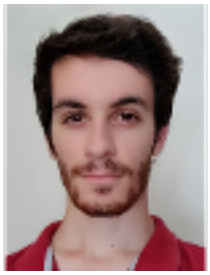
Bruno Mataloto

Professor Auxiliar
ISTAR-Iscte - Information Sciences, Technologies and Architecture Research Centre
Department of Digital Technologies (ETDA)



Contacts

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Curriculum

Bruno Mataloto has a PhD in Information Sciences and Technologies at ISCTE-IUL, where he has been a Guest Assistant Professor for the past five years, teaching courses in Internet of Things (IoT), Disruptive Technologies, Programming Fundamentals, and Systems, Installations, and Smart Buildings. He is also the head of the Internet of Things Lab at ISCTE-IUL. He has participated as a trainer in several editions of the Summer and Winter Schools held at ISCTE and in training events at Molde University, Norway. He is also a researcher at the ISTAR research center, where he has worked on several projects funded by the Foundation for Science and Technology (FCT) and the Gulbenkian Institute of Science. His PhD project, "Social-IoT 4 Energy Savings and Building Management," studies how IoT systems can influence human behavior. This project has been presented at various national and international events, such as the Smart Cities Summit and Pioneer Alliance, and has resulted in eight published Q1 papers.

Research Interests

- Internet of Things
- Interactive Dashboards
- Low-Power Networks
- User Behavior

3D Virtual Environements
Smart Cities
3D Printing
Real-time sensor monitoring
Water and Energy Management Saving Systems

Academic Qualifications

University/Institution	Type	Degree	Period
ISCTE-Instituto Universitario de Lisboa	PhD	Ciências e Tecnologias da Informação	2024
ISCTE-Instituto Universitario de Lisboa	M.Sc.	Engenharia de Telecomunicações e Informática	2019
ISCTE-Instituto Universitario de Lisboa	Licenciate	Engenharia de Telecomunicações e Informática	2017

Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord.
2026/2027	2º	Algorithms and Data Structures		Yes
2026/2027	2º	Building Utilities and Smart Buildings	Bachelor Degree in Digital Technology and Sustainable Built Environment;	Yes
2026/2027	2º	Rehabilitation and Sustainability	Master Degree in Conservation and Sustainable Rehabilitation; Post Graduation Program in Conservation and Sustainable Rehabilitation;	No
2026/2027	2º	Physiological Data Analysis	Bachelor Degree in Digital Technologies and Health;	Yes
2026/2027	2º	IoT Technologies Laboratory	Institutional Degree in School of Applied Technologies (Iscte-Sintra);	Yes
2026/2027	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No
2026/2027	1º	Programming Fundamentals	Bachelor Degree in Digital Technology and Sustainable Built Environment; Bachelor Degree in Digital Educational Technologies; Bachelor Degree in Digital Technologies and Artificial Intelligence; Bachelor Degree in Digital Technologies and Automation;	No

2026/2027	1º	Assistive Technologies and Telehealth	Bachelor Degree in Digital Technologies and Health;	Yes
2026/2027	1º	Managing the Digital Transformation in Healthcare		Yes
2025/2026	2º	Algorithms and Data Structures	Bachelor Degree in Digital Technologies and Information Security;	Yes
2025/2026	2º	Building Utilities and Smart Buildings	Bachelor Degree in Digital Technology and Sustainable Built Environment;	Yes
2025/2026	2º	Physiological Data Analysis	Bachelor Degree in Digital Technologies and Health;	Yes
2025/2026	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No
2025/2026	1º	Conservation and Sustainability	Master Degree in Conservation and Sustainable Rehabilitation; Post Graduation Program in Conservation and Sustainable Rehabilitation;	No
2025/2026	1º	Disruptive Technologies	Master Degree in Digital Technologies for Business;	No
2025/2026	1º	Assistive Technologies and Telehealth	Bachelor Degree in Digital Technologies and Health;	Yes
2025/2026	1º	Managing the Digital Transformation in Healthcare	Master Degree in Managing Digital Transformation in the Health Sector;	Yes
2025/2026	1º	Health Data and Information Systems	Master Degree in Managing Digital Transformation in the Health Sector;	No
2024/2025	2º	Building Utilities and Smart Buildings	Bachelor Degree in Digital Technology and Sustainable Built Environment;	No
2024/2025	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No
2024/2025	1º	Programming Fundamentals	Bachelor Degree in Digital Technology and Sustainable Built Environment;	No
2024/2025	1º	Disruptive Technologies	Master Degree in Digital Technologies for Business;	No
2023/2024	2º	Disruptive Technologies		No
2023/2024	1º	Iot for Smart Cities		No
2023/2024	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No
2022/2023	1º	Iot for Smart Cities		No
2022/2023	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No

