

PERSONAL INFORMATION

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 ID --- | Marital Status ---

This is a web version of my CV, if you need further information please do not hesitate to contact me.

EDUCATION AND TRAINING

From Nov. 2016 to now

PhD student

Level 8 in EQF

Department of Information Technologies and Electrical Engineering, ETH Zürich

Main topic

ETH Zurich is one of the universities in Europe which focuses most intensively on research. The research project is carried out independently with the support of a professor and consists of 4-5 years of intense work on a specific field. The Millimeter-Wave Electronics Group headed by Prof. Colombo Bolognesi focus on III-V compound semiconductor devices and processes from modern sub-terahertz applications to all-electronic terahertz sources. The related project is about InP High Electron Mobility Transistors (HETMs), devices which offer the best performance for low-noise and high-frequency applications (deepspace communications and radio astronomy). ETH "in-house" developed and processed HEMTs are being deployed in the missions of ESA (European Space Agency) and in several space observatories around the world.

Skills acquired

As students are exposed to a multidisciplinary basis, a wide range of skills is covered:

- High-Frequency and Ultra-Low Noise semiconductor transistors (some of the world's lowest-noise devices).
- Micro- and nanotechnology cleanroom fabrication and characterization.
- Cryogenic DC, RF, and Noise Parameter Measurements (to 50 GHz).
- MATLAB scripting and GUI Programming.
- Teaching (assistant professor) for 'Semiconductor Devices' and 'High Speed Signal Propagation' subjects.
- Responsible of Electron Beam Lithography machine (RaithTwo) and UVOCS.

More information

<http://www.mwe.ee.ethz.ch/>

From Oct. 2015 to July 2016

Interuniversity Master in Molecular Nanoscience and Nanotechnology

Level 7 in EQF

Faculty of Sciences, University of Valladolid

Grade point average

9.6/10

Main studied subjects

The syllabus of the Master is somewhere in between the Nanoscience/Nanotechnology fields and the molecular systems. Therefore, it explores scientific areas of increasing interest such as Molecular Electronics, Molecular Magnetism, Supramolecular Chemistry, Surfaces Chemistry or Molecular Materials Science.

Skills acquired

On completion of the course, students acquire a multidisciplinary basis, in chemical aspects related to nanoscience (nanoscience bottom-up approach for the design of functional molecules and supramolecular structures; intermolecular interactions; molecular self-assembly and self-organization) and in physical ones (nanomanufacturing top-down approach, physical manipulation techniques, organization and characterization of nanomaterials). Furthermore, at the same time students learn to address scientific problems from the perspective of Materials Science.

More information

<http://www.icmol.es/master/nano/>

| | | |
|------------------------------|---|----------------|
| From Sept. 2011 to July 2015 | Degree in Specific Telecommunication Engineering: Mention in Electronic Systems | Level 6 in EQF |
| | Higher Technical School of Telecommunications Engineering, University of Valladolid | |
| Grade point average | 8.5/10 | |
| Main studied subjects | Engineering core subjects such as physical sciences, statistics or mathematics, as well as others related to information technology and communications fields, such as programming, communications networks or electromagnetism. | |
| Skills acquired | This degree enables the acquisition of abilities which are characteristic of technical telecommunications engineering with their professional responsibilities. On the other hand, specialization in electronic systems leads to the acquisition of skills related to design, analysis, and maintenance of electronic equipment and systems, especially in the field of information technology and communications. Moreover, the ability to conceive, analyze, develop, organize and manage components, electronic systems and processes to reach the required specifications, as well as knowing their economic and social impact. | |
| More information | http://www.tel.uva.es/en/index.htm | |

PROFFESIONAL EXPERIENCE

| | | |
|--------------------------------|--|--|
| From August 2018 to Sept. 2018 | Process Tutor at ETH Week | |
| | ETH Sustainability with the Energy Science Center, ETH Zürich | |
| Responsibilities | <ul style="list-style-type: none"> • Receiving workshop about Design Thinking (18th-19th August 2018). • Guidance of one team through the entire week helping students to develop innovative ideas through Design Thinking method. • Team process and team dynamics management. • Coordination of the project progress and timeline. | |
| More information | https://www.ethz.ch/en/the-eth-zurich/sustainability/education/ETHweek.html | |
| From June 2015 to Sept. 2015 | Collaborator of the Research Group MMM | |
| | Department of Electronics and Electricity, University of Valladolid | |
| Responsibilities | Testing the parallel program k-ART (kinetic - Activation Relaxation Technique). | |
| More information | https://www.ele.uva.es/~mmm/ | |
| From July 2014 to August 2014 | Trainee at CyL Digital Space | |
| | CyL Digital Space of Valladolid, Junta de Castilla y León | |
| Responsibilities | <ul style="list-style-type: none"> ▪ Giving informative talks and training courses about new technologies to general public or business people. ▪ Teaching of online seminars to small business and freelancers. ▪ Development of informative content about new technologies and the world of programming Digital CyL published in the magazine and on the web Digital CyL. ▪ Giving advice to the general public about new technologies. ▪ Searching for educational and informational resources about new technologies. | |
| More information | https://www.cyldigital.es/ | |

PERSONAL SKILLS

Mother tongue Spanish

Other languages

| | UNDERSTANDING | | SPEAKING | | WRITING |
|--|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C1 | C1 | C1 | C1 | C2 |
| Certificate in Advanced English (CAE) by University of Cambridge (October 2015). | | | | | |
| German | A2 | A2 | A1 | A1 | A1 |

Levels according to Common European Framework of Reference for Languages

Communications skills

- Ability to speak in public without any difficulty as well as exposing some high-level knowledge to non-specialist people.
- Ability to argue and defend ideas in group work projects.

