Warning: [2025-12-05 16:02] this document is a print-out of the Ciência-iul web portal and was automatically generated at the labeled date. The document has a mere informational purpose and represents the information contained on Ciência_Iscte at that date.

Mariana Rodrigues

Professora Auxiliar
Department of Digital Technologies (SINTRA)

Associate Researcher
Instituto de Telecomunicações - IUL (ISTA)
[Instrumentation and Measurements Group]

Contacts

E-mail	Mariana_Jacob@iscte-iul.pt
Office	D6.10

Curriculum

Mariana Catela Jacob Rodrigues is an Assistant Professor in Iscte - University Institute of Lisbon and a research assistant at the Instituto de Telecomunicações, Instrumentation and Measurement Group, Lisboa. She received her BSc and Msc in Telecommunications and Computer Engineering from Iscte - University Institute of Lisbon, in 2017 and 2019, respectively. She holds a PhD in Information Science Tecnhology from Iscte, since 2024.
Her research focuses on designing ambient assisted living environments and adaptive environments through the implementation of wireless sensor networks and artificial intelligence software modules. Her research interests include Smart Sensors, Internet of Things, Environment Monitoring, Cardiorespiratory Activity Monitoring, Mobile App Development and Ambient Intelligence.
Currently, she is the Chair of the IEEE Women in Engineering (WIE) Affinity Group and Chair of the IEEE Instrumentation and Measurement Society Chapter of Iscte - University Institute of Lisbon.

Research Interests

Internet of Things (IoT); Ambient Assisted Living (AAL); Smart Sensors; VR Serious Games; Indoor Air Quality monitoring; Cardiorespiratory Activity Monitoring

Academic Qualifications

University/Institution	Type	Degree	Period
ISCTE-Instituto Universitario de Lisboa	PhD	Information Science and Technology	2024
ISCTE-Instituto Universitario de Lisboa	M.Sc.	Telecommunications and Computer Engineering	2019
ISCTE-Instituto Universitario de Lisboa	Bachelor of Science	Telecommunications and Computer Engineering	2017

Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord.
2025/2026	2º	Artificial Intelligence Applied to Education	Bachelor Degree in Digital Educational Technologies;	Yes
2025/2026	2º	Power Electronics	Bachelor Degree in Digital Technologies and Automation;	Yes
2025/2026	2º	Applied Project in Automation II	Bachelor Degree in Digital Technologies and Automation;	No
2025/2026	2º	Microcontrollers	Bachelor Degree in Digital Technologies and Automation;	Yes
2025/2026	1º	Electronic Circuit Analysis	Bachelor Degree in Digital Technologies and Automation;	Yes
2025/2026	1º	Programming Fundamentals	Bachelor Degree in Digital Educational Technologies;	No
2025/2026	1º	Sensors Actuators and Signal Processing	Bachelor Degree in Digital Technologies and Automation;	Yes
2025/2026	1º	Applied Project in Automation I	Bachelor Degree in Digital Technologies and Automation;	No
2025/2026	1º	Topics in Intelligent Robotics	Post Graduation Program in Applied Machine Learning;	No
2024/2025	2º	Algorithms and Data Structures	Bachelor Degree in Software and Applications Development; Bachelor Degree in Digital Technologies and Artificial Intelligence;	No
2024/2025	2º	Microcontrollers	Bachelor Degree in Digital Technologies and Automation;	Yes
2024/2025	1º	Electronic Circuit Analysis	Bachelor Degree in Digital Technologies and Automation;	Yes
2024/2025	1º	Programming Fundamentals	Bachelor Degree in Politics, Economics and Society;	No
2024/2025	1º	Sensors Actuators and Signal Processing	Bachelor Degree in Digital Technologies and Automation;	Yes

2023/2024	2º	Artificial Intelligence	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Engineering (PL); Bachelor Degree in Telecommunications and Computer Engineering;	No
2023/2024	1º	Electronic Circuit Analysis	Bachelor Degree in Digital Technologies and Automation;	No
2022/2023	2º	Artificial Intelligence	Bachelor Degree in Telecommunications and Computer Engineering;	No
2021/2022	2º	Artificial Intelligence	Bachelor Degree in Computer Engineering; Bachelor Degree in Computer Science and Business Management;	No
2021/2022	1º	Artificial Intelligence		No
2020/2021	1º	Artificial Intelligence		No