2021/2022	1º	Internet of Things Laboratory	Institutional Degree in Escola de Tecnologias e Arquitetura;	No

Supervisions

• Ph.D. Thesis

- Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	André Filipe Barros Coelho	Integrated Methodology of Digital Systems for Documentation, Monitoring and Preventive Management of Industrial Heritage	--	Developing	Iscte
2	Li Chunba	Blockchain and Artificial Intelligence for Trusted and Automated Human Resource Processes	--	Developing	Iscte

• M.Sc. Dissertations

- Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	Alessandro Catanese	DEVELOPMENT AND VALIDATION OF A RADIOLOGY DIGITAL COMPETENCY PROFILE ALIGNED WITH THE EUROPEAN HEALTH DATA SPACE	English	Developing	Iscte
2	Rita Rodrigues da Cova Canas Marques	Application of blockchain to Anatomic Pathology	--	Developing	Iscte
3	Ana Marta Oliveira Antunes	Digital Health readiness: competencies and interaction with Health Information Systems in clinical and educational contexts	--	Developing	Iscte
4	Manuel Lencastre Torres Gonçalves Henriques	Is it possible to predict the best time to perform follicular aspiration by integrating clinical, hormonal and ultrasound data into predictive models?	--	Developing	Iscte
5	Catarina Alexandre do Carmo Loureiro	IOT-ASOIL - IoT Systems for Air and Soil Characteristics Monitoring	--	Developing	Iscte
6	Gilberto Manuel Kássimo Júnior	Hybrid Teaching Methodology of Robotics Programming with Simulation and Real Hardware	--	Developing	Iscte

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Carolina Chaves Fernandes	Comparative Analysis of Communication Protocols for Crop Monitoring: Energy Efficiency and Data Acquisition	English	Iscte	2025
2	Diogo Alves da Silva	Smart IoT Lighting System for Energy Consumption Optimization	English	Iscte	2024
3	Oleksandr Kobelyuk	SoilIoT - Smart Sensing and IoT for Precision Agriculture - Soil Characteristics Monitoring	English	Iscte	2024
4	Ricardo Nuno Pinto Mendes	Multifactor Monitoring and Control System for Intelligent Water Management	English	Iscte	2024

• M.Sc. Final Projects

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Rui João Vicente Pereira	Digital Multiservice Coastal Network	Portuguese	Iscte	2025
2	Vasco Bizarra Ferreira	The Impact of IoT- Enabled Energy Management Systems on Hotel Operating Costs and Sustainability Outcomes	English	Iscte	2024

Total Citations

Web of Science®	220
Scopus	292

Publications

• Scientific Journals

- Scientific journal paper

1	Tokkozhina, U., Mataloto, B. M., Martins, A. L. & Ferreira, J. C. (2024). Decentralizing online food delivery services: A blockchain and IoT model for smart cities. Mobile Networks and Applications. 29 (1), 59-69 - Times Cited Web of Science®: 12 - Times Cited Scopus: 15 - Times Cited Google Scholar: 24

