PAULA LOURO

PERSONAL INFO

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PROFILE

Paula Louro received the Ph.D. degree in Electrotechnical and Computers engineering from NOVA School of Science and Technology, Lisbon, Portugal, in 2007 and habilitation in the same university in 2015. She is full professor at the Electronics, Telecommunication and Computer department of the Lisbon School of Engineering, Portugal, where she lectures Electronics and Optoelectronics courses of 1st and 2nd cycle. Her main research interests are in the field of thin-film electronics based on amorphous semiconductors for the development of optoelectronic devices in applications ranging from optical communication to biosensors. Recently she has headed several national research projects in the field of visible light communication. She is integrated member of the research unit of Center of Technology and Systems, since 2007. She is author and co-author of more than 150 publications in international journals and proceedings of international conferences.

CAREER

- 2020 up to now, Associate professor at ISEL (Lisbon School of Engineering).
- 1998 - 2020, Assistant professor at ISEL (Instituto Superior de Engenharia de Lisboa).
- 2007 – up to now, integrated member of the research center "Center of Technology and Systems (CTS)", research unit No. 13/66 of the Foundation for Science and Technology (FCT), sub-group M2P (Microelectronics, Materials and Processes).
- 1991 - 1998, Engineer at EID, Empresa de Investigação e Desenvolvimento de Eletrónica.

COORDINATION OF R&D PROJECTS

1. **WDM, Wavelength Division Demultiplexing in the visible window using semiconductor devices,** PTDC/EEA-ELC/120539/2010.
2. **POSEIDON, High Accuracy Positioning and GuidancE for Indoor/OutDOor through Visible Light CommunicatioN,** IPL/IDI&CA/2022/POSEIDON/ISEL.
3. **GEO-LOC, Indoor and outdoor geo-localization and navigation by visible light communication,** IPL/IDI&CA/2020/ GEO-LOC /ISEL**.**
4. **Bid-VLC, Bi-directional visible light communication,** IPL IDI&CA/2019/Bid_VLC/ISEL.
5. **LAN4CC, LED Assisted Navigation for Connected Cars,** IPL IDI&CA/2018/LAN4CC/ISEL.
6. **SMART_VEDACO, SMART Vehicle data communication,** IPL IDI&CA/2017/SMART_VEDACO/ISEL.
7. **VLC-MIMO Visible Light Communications using LED transmitters and a SiC receivers in MIMO architecture,** IPL IDI&CA/2016/VLC_MIMO/ISEL.

SELECTED PAPER PUBLISHED WITH IARIA

1. "Indoor Guidance Services through Visible Light Communication", M. Vieira, M. A. Vieira, P. Louro, A. Fantoni, P. Vieira, The Seventh International Conference on Advances in Sensors, Actuators, Metering and Sensing, 2022, Porto, Portugal.
2. "Cooperative Communication between Vehicles and Road Infrastructures through Visible Light", de M. A. Vieira, M. Vieira, P. Louro, P. Vieira, Tenth International Conference on Sensor Device Technologies and Applications, 2019 - Venice, Italy.
3. "Light-Fidelity (Li-Fi) Optical Sensing and Detection in Large Indoor Environements", de M. Vieira, M. A. Vieira, P. Louro, P. Vieira, A. Fantoni, Ninth International Conference on Sensor Device Technologies and Applications, 2018 - Venice, Italy.
4. "Fine-grained Indoor Localization: Visible Light Communication", de M. Vieira, M. A. Vieira, P. Louro, A. Fantoni, P. Vieira, presented at the Eighth International Conference on Sensor Device Technologies and Applications, 2017 - Rome, Italy.
5. "Double pin Photodiodes with two Optical Gate Connections for Light Triggering: A Two-phototransistor model", by M. A. Vieira, M. Vieira, J. Costa, **P. Louro**, M. Fernandes, presented at The First International Conference on Sensor Device Technologies and Applications, SENSORDEVICES 2010, July 18 - 25, 2010 - Venice/Mestre, Italy.

OTHER SELECTED INTERNATIONAL, PEER REVIEWED, WoS JOURNALS

1. M, A. Vieira, M, Vieira, **P, Louro**, P, Vieira, "Cooperative vehicular communication systems based on visible light communication," Opt. Eng. **57**(7), 076101 (2018), doi: 10.1117/1.OE.57.7.076101.
2. M, Vieira, M, A. Vieira, **P. Louro**, P. Vieira, "Light-emitting diodes aided indoor localization using visible light communication technology," Opt. Eng. 57(8), 087105 (2018), doi: 10.1117/1.OE.57.8.087105.
3. **P. Louro**, M. Vieira, M. A. Vieira, J. Costa, "Photodetection of modulated light of white RGB LEDs with a-SiC:H device", Advanced Materials Proceedings 2018, 3(5), 366-371, DOI: 10.5185/amp.2018/410.
4. M. A. Vieira, M. Vieira, **P. Louro**, P. Vieira, "Smart vehicle lighting system based on a-SiCH technology", Advanced Materials Proceedings 2018, 3(9), 544-549, DOI: 10.5185/amp.2018/1405.
5. M. Vieira, M. Vieira, **P. Louro**, P. Vieira, "Positioning and advertising in large indoor environments using visible light communication", Opt. Eng. 58(6), 066102 (2019), https://doi.org/10.1117/1.OE.58.6.066102.
6. **P. Louro**, M. Vieira, M. A. Vieira, "Indoors Geolocation Based on Visible Light Communication", Sensors & Transducers, Vol. 245, Issue 6, October 2020, pp. 57-64.
7. **P. Louro**, M. Vieira, M. A. Vieira, "Bidirectional visible light communication," Opt. Eng. **59** (12), 127109 (2020), doi: 10.1117/1.OE.59.12.127109.
8. M. Vieira, M. A. Vieira, **P. Louro,** "MUX/DEMUX SiC receiver for visible light communications", Microsystem Technology (2020). https://doi.org/10.1007/s00542-020-04773-1..
9. M. A. Vieira, M. Vieira, **P. Louro**, P. Vieira, "Redesign of the trajectory within a complex intersection for visible light communication ready connected cars," Opt. Eng. 59(9), 097104 (2020), doi: 10.1117/1.OE.59.9.097104.
10. M. Vieira, M. A. Vieira, **P. Louro** and P. Vieira, "Geolocation and Wayfinding Services Using Visible Light Communication", Sensors & Transducers, Vol. 245, Issue 6, October 2020, pp. 49-56.
11. M. A. Vieira, M. Vieira, **P. Louro** and P. Vieira, "Vehicular Communication in a Crossroad Using Visible Light", Sensors & Transducers, Vol. 245, Issue 6, October 2020, pp. 41-48.
12. M. A. Vieira, M. Vieira, **P. Louro**, P. Vieira, "Cooperative Vehicular Systems: Crossroad Management through Visible Light", Opt. Eng, 60(11) 115106-1 2021. [Doi: 0.1117/1.OE.60.11.115106].
13. **P. Louro**, M. Vieira, M. A. Vieira, "Geolocalization and navigation by visible light communication to address automated logistics control," Opt. Eng. 61(1), 016104 (2022), doi: 10.1117/1.OE.61.1.016104.