

# Luis Badesa

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Personal website: <https://badber.github.io/>

I am a researcher supporting the transition to a net-zero emissions energy system.  
My previous experience includes energy consultancy, electrical engineering, and applied mathematics.

- EXPERIENCE** | **Research Associate**, Imperial College London (2020 – present)
- Developing mathematical models to operate electricity grids and markets efficiently.
  - Supervising 2 PhD students.
- Energy Consultant**, Arup (London, UK) (2019 – 2020)
- Analysis and modelling of future electricity markets for advising public and private clients.
- Researcher in Electricity Markets**, Imperial College London (2016 – 2019)
- Supervised 5 Master's theses in optimisation and Machine Learning for electricity grids.
- Graduate Teaching Assistant**, Imperial College London (2017 – 2019)
- Taught core modules in mathematics and computing, in the MEng Electrical Engineering.
- Instructor in Robotics**, Johns Hopkins CTY (USA) (Summer 2016)
- Taught at CTY's summer camp for gifted middle school students in Los Angeles.
- Researcher in Smart Grid**, University of Maine (USA) (2014 – 2016)
- Conducted studies on power system stability, in collaboration with Central Maine Power.
- Assistant Researcher in Digital Electronics**, University of Zaragoza (2013 – 2014)
- Designed an FPGA-based position sensor for pans on induction cooktops, in collaboration with the engineers at BSH Home Appliances Group.
- Intern in Control Engineering**, Pyrsa, Monreal del Campo (Spain) (Summer 2013)

- EDUCATION** | **PhD in Electrical Engineering**, Imperial College London (2016 – 2019)
- Developed models for optimal scheduling of electricity grids with a high share of renewables.
- Published 9 research papers (see my [personal website](#) and my [ResearchGate profile](#)).
  - Recipient of a full-ride Imperial College PhD Scholarship.
- MSc in Electrical Engineering**, University of Maine (USA) (2014 – 2016)
- Ranked 1st among students in Electrical & Computer Engineering.
  - Recipient of an Iberdrola Scholarship for Postgraduate Studies in Energy & Environment.
- BSc in Industrial Engineering**, University of Zaragoza (Spain) (2010 – 2014)
- Recipient of a scholarship sponsored by BSH Home Appliances Corporation.

- VOLUNTEERING** | **Secretary and co-founder** at IEEE Student Branch, Imperial College (2018 – 2019)
- Organised a research symposium and a full-day conference (see [our website](#)).
- Research Project Mentor** at Upward Bound, University of Maine (Summer 2015)
- Mentored a high school student on a month-long project titled "Optimal Design of an Average-sized One-bedroom Apartment for Better Energy Conservation".
- Coordinator** for first-year and international students at University of Zaragoza (2012 – 2014)

- SKILLS** | **Languages:** English (bilingual proficiency), Spanish (native), French (high proficiency).
- Computing:** Matlab, Plexos, C++, C, VHDL, Pascal, LaTeX. Strong mathematical and computing skills, including optimisation and Machine Learning (see [my GitHub](#)).