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## Nuno Guimarães

### Professor Catedrático

ISTAR-Iscte - Information Sciences, Technologies and Architecture Research Centre  
Department of Information Science and Technology (ISTA)



### Contacts

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### Curriculum

Nuno Guimarães, Full Professor (Professor Catedrático) at ISCTE-IUL, graduated in Electrotechnical Engineering at the Technical University of Lisbon, Instituto Superior Técnico, Portugal, in 1983, where he also completed his MSc (1987) and PhD (1992). He received the title of Agregado em Informática in July 1999, from the University of Lisbon. From 1986 to 1997, he taught at the Electrotechnical and Computer Engineering Department of IST/UTL, and from 1997 to 2012 at the Informatics Department of the Faculty of Sciences, University of Lisbon. He was Dean of the Faculty of Sciences of the University of Lisbon (2003-2009).

Since 2014 he is Visiting Scholar at the Indian Institute of Technology in Gandhinagar, India. In 2010, he was Invited Professor at the Technical University of Berlin, Institut für Psychologie und Arbeitswissenschaft, Fak V - Verkehrs- und Maschinensysteme. --- From 1982 to 1997, he was a researcher of INESC, Instituto de Engenharia de Sistemas e Computadores, Lisbon, Portugal, and is a member of LASIGE/FCUL since 1997. From 1989 to 1991, he was a consultant for Bell Labs, AT&T, Murray Hill, New Jersey, "Software Systems Principles Research Lab".

He was a member of Executive Board of PUUG (Portuguese Unix Users Group)(1992-1998), one of the individual founders of EUNET Portugal, later KPNQwest Portugal. From 1996 to 2001, he co-founded of Ergoprocesso (Consulting services), 4VDO - Sistemas e Serviços Multimédia SA (Video indexing services) and OnTV - Sistemas e Serviços de Televisão Interactiva SA (Interactive Television Systems integrator). --- ACM Senior Member (since 2012), Member (Chair of the Board 2021-2025) of ISOC (PT).

## Research Interests

Human Computer Interaction and User Experience

Law and Rights and Digital Society

Cultural Diversity and Digital Technologies

## Academic Qualifications

University/Institution	Type	Degree	Period
Universidade de Lisboa	Aggregation	Informática	1999
Instituto Superior Técnico / Universidade Técnica de Lisboa	PhD	Doutoramento	1992
Instituto Superior Técnico / Universidade Técnica de Lisboa	M.Sc.	Engenharia Electrotécnica e de Computadores	1987
Instituto Superior Técnico / Universidade Técnica de Lisboa	Licenciate	Engenharia Electrotécnica	1983

## Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord
2025/2026	2º	Information Technology and Knowledge Management	Master Degree in Information Systems Management;	Yes
2025/2026	1º	Research Methods in Science and Information Technologies	Doctorate Degree (PhD) in Information Science and Technology;	Yes
2024/2025	2º	Information Technology and Knowledge Management	Post Graduation Program in Applied Informatics to the Organizations;	No
2023/2024	1º	Information Technology and Knowledge Management	Post Graduation Program in Applied Informatics to the Organizations;	Yes
2023/2024	1º	Management and Information Systems in Organizations	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	Yes
2022/2023	1º	Information Technology and Knowledge Management		Yes
2022/2023	1º	Management and Information Systems in Organizations	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	Yes

2021/2022	2º	Algorithms and Data Structures		Yes
2021/2022	1º	Information Technology and Knowledge Management		Yes
2021/2022	1º	Management and Information Systems in Organizations	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	Yes
2020/2021	2º	Algorithms and Data Structures	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;	Yes
2020/2021	1º	Information Technology and Knowledge Management		Yes
2020/2021	1º	Management and Information Systems in Organizations	Bachelor Degree in Computer Science and Business Management (PL); Bachelor Degree in Computer Science and Business Management;	Yes
2019/2020	2º	Algorithms and Data Structures		Yes

