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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 Informática (com especialização em Sistemas de Informação e Gestão de Conhecimento)	2017
ISCTE-Instituto Universitario de Lisboa	Licenciate	Engenharia Informática	2015

Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord.

2026/2027	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management (PL);	No
2025/2026	2º	Design and Development of Business Intelligence Applications	Master Degree in Integrated Business Intelligence Systems;	No
2025/2026	2º	Data Warehouse Systems II	Master Degree in Integrated Business Intelligence Systems;	No
2025/2026	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management (PL);	No
2024/2025	2º	Data Warehouse Systems II	Master Degree in Integrated Business Intelligence Systems;	No
2024/2025	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	No
2024/2025	1º	Design and Development of Business Intelligence Applications	Master Degree in Integrated Business Intelligence Systems;	No
2023/2024	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management;	No
2023/2024	1º	Design and Development of Business Intelligence Applications	Master Degree in Integrated Business Intelligence Systems;	No
2022/2023	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management;	No
2022/2023	1º	Design and Development of Business Intelligence Applications	Master Degree in Integrated Business Intelligence Systems;	No
2021/2022	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	No
2021/2022	1º	Design and Development of Business Intelligence Applications	Master Degree in Integrated Business Intelligence Systems;	No
2020/2021	1º	Data Warehouse and Business Intelligence Systems	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	No
2019/2020	1º	Business Intelligence I		No

Supervisions

- **Ph.D. Thesis**

  - Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	Rui Jorge Valentim Vitorino	Application of Business Intelligence and Semantic Web Technologies in Public Administration: An Ontology-Based Approach for the Balanced Scorecard	--	Developing	Iscte

- **M.Sc. Dissertations**

- Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	Angelino Chingunguna Culila	Data-Driven Decision Support for Smart Cities:A Case Study with the Lisbon City Council: City Mobility Based on Cell Phone Data	Portuguese	Delivered	Iscte
2	João Diogo Teodoro Lopes	Design and Implementation of an ETL Process for Financial Data Integration within the Iberolinhas Group	--	Developing	Iscte

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Tomás Santos de Carvalho	SENTINEL: Support System for Enhanced Notification and Threshold Identification in Engineering Structures	English	Iscte	2025
2	Leandro Serigado Neves	Development of a Data Warehouse / Business Intelligence system: applied to a Financial Management data mart	Portuguese	Iscte	2025
3	José Neves Tavares Teixeira	Development of a Data Warehouse / Business Intelligence System: Applied to a Project Management Data Mart	Portuguese	Iscte	2025

Total Citations

Web of Science®	47
Scopus	114

Publications

• Scientific Journals

- Scientific journal paper

1	Antunes, A. L., Cardoso, E. & Barateiro, J. (2025). The Balanced Scorecard ontology: A semantic approach to enhance strategy management. IEEE Engineering Management Review, 53(4), 121?140. https://doi.org/10.1109/EMR.2024.3439880 - Times Cited Web of Science®: 4 - Times Cited Scopus: 3 - Times Cited Google Scholar: 5
2	Antunes, A. L., Barateiro, J. & Cardoso, E. (2024). Strategic analysis in the public sector using semantic web technologies. Digital Government: Research and Practice, 5(3). https://doi.org/10.1145/3656587 - Times Cited Web of Science®: 2 - Times Cited Scopus: 3 - Times Cited Google Scholar: 10
3	Antunes, A. L., Barateiro, J., Marecos, V., Petrovi, J. & Cardoso, E. (2024). Ontology-based BIM-AMS integration in European highways. Intelligent Systems with Applications, 22. https://doi.org/10.1016/j.iswa.2024.200366 - Times Cited Web of Science®: 13 - Times Cited Scopus: 14 - Times Cited Google Scholar: 16
4	Sukalpa Biswas, John Proust, Tadas Andriejauskas, Alex Wright, Carl van Geem, Darko Kokot...Uros Jovanovic (2021). CoDEC: Connected Data For Road Infrastructure Asset Management. IOP Conference Series: Materials Science and Engineering, 1202(1), 012002. https://doi.org/10.1088/1757-899X/1202/1/012002 - Times Cited Google Scholar: 6

- Review article

1	Lorvão Antunes, A. , Cardoso, E. & Barateiro, J. (2022). Incorporation of ontologies in data warehouse/business intelligence systems - A systematic literature review. International Journal of Information Management Data Insights, 2(2). https://doi.org/10.1016/j.jjimei.2022.100131 - Times Cited Web of Science®: 27 - Times Cited Scopus: 55 - Times Cited Google Scholar: 87

• Books and Book Chapters

- Book author

1	Antunes, A., Barateiro, J., Mata, J., Tavares de Castro, A., Caçador, F. & Cardoso, E. (2023). Machine learning applied to sensor data. Predictive methods used for dam behavior interpretation. Laboratório Nacional de Engenharia Civil.
2	Antunes, A., Barateiro, J., Mata, J., Tavares de Castro, A. & Cardoso, E. (2023). Automatic Outlier Detection in Sensor Data Used for Structural Health Monitoring. Laboratório Nacional de Engenharia Civil.

