CURRICULUM VITÆ

LUIS ALMEIDA

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PERSONAL DATA

Name: Luís Miguel Pinho de Almeida

Place and date of birth: Coimbra, Portugal, 9th of November, 1965

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ACADEMIC DEGREES

- **PhD** in Electrical Engineering, University of Aveiro, 1999.
- *Licenciatura* in Electronics and Telecommunications Engineering, University of Aveiro, 1988.

PRESENT AND RECENT POSITIONS

- *Associate Professor*, Dep. of Electrical and Computer Engineering (DEEC), Faculty of Engineering of the University of Porto (FEUP), since December 2008.
- *Assistant Professor with Tenure*, Dept. of Electronics, Telecommunications and Informatics (DETI), previously Dep. of Electronics and Telecommunications (DET), University of Aveiro, February 2005 to December 2008.
- *Assistant Professor*, DET, University of Aveiro, from November 1999 to February 2005.
- *Invited Teaching Assistant*, DET, University of Aveiro, from December 1995 to November 1999.
- *Project Manager* at UNAVE - University of Aveiro Research and Training Association, Jan-Nov1995.
- *Engineer* at the Product Development Dep. of Vegatron, Aveiro and later *Product Manager*, Jan-Dec 1994.
- *Research Assistant*, DET, University of Aveiro, from January 1989 to December 1993.

OTHER RELEVANT POSITIONS AND AFFILIATIONS

- *President* of the Fiscal Council of the Portuguese Robotics Society (Sociedade Portuguesa de Robótica), since March 2015.

- *Guest Professor* on Embedded Systems. MDH – Mälardalen University, Västerås, Sweden. 1st of Oct 2014 to 30th Sept 2015 (also see *Visits*).

- *Member* of the **ECE Department Council**, University of Porto, since November 2014.

- *Member* of the **Comissão Especial de Engenharia de Sistemas Computacionais** (CE-ESC) of the Sociedade Brasileira de Computação (SBC), since October 2012.

- *Member* of the **Steering Committee** of the IEEE International Conference on Embedded and Real-Time Computing Systems and Application (RTCSA), September 2012 to August 2016.

- *Associate Editor* of the Journal of Systems Architecture, Elsevier, since July 2012.

- *Vice-Chair* of the EDAA Special Interest Group on Embedded Systems Design (EMSIG), since March 2012.

- *Coordinator*, Distributed and Real-Time Embedded Systems Lab (DaRTES), IT-Porto / DEEC - FEUP, since November 2010, and coordinator of the Networked Systems Group of IT-Porto, since February 2015.

- *Associate Editor* of the Journal of Real-Time Systems, Springer, since July 2010.

- *Trustee* of the RoboCup Federation, July 2008 – July 2016.

- *Founder* and *Member* of the **Steering Committee** of the International Workshop on Adaptive and Reconfigurable Embedded Systems (APRES), since 2007 to 2015.

- *Member* of several sub-committees of the **IEEE Technical Committee on Factory Automation**, since May 2007 (Real-Time Fault Tolerant Systems: 2007-2009; Networked Systems: 2014-2016; (co-Chair) Real-Time Systems: since May 2016).

- *Member* of the **Referees Association of MIUR** (Ministero dell'Istruzione, dell'Università e della Ricerca), Italy, since April 2003.

- *Vice-President* of the RoboCup Federation, from July 2011 to July 2013.

- *Member* of the **Scientific Board** of the Integrated Master in Electrical and Computer Engineering in the University of Porto, since January 2011 to February 2015.

- *President* of RoboCup Portuguese Committee, from July 2010 to December 2013.

- *Member* of the Executive Board of the **IEEE Technical Committee on Real-Time Systems**, being Chair of the Conference Affairs sub-committee, from December 2008 to February 2013.

- *Member* of the **Strategic Management Board** of the ArtistDesign Network of Excellence of the 7th Framework Program of the European Community, since January 2008 to March 2012.

- *Leader* of the **Real-Time Networks activity** of the ArtistDesign NoE, since January 2008 to March 2012.

- *Vice-President* of the Board of the Portuguese Robotics Society (Sociedade Portuguesa de Robótica), from February 2009 to February 2011.

- *Director of Studies* of the Integrated Master in Electronics and Telecommunications Engineering at DETI – University of Aveiro, from February to December 2008. (conducted the 1st degree certification for EUR-ACE in the University of Aveiro).

- *Vice-Director of Studies* of the Integrated Master in Electronics and Telecommunications Engineering at DETI – University of Aveiro, September 2007 to February 2008.

- *Member* of the **IFIP Working Group on Embedded Systems**, since January 2007.

- *Secretary* of the Board of the Portuguese Robotics Society (Sociedade Portuguesa de Robótica), since November 2006 to February 2009.

- *President* **of the General Assembly** of the Alumni Association of the University of Aveiro, since March 2006 to March 2009.

- *Member* of the **Executive Board** of the RoboCup Federation, from July 2004 to July 2008.

- *Member* of the **Scientific Committee** of the Fabrica de Ciência Viva (a science center) in Aveiro, from February 2004 to December 2008.

- *Coordinator*, Electronic Systems Lab (LSE), IEETA Research Unit, February 2003 to April 2009.