## Supervisions

- **Ph.D. Thesis**  
- **Concluded**

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Francisco Barros Leite	Virtual Justice Support Systems	Portuguese	Iscte	2019
2	Francisco Fernando Vasconcelos Barbosa Barros Leite	Desenvolvimento e avaliação de um método para autorrepresentação em sistemas judiciais utilizando a narrativa visual	--	Iscte	2019
3	Inês Isabel Oliveira	--	Portuguese	Faculdade de Ciências da Universidade de Lisboa	2013
4	Teresa Chambel	--	English	Faculdade de Ciências da Universidade de Lisboa	2003
5	Ivo Dias de Sousa	--	Portuguese	Universidade Aberta	2003
6	Maria Santa Clara Barbas	--	Portuguese	Universidade Aberta	2003

7	José Bidarra de Almeida	--	Portuguese	Universidade Aberta	2001
8	Luis Manuel Carriço	--	Portuguese	Universidade Técnica de Lisboa, Instituto Superior Técnico	2000
9	Nuno Manuel Correia	--	Portuguese	Universidade Técnica de Lisboa / Instituto Superior Técnico	1997
10	Pedro Alexandre Antunes	--	Portuguese	Universidade Técnica de Lisboa, Instituto Superior Técnico	1996

## • M.Sc. Dissertations

### - Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	António Pedro Marcelino Paixão	Home automation for energy and environmental awareness	Portuguese	Iscte	2022
2	Miguel Dordio Lobo da Conceição Oliveira	Analysing the spread and impact of information on social media	Portuguese	Iscte	2022
3	João Ricardo Agostinho Mota	Sistema de informação para a classificação internacional de funcionamento em contexto hospitalar pediátrico	Portuguese	Iscte	2014
4	Hugo Santos de Araújo	Construção de sistemas de informação para suporte à gestão de risco hospitalar - implementação do ISAAR	Portuguese	Iscte	2013

## Total Citations

Web of Science®	14
Scopus	196

## Publications

### • Scientific Journals

#### - Scientific journal paper

1	<p>Antunes, P. &amp; Guimarães, N. (2024). Guiding the implementation of data privacy with microservices. <i>International Journal of Information Security</i>. 23 (6), 3591-3608</p> <p>- Times Cited Scopus: 1</p> <p>- Times Cited Google Scholar: 5</p>
2	<p>Guimarães, N. (2022). Sistemas normativos e tecnologias digitais: Formalização, desenvolvimento e convergência . <i>Revista da Faculdade de Direito da Universidade de Lisboa</i>. 63 (1), 763-790</p>
3	<p>Guimarães, N. (2021). Complexity, design and culture: convergences for digital experiences. <i>Interaction Design and Architecture(s)</i>. 47, 274-305</p> <p>- Times Cited Google Scholar: 4</p>
4	<p>Paio, A., Osório, F. C., Oliveira, S. M., Valenti, Graziano Mario &amp; Guimarães, N. (2018). Architecture In-Play, future challenges. <i>Nexus Network Journal</i>. 20 (1), 15-30</p>
5	<p>Mares, I., Custódio, P., Fonseca, J., Bentes, C., Guerreiro, M., Guimarães, N....Martins, I. P. (2015). To read or not to read: a neurophysiological study. <i>Neurocase</i>. 21 (6), 793-801</p> <p>- Times Cited Web of Science®: 5</p> <p>- Times Cited Scopus: 4</p> <p>- Times Cited Google Scholar: 12</p>
6	<p>Oliveira, I. &amp; Guimarães, N. (2013). Practical neurophysiological analysis of readability as a usability dimension. <i>Lecture Notes in Computer Science</i>. 7946, 194-211</p> <p>- Times Cited Scopus: 3</p> <p>- Times Cited Google Scholar: 6</p>
7	<p>Chambel, T., Nuno Correia &amp; Guimarães, N. (2001). Hypervideo on the Web: Models and techniques for video integration. <i>International Journal of Computers and Applications</i>.</p> <p>- Times Cited Scopus: 8</p> <p>- Times Cited Google Scholar: 31</p>
8	<p>Guimarães, N., Chambel, T. &amp; Bidarra, J. (2000). From cognitive maps to hypervideo: supporting flexible and rich learner-centred environments. <i>Interactive Multimedia Electronic Journal of Computer - Enhanced Learning</i> . 2</p> <p>- Times Cited Scopus: 23</p> <p>- Times Cited Google Scholar: 74</p>
9	<p>Luís Carriço &amp; Guimarães, N. (1998). Integrated multi-views. <i>Journal of Visual Languages and Computing</i>. 9 (3), 287-297</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 3</p> <p>- Times Cited Google Scholar: 4</p>
10	<p>Guimarães, N., Nuno Correia, Oliveira, I. &amp; João Martins (1998). Designing Computer Support for Content Analysis: A Situated Use of Video Parsing and Analysis Techniques. <i>Multimedia Tools and Applications</i>. 7 (3), 159-180</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 2</p> <p>- Times Cited Google Scholar: 7</p>
11	<p>Marques, J. A., Guimarães, N. &amp; Simões, L. P. (1991). IMAGES: a user interface development system. <i>Interacting with Computers</i>. 3 (2), 131-154</p> <p>- Times Cited Scopus: 1</p>