Supervisions

- **M.Sc. Dissertations**

- Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	Lídia Mariana Lourenço Marques	Remote Sensing for Catastrophic Scenarios - LiDAR Data from Project Agile	English	Delivered	Iscte
2	Antonia Angelou	Digital Transformation Maturity in Pharmaceutical Companies	--	Developing	Iscte
3	Gonçalo Prazeres Torres	Indoor Air quality Monitoring System	--	Developing	Iscte
4	Georgia Diamanti	Remote Veterinary Care in Europe: Current Trends and Future Perspectives	English	Developing	Iscte
5	Basiratu Ibrahim	Evaluating the cost-benefit of digital health interventions in reducing hospital readmissions.	English	Developing	Iscte
6	Renato Luís Ferreira Monteiro	A wearable-based system for indoor elderly monitoring	--	Developing	Iscte
7	Pedro Menezes Sobral	IOT-SmartIS - IoT Smart Irrigation Systems	--	Developing	Iscte
8	Tiago Filipe Gomes Pissarra Gonçalves	AIR- Q InOut - Indoor outdoor Air quality Monitoring System	--	Developing	Iscte
9	Luís Nuno de Magalhães Fleming Pessoa Gaspar	IoT for outdoor Air Quality Monitoring	--	Developing	Iscte

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Roberto Filipe Cardoso Miguel	SOLAR-IOT – IoT for Precision Agriculture – SoilAir monitoring	English	Iscte	2024
2	Teresa Maria Garrido Felício	RemSAGRO - Remote Sensing for Agriculture	English	Iscte	2023

• M.Sc. Final Projects

- Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	Renato Balsinha Ruivo	Development of a virtual assistant based on artificial intelligence as a mediator for the inclusion of migrant students in the educational context	Portuguese	Developing	Iscte

Total Citations

Web of Science®	88
Scopus	150

Publications

• Scientific Journals

- Scientific journal paper

1	Jacob Rodrigues, M., Postolache, O. & Cercas, F. (2023). The influence of stress noise and music stimulation on the autonomous nervous system. IEEE Transactions on Instrumentation and Measurement. 72, 18 - Times Cited Web of Science®: 4 - Times Cited Scopus: 4 - Times Cited Google Scholar: 4
2	Jacob Rodrigues, M., Postolache, O. & Cercas, F. (2022). Unobtrusive cardio-respiratory assessment for different indoor environmental conditions. IEEE Sensors Journal. 22 (23), 23243-23257 - Times Cited Web of Science®: 5 - Times Cited Scopus: 7 - Times Cited Google Scholar: 7
3	Jacob Rodrigues, M., Postolache, O. & Cercas, F. (2020). Physiological and behavior monitoring systems for smart healthcare environments: a review. Sensors. 20 (8) - Times Cited Web of Science®: 71 - Times Cited Scopus: 87 - Times Cited Google Scholar: 147

• Books and Book Chapters

- Book chapter

1	Jacob Rodrigues, M., Postolache, O. & Cercas, F. (2023). Wearable Tag for Indoor Localization in the Context of Ambient Assisted Living. In Computational Collective Intelligence. Lecture Notes in Computer Science. (pp. 418-430).: Springer, Cham.
2	Rodrigues, M. J., Postolache, O. & Cercas, F. (2021). Autonomic nervous system assessment based on HRV analysis during virtual reality serious games. In Nguyen, N. T., Iliadis, L., Maglogiannis, I., and Trawiski, B. (Ed.), Computational Collective Intelligence. Lecture Notes in Computer Science. (pp. 756-768). Rhodes: Springer Cham. - Times Cited Web of Science®: 4 - Times Cited Scopus: 4 - Times Cited Google Scholar: 5

• Conferences/Workshops and Talks

- Publication in conference proceedings

1	Miguel, R., Postolache, O. & Rodrigues, M. (2024). Soil and air characteristics monitoring base on IoT for precision agriculture. In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI). Lagoa, Portugal: IEEE. - Times Cited Scopus: 1 - Times Cited Google Scholar: 1
2	Rodrigues, M., Postolache, O. & Cercas, F. (2024). Wearable smart sensing platform for cardiac activity assessment. In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI). Lagoa, Portugal: IEEE.
3	López, A., Ferrero, F., López, A., Ribeiro, G. & Postolache, O. (2024). EOG Measurement Analysis Under Different Lighting Conditions. In 2024 8th International Symposium on Instrumentation Systems, Circuits and Transducers (INSCIT). Joao Pessoa: IEEE.
4	Rodrigues, M. J., Postolache, O. & Cercas, F. (2023). Wearable smart sensing and UWB system for fall detection in AAL environments. In Goubran, R., Rajan, S., and Depari, A. (Ed.), 2023 IEEE Sensors Applications Symposium (SAS). Ottawa, ON, Canada: IEEE. - Times Cited Web of Science®: 1 - Times Cited Scopus: 6 - Times Cited Google Scholar: 6
5	Felício, T., Postolache, O. A., Rodrigues, M. J. & Sebastião, P. (2023). Vineyard thermal stress assessment through the combination of in-situ and remote sensing technology. In Goubran, R., Rajan, S., and Depari, A. (Ed.), 2023 IEEE Sensors Applications Symposium (SAS). Ottawa, ON, Canada: IEEE. - Times Cited Scopus: 2
6	Rodrigues, M. J., Postolache, O. & Cercas, F. (2022). The influence of music stimulation on heart rate variability: Preliminary results. In 2022 IEEE International Symposium on Medical Measurements and Applications (MeMeA). Messina, Italy: IEEE. - Times Cited Web of Science®: 2 - Times Cited Scopus: 3 - Times Cited Google Scholar: 4

