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Joaquim Reis

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Curriculum

Assistant Professor in the Department of Sciences and Technolgies of Information at ISCTE-IUL. Degree in Mechanical Engineering and a MSc in Mechanical Engineering at Instituto Superior Técnico, in Lisbon, and also a PhD in Sciences and Technolgies of Information, in the specialty of Artificial Intelligence, at ISCTE-IUL, Lisbon.
Teached Artificial Intelligence and Technologies for Intelligent Systems course units and currently teaches a Computational Creativity MSc course unit and a Creativity and Creative Computation PhD course unit, amongst other different course units.
Researcher of the ISTAR-IUL research unit and member of APPIA, the portuguese association for Artificial Intelligence.
Present research interests are in the areas of Artificial Intelligence, Computational Creativity and Shape Grammars.

Research Interests

- Artificial Intelligence
- Inteligent Systems
- Multi-Agent Systems

Computational Creativity
Shape Grammars

Academic Qualifications

University/Institution	Type	Degree	Period
ISCTE-IUL - Instituto Superior Ciências Trabalho e da Empresa	PhD	Ciências e Tecnologias da Informação	2002
Instituto Superior Técnico - UTL	M.Sc.	Engenharia Mecânica	1992
Instituto Superior Técnico - UTL	Licenciate	Engenharia Mecânica	1980

Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord.
2022/2023	2º	Artificial Intelligence		No
2022/2023	1º	Fundamentals of Computer Architecture	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Engineering (PL); Bachelor Degree in Computer Science and Business Management; Bachelor Degree in Telecommunications and Computer Engineering;	No
2021/2022	2º	Artificial Intelligence	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Engineering (PL);	No
2021/2022	1º	Fundamentals of Computer Architecture	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Engineering (PL); Bachelor Degree in Computer Engineering; Bachelor Degree in Computer Science and Business Management; Bachelor Degree in Telecommunications and Computer Engineering;	No
2020/2021	2º	Ict'S for Management		No
2020/2021	1º	Fundamentals of Computer Architecture	Bachelor Degree in Computer Engineering (PL); Bachelor Degree in Computer Engineering; Bachelor Degree in Computer Science and Business Management; Bachelor Degree in Telecommunications and Computer Engineering;	No
2019/2020	2º	Project Planning with Msproject		Yes
2019/2020	2º	Computacional Creativity		Yes

2019/2020	2º	Creativity and Creative Computation		Yes
2019/2020	1º	Fundamentals of Computer Architecture	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Engineering; Bachelor Degree in Computer Science and Business Management; Bachelor Degree in Telecommunications and Computer Engineering;	No

Supervisions

• Ph.D. Thesis

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Joana Maria Oliveira Tching Nascimento de Abreu Andrade	IM-SGI, An Interface Model for Shape Grammar Implementations	English	Iscte	2019
2	Joana Maria Oliveira Tching de Abreu Andrade	IM-SGI an interface model for shape grammar implementations	--	Iscte	2019
3	Laura Wise	--	English	Iscte	2013

• M.Sc. Dissertations

- Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Bruno Marques Margarido	Public perception of privacy in the context of Smart Cities.	Portuguese	Iscte	2021
2	Bruno Miguel Queirós da Cruz	The importance of an automatic analysis system and notification of blood collections	Portuguese	Iscte	2021
3	Muhammad Daud	Teleworking: Past! or Future?Exploratory analysis regarding SmartWorking practices that externalize the benefits of teleworking.	Portuguese	Iscte	2021
4	Simão Afonso Filipe Branco Antunes Dias	GDPR implications on social networks: perceptions of the IT specialists and non-specialists	Portuguese	Iscte	2020
5	Vanessa Alexandra Nunes Gomes	Social Engineering and the Dangers of Phishing	Portuguese	Iscte	2019