12	<p>Guimarães, N. (1991). Building generic user interface tools: An experience with multiple inheritance. ACM SIGPLAN Notices.</p> <p>- Times Cited Scopus: 1</p> <p>- Times Cited Google Scholar: 22</p>
13	<p>Marques, J. A., Cunha, J. P., Guedes, P., Guimarães, N. &amp; Cunha, A. (1988). The distributed operating system of the SMD project. <i>Software: Practice and Experience</i>. 18 (9), 859-877</p> <p>- Times Cited Web of Science®: 2</p> <p>- Times Cited Scopus: 5</p> <p>- Times Cited Google Scholar: 5</p>

## • Books and Book Chapters

### - Book author

1	<p>Guimarães, N. &amp; Luís Carriço (2009). <i>Hypermedia Genes: An Evolutionary Perspective on Concepts, Models, and Architectures</i>. USA. Morgan and Claypool.</p> <p>- Times Cited Google Scholar: 2</p>
2	<p>Duarte, C., Luís Carriço &amp; Guimarães, N. (2007). <i>Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)</i>.</p> <p>- Times Cited Scopus: 6</p>
3	<p>Luís Carriço &amp; Guimarães, N. (1997). <i>Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)</i>.</p> <p>- Times Cited Scopus: 3</p>

### - Book editor

1	<p>Guimarães, N. (1998). <i>Organizational Change, Evolution, Structuring and Awareness: Organizational Computing Systems (Research Reports Esprit - Project 8749 ORCHESTRA)</i>. Berlin. Springer.</p>
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### - Book chapter

1	<p>Guimarães, N. (2023). Tecnologias e criação de direitos: O caso dos dados pessoais. In Eduardo Vera-Cruz Pinto, Marco Antonio Marques da Silva (Ed.), <i>Direito digital, inteligência artificial e proteção de dados</i>. (pp. 375-386). São Paulo: Quartier Latin.</p>
2	<p>Guimarães, N. (2013). Practical neurophysiological analysis of readability as a usability dimension. In <i>Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)</i>.</p>
3	<p>Prata, A., Chambel, T. &amp; Guimarães, N. (2012). Personalized Content Access in Interactive TV-Based Cross Media Environments. In Yiannis Kompatsiaris, Bernard Mériald, Shiguo Lian (Ed.), <i>TV Content Analysis: Techniques and Applications</i>. (pp. 331-367). UK: Auerbach.</p> <p>- Times Cited Scopus: 3</p> <p>- Times Cited Google Scholar: 13</p>

4	<p>Chambel, T., Antunes, P., Duarte, C., Carriço, L. &amp; Guimarães, N. (2009). Reflections on teaching human-computer interaction to blind students. In IFIP International Federation for Information Processing. (pp. 123-142). Boston: Springer.</p> <p>- Times Cited Web of Science®: 4  - Times Cited Scopus: 6  - Times Cited Google Scholar: 16</p>
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## • Conferences/Workshops and Talks

