

# Paula A Graça

✉ paula.graca@fe.up.pt  
🔗 orcid.org/0000-0002-6317-0897  
🌐 paulaaagraca  
in paulaaagraca



## EDUCATION

- 2021–/ **PhD in Electrical and Computer Engineering**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Focus on underwater acoustic localization, reconfigurable digital systems and signal processing.  
GPA (curricular component): 18/20
- 2015–2020 **Integrated Masters in Electrical and Computer Engineering**, *Faculty of Engineering of the University of Porto*, Porto, Portugal).  
Branch: Telecommunications, Electronics and Computers - Microelectronics and Signal Processing  
GPA: 15/20
- 2018–2019 **ERASMUS+ Program**, *Technical University of Munich*, Munich, Germany.  
Minor courses in communication acoustics, signal processing for audio, VLSI design and nanoelectronics.  
GPA: 15/20

## EXPERIENCE

- Oct 2020 – **Invited Assistant Lecturer**  
/ Department of Electrical and Computer Engineering (DEEC), Faculty of Engineering, University of Porto  
Porto, Portugal
- Oct 2020 – **Research Assistant**  
/ Centre of Robotics and Autonomous Systems (CRAS) at INESC TEC  
Porto, Portugal
- Feb 2020 – **Undergraduate Researcher**  
Oct 2020 Centre of Robotics and Autonomous Systems at INESC TEC  
Porto, Portugal
- Jun 2019 – **Technical Supporter**  
Sep 2019 CIRC  
Munich, Germany

## TEACHING & EDUCATIONAL ACTIVITIES

### Invited Assistant Lecturer

- **Integrated Masters in Electrical and Computer Engineering (MIEEC)** | Department of Electrical and Computer Engineering (DEEC) | Faculty of Engineering, University of Porto
- 2020/2021 **EEC0006: Laboratory of Digital Systems (LSDI)**, 1<sup>st</sup> semester, 7.5 ECTS.
- 2020/2021 **EEC0010: Electric Circuits (CIRC)**, 2<sup>nd</sup> semester, 7 ECTS.
- **Bachelor in Electrical and Computer Engineering (LEEC)** | Department of Electrical and Computer Engineering (DEEC) | Faculty of Engineering, University of Porto
- 2021/2022 **L.EEC005: Digital Systems (SD)**, 1<sup>st</sup> semester, 6 ECTS.
- 2021/2022 **L.EEC008: Circuits 2 (CIR2)**, 2<sup>nd</sup> semester, 6 ECTS.

## Bachelor Internship Supervisor

- Mar 2022 – **Reconfigurable pinger for underwater acoustics applications: acoustic signal synthesis**, Tutor: José Carlos Alves, PhD.  
Jul 2022 Faculty of Engineering, University of Porto
- Mar 2022 – **Reconfigurable pinger for underwater acoustics applications: parameterization, temporization and low-power modes**, Tutor: José Carlos Alves, PhD.  
Jul 2022 Faculty of Engineering, University of Porto

---

## PUBLICATIONS

### Peer-reviewed Conference Proceedings

- 2022 Paula A. Graça, José Alves, Bruno Ferreira, Multi-Objective Optimization of Sensor Placement in a 3D Body for Underwater Localization, *OCEANS 2022 Hampton Roads* (2022) - Accepted.
- 2022 Bruno Ferreira, José Alves, Nuno Cruz, Paula A. Graça, On the localization of an acoustic target using a single receiver, *OCEANS 2022 Hampton Roads* (2022) - Accepted.

### Dissertations

- 2020 Paula A. Graça, Relative Acoustic Localization with USBL (Ultra-Short Baseline), Master's Dissertation, Faculty of Engineering, University of Porto, Supervised by José Carlos Alves and Bruno Ferreira. URL: <https://hdl.handle.net/10216/132656>.

### Peer-reviewed Abstracts

- 2020 Filipa S. Barros, Paula A. Graça and Hélio S. Mendonça, Experimenting with RF-433MHz for Low-Cost Short Range for Edge Device Communications, IJUP 2020 - 13<sup>th</sup> Meeting of Young Researchers of the University of Porto. URL: <https://www.up.pt/ijup/edicao-2020/>.

---

## PROJECTS

- 2021 – / **SPRING** Strategic planning for water resources and implementation of novel biotechnical treatment solutions(reference 821423), CRAS at INESC TEC, [inesctec.pt/spring](https://inesctec.pt/spring)
- 2020 – 2021 **AutoMon**, Automated monitorization of hydric resources, CRAS at INESC TEC, [inesctec.pt/automon](https://inesctec.pt/automon)
- 2020 **GROW**, Long-range broadband underwater wireless communications, CRAS at INESC TEC, [inesctec.pt/grow](https://inesctec.pt/grow)

---

## CONFERENCE ORGANIZATION

- Jul 2018 **IEEE R8 Student & Young Professional Congress 2018** as Head of Branding, Porto, Portugal, [symp.ieee-pt.org](https://symp.ieee-pt.org)
- Nov 2021 **XXXVI Conference on Design of Circuits and Integrated Systems (DCIS'2021)** as Student Volunteer, Vila do Conde, Portugal, [dcis2021.fe.up.pt](https://dcis2021.fe.up.pt)