- Book chapter

1	Rico, J., Barateiro, J., Mata, J., Antunes, A. & Cardoso, E. (2019). Applying advanced data analytics and machine learning to enhance the safety control of dams. In George A. Tsihrintzis, Maria Virvou, Evangelos Sakkopoulos, Lakhmi C. Jain (Ed.), Machine learning paradigms: Applications of learning and analytics in intelligent systems. Springer. https://doi.org/10.1007/978-3-030-15628-2_10 - Times Cited Scopus: 27 - Times Cited Google Scholar: 34

• Conferences/Workshops and Talks

- Publication in conference proceedings

1	Rui Vitorino, Cardoso, E., de Almeida, A., Antunes, A. & Barateiro, J. (2026). Balanced Scorecard Ontology Implementation in Portuguese Public Administration: an Empirical Study at the Secretaria-Geral Do Governo. 2026 Twelfth International Conference on eDemocracy & eGovernment (ICEDEG) (pp. 407?412). IEEE. https://doi.org/10.1109/ICEDEG70169.2026.11695521
2	Antunes, A., Lopes, M., Barateiro, J. & Cardoso, E. (2023). GELCO: Gamified educational learning contents ontology. CAPSI 2023 Proceedings (pp. 295?316). Association for Information Systems. https://doi.org/10.18803/capsi.v23.295-316 - Times Cited Scopus: 1
3	Oliveira, B., Henriques, A., Oliveira, Ó., Duarte, A., Santos, V., Antunes, A....Cardoso, E. (2023). A measure data catalog for dashboard management and validation. In Gusikhin, O., Hammoudi, S., and Cuzzocrea, A. (Ed.), Proceedings of the 12th International Conference on Data Science, Technology and Applications - DATA (pp. 381?389). SciTePress. https://doi.org/10.5220/0012088400003541 - Times Cited Google Scholar: 2
4	Moreira, J. M., Pardelha, F., Laranjeira, C., Pereira, F., Novais, J., Lopes, P....Cardoso, E. (2022). Development of Plan S monitoring and compliance tool in the context of PTCRIS for Portuguese National Science Foundation. In Sicilia, M.-A., De-Castro, P., Vancauwenbergh, S., Simons, E., and Ognjen, O. (Ed.), Procedia Computer Science (pp. 151?161). Elsevier. https://doi.org/10.1016/j.procs.2022.10.187 - Times Cited Web of Science®: 1 - Times Cited Scopus: 4 - Times Cited Google Scholar: 6
5	Antunes, A. L., Cardoso, E. & Barateiro, J. (2018). Adding value to sensor data of civil engineering structures: automatic outlier detection. 1st Workshop on Machine Learning, Intelligent Systems and Statistical Analysis for Pattern Recognition in Real-life Scenarios, ML-ISAPR 2018. https://doi.org/10.1109/IISA.2018.8633586 - Times Cited Scopus: 3 - Times Cited Google Scholar: 4
6	Cardoso, E., Santos, D., Costa, D., Caçador, F., Antunes, A. & Ramos, R. (2017). Learning scorecard: monitor and foster student learning through gamification. In Ciancarini, P., Poggi, F., Horridge, M., Zhao, J., Groza, T., Suarez-Figueroa, M.C., d'Aquin, M., Presutti, V. (Ed.), Lecture Notes in Computer Science (pp. 55?68). Springer. https://doi.org/10.1007/978-3-319-58694-6_5 - Times Cited Scopus: 1 - Times Cited Google Scholar: 14
7	Cardoso, E., Santos, D., Costa, D., Caçador, F., Antunes, A. & Ramos, R. (2016). Learning scorecard: Monitor and foster student learning through gamification. In Matta, N., Zablith, F., Lahoud, I., and Ventura, S. (Ed.), Proceedings of the Second International Workshop on Educational Knowledge Management (EKM 2016) (pp. 39?50). CEUR-WS. - Times Cited Scopus: 3 - Times Cited Google Scholar: 5

- Talk

1	Antunes, A., Lopes, M., Barateiro, J. & Cardoso, E. (2023). GELCO: Gamified Educational Learning Contents Ontology. 23.a Conferência da Associação Portuguesa de Sistemas de Informação (CAPSI 2023),.
2	Oliveira, B, Ana Henriques, Óscar Oliveira, Ana Duarte, Vasco Santos, Antunes, A....Cardoso, E. (2023). A Measure Data Catalog for Dashboard Management and Validation. 12th International Conference on Data Science, Technology and Applications - DATA2023,.
3	Moreira, J. M., Pardelha, F., Laranjeira, C., Pereira, F., Novais, J., Lopes, P....Cardoso, E. (2022). Desafios no desenvolvimento de uma ferramenta de monitorização e conformidade com políticas de Ciência Aberta no âmbito de financiamento pela FCT. 13ª Conferência Lusófona de Ciência Aberta,.
4	Moreira, J. M., Pardelha, F., Laranjeira, C., Pereira, F., Novais, J., Lopes, P....Cardoso, E. (2022). Development of Plan S monitoring and compliance tool in the context of PTCRIS for Portuguese National Science Foundation. 15th International Conference on Current Research Information Systems (CRIS2022),.
5	Antunes, A.L., Cardoso, E. & Barateiro, J. (2018). Adding value to sensor data of civil engineering structures: Automatic outlier detection. 1st Workshop on Machine Learning, Intelligent Systems and Statistical Analysis for Pattern Recognition in Real-life Scenarios (ML-ISAPR 2018), organized in the 9th International Conference on Information, Intelligence, Systems and Applications (IISA 2018),.
6	Cardoso, E., Santos, D., Costa, D., Caçador, F., Antunes, A. & Ramos, R. (2016). Learning Scorecard: monitor and foster student learning through gamification. 2nd Int. Workshop on Educational Knowledge Management (EKM 2016),.

- Conference paper not in proceedings

1	Moreira, J. M., Pardelha, F., Laranjeira, C., Pereira, F., Novais, J., Lopes, P....Cardoso, E. (2022). Development of Plan S monitoring and compliance tool in the context of PTCRIS for Portuguese National Science Foundation. 15th International Conference on Current Research Information Systems (CRIS2022),. https://doi.org/http://hdl.handle.net/11366/1981

• Other Publications

- Master's Dissertation

1	Antunes, A. (2017). Big data analytics applied to sensor data of engineering structures: automatic detection of outliers..