### - Publication in conference proceedings

1	<p>Leite, F., Antunes, P., Guimarães, N. &amp; Pino, J. A. (2019). Method supporting the adoption of visual stories in judicial systems. In Proceedings of the 27th European Conference on Information Systems (ECIS). Stockholm &amp; Uppsala: Association for information systems.</p> <p>- Times Cited Google Scholar: 3</p>
2	<p>Guimarães, N. (2013). Practical neurophysiological analysis of readability as a usability dimension. In Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics).</p>
3	<p>Francisco Leite, Guimarães, N. &amp; Pedro Antunes (2013). Judicial Dialogue – a graphic narrative perspective. In ICT Law 2013 - Judicial Systems and ICT.</p>
4	<p>Guimarães, N. (2013). A tool for mental workload evaluation and adaptation. In ACM International Conference Proceeding Series.</p> <p>- Times Cited Google Scholar: 13</p>
5	<p>Oliveira, I. &amp; Guimarães, N. (2013). A tool for mental workload evaluation and adaptation. In ACM International Conference Proceeding Series. (pp. 138-141). Estugarda, Alemanha: ACM.</p> <p>- Times Cited Scopus: 4</p>
6	<p>Diniz, N., Guimarães, N. &amp; Duarte, C. (2012). Mapping interaction onto media façades. In ACM International Conference Proceeding Series.</p> <p>- Times Cited Google Scholar: 24</p>
7	<p>Diniz, N., Duarte, C. &amp; Guimarães, N. (2012). Mapping interaction onto media façades. In Rui José, Elaine Huang (Ed.), PerDis 2012 The International Symposium on Pervasive Displays . (pp. 0-0). Porto, Portugal: ACM New York, USA.</p> <p>- Times Cited Scopus: 7</p>
8	<p>Oliveira, S. M., Grigore, O., Guimarães, N. &amp; Duarte, C. (2010). Relevance of EEG input signals in the augmented human reader. In ACM International Conference Proceeding Series.</p> <p>- Times Cited Scopus: 4  - Times Cited Google Scholar: 6</p>
9	<p>Prata, A., Chambel, T. &amp; Guimarães, N. (2010). Generation of crossmedia dynamic learning contexts from iTV. In EuroITV'10 - Proceedings of the 8th International Interactive TV and Video Conference.</p> <p>- Times Cited Scopus: 7  - Times Cited Google Scholar: 13</p>
10	<p>Guimarães, N. (2010). Experiences in reading detection with EEG signals. In Proceedings of the ACM Symposium on Applied Computing.</p> <p>- Times Cited Scopus: 3  - Times Cited Google Scholar: 5</p>

11	<p>Guimarães, N. (2010). Designing iTV based crossmedia personalized informal learning contexts. In Proceedings of the 14th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek 2010.</p> <p>- Times Cited Google Scholar: 2</p>
12	<p>Guimarães, N. (2010). Crossmedia personalized learning contexts. In HT'10 - Proceedings of the 21st ACM Conference on Hypertext and Hypermedia.</p> <p>- Times Cited Scopus: 4</p> <p>- Times Cited Google Scholar: 6</p>
13	<p>Oliveira, I., Lopes, R. &amp; Guimarães, N. (2009). Development of a biosignals framework for usability analysis. In Proceedings of the ACM Symposium on Applied Computing.</p> <p>- Times Cited Scopus: 3</p> <p>- Times Cited Google Scholar: 4</p>
14	<p>Guimarães, N. (2009). Reading detection based on electroencephalogram processing. In Proceedings of the 13th WSEAS International Conference on Computers - Held as part of the 13th WSEAS CSCC Multiconference.</p> <p>- Times Cited Scopus: 5</p> <p>- Times Cited Google Scholar: 9</p>
15	<p>Prata, A., Guimarães, N., Kommers, P. &amp; Chambel, T. (2006). ITV Model: An HCI based Model for the Planning, Development and Evaluation of iTV applications. In SIGMAP 2006 - International Conference on Signal Processing and Multimedia Applications, Proceedings.</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 6</p> <p>- Times Cited Google Scholar: 7</p>
16	<p>Luís Carriço, Duarte, C., Guimarães, N., Serralheiro, A. &amp; Trancoso, I. (2004). Modular production of rich digital talking books. In ICEIS 2004 - Proceedings of the Sixth International Conference on Enterprise Information Systems.</p> <p>- Times Cited Scopus: 1</p> <p>- Times Cited Google Scholar: 6</p>
17	<p>Duarte, C., Luís Carriço, Chambel, T. &amp; Guimarães, N. (2003). Producing DTB from audio tapes. In ICEIS 2003 - Proceedings of the 5th International Conference on Enterprise Information Systems.</p> <p>- Times Cited Scopus: 4</p> <p>- Times Cited Google Scholar: 5</p>
18	<p>Serralheiro, A., Trancoso, I., Caseiro, D., Chambel, T., Luís Carriço &amp; Guimarães, N. (2003). Towards a repository of digital talking books. In EUROSPEECH 2003 - 8th European Conference on Speech Communication and Technology.</p> <p>- Times Cited Scopus: 6</p> <p>- Times Cited Google Scholar: 15</p>
19	<p>Guimarães, N. &amp; Chambel, T. (2002). Context perception in video-based hypermedia spaces. In Proceedings of the ACM Conference on Hypertext. (pp. 85-94).</p> <p>- Times Cited Scopus: 32</p> <p>- Times Cited Google Scholar: 70</p>
20	<p>Costa, M., Nuno Correia &amp; Guimarães, N. (2002). Annotations as multiple perspectives of video content. In Proceedings of the ACM International Multimedia Conference and Exhibition.</p> <p>- Times Cited Scopus: 27</p> <p>- Times Cited Google Scholar: 56</p>

