamos National Laboratory, NM
  - Metasurfaces for Arbitrary Control of Electromagnetic THz Waves (Hou-Tong Chen)
- NASA, Washington DC (Iban Ibañez)
  - Goddard Space Flight Center, Washington DC





- Texas A&M
  - complex aerospace systems, nanosats swarms (D. Selva)
  - Bioastronautics, spacesuits (A.Díaz-Artiles)



- University of Nebraska
  - biological molecular communication networks (M. Pierobon)





- University of Southern California
  - image processing (A. Ortega)



- Purdue University
  - image processing (E. Delp)



- UC Davis
  - on-chip wireless (J. Sebastián)







- Princeton University
  - AI/ML IoT co-processors (Naveen Verma)
- Mississippi State University
  - Wireless communications, software radio, digital signal processing (Vuk Marojevic)





## Balcells program

- University of Colorado, Boulder (bio-IT)
- University of Colorado, Colorado Springs (open)
- University of California Irvine (all, bio-centric)
  
- Illinois Institute of Technology, Chicago



# Contact hours



- Prof. Eduard Alarcón
- C4 – 104 C. Nord UPC
- [eduard.alarcon@upc.edu](mailto:eduard.alarcon@upc.edu)
- Office hours:
  - Thursday July 13th 10h-12h



# Plan the meeting



- Why USA?
- Why research? Forward-looking research plans.
- Uniqueness in your academic file beyond the apparent
- Research topic interest:
  - Background experience
  - Future interests
  - Focus!

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*Best practices to deal with admin and embassy*



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# Plan the Embassy meeting



- J1 visiting scholar is the natural option for VISA
  - It does apply for you as research students, also to PhD and faculties
- J1 visa *paperwork* needed
  - An invitation letter from the host professor.
    - *This is the only formal document you need from the host for the whole admin process*
  - A DS2019 document.
    - *Usually sent by the Intl Students office at the host institution, the host faculty would usually bridge you to an admin contact there.*
- J1 visa *timeline* from the host institution
  - The Invitation letter is as immediate as professors react to their agenda, since a pdf suffices
  - You need to bring the original DS2019 to the embassy. It is recommended to allocate 1 week for the first interaction, two weeks for processing and 1 week for airfare mail.



# At the embassy



- How to address the short conversation with the embassy officer.
  - Common sense, yet:
  - It is not a work recruitment interview.
    - *Don't overdescribe yourself. Just the invitation letter from a prestigious university usually makes the work.*
  - Once they realize you are a highly qualified student pursuing research in a prestigious sci-tech College, they will probably ask about the topic you are addressing:
    - *Prudence here: don't overtalk hightech, don't overtalk applications. It is recommended you emphasize the academic theoretical aspects of your research stay.*
- A practical –yet crucial- tip, verbatim from their webpage
  - No backpack allowed in, no lockers in building. Bring only a folder with the paperwork.
- Usually admission, if it occurs, is immediate, allocate a week to receive your Passport back.



## From the approved visa on



- Trigger the rest of intendance for your stay:
  - confirm flight, secure housing.
- Initial engagement with the host professor on research topics, ask for recommended research paper readings.
- Mid-term future: 2-year rule might apply in the future when receiving funding from a public institution at country of origin.
  - Still unclear for MOBINT, but risk is low.
  - 2-year rule doesn't impact students willing to continue a graduate program under F1 visa after the first visit. It would to those pursuing a H1 for job after BSc (a small subset). However, in most cases a "letter of no objection" from the company by the Spanish embassy in Washington usually suffices to waive such 2-year rule.