Curriculum Vitae

Cristina Cano, PhD
Associate Professor

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Short Bio

I obtained the Telecommunications Engineering Degree at the **Universitat Politècnica de Catalunya (UPC)** in February 2006. Then, I received the M.Sc. (2007) and Ph.D. (2011) on Information, Communication and Audiovisual Media Technologies from the **Universitat Pompeu Fabra (UPF)**. From July 2012 to December 2014, I was working as a research fellow at the **Hamilton Institute** in the National University of Ireland, Maynooth (NUIM). Part of this research group is now based in **Trinity College Dublin** (School of Computer Science and Statistics), where I was working from January 2015 to January 2016 as a senior research fellow. I was a research scientist at the FUN team at **Inria Lille Nord-Europe** from January 2016 to July 2016. I joined the WINE Group of the **Universitat Oberta de Catalunya** in 2016 as a senior research fellow and from September 2018 I am an associate professor in the Faculty of Computer Science, Multimedia and Telecommunications of the university. My current research interests are related to coexistence of wireless heterogeneous networks and machine learning applied to optimisation of wireless networks.

Research Topics

- **Current Research Interests:**
  - Machine learning for wireless network optimisation.
  - Medium access control layer design, optimisation, coexistence, resource allocation and stability.
  - Unlicensed LTE, WiFi, 802.15.4e TSCH, 802.11ah, M2M, PLC and mmWave networks.
- **Most Recent Research Achievements:**
  - Identifying barriers to wireless adoption in the manufacturing industry and ways forward.
  - Providing fairness guarantees between unlicensed LTE and WiFi networks via bandit convex optimization.
  - Learning mechanisms for distributed TDMA operation in WiFi and mmWave networks.
  - Characterisation of a long transitory phase in random access protocols.

Education

- **Doctor of Philosophy (Ph.D.) - 2011**
  - Department of Information and Communication Technologies (DTIC)
  - Universitat Pompeu Fabra, Barcelona, Spain
  - Thesis: *"A Low Power Listening with Wake up after Transmissions MAC Protocol for WSNs"*
  - Advisors: Dr. Boris Bellalta (UPF), Dr. Miquel Oliver (UPF)

Academic Career

- September 2016 – now: Associate Professor, Universitat Oberta de Catalunya, Spain.
- September 2016 – September 2018: Senior Research Fellow, Universitat Oberta de Catalunya, Spain.
- January 2016 – July 2016: Research Scientist, Inria, FUN Team, Lille, France.
- January 2015 – January 2016: Senior Research Fellow, SCSS, Trinity College Dublin, Dublin, Ireland.
- July 2012 – December 2014: Research Fellow, Hamilton Institute, NUIM, Maynooth, Ireland .
- May 2011 – July 2012: Research Fellow, DTIC, UPF, Spain.
- Sept 2007 – May 2011: PhD student, DTIC / Teacher Assistant, Polytechnic School, UPF, Spain.

R&D Project Experience

- **Principal Investigator:**
  - Cisco Gift (expected 2019-pending signature). Silicon Valley Community Foundation.
    - Exploiting dual-band LPWAN for opportunistic low-cost communications. Funding: $120K.
  - UP-ORCA (2018). H2020 Open Call ORCA project.
    - Evaluation of unlicensed LTE approaches in ns-3 and SDR interfacing. Funding: 80K.

Collaborations

List of main collaborators:

- **NEC Labs Europe,** Dr. Andres Garcia-Saavedra (Research Fellow at NEC Labs).
- **National Instruments Dresden GmbH,** Dr. Clemens Felber (Research Scientist), Dr. Vincent Kotzsch (Research Associate).
- **Nokia Bell Labs Ireland,** Dr. Holger Claussen (Department Head of the Small Cells Research group at Bell Labs, Ireland), Dr. David Lopez-Perez (Member of Technical Staff at Bell Labs, Alcatel-Lucent in Ireland).
- **IMDEA Networks and University of Edinburgh,** Dr. Joerg Widmer (ERC Consolidator Grant holder at the Institute IMDEA Networks in Madrid), Dr. Paul Patras (Assistant Professor in the School of Informatics at the University of Edinburgh).

Supervision of research activities

List of supervision of students:
- **Ph.D. students:**
  - Francesc Wilhelmi (Ph.D. student at Universitat Pompeu Fabra) - ongoing
    - Co-supervision along with Dr. Boris Bellalta and Dr. Anders Jonsson.
    - Topic: Machine Learning techniques to optimize spatial sharing in wireless networks.
- **1 Ph.D. Internship and 5 M.Sc. Students.**

Certifications/Awards/Distinctions

- Featured in the inaugural list "**Rising Stars in Computer Networking and Communications**" of the N2Women organisation.
- **Best Paper Award** in: WINTECH 2016. New York City, US. October 2016, MACOM 2010. Barcelona, Spain. September 2010, ISWCS 2009. Siena, Italy. September 2009, WWIC 2009. Twente, The Netherlands. May 2009, EUNICE 2008 Summer School. Brest, France. September 2008.

Services to the Research Community

- **Executive Editor** of Transactions on Emerging Telecommunications Technologies journal (IF: 1.535).
- **Co-chair:** Wireless Models and Simulations track of Wireless Days 2019, EWSN 2018 Madcom Workshop.

Publications

In total, I have disseminated my work through the publication of **16 JCR journals**, 1 international journal and **more than 30 international conferences** (5 of them received the **best paper award**), attracting more than **1000 citations** and resulting in an **h-index of 17** (i10-index of 26) according to Google Scholar. You can find the full list of articles and the citations in http://ccanobs.github.io/ and Google Scholar.