---

## GRANTS, HONORS & AWARDS

### Grants

- 2021 – / **Research Grant (BI)**, SPRING project (reference 821423), by INESC TEC Porto, Portugal
- 2022 **Huawei Merit Scholarship**, by Huawei Portugal and .PT [programadebolsashuawei.pt](https://programadebolsashuawei.pt) Lisbon, Portugal

### Honors & Awards

- Oct 2021 **National 3<sup>rd</sup> / international 1060<sup>th</sup> (of 5570)**, IEEEExtreme 15.0 [ieeextreme.org](https://ieeextreme.org) Porto, Portugal (Online)

- Oct 2019 **National 6<sup>th</sup> / international 714<sup>th</sup> (of 4134)** , IEEEExtreme 13.0 [ieeextreme.org](http://ieeextreme.org)  
Maia, Portugal
- Apr 2019 **4<sup>th</sup> (of 10)** , Neeil It at CEiiA  
Matosinhos, Portugal
- Nov 2017 **1<sup>st</sup> place**, BEST SciTeCH'17 [scitech.bestporto.org](http://scitech.bestporto.org)  
Matosinhos, Portugal
- Feb 2017 **2814<sup>th</sup>**, Google Hashcode 2017 [hashcode.com](http://hashcode.com)  
Porto, Portugal

## ADDITIONAL TRAINING

- Jul 2022 **Marine Robotics Summer School** by the MIT Portugal, LSTS - Laboratório de Sistemas e Tecnologias Subaquáticas - and Okeanos - Institute of Marine Sciences: 2 weeks of technical sessions on oceanography and robotics and networking. Açores, Portugal [mitportugal.org/marine-robotics-summer-school](http://mitportugal.org/marine-robotics-summer-school)
- Jun 2022 **International Conference on Underwater Acoustics 2022 (ICUA'22)** by the Institute of Acoustics: 4 days with technical sessions and networking. Southampton, United Kingdom [icua2022.org](http://icua2022.org)
- Jan 2022 **Online CubeSat Concurrent Engineering Workshop 2022** by European Space Agency (ESA) Academy: 50-hour training, 1 of 19 selected students worldwide. Online [esa.int/OCCEW22](http://esa.int/OCCEW22)
- Jul 2021 **DEEPFIELD - Deep Learning for Image Classification and Segmentation** by Polytechnic University of Milan: 24-hour training, 1 of 19 selected students worldwide. Online [deepfieldproject.com](http://deepfieldproject.com)
- Jul 2021 **22nd European Agent Systems Summer School (EASSS 2021)** by Artificial Intelligence and Computer Science Lab of the University of Porto (LIACC): 30-hour training. Online [easss2021.fe.up.pt](http://easss2021.fe.up.pt)
- Jun 2020 **Introduction to Machine Learning with Python** by OERN - Ordem dos Engenheiros Região Norte: 16-hour training, score 17/20. Online [oern.pt](http://oern.pt)
- May 2020 **Introduction to Python** by OERN - Ordem dos Engenheiros Região Norte: 16-hour training, score 20/20. Online [oern.pt](http://oern.pt)
- Oct 2019 **Participant in team Euphonic**, EUvsVirus Hackathon, Domain: Social & Political Cohesion [euvsvirus.org](http://euvsvirus.org)  
Porto, Portugal (Online)
- Nov 2019 **Introduction to real-time video processing on heterogeneous computing platforms - Zynq SoC** by Prof. Tomasz Kryjak, Computer Vision Laboratory in AGH University of Science and Technology Kraków Poland: 6-hour training. Online
- Oct 2019 **IEEE Leadership Camp 2019** by IEEE Portugal: 24-hour training. Lisbon, Portugal
- Fev 2017 **Microsoft IoT Labs** by Microsoft Portugal: 6-hour training. Faculty of Engineering of the University of Porto
- Oct 2016 **POP'16 - Programming for Optimization and Performance** by SPeCS research group. Porto, Portugal [specs.fe.up.pt](http://specs.fe.up.pt)

## OTHER ACTIVITIES

- Sep 2016 – **Member of IEEE University of Porto Student Branch**, Secretary of the Executive Committee (2019/2020), Robotics and Automation Society (RAS) co-funder and member (since 2017), Design and Communication department 2017-2020.  
Organization of workshops, talks and technical thematic weeks

Mar 2020 – **Social Media Manager**, IEEE Portugal Section.

Mar 2022 Communications team coordination, content creation and scheduling.

2008 – 2020 **Choir singer**, Coro Manuel Giesteira, Póvoa de Varzim, Portugal.

2002 – 2012 **Ballet and Contemporary Dancer**, Mania da Dança, Porto, Portugal.

---

## LANGUAGES & SKILLS

Languages	Portuguese (native), English (advanced), German (elementary), Spanish (elementary)
Technology	Matlab <sup>(4/5)</sup> , C <sup>(4/5)</sup> , C++ <sup>(4/5)</sup> , VHDL <sup>(3/5)</sup> , Verilog <sup>(3/5)</sup> , Python <sup>(3/5)</sup> , Embedded Systems <sup>(4/5)</sup> , Signal Processing <sup>(4/5)</sup>
Soft Skills	Teamwork, Communication, Critical Thinking, Observation, Problem-Solving, Adaptability
Tools	Autodesk Fusion 360, Adobe Photoshop, Adobe Premiere, Adobe Illustrator