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).