2	Mataloto, B., Ferreira, J. & Resende, R. (2023). Long term energy savings through user behaviour modeling in smart homes. IEEE Access. 11, 44544-44558 - Times Cited Web of Science®: 15 - Times Cited Scopus: 19
3	Mataloto, B., Calé, D., Carimo, K., Ferreira, J. & Resende, R. (2021). 3D IoT dystem for environmental and energy consumption monitoring system. Sustainability. 13 (3) - Times Cited Web of Science®: 19 - Times Cited Scopus: 22 - Times Cited Google Scholar: 30
4	Casquiço, M., Mataloto, B., Ferreira, J., Monteiro, V., Afonso, J. A. & Afonso, J. A. (2021). Blockchain and Internet of Things for electrical energy decentralization: A review and system architecture. Energies. 14 (23) - Times Cited Web of Science®: 17 - Times Cited Scopus: 24 - Times Cited Google Scholar: 31
5	Elvas, L. B., Mataloto, B., Martins, A. & Ferreira, J. (2021). Disaster management in smart cities. Smart Cities. 4 (2), 819-839 - Times Cited Web of Science®: 49 - Times Cited Scopus: 72 - Times Cited Google Scholar: 110
6	Mataloto, B., Mendes, H. & Ferreira, J. (2020). Things2People interaction toward energy savings in shared spaces Using BIM. Applied Sciences. 10 (16) - Times Cited Web of Science®: 13 - Times Cited Scopus: 12 - Times Cited Google Scholar: 18
7	Mataloto, B., Ferreira, J., Resende, R., Moura, R. & Sílvia, L. (2020). BIM in People2People and Things2People interactive process. Sensors. 20 (10), 1-18 - Times Cited Web of Science®: 11 - Times Cited Scopus: 14 - Times Cited Google Scholar: 25
8	Mataloto, B., Ferreira, J. & Cruz, N. (2019). LoBEMS—IoT for building and energy management systems. Electronics. 8 (7), 1-27 - Times Cited Web of Science®: 76 - Times Cited Scopus: 96 - Times Cited Google Scholar: 150

• Books and Book Chapters

- Book chapter

1	Mataloto, B., Ferreira, J. & Resende, R. (2025). Sensors and Networks for Savings and Comfort of Cities' Inhabitants. In Swarm Intelligence Applications for the Cities of the Future.: Taylor & Francis Group.
2	Mataloto, B. & Ferreira, J. (2019). Smart Auditorium: Development and Analysis of a Power and Environment Monitoring Platform. In EAI INTERNATIONAL CONFERENCE ON SUSTAINABLE ENERGY FOR SMART CITIES. Braga: Springer, Cham.

