<table>
<thead>
<tr>
<th>Research Domains</th>
<th>Interacção Pessoa Máquina, Conceção de Sistemas Interactivos, Sistemas de Informação, Hipermédia e Multimédia, Trabalho Colaborativo e Computação Organizacional</th>
</tr>
</thead>
</table>


**Publicações (Revistas, Conferências, Internacional e Nacional)**

**Publications (Journals, Conferences, International, National)**


[012] (ACI) P. Antunes, N. Guimarães, R. Nunes (IST/INESC), Extending the User Interface to the Multiuser Environment, CSCW Developers Workshop, ECSCW’91, Sept 1991, Amsterdam, Netherlands


[014] (ACI) N. Guimarães, L. Carriço, P. Antunes (IST/INESC), INGRID: an Object Oriented Interface Builder, Proceedings of the Tools’91 USA Conference, Jul 1991, Sta Barbara, CA, USA


[017] (ACI) N. Guimarães, N. Correia, T. Carmo (IST/INESC), Programming Time in Multimedia User Interfaces, Proceedings of the UIST’92, ACM SIGCHI/SIGGRAPH, Nov 1992, Monterey, CA, USA

[018] (ACI) N. Guimarães, N. Correia, T. Carmo (IST/INESC), Xt based Support for Continuous Media, Proceedings of the Xhibition’92 Conference, Jun 1992, San Jose, CA, USA


[020] (ACI) T.Chambel (FCUL/INESC), C. Moreno (IST/INESC), N. Guimarães (IST/INESC), Loosely Coupled Hyperbase Integration in a Distributed Environment, ACM Hypertext’93 Workshop on Hyperbases, Nov 1993, Seattle, WA, USA

Publicações (Revistas, Conferências, Internacional e Nacional)
Publications (Journals, Conferences, International, National)

[022] (ACI) N. Guimarães (IST/INESC), P.T. Silva, J.T. Santos (IST/CEMUL), A. Siemaszko (IFTR), MobViews: a Multiuser Worksheet for a Mechanical Engineering Environment, 2nd IEEE Workshop on Enabling Technologies Infrastructure for Collaborative Enterprises (WET ICE), April 1993, Morgantown, WV, USA


[029] (ACI) P. Antunes, N. Guimarães (IST/INESC), Jesus Cardenosa, Javier Segovia (UP Madrid), Beyond Formal Processes: Augmenting Workflow with Group Interaction Techniques, ACM Conference on Organizational Computing Systems, COOCS'95, Aug 1995, Milpitas, San Jose, CA, USA


Publicações (Revistas, Conferências, Internacional e Nacional)

[042] (ACI) T. Chambel (FCUL), J. Bidarra (Uaberta), N. Guimarães (FCUL), Artefacts That Help Us Learn: Perspectives of the UNIBASE Project on Distance Learning, ACM Multimedia 98, Workshop on Multimedia and Educational Practice, Sept 1998, Bristol, UK


[046] (ACI) L. Carriço (IST), N. Guimarães (FCUL), Manipulating Concept Maps with Constrained Regions, Proceedings of the AVI'98 Conference, May 1998, L'Aquila, Italy


[048] (ACI) N. Correia, A. Grilo, A. Caetano, N. Guimarães (IST/INESC), An Environment for Building Reusable Video Models, ACM Symposium on Applied Computing (SAC'97), Multimedia Systems Track, Feb 1998, Atlanta, GA, USA


[052] (ACI) T. Chambel, N.Guimarães (FCUL), The Role of Hypervideo in Learning Environments (Poster), WebNet 99 – World Conference on the WWW, Internet, & Intranet, AACE Conferences,AACE Association for the Advancement of Computing in Education, Oct 1999, Honolulu, Hawaii, USA


[057] (ACI) J. Bidarra (Uaberta), N. Guimarães, T. Chambel (FCUL), Enhancing Learner-Centered Design of Hypermedia Artefacts, ED-MEDIA 2000, World Conference on Educational Multimedia, Hypermedia & Telecommunications, AACE Conferences, Association for the Advancement of Computing in Education, Jul 2000, Montreal, Quebec, Canada


[061] (ACI) M. Costa (HVDO), N.Correia, N. Guimarães, Annotations as Multiple Perspectives of Video Content, Proceedings of ACM Multimedia 2002, December 1-6, 2002, Juan-les-Pins, France

Publicações (Revistas, Conferências, Internacional e Nacional)

Publications (Journals, Conferences, International, National)