7	Rodrigues, M. J., Postolache, O. & Cercas, F. (2021). Autonomic nervous system assessment during physical rehabilitation serious game. In 2021 IEEE International Symposium on Medical Measurements and Applications (MeMeA). Virtual, Lausanne: IEEE. - Times Cited Web of Science®: 1 - Times Cited Scopus: 1 - Times Cited Google Scholar: 1
8	Araujo, J., Rodrigues, M. J., Postolache, O., Cercas, F., Ferrero Martín, F. & López Martínez, A. (2020). Heart rate variability analysis in healthy subjects under different colored lighting conditions. In 2020 IEEE International Instrumentation and Measurement Technology Conference (I2MTC). Dubrovnik, Croatia: IEEE. - Times Cited Scopus: 15 - Times Cited Google Scholar: 22
9	Rodrigues, M. J., Postolache, O. & Cercas, F. (2019). Indoor air quality monitoring system to prevent the triggering of respiratory distress. In 2019 International Conference on Sensing and Instrumentation in IoT Era (ISSI). Lisbon, Portugal: IEEE. - Times Cited Scopus: 11 - Times Cited Google Scholar: 14
10	Rodrigues, M. J., Postolache, O. & Cercas, F. (2019). Wireless sensor network for cardiac activity monitoring. In 2019 E-Health and Bioengineering Conference (EHB). Iasi, Romania: IEEE. - Times Cited Scopus: 2 - Times Cited Google Scholar: 5
11	Jacob Rodrigues, M., Postolache, O. & Cercas, F. (2019). Wireless sensor network for indoor air quality monitoring. In Fernando José da Silva Velez (Ed.), Conftele 2019: 11th Conference on Telecommunications. - Times Cited Scopus: 7

• Other Publications

- Other publications

1	Jacob Rodrigues, M. (2020). Saúde Societal: Uma abordagem inclusiva do conhecimento em saúde.

Academic Management Positions

Coordenador do 1º Ano (2025 - 2026)
Unit/Area: Bachelor Degree in Digital Technologies and Automation

Coordenador de ECTS (2025 - 2028)
Unit/Area: Department of Digital Technologies

Awards

Student Best Paper Award at the IEEE International Symposium on Medical Measurements and Applications (IEEE MeMeA 2022) (2022)

ISTA Top Talent 2018-2019 (2020)

Student Best Paper Award at the 2nd International Symposium on Sensing and Instrumentation in IoT Era (2019)

Professional Associations

IEEE Instrumentation and Measurement Society Chapter of ISCTE-IUL (Since 2020)
IEEE Women in Engineering (WiE) ISCTE-IUL (Since 2019)
IEEE (Since 2019)
IEEE Instrumentation and Measurement Society (Since 2019)

Organization/Coordination of Events

Type of Organization/Coordination	Event Title	Organizer	Year
Member of scientific event's organizing committee	4th International Symposium on Sensing and Instrumentation in IoT Era	IEEE, IT, ISCTE	2024
Member of free course/summer school's organizing committee	Smart Systems for Ambient Assisted Living ERASMUS + BIP 2024	IEEE, IT, ISCTE	2024
Member of free course/summer school's organizing committee	1ª Summer School of ISCTE in Penha Garcia “Healthy and Sustainable Environment”	ISCTE	2024
Member of free course/summer school's organizing committee	Smart Systems for Ambient Assisted Living Summer School 2023	IEEE, IT, ISCTE	2023
Member of free course/summer school's organizing committee	Smart Systems for Ambient Assisted Living Summer School 2022	IEEE, IT, ISCTE	2022
Member of free course/summer school's organizing committee	Smart Systems for Ambient Assisted Living Summer School 2021	IEEE, IT, ISCTE	2021
Member of free course/summer school's organizing committee	SmartLife Summer School 2020	IEEE, IT, ISCTE	2020
Member of scientific event's organizing committee	2nd International Symposium on Sensors and Instrumentation in Internet of Things Era (ISSI)	IEEE, IT, ISCTE	2019