- *Member* of the Board of the **IEETA Research Unit at the University of Aveiro**, Feb 2003 to April 2009.

- *Counselour* of the IEEE Student Branch of the University of Aveiro between September 2002 and September 2004.

- *Responsible* for coordinating the DET image from January 2000 to August 2003.

- *Founder and 1st President* of the Board of the Alumni Association of the University of Aveiro between 1990 and 1993.

- *Founder and Vice-President* of the 1st IEEE Student Branch in Portugal (national-wide) between 1986 and 1987.

- *Senior Member* of the IEEE (number 02430148), IEEE membership since 1986.

HONORS AND AWARDS

- **Nominated for Best paper award:** Mohammad Ashjaei, Saad Mubeen, Moris Behnam, Luis Almeida, Thomas Nolte, "End-to-end resource reservations in distributed embedded systems", RTCSA 2016, 22th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications. August, 2016. (among 4 nominated papers)

- **Best poster award:** Sidney Carvalho, Luis Almeida, Ubirajara Moreno. Distributed Connectivity Management in Networks of Multiple Robots in Area Coverage Tasks. INForum 2016, 8th Simposium de Informática. Lisbon, Portugal. 8-9 September 2016.

- **ESEGUR OpenMind Award:** Sistema de video-vigilância com reconfiguração dinâmica e garantias de pontualidade (in Portuguese). Ranked first among 71 teams from 33 higher education institutions. November 2014.

- **Best poster award:** Hui Xia, João Reis, Luís Oliveira, Frederico Santos, Luís Almeida. Controlling transmissions to mitigate WiFi overloads. INForum 2014, 6th Simposium de Informática. Porto, Portugal. 4-5 September 2014.

- **Best paper award:** Hassan Shamalizadeh, Luis Almeida, Shuai Wan, Paulo Amaral, Senbo Fu, Shashi Prabh. Optimized thermal-aware workload distribution considering allocation constraints in data centers. GreenCom 2013, 4th IEEE Conference on Green Computing and Communications. Beijing, China. 20-23 August 2013.

- **Honorary member:** Granted by the Alumni Association of the University of Aveiro on the 10th of July of 2010 for the role carried out in founding the Association.

- **Best paper award:** F. Santos, L. Almeida, L. S. Lopes. Self-configuration of an Adaptive TDMA wireless communication protocol for teams of mobile robots. ETFA 2008, 13th IEEE Conference on Emerging Technologies and Factory Automation. Hamburg, Germany, 15-18 September 2008.

- **Best work-in-progress paper award:** Francesco Benzi, Tullio Facchinetti, Thomas Nolte, Luís Almeida. Towards the Powerline Alternative in Automotive Applications. Work-in-Progress Session of WFCS 2008 – 7th IEEE Workshop on Factory Communication Systems. Dresden, Germany. 21-23 May 2008.

- **Best paper award:** A. Antunes, P. Pedreiras, L. Almeida, A. Mota. Dynamic Rate Adaptation in Distributed Computer Control Systems. ANIPLA 2006 – International Congress of the Italian National Association for Automation, Rome, Italy, 13-15 November, 2006.

- **Best paper award:** M Barranco, L. Almeida, J. Proenza, G. Rodriguez-Navas. CANcentrate: an Active Star Topology for CAN Networks. WFCS 2004, IEEE 5th Workshop on Factory Communication Systems, Vienna, Austria. Sept 2004.

- **Best paper award:** L. Almeida, J. Fonseca. FTT-CAN: A Network-Centric Approach for CAN-based Distributed Systems. SICICA 2000, IFAC 4th Symposium on Intelligent Components and Instruments for Control Applications, Buenos Aires, Argentina, September 2000.

- **Engº Pinto Basto Award**, sponsored by Alcatel Portugal, for the highest average mark among all Electronics and Telecommunications Engineering students at University of Aveiro that graduated in 1988.

LECTURES AND SUPERVISIONS IN SEMESTER COURSES

At FEUP:

- Industrial Informatics, lab classes (1st sem, 11/12-13/14, 15/16-16/17).

- Real-Time Embedded Systems (PhD program), course organization, lectures (shared) (1st sem, 09/10-13/14, 15/16-16/17).

- Distributed Systems, course re-organization, lectures and lab classes (shared) (1st sem, 10/11-13/14, 15/16-16/17).

- Industrial Computing Architectures, course re-organization, lectures (shared) and lab classes (2nd sem, 10/11-16/17).

- Embedded Systems, course re-organization, lectures and lab classes (shared) (1st + 2nd sem, 10/11, 2nd sem 11/12-16/17).

- Systems and Automation, course re-organization, lectures (shared) in 2nd sem, 10/11 and lab classes (2nd sem, 10/11-13/14).

- Real-Time Embedded Systems, course re-organization, lectures (shared) and lab classes (1st sem, 09/10).

- Industrial Communications, course re-organization, lectures (shared) and lab classes (1st sem, 09/10).

- Automation, lab classes (2nd sem, 08/09).

At UA:

- Electrical Laboratory Techniques (introduction to electrical circuits and electrical measurements), lectures and lab classes (1st sem, 08/09-07/08).

- Real-Time Systems, course definition and organization, lectures and lab classes (1st sem, 08/09-07/08, 05/06-03/04).

