



Europass Curriculum Vitae

PhD thesis (*)

Annex A – Scientific contributions and related work

A Holistic Approach Towards Flexible Distributed Systems, Universidade de Aveiro, June 2006.
Citations: Total=3, Non-self=3, Self=0.

Book chapters

I. Lee, J. Leung, S. Son, "Handbook of Real-Time and Embedded Systems", participation in Chapter 19, Chapman & Hall/CRC, 2008.

Conference papers

As first author (*)

Calha, M.J., V.F. Silva, J.A. Fonseca, R. Marau "Kernel design for FTT-CAN systems", Proceedings of the 6th IEEE International Workshop on Factory Communication Systems (WFCS'06), Torino, Italy, Jun/2006.

Calha, M.J., V.F. Silva, J.A. Fonseca, "Real-time procedures in distributed systems", Proceedings of the 6th IFAC International Conference on Fieldbus Systems and their Applications (FeT 2005), Puebla, Mexico, November 2005.

Calha, M.J., J.A. Fonseca, "Data Streams – an Analysis of the Interactions Between Real-Time Tasks", Proceedings of the 10th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2005), Catania, Italy, September 2005. **Citations:** Total=2, Non-self=2, Self=0.

Calha, M.J., J.A. Fonseca, "Approaches to the FTT-based scheduling of tasks and messages", Proceedings of the 5th IEEE International Workshop on Factory Communication Systems (WFCS'04), Vienna, Austria, Sep/2004. **Citations:** Total=4, Non-self=3, Self=1.

Calha, M.J., J.A. Fonseca, "FTTlet based distributed system architecture", 2nd International Workshop on Real-Time LANs in the Internet Age (RTLIA2003), Porto, Portugal, July 2003. **Citations:** Total=1, Non-self=1, Self=0.

Calha, M.J., J.A. Fonseca, "SIMHOL – A graphical simulator for the joint scheduling of messages and tasks in distributed embedded systems", 5th IFAC International Conference on Fieldbus Systems and their Applications (FeT 2003), Aveiro, Portugal, July 2003. **Citations:** Total=3, Non-self=1, Self=2.

Calha, M.J., J.A. Fonseca, "Adapting FTT-CAN for the joint dispatching of tasks and messages", Proceedings of the 4th IEEE International Workshop on Factory Communication Systems (WFCS'02), Vasteras, Sweden, August 2002. **Citations:** Total=9, Non-self=3, Self=6.

M. Calha, J.P. Teixeira, I.C. Teixeira, "OOM Approach for HW/SW Co-analysis, Specification and Design of Heterogeneous Systems", Proceedings of the IMACS-IEEE Multiconference on Computational Engineering in Systems Applications (CESA'96), Lille, France, July, 1996.

M. Calha, J.P. Teixeira, I.C. Teixeira, "HW/SW Specification Using OOM Techniques", Proceedings of the 7th IEEE International Workshop on Rapid System Prototyping, pp.96-101, Thessaloniki, Greece, June, 1996. **Citations:** Total=2, Non-self=1, Self=1.

M. Calha, F.M. Gonçalves, M. Santos, I. Teixeira, J.P. Teixeira, "Test Specification of CMOS Digital Hardware : An Integrated Approach", Proceedings of the 2nd Archimedes Workshop on Synthesis of Testable Circuits (STC'95), pp. 43-45, Barcelona, Spain, February, 1995. **Citations:** Total=2, Non-self=0, Self=2.

M. Calha, M. Santos, F. Gonçalves, I. Teixeira, J.P. Teixeira, "Back Annotation of Physical Defects into Gate-Level, Realistic Faults in Digital ICs", Proceedings of the IEEE International Test Conference (ITC'94), pp. 720-727, Washington, U.S.A., October, 1994. **Citations:** Total=13, Non-self=11, Self=2.

M.B. Calha, I.C. Teixeira, "A Speller Board for Personal Computer", Procedures of the IEEE EUROASIC Conference, pp. 250-255, Paris, France, June, 1992.

As co-author (*)

A. Casimiro, J. Rufino, L. Marques, M. Calha, and P. Veríssimo, "Applying architectural hybridization in networked embedded systems," in The Seventh IFIP Workshop on Software Technologies for Future Embedded and Ubiquitous Systems, Newport Beach, USA, November 2009.

L. Marques, A. Casimiro, and M. Calha, "Design and development of a proof-of-concept platooning application using the hidenets architecture", in DSN '09: Proceedings of the International Conference on Dependable Systems and Networks, July 2009, pp. 223–228. **Citations:** Total=1, Non-self=0, Self=1.

Silva, V., R. Marau, L. Almeida, J. Ferreira, M. Calha, P. Pedreiras, J. Fonseca, "Implementing a distributed sensing and actuation system: The CAMBADA robots case study", Proceedings of the 10th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2005), Catania, Italy, September 2005. **Citations:** Total=18, Non-self=5, Self=13.