Total Citations

Web of Science®	46
Scopus	93

Publications

• Scientific Journals

- Scientific journal paper

1	Tching, J., Reis, J. & Paio, A. (2019). IM-sgi – an Interface Model for Shape Grammar Implementations. Artificial Intelligence for Engineering Design, Analysis and Manufacturing, 33(1), 24?39. https://doi.org/10.1017/S0890060417000695 - Times Cited Web of Science®: 3 - Times Cited Scopus: 6 - Times Cited Google Scholar: 10
2	Tching, J., Reis, J. & Paio, A. (2017). Shape grammars for creative decisions in the architectural project. Computer Science and Information Technology, 5(2), 84?89. https://doi.org/10.13189/csit.2017.050206 - Times Cited Google Scholar: 20
3	Andrade, J, Reis, J. & Paio, A. (2016). A cognitive walkthrough towards an interface model for shape grammar implementations. Computer Science and Information Technology, 4(3), 92?119. https://doi.org/10.13189/csit.2016.040302 - Times Cited Web of Science®: 4 - Times Cited Google Scholar: 16
4	Reis, J., Mamede, N. & O'Neill, H. (2001). Locally perceived hard global constraints in multi-agenty schedulling. Journal of Intelligent Manufacturing, 12(2), 227?240. https://doi.org/10.1023/A:1011212929394 - Times Cited Web of Science®: 15 - Times Cited Scopus: 14 - Times Cited Google Scholar: 3

• Books and Book Chapters

- Book chapter

1	Reis, J. (2026). An Algebra of Maximal Shapes Implementation for a Shape Grammar Interpreter. Lecture Notes in Networks and Systems (pp. 552?565). Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-27541-7_44 - Times Cited Google Scholar: 2
2	Reis, J. (2026). How Many Are There?. Lecture Notes in Networks and Systems (pp. 525?539). Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-27541-7_42
3	Reis, J. (2026). Shapes and Shape Emergence Playing with a Shape Grammar Interpreter System. Lecture Notes in Networks and Systems (pp. 69?82). Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-10728-2_7

• Conferences/Workshops and Talks

- Publication in conference proceedings

1	Reis, J. (2023). What's in a shape: An algorithm for finding shapes in shapes. 2023 18th Iberian Conference on Information Systems and Technologies (CISTI). IEEE. https://doi.org/10.23919/CISTI58278.2023.10211829 - Times Cited Scopus: 4 - Times Cited Google Scholar: 6
2	Reis, J. (2023). Supporting creativity: With emergent shapes in shape grammars. 2023 18th Iberian Conference on Information Systems and Technologies (CISTI). IEEE. https://doi.org/10.23919/CISTI58278.2023.10211596 - Times Cited Scopus: 4 - Times Cited Google Scholar: 7
3	Reis, J. (2022). Shapes: Seeing and doing with shape grammars. In Rocha, A., Bordel, B., Penalvo, F. G., and Goncalves, R. (Ed.), 2022 17th Iberian Conference on Information Systems and Technologies (CISTI). IEEE. https://doi.org/10.23919/CISTI54924.2022.9820025 - Times Cited Web of Science®: 1 - Times Cited Scopus: 5 - Times Cited Google Scholar: 7
4	Gomes, V., Reis, J. & Alturas, B. (2020). Social engineering and the dangers of phishing. In Álvaro Rocha, Bernabé Escobar Peréz, Francisco Garcia Peñalvo, Maria del Mar Miras, Ramiro Gonçalves (Ed.), 2020 15th Iberian Conference on Information Systems and Technologies (CISTI). IEEE. https://doi.org/10.23919/CISTI49556.2020.9140445 - Times Cited Web of Science®: 10 - Times Cited Scopus: 20 - Times Cited Google Scholar: 41
5	Reis, J. (2016). Origami: History, folds, bases and napkins in the art of folding. In Guimarães, N., Paio, A., Osório, F. C., Oliveira, M. J., e Oliveira, S. (Ed.), Architecture In-Play International Conferences Proceedings 2016 (pp. 211?218). Instituto Universitário de Lisboa (ISCTE-IUL).
6	Reis, J. (2014). Crossing Lines in GSG. In Carlos J. Costa e Manuela Aparício (Ed.), Proceedings of the International Conference on Information Systems and Design of Communication (pp. 105?112). ACM. https://doi.org/10.1145/2618168.2618185 - Times Cited Web of Science®: 1 - Times Cited Scopus: 3 - Times Cited Google Scholar: 10
7	Tching, J., Reis, J. & Paio, A. (2013). Shape grammars for creative decisions: In the architectural project. In Rocha, Á., Reis, L. P., Cota, M. P., Painho, M., and Neto, M. C. (Ed.), 2013 8th Iberian Conference on Information Systems and Technologies (CISTI). IEEE. - Times Cited Scopus: 5
8	Paio, A., Rato, V., Reis, J., Santos, F. & Lopes, P. F. (2013). Emerg. house 4all: A sensitive approach informed by new digital tools. 5th European Conference on African Studies. African Dynamics in a Multipolar World (pp. 17731791?1791). Centro de Estudos Internacionais do Instituto Universitário de Lisboa.
9	Santos, F. & Reis, J. (2013). A language for automatic design generation. In Carlos J. Costa e Manuela Aparício (eds.) (Ed.), ISDOC '13: Proceedings of the 2013 International Conference on Information Systems and Design of Communication (pp. 64?69). EuroSIGDOC. - Times Cited Scopus: 1 - Times Cited Google Scholar: 2