- Electronics IV (microcontroller-based measurement and instrumentation systems), lectures (2nd sem, 07/08) and lab classes (2nd sem, 07/08-05/06).

- Communication Networks for Industrial Environments, course organization, lectures and lab classes (1st sem, 05/06).

- Computer Architecture I, lab classes (1st sem, 05/06-04/05).

- Introduction to Electrical Circuits, course organization, lectures and lab classes (2nd sem, 05/06-03/04).

- Computing Tools for Sciences and Engineering, lectures (1st sem, 03/04) and lab classes (1st sem, 03/04-02/03).

- Computer Interfaces and Peripherals, lab classes (1st sem, 02/03-00/01).

- Telecomunication Systems, lab classes (2nd sem, 01/02).

- Programming I (introduction to algorithms and Pascal programming), lab classes (1st sem 01/02).

- Programming, Data Structures and Algorithms (Pascal programming), lectures (2nd sem, 00/01-99/00) and lab classes (2nd sem, 00/01-96/97).

- Introduction to Informatics (programs for science and engineering), lab classes (1st sem, 99/00-97/98).

- Electronics I (simple linear electronic systems), lab classes (1st sem, 96/97).

- Instrumentation and Measurements, lab classes (2nd sem, 96/97, 95/96).

- Electronics III (non-linear electronic systems), lab classes (1st sem, 96/97, 95/96).

- Applied Mathematics, support classes (2nd sem, 94/95).

- Project (annual, 05/06-1, 03/04-96/97), co-supervision of over 20 last year projects, some of which in the scope of research projects and of teams representing the UA in mobile robotics competitions.

- Seminary (annual, 05/06, 02/03-00/01), co-supervision of 6 groups for future high school teachers concerning the use of microcontrollers and of mobile robotics for educational purposes.

- Pedagogical Practice (annual, 05/06, 01/02), supervision of 4 trainees, future high school teachers, in Esc. Sec. Emídio Navarro, Viseu.

At other institutions:

- Architecture and Design of Large-Scale Software Systems. MAP-I PhD program at University of Minho, Braga, Portugal. Course definition and lectures, jointly with two colleagues (1º sem, 07/08).

- Fault Tolerant Systems, Inst. Politécnico de Castelo Branco, Portugal, course definition, lectures and lab classes (2º sem, 00/01).

SHORT DURATION COURSES

[SC1]. L. Almeida. *Communications for Collaborative Mobile Robotics*. 2h lecture within the PhD course on Communications for Cyber-Physical Systems. MDH - Västerås, Sweden. 19-21 November, 2014.

[SC2]. L. Almeida, *Coordinating Autonomous Mobile Nodes*, PhD course at Scuola Superiore Sant'Anna, Pisa, Italy, 20 hours lectures, 20-22 January 2014.

[SC3]. L. Almeida, *Real-Time Communication for Embedded Systems*, MSc course at ENSIAS, Rabat, Morocco, 18 hours lectures, 18-20 December 2013.

[SC4]. L. Almeida, *Real-Time Networks*, PhD course at Linköping University, Linköping, Sweden, 18 hours lectures, 10-12 June 2013.

[SC5]. L. Almeida, *Real-Time Communication for Embedded Systems*, MSc course at ENSIAS, Rabat, Morocco, 18 hours lectures, 17-19 December 2012.

[SC6]. L. Almeida, *Real-Time Communication for Embedded Systems*, MSc course at ENSIAS, Rabat, Morocco, 18 hours lectures, 19-21 December 2011.

[SC7]. L. Almeida, *Real-Time Communication for Embedded Systems*, ArtistDesign Summer School in China 2011, Institute of Software – Chinese Academy of Sciences, Beijing, China, 6 hours lecture, 11-12 August 2011.
http://www.artist-embedded.org/artist/Overview,2239.html

[SC8]. L. Almeida, *Real-Time Systems Scheduling: Accessing Shared Resources / Message Scheduling on Networks / Challenges of Flexible Communication*, Participation in an MSc course at Universidad del Pays Vasco, Bilbao, Spain, 6h hours lectures, 3-4 May 2011.

[SC9]. L. Almeida, *Real-Time Communication for Embedded Systems*, MSc course at ENSIAS, Rabat, Morocco, 20 hours lectures, 20-22 December 2010.

[SC10]. L. Almeida and B. Bouyssounouse (organizers), *ARTIST Summer School in Morocco: Embedded and Real-Time Systems*, ArtistDesign NoE, ENSIAS, Rabat, Morocco. 11th-17th July 2010. http://www.artist-embedded.org/artist/Overview,1958.html

   a. L. Almeida, *Real-Time Communication in Embedded Systems*, lecture, 6 hours, 16th July 2010.

[SC11]. L. Almeida, *Real-Time Networks*, PhD course at Scuola Superiore Sant'Anna, Pisa, Italy, 20 hours lecture plus 10h lab, 26-30 April 2010.

[SC12]. L. Almeida, *Real-Time Communication for Embedded Systems*, MSc course at ENSIAS, Rabat, Morrocco, 18 hours lectures, 22-24 October 2009.

[SC13]. L. Almeida, *Real-Time Communication in Embedded Systems: Techniques, Technologies and Applications*, ArtistDesign Summer School in China 2009, Tsinghua University, Beijing, China, 6 hours lecture, 20-21 July 2009.