[066] (ACI) Carlos Duarte, Luís Carriço, Nuno Guimarães and Teresa Chambel (FCUL), Producing DTB from Audio Tapes, Proceedings of International Conference in Enterprise Information Systems, ICEIS’03, April 2003, France


[077] (ACI) Nuno Guimarães, Understanding Structural Coupling in augmented environments : from personal features to mobile and ubiquitous interactions, 7th Berlin Workshop in Man Machine Systems, ZMMS, Technical University of Berlin, October 2007, Berlin, Germany


[079] (ACI) Inês Oliveira, Rui Lopes, Nuno M. Guimarães (FCUL), Development of a Biosignals Framework for Usability Analysis (Poster), ACM SAC’09 Human Computer Interaction Track, March 2009, Hawaii, USA
Métrica de Publicações
Publication Metric


DATE : February 2009
Query: “N Guimaraes” or “Nuno Guimaraes” or “NM Guimaraes” or “Nuno M Guimaraes”: eng
Summary: <<
Papers: 72  Cites/paper: 5.43  h-index: 11  AWCR: 32.13
Citations: 391  Cites/author: 157.52  g-index: 15  AW-index: 5.67
Years: 32  Papers/author: 29.96  hc-index: 6  AWCRpA: 11.62
Cites/year: 12.22  Authors/paper: 3.00  hl-index:3.67  hl,norm: 6
Hirsch a=3.23, m=0.34
Contemporary ac=3.58
Cites/paper 5.43/3.0/1 (mean/median/mode)
Authors/paper 3.00/3.0/3 (mean/median/mode)
8 paper(s) with 1 author(s), 18 paper(s) with 2 author(s), 25 paper(s) with 3 author(s)
10 paper(s) with 4 author(s), 9 paper(s) with 5 author(s), 2 paper(s) with 6 author(s)
>>

Cites,Authors,Title,Year,Source,Publisher,CitesURL


NOTE: SELF CITATIONS ARE * NOT * FILTERED OUT
Academic Examinations


MSc (1986), PhD (1992) and “Agregação”(Full Professorship Requirement) (1999)

Provas Académicas

“Agregação” (Full Professorship Requirement) Lecture Summary - The Design and Construction of Interactive Systems and Applications, Elements for a Paradigm, FCUL, July 1999

This lecture addresses the foundations of the design of interactive computer systems and applications. By interactive systems, we designate those where the person-machine interface is a central element, destined for operation, use and control by human users. By foundations, or elements of a paradigm, we refer to a set of principles, models and methods that underlie and guide the design of those systems and applications.

The elements for a paradigm that are presented here also form a set of notions and concepts that support the creation and organization of specific disciplines, the identification and guidance of research themes and the coordination of scientific programmes.

The lecture initially presents a set of key concepts, related by a group of fundamental contributions. From this set of concepts emerges a framework to approach classes of interactive systems and applications, a framework that guides the functionality and interface design options and that opens the door to the criticism of this class of technologies. To illustrate how such a vision guides the systems design activities, some historical and current personal examples are presented, including application contexts, specific problems and proposed solutions. The conclusion, entitled Convergence and Implications, discusses the conceptual, methodological and practical consequences of the adoption of these paradigmatic elements.

PhD, The Design and Construction of Interactive Systems and Applications, IST/UTL, February 1992

The increasing capabilities in man-machine interaction, offered by the technological developments, create new needs. These new needs result from the growing complexity of the applications used in the current computing environments, and, in particular, from the effort required for their design and construction. The thesis proposes to approach the problem along three axes: the architecture of the interface and application, the adoption of object oriented techniques and methodologies, and the use of interactive construction tools. The central argument of the thesis states that the creation of a more productive environment for the design and construction of interactive applications is due to integrated evolutions along these three dimensions.

The application architecture defines categories of components that cover the main aspects of the general interactive applications. These aspects include the structuring of the internal functionality, the presentation, dialogue and execution, and the connection to external systems, the Representation and Interaction, Storage and Communication systems. The object oriented methodologies and techniques allow to structure the application construction process, defining programming levels and agents, in order to optimise that process, and to define the scope of the techniques provided by the programming languages. The construction tools offer the rapid prototyping facilities required by the iterative nature of the interactive applications' development cycle. The proposed tools also reflect the architectural and methodological notions. The presented concepts are materialised in two complete implementations, a tool for interface and application construction, INGRID, and a toolkit for the construction of hypermedia applications, HOT.

Finally, some new perspectives are drawn, considering multiuser and multimedia applications. The requirements raised by these categories of applications also ought to be supported by the several dimensions of the design and construction process.