Fonseca, J.A., J. Ferreira, M. Calha, P. Pedreiras and L. Almeida (2002). "Issues on Task Dispatching and Master Replication in FTT-CAN", Africon'2002 – IEEE International Conference, George, South Africa, October 2002. **Citations:** Total=6, Non-self=1, Self=5.

J. A. Fonseca†, G.Rodrigues‡, H.Proença‡, J.Rodrigues‡; L.Barradas‡, J. Ferreira‡, M. Calha, "DI.SY.RE. – A Demonstrator for Distributed Industrial SYstems REmotely Controllable", Proceedings of the European Association for Education in Electrical and Information Engineering (EAEIE'2001), Nancy, France, May, 2001. **Citations:** Total=2, Non-self=2, Self=0.

O.P. Dias, M. Calha, I.C. Teixeira, J.P. Teixeira, "High Level Test Specification for SFT Using Object-Oriented Modeling Techniques", Proceedings of the IEEE European Test Workshop, Session 5, pp.135..., Montpellier, France, June, 1996.

J.B. Barbosa, M.B. Calha, I.C. Teixeira, "Searching Processor", Procedures of the IEEE EUROASIC Conference, pp. 167-170, Paris, France, May, 1991.

() Citations evaluated with Citation Impact Discerning Self-citations CIDS 2.2 (<http://cids.di.fc.ul.pt>) based on Google Scholar*

Conference posters

I.C. Teixeira, J.P. Teixeira, M. Calha, C. Pinto, "An Object-Oriented Approach for HW/SW Coanalysis and Codesign of Heterogeneous Systems", Poster do 21st CAVE Workshop, Sesimbra, Portugal, May, 1994.

Conference demonstrations

M. Calha, J.P. Teixeira, I.C. Teixeira, Demonstração da ferramenta "PH/S++ - Paradigma Hardware/Software Orientado por Objectos", Conference & Exhibition of the IEEE European Design and Test Conference (ED&TC'97), Paris, France, 1997.

Conference organizations

Member of the Organizing Committee

5th IFAC International Conference on Fieldbus Systems and their Applications (FeT 2003), Aveiro, Portugal, July 2003.

Member of the Program Committee

External reviewer for conference

INForum 2010, Embedded and Real-time Systems track, Universidade do Minho, 9 e 10 de Setembro de 2010.

REC'2010 - VI Jornadas sobre Sistemas Reconfiguráveis, Universidade de Aveiro, 4 e 5 de Fevereiro de 2010.

INForum 2009, Embedded and Real-time Systems track, Universidade de Lisboa, 10 e 11 de Setembro de 2009.

IECON 2009, 35th IEEE Annual Conference of the IEEE Industrial Electronics Society, Porto, Portugal, 3-5 November 2009. Papers reviewed=1.

RTNS'09, 17th International Conference on Real-Time and Network Systems, Paris, France, October 26-27, 2009. Papers reviewed=1.

INDIN 2009, 7th IEEE International Conference on Industrial Informatics, Cardiff, UK, 24-26 June 2009. Papers reviewed=1.

CSCWD 2009, 12th International Conference on Computer Supported Cooperative Work in Design, Santiago, Chile, April 22 – 24, 2009. Papers reviewed=1.

SRDS 2008, 27th International Symposium on Reliable Distributed Systems, Napoli, Italy, October 6-8, 2008. Papers reviewed=1.

DATE '08, Design, Automation and Test in Europe, Munich, Germany, March 10-14, 2008. Papers reviewed=1.

INDIN 2007, 5th International Conference on Industrial Informatics, Vienna, Austria, July 23-27, 2007. Papers reviewed=2.

ECRTS 2004, 16th Euromicro Conference on Real-Time Systems, Catania, Italy, June 2004. Papers reviewed=1.

Projects

Participation

HIDENETS - Highly DEpendable ip-based NETworks and Services, IST project 026979, from January 2007 until March 2009.

Participation in Work Package 6 – Experimental prototype.

Participants: Aalborg University Center for TeleInfrastruktur, Budapest University of Technology and Economics, Carmeq GmbH, Fujitsu Siemens Computers, LAAS-CNRS, Telenor, Fundação da Faculdade de Ciências da Universidade de Lisboa, Twente Institute for Wireless and Mobile Communications B.V. and Università degli studi di Firenze.

Objectives: To develop and analyze end-to-end resilience solutions for distributed applications and mobility-aware services in car-to-car communication scenarios with infrastructure service support.

DISCO - Distributed embeddable Systems for COntrol applications, sponsored by **SAPIENS99**, from Fundação para a Ciência e a Tecnologia, with ref. 34244/99, from September 2000 until September 2002.

Participants: Universidade de Aveiro (IEETA Instituto de Engenharia Electrónica e Telemática de Aveiro), Instituto Superior de Engenharia de Coimbra, Escola Superior de Tecnologia do Instituto Politécnico de Castelo Branco and Instituto de Engenharia Mecânica – IDEMEC.

Objectives: To investigate techniques and to develop solutions to improve flexibility and adaptability in distributed embedded control systems in order to reduce operation and maintenance costs while maximising the utilisation of system resources.