[SC14]. L. Almeida, P. Pedreiras, *Networks for Embedded Control Systems*, ArtistDesign Graduate Course on Embedded Control Systems: Theory and Practice, Pisa, Italy, 4 hours lecture plus 1h lab, 11th June 2009.

[SC15]. L. Almeida, *Networks for Embedded Control Systems*, ARTIST2 Summer School in China 2008, Shanghai, China, 6 hours lecture, 15th July 2008.

[SC16]. L. Almeida, *Real-Time Networks for Embedded Control Systems*, 1st European South American School on Embedded Systems, Buenos Aires, Argentina, 8 hours lecture, 21 to 24 August 2007.

[SC17]. L. Almeida, *Real-Time Networks for Distributed Embedded Systems*, PhD course at Scuola Superiore Sant'Anna, Pisa, Italy, 8 hours lecture and 4 hours laboratory, 2 to 4 May 2007.

[SC18]. L. Almeida, P. Pedreiras, R. Marau. *Real-Time Networks for Control Systems*, ARTIST2 1st European Laboratory on Real-Time and Control for Embedded Systems, Pisa, Italy, 4 hours lecture and 4 hours lab, 13 July 2006.

[SC19]. L. Almeida, *Real-Time Communications for Control Applications*, Summer Course at the Polytechnic University of Catalonia, Barcelona, Spain, 20 hours, 19-23 June 2006.

[SC20]. L. Almeida, *Real-Time Networks for Distributed Embedded Systems: A Focus on Operational Flexibility*, IFAC Summer School on Control, Computing and Communications, Prague, Czech Republic, 6 hours course, 28 June 2005.

[SC21]. L. Almeida, *Real-Time Networks for Distributed Embedded Systems*, within an MSc course at University of Pavia, Italy, 6 hours course, 2 to 4 May 2005.

[SC22]. L. Almeida, *Real-Time Networks*, satellite course of CBA 2004, Congresso Brasileiro de Automação, Gramado, Brasil, 8h course, 21-24 Sept 2004.

[SC23]. L. Almeida, *Real-Time Networks and Sensor Networks*, Summer School of the Universidad Carlos III, Madrid, Espanha., 2h course, 19-23 July 2004.

[SC24]. L. Almeida, *Real-Time Networks*, ARTIST Summer School, (see ARTIST project), Enna, Itália., 6h course, 5-9 July 2004.

[SC25]. L. Almeida, *Real-Time Networks*, within an MSc course at Universidad Nacional Autonoma de Mexico (UNAM), Mexico City, Mexico, 4 hours course, 20-22 Oct 2003.

[SC26]. L. Almeida, *Real-Time Networks*, within an MSc course at University of Pavia, Italy, 4 hours course, 31 March to 1 April 2003.

MAIN SCIENTIFIC AREA OF RESEARCH AND OTHER AREAS OF INTEREST

The main research interest is in *Real-Time Communication* and related traffic scheduling techniques. Particular attention is given to operational flexibility of communications and all the problems that arise when combining it with timeliness and safety guarantees, targeting the support for dynamic reconfiguration, composability and Quality-of-Service management. Two main lines have been explored, namely communications using wired networks that allow strong control over bandwidth usage, and wireless communications for teams of cooperating mobile robots that tolerate uncontrollable interferences. The former line focuses on protocols for dynamic and adaptive network resource reservations using hierarchical scheduling and resource management techniques. The latter focuses on distributed protocols that adapt to interference and reconfigure according to current needs, aiming to improve the effective usage of the wireless channel.

Other fields of interest are *Real-Time Operating Systems*, particularly task scheduling, *Autonomous Mobile Robotics*, concerning internal hardware/software control architectures, and *Teaching of Electronics* and *Computer Science*, mainly by means of students competitions and other hands-on activities.

POST-GRADUATION COMMITTEES AND OTHER EVALUTION WORK

(PhD committees)

[J1] PhD of Jesús Aísa Vicén. *Wireless Real-Time Communication in Tunnel-like Environments using Wireless Mesh Networks: The WICKPro Protocol.* Universidad de Zaragosa, Zaragoza, Spain, 22nd December, 2016.

[J2] PhD **proposal** - workplan and state of the art, José Carlos Nunes Fonseca, *Multiprocessor Scheduling and Mapping Techniques for Real-Time Parallel Applications*, Faculdade de Engenharia da Universidade do Porto, Portugal, 16th November, 2016.

[J3] PhD of Mohammad Ashjaei, *Real-Time Communication over Switched Ethernet with Resource Reservation*, Mälardålen University, Sweden, 10th of November, 2016. (co-supervisor)

[J4] PhD of Artem Burmyakov, *Schedulability Analysis of Multiprocessor Real-time Systems Using Pruning.* Universidade do Porto, Faculdade de Engenharia, Portugal, 12th of July, 2016.

[J5] PhD of Rómulo José Magalhães Martins Antão, *Type-2 Fuzzy Logic: Uncertain Systems' Modeling and Control.* Universidade de Aveiro, Portugal, 13th June, 2016.

[J6] PhD of Pasquale Buonocunto, *Body sensor networks for real-time limb motion tracking in tele-rehabilitation and tele-monitoring systems.* Scuola Superiore Sant'Anna, Pisa, Italy, 16th of May, 2016.