Keywords: Man Machine Interaction, User Interface Architecture, Object Oriented Design and Programming, Interactive Tools

MSc, The SMD Distributed System : Heterogeneity, Analysis and Implementation of the file distribution, IST/UTL, Nov 1986

The activity carried out in the domain of Distributed Operating Systems in the SMD/INESC project led to the design and implementation of a totally distributed architecture, interconnecting different types of machines and systems.

The first part of the work presented in this thesis analyzes the problem of the file distribution in the SMD system and describes the implementation of the SMD Distributed File System. The second part addresses the implementation of the Distributed System on a classical machine and operating system (Data General MV8000, AOS/VS).

The Distributed File System in the element of the SMD system that provides transparency in the access to files located in the several networked machines. The interconnection of heterogeneous systems includes the implementation and the adaptation of the several SMD system levels on native systems, from the basic communication mechanisms to the high level SMD system services.

Keywords: Distributed Systems, Operating Systems, SMD, File Systems, AOS/VS.
Experiência de Ensino

Teaching Experience


C.J. Date, An Introduction to Database Systems, Addison-Wesley, 7th ed


D. Lowe & W. Hall, Hypermedia & the Web: An Engineering Approach, Wiley, 1999


No Instituto Superior Técnico, Dept de Engº Electrotécnica e de Computadores

At IST/UTL Engineering School, Computer and Electrotechnical Engineering Department


Operating Systems, 1992/93, Undergraduate

Introduction to Programming, 1993/94 to 1996/97, Undergraduate
Orientação de Teses

As Thesis Advisor

Teses de Doutoramento Concluídas / Concluded PhD Thesis

1. Pedro Antunes, Organizations, Groups and Technology: Computational Support to Group Interaction and Decision, IST/UTL, 1996
4. José Bidarra de Almeida, Multimedia Hyperspaces, Open University, 2001
5. Maria Santa Clara Barbas, Inter-understanding: from the Classroom to Cyberspace, Open University, 2003
7. Teresa Chambel, Video Based Hypermedia Spaces for Learning Contexts, Faculty of Sciences University of Lisbon, 2003

Teses de Mestrado Concluídas / Concluded MSc Thesis

1. Ricardo Nunes, Architectures for Interactive Applications on Persistent Objects, IST/UTL, 1993
4. Ana Paula Pereira, INGRID – A tool for Interactive Construction of User Interfaces, IST/UTL, 1993
5. Teresa Chambel, Integration of Autonomous Hyperbases in a Group Environment, IST/UTL, 1994
6. Carlos Alves, Multiuser Interfaces for Group Editing, IST/UTL, 1995
7. Manuel João Fonseca, Enrichment Techniques for User Interfaces, IST/UTL, 1995
10. Rosário Oliveira, Educational Environments for Telematic Resources, Open University, Portugal, 1997
13. António Pissarra, IT in Education in the Guarda district, Open University, Portugal, 1998
15. Inês Oliveira, Feature Extraction and Processing of Multimedia Information, IST/UTL, 1998
17. Teresa Maia Carmo, Art and Images, Open University, Portugal, 2000
18. Miguel Abrantes, New technologies in presence and distance learning, Open University, Portugal, 2000
19. Joséfia B. Grilo, Screen Legibility: Color and Type, Open University, Portugal, 2000
20. Regina Delfino, Simulation as a complement in Technological Education, Open University, Portugal, 2001
21. Mónica Mendes, Redesign in Educational Audiovisual, Open University, Portugal, 2001
22. Manuel Silva, Digitization and Management of Multimedia Archives, Open University, Portugal, 2001
23. Miguel Figueiredo, From the Classroom to the Virtual Space, Open University, Portugal, 2003
26. Ana Lindo, Workflow Modeling and Analysis, Faculty of Sciences University of Lisbon, 2003
29. Jorge Brites, On Line School Newspapers - Study of a Multimedia Architecture, Open University, 2004
30. Renato Albuquerque, Sites of Secondary Schools in the Setubal district, Open University, Portugal, 2004
31. José Revez, Hypermedia for Teaching of the Planar Linear Perspective, Open University, Portugal, 2005

Membro de Juris e Concursos Académicos

Participation in “Agregação” Committees: 8
Participation in Doctoral Committees: 28
Participation in Masters Committees: 96
Participation in other Academic and Administrative Selection Committees: 14

Overall participation in Academic Committees: 146

Of these, at Faculdade de Ciências da Universidade de Lisboa: 19
At Instituto Superior Técnico: 52
At Universidade Aberta: 38
At other institutions: 30