21	Luís Carriço, Pedro Antunes & Guimarães, N. (1999). Visual reflection: Language, action and feedback. In IEEE Symposium on Visual Languages, Proceedings. - Times Cited Google Scholar: 1
22	Correlá, N., Grilo, A., Gaetano, A. & Guimarães, N. (1998). An environment for building reusable video information models. In Proceedings of the ACM Symposium on Applied Computing. - Times Cited Scopus: 1
23	Luís Carriço & Guimarães, N. (1998). Manipulating concept maps with constrained regions. In Proceedings of the Workshop on Advanced Visual Interfaces AVI. - Times Cited Scopus: 1 - Times Cited Google Scholar: 5
24	Nuno Correia, Oliveira, I., João Martins & Guimarães, N. (1996). WeatherDigest: an experiment in media conversion. In Proceedings of SPIE - The International Society for Optical Engineering. - Times Cited Scopus: 1 - Times Cited Google Scholar: 6
25	Pedro Antunes, Guimarães, N., Segovia, Javier & Cardenosa, Jesus (1995). Beyond formal processes: augmenting workflow with group interaction techniques. In Conference on Organizational Computing Systems - Proceedings. - Times Cited Scopus: 11 - Times Cited Google Scholar: 31

#### - Conference proceedings editor

1	Guimarães, N., Paio, A., Oliveira, S., Osório, F. C. & Oliveira, M.J. (2016). Architecture in-play International Conferences Proceedings. Lisboa. ISCTE-IUL.
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#### - Talk

1	Hugo Araújo, Daniela Sousa & Guimarães, N. (2013). Gestão do Risco e Comunicação: uma experiência de inovação organizacional com tecnologias de informação,. IV Encontro de Investigadores da Qualidade.
2	Baticam, B, Moreno, A. & Guimarães, N. (2012). Análise de Modalidades e Modos de Leitura Contínua. CAPSI 2012 A Conferência anual da Associação Portuguesa de Sistemas de Informação.

Research Projects			
Project Title	Role in Project	Partners	Period
IPTEL – Pedagogical Innovation in Higher Education: E-Learning and digital technologies	Researcher	ISTAR-Iscte (DLS), IE – ULisboa - (Portugal)	2014 - 2016

## Academic Management Positions

Membro (2017 - 2021)  
Unit/Area: Conselho Geral

Director (2014 - 2017)  
Unit/Area: Information Sciences, Technologies and Architecture Research Center

Membro (Docente) (2014 - 2017)  
Unit/Area: Comissão Científica

Vice-Reitor (2014 - 2018)  
Unit/Area: Reitoria

Vice-Reitor (2014 - 2018)  
Unit/Area: ISCTE - University Institute of Lisbon

Director (2013 - 2015)  
Unit/Area: Master Degree in Information Systems Management

Pró-Reitor (2012 - 2013)  
Unit/Area: Reitoria

Pró-Reitor (2012 - 2013)  
Unit/Area: ISCTE - University Institute of Lisbon