[J7] PhD of Luis Filipe Quaresma Nunes Oliveira, *Communications and Localisation for Cooperating Autonomous Mobile Robots.* Universidade do Porto, Faculdade de Engenharia, Portugal, 18th of February, 2016 (supervisor).

[J8] PhD of Ricardo Garibay Martinez. *A Framework for the Development of Parallel and Distributed Real-Time Embedded Systems*. Faculdade de Engenharia da Universidade do Porto, Portugal. 16th of February, 2016.

[J9] PhD of Svetlana Girs, *Relaying for Industrial Wireless Networks*, Mälardålen University, Sweden, 8th of February, 2016.

[J10] PhD of Milosh Stolikj. *Building Blocks for the Internet of Things.* Technical University of Eindhoven, Netherlands, 19th October, 2015.

[J11] PhD of Carlos Ernesto Rizzo Bobbio. *Propagation, Localization and Navigation in Tunnel-like Environments.* Universidad de Zaragosa, Zaragoza, Spain, 15th July, 2015.

[J12] PhD of Marco Wagner, *An adaptive Software and System Architecture for Driver Assistance Systems applied to truck and trailer combinations.* University of Koblenz Landau, Germany. 3rd of June, 2015.

[J13] PhD **proposal** - workplan and state of the art, *Dependability framework of real-time aquatic risks forecast systems*, Gonçalo João Vitorino de Jesus, Faculdade de Ciências da Universidade de Lisboa. Portugal, 29th of April, 2015.

[J14] PhD of José Manuel Silva dos Santos Marinho. *Real-time Limited Preemptive Scheduling*. Faculdade de Engenharia da Universidade do Porto, Portugal. 23rd of April, 2015.

[J15] PhD of Mohammad Hossein Fotouhi Ghazvini. *Reliable Mobility Support in Low-Power Wireless Networks*, Faculdade de Engenharia da Universidade do Porto, Portugal. 16th of April, 2015.

[J16] PhD of Stefan Groesbrink, *Adaptive Virtual Machine Scheduling and Migration for Embedded Real-Time Systems.* University of Paderborn, Germany. 20th of March, 2015.

[J17] PhD of Maria Luz Alvarez Gutierrez, *Metodología para la Generación Automática del Software de Sistemas de Control Distribuidos Reconfigurables.* Universidad del País Vasco, Spain, 13th of March, 2015 (in Spanish).

[J18] PhD of Rafia Inam, *Hierarchical scheduling for predictable execution of real-time software components and legacy systems*, Mälardålen University, Sweden, 17th of December, 2014.

[J19] PhD of Adrián Noguero Mucientes, *Metodología para el Diseño de Sistemas Ciber-Físicos Basada en Middleware*, Universidad del País Vasco, Spain, 1st of December, 2014 (in Spanish).

[J20] PhD of Hamdi Ayed, *Analysis and Optimization of Multi-cluster Avionics Networks*, Université de Toulouse, France, 27th of November, 2014.

[J21] PhD of José Araújo, *Design, Implementation and Validation of Resource-Aware and Resilient Wireless Networked Control Systems*, KTH Royal Institute of Technology, Sweden, 24th of October, 2014.

[J22] PhD of Muhammad Ali Awan, *Energy and Temperature Aware Real-Time Systems*, Faculdade de Engenharia da Universidade do Porto, Portugal, 16th of July, 2014.

[J23] PhD **proposal** - workplan and state of the art, *Fiabilidade e robustez da localização de robôs móveis*, Heber Sobreiro, Faculdade de Engenharia da Universidade do Porto, Portugal, 14th July, 2014.

[J24] PhD of Mikael Lindberg, *From Competitive to Cooperative Resource Management for Cyber-Physical Systems*, Lund University, Sweden, 9th of June, 2014.

[J25]   PhD of Frederico Miguel do Céu Marques dos Santos, *Architecture for real-time coordination of multiple autonomous mobile units*, Universidade de Aveiro, Portugal, 5th of June, 2014 (supervisor).

[J26]   PhD of João Pedro Gonçalves Crespo Craveiro, *Real-Time Scheduling in Multicore Time- and Space-Partitioned Architectures*, Faculdade de Ciências da Universidade de Lisboa, Portugal, 2nd of June, 2014.

[J27]   PhD of Gurulingesh Raravi, *Real-Time Scheduling on Heterogeneous Multiprocessors*, Faculdade de Engenharia da Universidade do Porto, Portugal, 11th of March, 2014.

[J28]   PhD of Bruno Ferreira, *Control and cooperation of marine vehicles*, Faculdade de Engenharia da Universidade do Porto, Portugal, 28th of February, 2014.

[J29]   PhD of Milton Cunguara, *On the Application of Control Techniques in Lossy Fieldbuses*, Universidade de Aveiro, Portugal, 18th of February, 2014.

[J30]   PhD of Tanísia de Carli Foletto, *Proposta de Estimador Não Linear Intermitente para Sistema de Controle Via Rede Sem Fio* (in Portuguese), Universidade Federal de Santa Catarina, Florianópolis, Barzil, 22nd of November, 2013.