Additional Participations as Chairman of the Committee (Representing FCUL): 115


[list of MSc, PhD candidates available]
<table>
<thead>
<tr>
<th>Organization and Review</th>
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<tbody>
<tr>
<td><strong>1.</strong> Technical Chair of the ERCIM meeting User Interfaces and Multimedia, Nov 1991, Lisbon, Portugal</td>
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<tr>
<td><strong>2.</strong> PC European Conference on Hypertext, ECHT'92, ACM, Dec 1992, Milano, 1992, Italy</td>
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<td><strong>3.</strong> PC Vienna Conference on Human Computer Interaction (VCHCI), Sep 1993, Viena, 1993, Austria</td>
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<td><strong>4.</strong> PC 5th ACM Conference on Hypertext, Hypertext'93, Dec 1993, Seattle, WA, 1993, USA</td>
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<tr>
<td><strong>5.</strong> RC Conferência User Interface Software Technology 93, ACM, 1993, Atlanta, GA, USA, 1993, USA</td>
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<td><strong>6.</strong> Program Chair of the 6th ACM Conf on Hypertext, ECHT'94, Dec 1994, Scotland, UK, 1994, UK</td>
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<td><strong>8.</strong> RC Artificial Intelligence Portuguese Meeting Oct 1995, Funchal, Madeira, Portugal, 1995, Portugal</td>
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<td><strong>9.</strong> PC 2nd Intl Conference on Applications of Databases, ADB-95, Dec 1995, Sta Clara, CA, USA, 1995, USA</td>
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<td><strong>10.</strong> Chair of the 1ST CYTED-RITOS Intl Workshop on Groupware, CRiWG'95, Sep 1995, Lisbon, Portugal</td>
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<td><strong>12.</strong> PC Chair of the Object Oriented Portugal'96 Conference, Jul 1996, Lisbon, Portugal, 1996, Portugal</td>
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<td><strong>13.</strong> PC Workshop 2nd CYTED-RITOS Intl Workshop on Groupware, CRiWG'96, Puerto Varas, Chile, 1996</td>
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<td><strong>14.</strong> PC Basque Intl Workshop on Information Technology BIWIT'97, Feveireiro 1997, Bayonne, France</td>
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<td><strong>16.</strong> PC III Workshop em Sistemas Multimídia e Hipermedia (WoMHi97), May 1997, São Carlos-SP, Brasil</td>
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<td><strong>17.</strong> PC Workshop 3rd CYTED-RITOS Intl Workshop on Groupware, CRiWG'97, Oct 1998, Madrid, Spain</td>
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<td><strong>18.</strong> RC ACM Hypertext'98 Conference, May 1998, Pittsburgh, PA, USA, 1998, USA</td>
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<td><strong>19.</strong> PC Brazilian Symposium on Multimedia and Hypermedia Systems, May 1998, Rio de Janeiro, Brasil</td>
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<td><strong>21.</strong> RC Intnl Joint ACM Conf on Work Activities Coordination &amp;Collaboration, Feb 1999, SFrancisco, CA, USA</td>
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<td><strong>22.</strong> RC ACM Hypertext'99 Conference, 1999, Darmstadt, Alemanha, 1999, Germany</td>
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<td><strong>23.</strong> RC AACE Webnet 99, 1999, Hawaii, 1999, USA</td>
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<td><strong>26.</strong> PC Conference CRIWG'99, Oct 1999, Cancún, Mexico</td>
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<td><strong>28.</strong> PC CoopMedia2000 Workshop on Distributed and Cooperative Multimedia Systems, Coimbra, Jun 2000</td>
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<td><strong>29.</strong> PC 5th CYTED-RITOS Intl Workshop on Groupware, CRiWG2000, Out 2000, Funchal, Portugal</td>
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<td><strong>30.</strong> PC Webnet 2000, AACE, San Antonio, Texas, Nov 2000, USA</td>
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<td><strong>32.</strong> RC ACM 12th Conf on Hypertext and Hypermedia, Hypertext '01, Århus, Aug 2001, Denmark</td>
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<td><strong>33.</strong> PC 6th CYTED-RITOS Intl Workshop on Groupware, CRiWG2001, Sep 2001, Darmstadt, Germany</td>
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<td><strong>34.</strong> PC Webnet 2001, AACE, Orlando, Florida, USA, Oct 2001, 2001, USA</td>
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<td><strong>35.</strong> PC 4th Intl Conference on Enterprise Information Systems, Ciudad Real, Apr 2002, 2002, Spain</td>