10	Santos, F., Reis, J., Lopes, P., Paio, A., Eloy, S. & Rato, V. (2012). A multi-agent expert system shell for shape grammars. In T. Fischer, K. De Biswas, J. J. Ham, R. Naka, W. X. Huang (Ed.), 17th International Conference on Computer-Aided Architectural Design Research in Asia (pp. 409?414). CAADRIA. - Times Cited Web of Science®: 3 - Times Cited Scopus: 4 - Times Cited Google Scholar: 6
11	Tching, J., Paio, A. & Reis, J. (2012). A shape grammar for self-built housing. In Cardoso, D. R., Celani, M. G. C., Freitas, C. S., and Tosello, M. E. (Ed.), SIGraDi 2012 Proceedings of the 16th Iberoamerican Congress of Digital Graphics (pp. 486?490). Sociedade Ibero-americana de Gráfica Digital. - Times Cited Google Scholar: 10
12	Paio, A., Rato, V., Reis, J., Santos, F. & Lopes, P. F. (2012). Emerg.cities4all: generating a computational tool for sustainable social urban design in Portuguese speaking countries. In PNUM (Ed.), Urban Morphology in Portuguese-Speaking Countries - 2nd Conference of the Portuguese Network of Urban Morphology (pp. 14?16). ISCTE.
13	Paio, A., Eloy, S., Reis, J., Santos, F., Rato, V. & Lopes, P. F. (2011). Emerg.cities4all: Towards a sustainable and integrated urban design. In UIA2011 (Ed.), 24th World Congress of Architecture (pp. 639?643). UIA2011. - Times Cited Google Scholar: 5
14	Paio, A., Reis, J., Santos, F., Lopes, P. F., Eloy, S. & Rato, V. (2011). Emerg.cities4all: Towards a shape grammar based computational system tool for generating a sustainable and integrated urban design. In T. Zupancie, M. Juvancic, S. Verovsek, A. Jutraz (Ed.), Conference eCAADe2011 respecting Fragile Places (pp. 133?139). eCAADe (Education and Research in Computer Aided Architectural Design in Europe). - Times Cited Google Scholar: 11
15	Reis, J. (2009). GEOWIN A System for Creative Pattern Generation Based on Rules. In Boris Shishkov, José Cordeiro, Alpesh Ranchordas (Eds.) (Ed.), ICSOFT 2009, International Conference on Software and Data Technologies (pp. 289?296). INSTICC Press. - Times Cited Scopus: 3
16	Reis, J. (2008). A Rule Language to Express Visual Pattern Generation. In Carlos J. Costa, Aristidis Protopsaltis, Manuela Aparício, Henrique O'Neill (eds.) (Ed.), SIGDOC 2008, 26th ACM International Conference on Design in Communication (pp. 273?274). ACM. - Times Cited Web of Science®: 2 - Times Cited Scopus: 7 - Times Cited Google Scholar: 7
17	Reis, J. (2008). Using Rules for Creativity in Visual Composition. In Carlos J. Costa, Aristidis Protopsaltis, Manuela Aparício, Henrique O'Neill (eds.) (Ed.), SIGDOC 2008, 26th ACM International Conference on Design in Communication (pp. 207?214). ACM. - Times Cited Web of Science®: 4 - Times Cited Scopus: 10 - Times Cited Google Scholar: 17
18	Reis, J. (2006). An Approach to Multi Agent Cooperative Scheduling in the Supply Chain, with Examples. In Joaquim Filipe, Boris Shishkov and Markus Helfert (Ed.), ICSOFT 2006, International Conference on Software and Data Technologies (pp. 325?332). INSTICC Press.
19	Reis, J. (2006). An Approach to Multi Agent Visual Composition with Mixed Styles. In Joaquim Filipe, Boris Shishkov and Markus Helfert (Ed.), ICSOFT 2006, International Conference on Software and Data Technologies (pp. 357?362). INSTICC Press. - Times Cited Web of Science®: 1 - Times Cited Google Scholar: 2