[J31]   PhD of José Manuel da Silva Cecílio, *Operating Middleware and Timing Guarantees for Heterogeneous Sensor Networks*, Universidade de Coimbra, Coimbra, Portugal, 1st October 2013.

[J32]   PhD **proposal** - workplan and state of the art, *Communications and Middleware for Cooperating Heterogeneous and Autonomous Mobile Robots*, Luis Filipe Nunes Quaresma Oliveira, Faculdade de Engenharia da Universidade do Porto, Portugal, 5th of September, 2013 (supervisor).

[J33]   PhD **proposal** - workplan and state of the art, *Energy and Temperature Aware Real-Time Systems*, Muhammad Ali Awan, Faculdade de Engenharia da Universidade do Porto, Portugal, 18th July, 2013.

[J34]   PhD **proposal** - workplan and state of the art, *The Generalized Multiprocessor Periodic Resource Interface Model for Compositional Scheduling*, Artem Burmyakov, Faculdade de Engenharia da Universidade do Porto, Portugal, 18th July, 2013.

[J35]   PhD **proposal** - workplan and state of the art, *Integrating Dataflow and Non-Dataflow Real-time Application Models on Multi-core Platforms*, Hazem Ismail Abdel Aziz Ali, Faculdade de Engenharia da Universidade do Porto, Portugal, 18th July, 2013.

[J36]   PhD **proposal** - workplan and state of the art, *Real-Time Scheduling on Heterogeneous Multiprocessors*, Gurulingesh Raravi, Faculdade de Engenharia da Universidade do Porto, Portugal, 14th June, 2013.

[J37]   PhD of Domenico Sicignano, *Analysis, evaluation and improvement of RT-WMP for real-time and QoS wireless communication. Applications in confined environments*, Universidad de Zaragosa, Zaragoza, Spain, 1st March, 2013.

[J38]   PhD of Miguel Armando Migueis Pinto, *SLAM for 3D Map Building to be used in a Matching Localization Algorithm*, Faculdade de Engenharia da Universidade do Porto, Portugal, 18th January, 2013.

[J39]   PhD of Mike Holenderski, *Multi-Resource Management in Embedded Real-Time Systems*, Technical University of Eindhoven, Netherlands, 17th October, 2012.

[J40]   PhD of Hector Perez Tijero, *Integrating a Real-Time Model in Configurable Middleware for Distributed Systems*, University of Cantabria, Santander, Spain, 20th July, 2012.

[J41]   PhD **proposal** - workplan and state of the art, *Cooperation of multiple vehicles under communication constraints*, Bruno Ferreira, Faculdade de Engenharia da Universidade do Porto, Portugal, 16th July, 2012.

[J42]   PhD of Luis Henrique Ramilo Mota, *Common Framework for Cooperative Robotics: Applications in RoboCup*, Faculdade de Engenharia da Universidade do Porto, Portugal, 4th May, 2012.

[J43]   PhD of Orlando Moreira, *Temporal Analysis and Scheduling of Hard-Real Time Radios running on a Multi-Processor*, Technical University of Eindhoven, Netherlands, 10th January, 2012.

[J44]   PhD of Eduardo Resende Brandão Marques, *Runtime Programming*, Faculdade de Ciências da Universidade do Porto, Portugal, 21st October, 2011.

[J45]   PhD of Rafael Camilo Lozoya Gàmez, *Resource and Performance Trade-Offs in Real-Time Embedded Control Systems*, Universitat Politecnica de Catalunya, Barcelona, Spain, 19 July 2011.

[J46]   PhD of Rui Santos, *Enhanced Ethernet Switching Tecnology for Adaptive Hard Real-Time Applications*, Universidade de Aveiro, Portugal, 12 July 2011 (supervisor).

[J47]   PhD of Guillermo Rodríguez-Navas, *Design and Formal Verification of a Fault-tolerant Clock Synchronization Subsystem for the Controller Area Network*, University of the Balearic Islands, Palma, Spain, 27th November 2010.

[J48]   PhD of Danilo Tardioli, *Real-time Communication in Wireless Ad-hoc Networks: The RT-WMP Protocol*, University of Zaragoza, Zaragoza, Spain, 28th of October 2010.

[J49]   PhD of Petr Jurcik, *Real-time Communication over Cluster-tree Wireless Sensor Networks*, Czech Technical University, Prague, Czech Republic, 1st of October 2010.

[J50]   PhD of Manuel Barranco, *Improving Error Containment of Communication Subsystems Based on Controller Area Network (CAN) by Means of Adequate Star Topologies*, University of the Balearic Islands, Palma de Mallorca, Spain, 6th May 2010 (co-supervisor).

[J51]   PhD **proposal** - workplan and state of the art, *Técnicas de Controlo Adaptativo para Sistemas Embutidos Distribuídos*, Milton Armando Cunguara, Universidade de Aveiro, Aveiro, Portugal, 4th of May 2010.

[J52]   Licentiate Degree of Andreas Hjertström, *Information-Centric Development of Component-Based Embedded Real-Time Systems*, Mälardalen University, Västeras, Sweden, 11 December 2009 (opponent).

[J53]   PhD of Ricardo Marau, *Real-time communications over switched Ethernet supporting dynamic QoS management*, Universidade de Aveiro, Portugal, 13 November 2009 (supervisor).