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<td><strong>37.</strong> RC ACM Transactions on Knowledge and Data Engineering, 2002, 2002, (journal)</td>
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<td><strong>38.</strong> RC ACM Conf on Hypertext and Hypermedia, Hypertext '02,University of Maryland, June 2002, USA</td>
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<td><strong>39.</strong> RC Internet and Multimedia Systems and Applications (IMSA 2002), Hawaii, USA, 2002, 2002, USA</td>
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<td><strong>41.</strong> RC Association Editor of the Journal of Web Engineering, Rinton Press, 2002, (journal)</td>
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<tr>
<td><strong>42.</strong> RC ICEIS 2003 5th Intl Conf on Enterprise Information Systems, Angers, Apr 2003, France</td>
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<tr>
<td><strong>43.</strong> RC ACM Conference on Hypertext and Hypermedia, Hypertext 2003, August 2003, Nottingham, UK</td>
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<td><strong>44.</strong> RC EDMEDIA 2003 Honolulu, Hawaii, June 2003, 2003, USA</td>
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<td><strong>45.</strong> RC Elearn 2003, Phoenix, Arizona, November 7-11, 2003, 2003, USA</td>
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<tr>
<td><strong>47.</strong> RC ICCC/IFIP 7th Inrtnl Conf on Electronic Publishing, Guimarães, Jun 2003, Portugal</td>
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<td><strong>48.</strong> RC Workshop “New Developments in Digital Libraries”, NDDL 2003, Apr 2003, France</td>
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<td><strong>50.</strong> RC 12th Intl World Wide Web Conference - Education Alternate Track, Budapest, May 2003, Hungary</td>
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<td><strong>51.</strong> PC Chair of Coop-Media 2003 Workshop Cooperative Multimedia Info Systems, Porto, Oct 2003, Portugal</td>
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<td><strong>52.</strong> RC EDMEDIA 2004 Lugano, 2004, 2004, Switzerland</td>
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<td><strong>56.</strong> Session Chair, 5th Intl Workshop Image Analysis for Multimedia Interactive Services, Lisboa, Apr 2004, Portugal</td>
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<td><strong>57.</strong> RC 7th Eurographics Workshop on Multimedia, Nanjing University, Oct 2004, 2004, China</td>
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<tr>
<td><strong>59.</strong> RC Internet &amp; Multimedia Systems &amp; Applications (EuroIMSA2005), Grindelwald, Feb 2005, Switzerland</td>
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<td><strong>60.</strong> RC Intl Conference on Enterprise Information Systems, ICEIS 2005, Miami, Florida, 2005, USA</td>
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61. PC 20th Annual ACM Symposium on Applied Computing Santa Fe, New Mexico, 2005, USA
63. RC IASTED Intl Conf on Web Technologies, Applications and Services, Calgary, Jul 2005, Canada
64. RC ED-MEDIA 2005, Montreal, Jun 2005, 2005, Canada
68. RC IASTED Intl Conf on Internet and Multimedia Systems and Applications, Honolulu, Aug 2006, USA
69. RC IASTED Intl Conf on Web Technologies, Applications and Services, Calgary, Jul 2006, Canada
70. RC E-Learn 2006, Honolulu, Hawaii, Oct 2006, 2006, USA
71. RC ICEIS 2007 9th Intl Conference on Enterprise Information Systems, Funchal, Jun 2007, Portugal
72. RC IASTED Intl Conf on Internet and Multimedia Systems and Applications, Honolulu, USA, August 2007
73. RC ED-MEDIA 2007 - Educational Multimedia, Hypermedia & Telecom, Vancouver, Canada, June 2007
74. RC INTERACT 2007 HCI - 11th IFIP Intl Conf, Rio de Janeiro, Brazil, September 2007
75. RC E-Learn 2007-Conf on E-Learning in Healthcare, Higher Education, Quebec, Canada, October 2007
76. RC ED-MEDIA 2008 - Conf on Educational Multimedia, Hypermedia & Telecom, Vienna, June 2008
77. RC ACM Symposium on Applied Computing, Org. Eng. Track, Fortaleza, Ceará, Brazil, March 2008
78. RC SIGMAP - International Conf on Signal Processing and MMedia Applications, Porto, Portugal, July 2008
80. RC CollECTeR : 6th Collab Electronic Comm & e-Commerce Tech and Research, Madrid, Spain, June 2008
82. RC ICEIS 11th International Conf on Enterprise Information Systems, Milan, Italy, May 2009
84. RC INTERACT 2009 – 12th IFIP Conf on HCI, Uppsala, Sweden, August 2009
85. RC ED-MEDIA - Conf on Educational Multimedia, Hypermedia & Telecoms, Honolulu, HI, USA, June 2009