Organisational/managerial skills

- Ability to lead and coordinate the work of others based on the leadership achieved in different engineering projects.
- Ability to set targets and deadlines, set priorities and monitor the quality of work.

Computer skills

- Excellent management of Microsoft Office programs.
- Familiarity with Oracle and NetBeans work environment.
- Ripping use of software related to design electronic circuits, such as Proteus, OrCAD or Cadence.
- Very good use of high-level technical computing language environment, Matlab, and their integrated visual programming, Simulink.
- Good adaptation to work with any current operating systems (Mac OS, Windows or Linux) in all versions (OS X, Windows 8.1, Ubuntu ...).
- Familiarity with composing academic texts in LaTeX.

Programming skills

- Fluency in C language
- Good knowledge of the Java language.
- Excellent use of Verilog hardware description language.

Driving license

Own vehicle and in possession of the driving license class B and A1.

ADDITIONAL INFORMATION

Publications

- "Pt Gate Sink-In Process Details Impact on InP HEMT DC and RF Performance". International Conference on Compound Semiconductor Manufacturing Technology (CS ManTech 2017), Indian Wells, US. Conference Proceedings. October 2017.
- "Evaluation of energy barriers for topological transitions of Si selfinterstitial clusters by classical molecular dynamics and the kinetic activation-relaxation technique". Conference of Electron Devices (CDE 2017). Conference Proceedings. Link: <http://ieeexplore.ieee.org/document/7905224/>

Conferences

- "Evaluation of energy barriers for topological transitions of Si selfinterstitial clusters by classical molecular dynamics and the kinetic activation-relaxation technique". Conference of Electron Devices (CDE 2017), Barcelona, Spain. Accepted as poster. February 2017. Link: <http://www.cde2017.es/>
- "Characterization and dynamics of Si self-interstitial clusters by self-learning kinetic Monte Carlo simulations". European School on Molecular Nanoscience 2016 (ESMolNa 2016), Tordesillas, Spain. Oral presentation. June 2016. Link: <http://www.icmol.es/esmolna2016/>
- "Molecular dynamics simulations of intrinsic defects in amorphous Ge". Conference on Gettering and Defect Engineering in Semiconductor Technology 2015 (GADEST 2015), Bad Staffelstein, Germany. Accepted as poster. September 2015. Link : <http://www.gadest2015.de/>
- "e-Health and Wearables Dispositives: Imminent Revolution". Revista CyL Digital (3er term 2014 - N°13). September 2014. Link: http://issuu.com/orsicyl/docs/cyl_13

- Projects**
- “*Characterization and dynamics of Si self-interstitial clusters by self-learning kinetic Monte Carlo simulations*”. Developed as master thesis, obtaining an overall rating of 10/10.
 - “*Defects simulation in amorphous germanium*”. Developed as final degree project, obtaining an overall rating of 10/10.
 - “*Warehouse management system of a company using C language*”. Developed in Programming subject, obtaining an overall rating of 9.4/10.
 - “*Questionnaire management system for higher education using Java*”. Developed in Engineering Software Systems subject, getting an overall rating of 9.1/10.
 - “*Design and implementation of a logic analyzer*”. Developed in Engineering of Electronics Systems subject, getting an overall rating of 10/10.

- Seminars and courses**
- “*Learning to Teach*”, ETH Zürich. Carried out from 16/03/2016 to 24/03/2017.
 - “*FIRST introduction day*” and “*Equipment training*” (special training for fabrication machines and characterization tools in FIRST lab), ETH Zürich. Carried out from 24/11/2016 to 20/01/2017.
 - *German as a foreign language*, A1 Part 1 & 2. UZh and ETH Sprachenzentrum. Carried out from 18/09/2017 to 30/05/2018.
 - “*Educamentor*” Coaching course. Timpulsa Career Center. Carried out from 16/10/2015 to 24/12/2015.
 - “*Immersion courses in English Language*”, International University Menéndez Pelayo (Held on A Coruña, Spain). Carried out from 24/8/2015 to 28/8/2015.
 - General courses of English in the Center of Languages of University of Valladolid (2013/2014).
 - “*Sources of specialized information, writing, and editing academic papers*”. Carried out from 1/11/2014 to 15/1/2015. University of Valladolid.
 - “*Search and use of scientific information*”. Carried out from 4/10/2013 to 18/11/2013. University of Valladolid.

- Honours and awards**
- Best GPA Master Award of 2016 with a rating of 9.58/10.
 - First place in *Liberalisation of Telecommunications Award 2015*, specialization of Electronics Systems. National award aimed to the best Final Project and academic record, organized by AEGITT, prize of 1000€.
 - Third place in the *Extraordinary School Awards 2011 event*, in the area of Castilla y León. Accessed with 9.1/10 rating and scoring on 22.03/25.
 - Rate of 8.7/10 in General Certificate of Education Advanced Level (A-Level) in 2011.
 - Distinction in 2nd year of international baccalaureate, studying the Engineering and Architecture branch in of Bachelor of Science and Technology modality, with a rating of 9.1/10. Achieved in Nuestra Señora del Carmen School in 2011.

- Memberships**
- Member of the Institute of Electrical and Electronics Engineers (IEEE), with undergraduate status (2012-now).
 - College in the Spanish Association of Graduates and Technical Telecommunications Engineers (AEGITT) (2014- 2016).
 - Member of the Students Council of Electronics Department at the University of Valladolid (2013-2016).
 - Representative of the Degree in Specific Telecommunication Engineering in the Degree Commission (2014-2015)
 - Mensa member (2015- now).

- References**
- This document has been created from the standardized *Europass* model introducing minor changes.

ANNEXES

- Possibility of requesting the latest copy of diplomas and qualifications as well as registered or practical work by using the e-mail mentioned at the beginning.