[J54]   PhD of Valério Rosset, *Services for Safety-Critical Applications on Dual-Scheduled TDMA Networks*, Faculdade de Engenharia da Universidade do Porto, Portugal, 19th October, 2009.

[J55]   PhD of José Alexandre de Carvalho Gonçalves, *Modelação e simulação realista de sistemas no domínio da robótica móvel*, Faculdade de Engenharia da Universidade do Porto, Portugal, 14th September, 2009.

[J56]   PhD of José Luís Sousa de Magalhães Lima, *Construção de um modelo realista e controlo de um robô humanoide*, Faculdade de Engenharia da Universidade do Porto, Portugal, 27th July, 2009.

[J57]   PhD **proposal** - workplan and state of the art, *Radio Diversity and Resources Management for Wireless Sensor Networks*, Claro Noda, MAP-Tele PhD program, Universidade do Minho, Guimarães, Portugal, 13th of July 2009.

[J58]   PhD of Francisco Carlos Afonso, *Operating System Fault Tolerance Support for Real-Time Embedded Applications*, Universidade do Minho, Guimarães, Portugal, 15th June, 2009.

[J59]   PhD of Filipe de Faria Pacheco, *Intermediate-Level Protocols to Provide Quality of Service in Master/Slave Communication Infrastructures*, Faculdade de Engenharia da Universidade do Porto, Portugal, 16th February, 2009.

[J60]   PhD of Francisco Borges Carreiro, *Using the Ethernet Protocol for Real-Time Communications in Embedded Systems*, Universidade de Aveiro, Aveiro, Portugal, 28th February 2008.

[J61]   PhD of Elisabet Estévez Estévez, *Aportaciones al Ciclo de Ddesarrollo de Sistemas Distribuidos de Control Industrial* (in Spanish), Universidad del País Vasco, Bilbao, Spain, 14th December 2007.

[J62]   PhD of Traian Pop, *Analysis and Optimisation of Distributed Embedded Systems with Heterogeneous Scheduling Policies*, Linköping University, Linköping, Sweden, 11th June 2007 (opponent).

[J63]   PhD of Arnaldo Oliveira, *Especialização e Síntese de Processadores para Aplicação em Sistemas de Tempo-real* (in Portuguese), Universidade de Aveiro, Aveiro, Portugal, 8th June 2007.

[J64]   PhD of Carlos Insaurralde, *Nuevo Sistema Distribuido de Control para Aviónica. Aspectos Funcionales* (in Spanish), Universidad Complutense, Madrid, Spain, 25th May 2007.

[J65]   PhD of Hoai Hoang, *Enhancing the Performance of Distributed Real-Time Systems*, Halmstad University, Halmstad, Sweden, 14th May 2007 (opponent).

[J66]   PhD of Julian Proenza, *RCMBnet: A Distributed Hardware and Firmware Support for Software Fault Tolerance*, University of the Balearic Islands, Palma de Mallorca, Spain, 26th February 2007.

[J67]   PhD of Mário Calha, *A Holistic Approach Towards Flexible Distributed Systems*, Universidade de Aveiro, Portugal, 12th June 2006.

[J68]   PhD of Thomas Nolte, *Share-Driven Scheduling of Embedded Networks*, Mälardalen University, Västeras, Suécia, 5th May 2006 (opponent).

[J69]   PhD of Lino Marques, *Navegação de Robôs Móveis Usando Olfacto* (in Portuguese), Universidade de Coimbra, Portugal, 25th November 2005.

[J70]   PhD of Luís Ferreira, *A Multiple Logical Ring Approach to Real-time Wireless-enabled PROFIBUS Networks*, Universidade do Porto, Portugal, 22nd November 2005.

[J71]   PhD of Adrian Curic, *Implementing Lustre Programs on Distributed Platforms with Real-Time Constraints*, Université Joseph Fourier, Grenoble, França, 28th October 2005.

[J72]   PhD of João Carlos Rodrigues, *Arquitectura de Suporte ao Desenvolvimento de Protocolos de Comunicação de Tempo-Real* (in Portuguese), Faculdade de Ciências da Universidade de Lisboa, Portugal, 19th October 2005.

[J73]   PhD of Joaquim Ferreira, *Fault-Tolerance in Flexible Real-Time Communication Systems*, University of Aveiro, Portugal, 19th May 2005 (supervisor).

[J74]   PhD of Javier Silvestre, *Diseño, implementacion Y Evaluación de estrategias para el transporte de imágenes sobre redes industriales PROFIBUS* (in Spanish), Universidad Politecnica de Valencia, Valencia, Spain, 2 Dec 2004.

[J75]   PhD of Paulo Pedreiras, *Supporting Flexible Real-Time Communications on Distributed Systems*, Universidade de Aveiro, Portugal, 6 June 2003 (supervisor).

[J76]   Licentiate Degree of Thomas Nolte, *Reducing Pessimism and Increasing Flexibility in the Controller Area Network*, Mälardalen University, Västeras, Sweden, 12 May 2003 (opponent).

[J77]   PhD of Pau Marti, Analysis and Design of Real-Time Control Systems with Varying Control Timing Constraints, Universitat Politecnica de Catalunya, Barcelona, Spain, 26 Jul 2002.