20	Reis, J. (2006). Multi-Agent Cooperative Scheduling and Re-Scheduling in the Supply-Chain (a short version). In Pedro Isaías, Miguel Baptista Nunes e Immaculada J. Martinez (eds.) (Ed.), ICWI 2006 - IADIS International Conference WWW/Internet 2006 (pp. 288?293). IADIS.
21	Reis, J. (2006). Agents, Grammars and Style: Multi-Agent Visual Composition with Shape Grammars. In Espanha, Pedro Isaías, Miguel Baptista Nunes e Immaculada J. Martinez (eds.) (Ed.), ICWI 2006 - IADIS International Conference WWW/Internet 2006 (pp. 278?282). IADIS. - Times Cited Google Scholar: 3
22	Reis, J. & Mamede, Nuno (2001). Multi Agent Dynamic Scheduling and Re Scheduling with Global Temporal Constraints. In Paula Miranda, Bernadette Sharp, Algirdas Pakstas, Joaquim Filipe (Ed.), Proceedings of the ICEIS?2001, 3rd International Conference on Enterprise Information Systems (pp. 315?321). ICEIS Press. - Times Cited Scopus: 2 - Times Cited Google Scholar: 10
23	Reis, J. & Mamede, Nuno (2001). Scheduling, Re Scheduling and Communication in the Multi Agent Extended Enterprise Environment. In Pavel Brazdil, Alípio Jorge (Ed.), Progress in Artificial Intelligence, EPIA 2001 - MASTA 2001, 2nd. Workshop on Multi-Agent Systems: Theory & Applications (EPIA 2001, 10º Encontro Português de Inteligência Artificial, 17 a 20 de Dezembro de 2001, Porto, Portugal) (pp. 219?231). Springer-Verlag. - Times Cited Google Scholar: 2
24	Reis, J. & Mamede, Nuno (2000). An Agent Architecture for Multi Agent Dynamic Scheduling. In Bernadette Sharp, José Cordeiro, Joaquim Filipe (Ed.), Proceedings of the ICEIS?2000, 2st International Conference on Enterprise Information Systems (pp. 203?208). Escola Superior de Tecnologia do Instituto Politécnico de Setúbal.
25	Reis, J., Mamede, N. & O'Neill, Henrique (1999). Agent Communication for Schedulling in the Extended Enterprise, Infrastructures for Virtual Enterprises. IFIP TC5 WG5.3/PRODNET Working Conference on Infrastructures for Virtual Enterprises (PRO-VE'99) (pp. 353?364). Springer US.
26	Reis, J. & Mamede, Nuno (1999). What's in a Node, Nodes and Agents in Logistic Networks. In Joaquim Filipe, José Cordeiro (Ed.), Proceedings of the ICEIS?99, 1st International Conference on Enterprise Information Systems (pp. 285?291). - Times Cited Google Scholar: 4
27	Reis, J., Mamede, Nuno & O'Neill, Henrique (1998). Ontologia para um Modelo de Planeamento e Controlo na Empresa Estendida. In Helder Coelho (Ed.), Progresso em Inteligencia Artificial (pp. 43?54). Edições Colibri. - Times Cited Google Scholar: 7

- Talk

1	Reis, J. (2016). Origami: History, Folds, Bases and Napkins in the Art of Folding. Proceedings of the Architecture In-Play International Conference, Lisbon, Portugal, July 11th to 12th 2016,.
2	Reis, J. (2014). Crossing Lines in GSG. Proceedings of the International Conference on Information Systems and Design of Communication,, 105?112.
3	Paio, A., Rato, V., Reis, J., Santos, F. & Lopes, P. F. (2014). Emerg. house 4all: a sensitive approach informed by new digital tools. ECAS 2013, 5th European Conference on African Studies “African Dynamics in Multipolar World”., 1, 1773?1791.

