

Curriculum vitae

PERSONAL INFORMATION

First Name, Surname: João, Mouro

ORCID: [REDACTED]

Date of birth: [REDACTED]

Nationality: Portuguese

URL for web site: [REDACTED]

• EDUCATION

- 2015 PhD in Technological Physics Engineering
Title: Dynamics of thin-film silicon flexural MEMS: from material properties to electrical characterization.
Instituto Superior Técnico - University of Lisbon, Lisbon, Portugal.
INESC- Microsystems e Nanotecnologies
PhD Supervisors: Professor João Pedro Conde and Dr. Virginia Chu.
- 2010 Integrated Master's in Chemical Engineering
Instituto Superior Técnico - University of Lisbon, Lisbon, Portugal.

• RECENT POSITION

- 2020 – 2022 Marie Curie Individual Fellowship – MARS project (Mass And Rheology Sensor), grant agreement No. 842147.
Institute for Complex Systems, National Research Council (ISC-CNR), Florence, Italy.

• PREVIOUS POSITIONS

- 2019 – 2020 Post-Doctoral Research Associate: “Smart tubular sensors and actuation devices for lab-on-chip platforms”.
University of Lisbon, INESC Microsistemas e Nanotecnologias, Lisbon, Portugal.
- 2018 – 2019 Post-Doctoral Research Associate: “Nanoelectromechanical Relay Based Computing”.
University of Bristol, Department of Electrical & Electronic Engineering, Bristol, UK.
- 2016 – 2017 Post-Doctoral Research Associate: “Self-tuning advanced rheology tool”.
University of Liverpool, Department of Mechanical, Materials & Aerospace Engineering, Liverpool, UK.

• FELLOWSHIPS AND AWARDS

- 2020 – 2022 Marie Curie Individual Fellowship: MARS project (Mass And Rheology Sensor), grant agreement No. 842147
Institute for Complex Systems, National Research Council (ISC-CNR), Florence, Italy.
- 2010 Best Graduate IST/Caixa Geral de Depósitos.
Merit prize for best graduate in Chemical Engineering of Instituto Superior Técnico (IST), sponsored by Caixa Geral de Depósitos.

• SUPERVISION OF MASTER STUDENTS

- 2021 Co-supervisor of Matilde Gelli, Thesis “Analysis of nonlinear models for the measurement of viscosity and mass based on a microcantilever”, Master in Electrical Engineering and Automation, Engineering School, University of Florence, Florence, Italy.
- 2020 Supervisor of João Teodoro da Silva Freitas, Thesis “Microfabrication of a cantilever

probe”, Integrated Master in Engineering Physics, Faculdade de Ciências da Universidade de Lisboa, Lisbon, Portugal.

- **TEACHING ACTIVITIES**

- 2019 – 2020 Lecturing the Module of MEMS in the course “Nanotechnologies and Nanoelectronics”, University of Lisbon, Instituto Superior Técnico, Lisbon, Portugal.
- 2019 – 2020 Mentoring groups of students in the courses “Micro and Nanofabrication Techniques” and “Advanced Experimental Physics Laboratory”, University of Lisbon, Instituto Superior Técnico, Lisbon, Portugal.

- **ORGANISATION OF SCIENTIFIC MEETINGS**

- 2019 Local Organising Committee of Magnetic Frontiers, Lisbon, Portugal, 24-27 June 2019.

- **REVIEWING ACTIVITIES**

- 2020 Co-editor of a special issue of Sensors (ISSN 1424-8220) "Cantilever-Based Sensors"
- 2016 – 2022 Continuous participation as a reviewer in high-impact factor journals in the fields of Physics, Sensorics, Microtechnologies and Microelectronics (Sensors and Actuators A, Journal of Physics D, Micromachines MDPI and Sensors MDPI).

- **PROFESSIONAL EXPERIENCE**

- 2013 – 2022 Tutoring graduate students of different universities in more than distinct 20 courses in the areas of mechanics, electromagnetism, thermodynamics, physical-chemistry, transport phenomena, materials science, separation processes, chemical reactors and chemistry.
- 2010 Intern in Institut Francais du Pétrole, Lyon, France, for studying and characterizing a single pellet string reactor in triphasic configuration.

- **MICROFABRICATION SKILLS**

Lithography (direct writing, ebeam, mask aligner); Etching techniques (wet etching, physical etching, RIE, HF, critical point dryer); Deposition techniques (PECVD, Sputtering, Thermal Evaporation).

- **IT SKILLS**

ANSYS; COMSOL; Matlab; Simulink; Labview; Mathematica; Origin; AutoCAD; Cadence

- **LANGUAGE SKILLS**

Portuguese (mother tongue); English (proficient); Italian, French, Spanish (Independent).

- **EXTRA CURRICULAR**

Surf; marathon runner; reader; traveller; chess enthusiast; guitar player.

- **CAREER BREAKS**

- Dec 2015 – Jul 2016 Moving to and starting in the University of Liverpool ~ 6 months.
- Aug 2017 – Jan 2018 Moving to and starting in the University of Bristol ~ 5 months.
- Mar 2020 – Aug 2020 Postponing the beginning of Marie Curie Fellowship due to the covid-19 pandemic and global lockdowns ~ 6 months.