• Conferences/Workshops and Talks

- Publication in conference proceedings

1	Mendes, R., Coutinho, C. & Mataloto, B. (2025). Multiparameter monitoring and control system for intelligent water management. In Nuno Mateus-Coelho, Maria Manuela Cruz Cunha (Ed.), Procedia Computer Science. (pp. 600-607).: Elsevier.
2	Silva, D., Mataloto, B. & Coutinho, C. (2024). Smart IoT lightning system for energy consumption optimization. In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI). Lagoa, Portugal: IEEE. - Times Cited Scopus: 2 - Times Cited Google Scholar: 4
3	Kobelyuk, O., Postolache, O. & Mataloto, B. (2024). Smart sensing and IoT for precision agriculture: Soil characteristics monitoring. 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: 2
4	Elvas, L. B., Mataloto, B. & Ferreira, J. (2023). The impact of the pandemic due to covid-19 on mobility and environment. In Nuno A S Domingues, Cecília R C Calado, Nuno C Leitão (Ed.), Proceedings of the 1st International Conference on Challenges in Engineering, Medical, Economics & Education: Research & Solutions (CEMEERS-23). (pp. 115-122). Lisboa: EIRAI.
5	Filipe, P., Mataloto, B. & Coutinho, C. (2022). IoT system for the validation of conditions in shipping couriers. In Morel, L., Dupont, L., and Camargo, M. (Ed.), 2022 IEEE 28th International Conference on Engineering, Technology and Innovation (ICE/ITMC) & 31st International Association For Management of Technology (IAMOT) Joint Conference. Nancy, France: IEEE. - Times Cited Google Scholar: 2
6	Mota, B. da., Mataloto, B. & Coutinho, C. (2022). Sustainable gardens for smart cities using low-power communications. In Morel, L., Dupont, L., and Camargo, M. (Ed.), 2022 IEEE 28th International Conference on Engineering, Technology and Innovation (ICE/ITMC) & 31st International Association For Management of Technology (IAMOT) Joint Conference. (pp. 1210-1216). Nancy: IEEE. - Times Cited Scopus: 2 - Times Cited Google Scholar: 3
7	Filipe, P., Mataloto, B. & Coutinho, C. (2022). IoT system for the validation of conditions in shipping couriers. In 2022 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI). (pp. 103-108). Shanghai: IEEE. - Times Cited Scopus: 1 - Times Cited Google Scholar: 2
8	Resende, R. P., Mataloto, B., Dias, L., Ferreira, J. C., Rato, V. & Boné, J. (2020). Digital twins para sustentabilidade e gestão de acidentes. In Martins, J. P., Costa, A. A., e Sanhudo, L. (Ed.), ptBIM 2020 - 3º Congresso Português de Building Information Modelling. (pp. 785-795). Porto: Universidade do Porto.
9	Santos, D., Mataloto, B., Ferreira, J. C., Monteiro, V. & Afonso, J. L. (2019). Smart auditorium: Development and analysis of a power and environment monitoring platform. In Afonso, J. L., Monteiro, V., and Pinto, J. G. (Ed.), Sustainable Energy for Smart Cities. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering. (pp. 73-87). Braga: Springer.

10	Santos, D., Mataloto, B. & Ferreira, J. C. (2019). Data center environment monitoring system. In CCIOT 2019: Proceedings of the 2019 4th International Conference on Cloud Computing and Internet of Things. (pp. 75-81). Tokyo, Japan: Association for Computing Machinery. - Times Cited Web of Science®: 8 - Times Cited Scopus: 12 - Times Cited Google Scholar: 18

- Talk

1	Elvas, L. B., Mataloto, B. & Ferreira, J. (2023). The Impact of the pandemic due to COVID-19 on mobility and environment. International Conference Proceedings 1st International Conference on Challenges in Engineering, Medical, Economics & Education: Research & Solutions (CEMEERS-23).
2	Mataloto, B. & Resende, R. (2023). Building sustainable design and operation through users input. ISTAR Brown Bag Meeting.

• Other Publications

- Other publications

1	Mataloto, B., Ferreira, J. & Nuno Cruz (2019). Full IoT Lora School Building Management System. - Times Cited Google Scholar: 5
2	Ferreira, J. & Mataloto, B. (2019). The “aftermath“ of Industry 4.0 in Small and Medium Enterprises. IFIP TC13 WG6: Human Work Interaction Design (HWID) - UX@WORK, 17th IFIP TC 13 International Conference, Paphos, Cyprus.

Research Projects

Project Title	Role in Project	Partners	Period
Architectural survey and conservation and museumization project for the Vale de Milhaços Gunpowder Factory, Corroios	Researcher	ISTAR-Iscte (DLS) - Leader	2025 - 2027
Nepalese Education in E-health - Master	Researcher	ISTAR-Iscte (RAISE) - Leader, BRU-Iscte, CIS-Iscte, UNIVERSITETET I OSLO - (Norway), KATHMANDU UNIVERSITY - (Nepal), POKHARA UNIVERSITY - (Nepal)	2023 - 2026
University Community Engagement in Technologies for Sustainability: a Social Architecture.	Researcher	ISTAR-Iscte (RAISE) - Leader, BRU-Iscte, CIS-Iscte	2019 - 2021

Academic Management Positions

Coordenador do 2º Ano (2025 - 2026)
Unit/Area: Bachelor Degree in Digital Technologies and Health

Membro (2025 - 2028)
Unit/Area: Comissão de Ética

Membro (Docente) (2021 - 2023)
Unit/Area: Comissão Pedagógica