4	Santos, F. & Reis, J. (2013). A Language for Automatic Design Generation. International Conference on Information Systems and Design of Communication (ISDOC 2013),.
5	Reis, J. (2013). A Tool for Knowledge-Based Visual Creativity Support. SUWMIAC ? 1st Summer Workshop Microsoft ? ISCTE-IUL on Applied Computing,.
6	Paio, A., Rato, V., Reis, J., Santos, F. & Lopes, P. F. (2012). Emerg.cities4all: generating a computational tool for sustainable social urban design in Portuguese speaking countries. Urban Morphology in Portuguese-Speaking Countries - 2nd Conference of the Portuguese Network of Urban Morphology,.
7	Santos, F., Reis, J., Lopes, P. F., Paio, A., Eloy, S. & Rato, V. (2012). A Multi-Agent Expert System Shell for Shape Grammars. CAADRIA 2012 (the 17th International Conference of the Association for Computer-Aided Architectural Design Research in Asia),. - Times Cited Web of Science®: 2
8	Joana Tching, Paio, A. & Reis, J. (2012). A Shape Grammar for Self-Built Housing. forma[in]formação, In Proceedings of XVI Congreso de Sigradi 2012,.
9	Lopes, P. F., Reis, J., Santos, F., Eloy, S., Paio, A. & Rato, V. (2011). Shaping emergent cities for all. SIGraDi 2011 (XV congreso de la sociedad iberoamericana de gráfica digital),.
10	Paio, A., Reis, J., Santos, F., Lopes, P. F., Eloy, S. & Rato, V. (2011). Emerg.cities4all: Towards a shape grammar based computational system tool for generating a sustainable and integrated urban design. eCAADe 2011 Conference (Education and Research in Computer Aided Architectural Design in Europe): Respecting Fragile Places,.
11	Paio, A., Eloy, S., Reis, J., Santos, F., Rato, V. & Lopes, P. F. (2011). Emerg.cities4all: Towards a sustainable and integrated urban design. UIA2011 Tokyo,. - Times Cited Google Scholar: 5
12	Wise, L., Carvalho, J. P., Carvalho, S., Reis, J. & Murta, A. (2011). A Multi-Agent System for the Simulation of Fishing Fleet Dynamics. European Conference on Complex Systems, 2011,.
13	Charro, R., Santos, F. & Reis, J. (2008). Applying Multi Agent Simulation to Supply Chains. 1st. ICC Workshop on Complexity in Social Systems,. - Times Cited Google Scholar: 3
14	Reis, J. (2006). Agents with Style - Multi Agent Visual Composition with Shape Grammars. Third Joint Workshop on Computational Creativity (ECAI 2006 Workshop MT2, ECAI 2006, European Conference on Artificial Intelligence),. - Times Cited Google Scholar: 20
15	Reis, J. (2005). Agentes com Estilo, um Sistema Multi Agente para Composição Visual Computacionalmente Assistida. Grupos, Tecnologia e Criatividade,.
16	Reis, J. & Mamede, Nuno (1999). Task Modeling in a Multi-Agent Logistic Domain. Proceedings of the ICEIS?99, 1st International Conference on Enterprise Information Systems,.

• Other Publications

- Other publications

1	Reis, J., Lopes, P. F., Santos, F., Eloy, S., Paio, A. & Rato, V. (2011). Shape Grammars and Applications. First International Workshop - NUIGraM - Natural User Interaction, Graphics and Mobility,. - Times Cited Scopus: 5

Academic Management Positions

Membro (Docente) (2017 - 2021)
Unit/Area: Comissão Científica

Membro (2010 - 2013)
Unit/Area: Comissão Científica

Sub-diretor (2010 - 2013)
Unit/Area: Centro para o Desenvolvimento das Tecnologias de Informática (ADETTI-IUL)