(MSc committees)

[J78]   MSc of Tiago Silva Lopes, *Raspberry Pi based real-time controller*, Universidade de Aveiro, Portugal, 16th December, 2015.

[J79]   MSc of Diogo Andril da Silva Branco, *MSRP Resource Reservation for HaRTES Real-Time Switch*, Universidade de Aveiro, Portugal, 16th December, 2015.

[J80]   MSc Dissertation of Luis Feliphe Costa, *Aspetos de co-simulação de equipas de robôs*, Faculdade de Engenharia da Universidade do Porto, Portugal, 27th of July 2015 (supervisor).

[J81]   MSc of Tiago Fernando Alves de Freitas, *Agile Practices in Embedded Systems Development*, Universidade de Aveiro, Portugal, 3rd July, 2015.

[J82]   MSc of Ana Rita Fernandes Lobo Pereira, *Task management with a real-time operating system for an automated vehicle*, Faculdade de Engenharia da Universidade do Porto, Portugal, 26th of September 2014 (supervisor).

[J83]   MSc of Tiago Filipe Canedo Pinto da Silva, *Sistema de vídeo para ambientes inteligentes*, Faculdade de Engenharia da Universidade do Porto, Portugal, 18th of July 2014 (supervisor).

[J84]   MSc of Hui Xia, *Controlo de transmissão em redesWi-Fi para situações de sobrecarga*, Faculdade de Engenharia da Universidade do Porto, Portugal, 17th of July 2014 (supervisor).

[J85]   MSc of Ivo Alexandre Costa Alves Angélico, *Demonstrador para Switch Ethernet Tempo-Real*, Universidade de Aveiro, Portugal, 23rd July, 2013.

[J86]   MSc of Daniel Belém de Almeida Duarte, *Implementação de Serviços de Segurança para Comunicações Veiculares*, Universidade de Aveiro, Portugal, 23rd July, 2013.

[J87]   MSc of Miguel Alberto Ribeiro de Freitas Rodas, *Auto-Sincronização em Sistemas de Controlo Distribuídos*, Faculdade de Engenharia da Universidade do Porto, Portugal, 27 March 2013 (supervisor).

[J88]   MSc of Vasco Sotomaior, *Rede de Sensores Sem Fios Para Veículo Frigorífico e/ou Industria Alimentar Indoor*, Faculdade de Engenharia da Universidade do Porto, Portugal, 27 March 2013 (supervisor).

[J89]   MSc of João Pedro Ramos Reis, *Sistema de Vídeo Vigilância sobre Ethernet com QdS dinâmica*, Faculdade de Engenharia da Universidade do Porto, Portugal, 7 March 2013 (supervisor).

[J90]   MSc of Diego Armando Areias Mendes, *Controlador Adaptativo Baseado em Xenomai Lab*, Universidade de Aveiro, Portugal, 14th December, 2012.

[J91]   MSc of Ricardo Daniel Lopes Almeida, *Escalonadores de Prioridade Fixa em Multiprocessadores de tempo-real*, Universidade de Aveiro, Portugal, 14th December, 2012.

[J92]   MSc of José Bruno Figueiredo Domingues, *Sistema de monitorização e controlo remoto utilizando interface web*, Universidade de Aveiro, Portugal, 16th December, 2011.

[J93]   MSc of Hugo Ricardo da Conceição Cunha, *Sistema de diagnóstico OBD2/EOBD para viaturas automóveis*, Universidade de Aveiro, Portugal, 16th December, 2011.

[J94]   MSc of Carlos Eduardo Braga Ameixieira, *Desenvolvimento da Sub-Camada MAC IEEE 802.11p/1609.4*, Universidade de Aveiro, Portugal, 16th December, 2011.

[J95]   MSc of José Daniel Costa Varela, *Gigabit Ethernet Hardware Sniffer for Real-Time Systems*, Universidade de Aveiro, Portugal, 16th December, 2011.

[J96]   MSc of Rui Duarte Teixeira Henriques, *Driver de rede para sistemas distribuídos de tempo-real*, Faculdade de Engenharia da Universidade do Porto, Portugal, 13 July 2011 (supervisor).

[J97]   MSc of Ana Cristina Carvalho da Ponte, *Avaliação do Desempenho de Técnicas de Localização Relativa de Robôs Móveis Baseada no RSS em Ambientes Interiores*, Faculdade de Engenharia da Universidade do Porto, Portugal, 26 July 2010 (co-supervisor).

[J98]   MSc of André Soares Oliveira Leite, *Rede de sensores sem fios para veículo frigorífico e/ou indústria alimentar*, Faculdade de Engenharia da Universidade do Porto, Portugal, 26 July 2010 (supervisor).

[J99]   MSc of Luís Filipe Nunes Quaresma Oliveira, *Mobile Robot Navigation based on Ad-hoc RF Communication*, Universidade de Aveiro, Portugal, 27th November, 2009. (supervisor)

[J100] MSc of Pedro Samuel Nunes da Silva, *Caracterização experimental de comunicações Powerline em automóveis* (in Portuguese), Universidade de Aveiro, Portugal, 10th July, 2009. (supervisor)

[J101] MSc of Ricardo Filipe Teixeira Gomes, *Efficient implementation of a dominance protocol for wireless medium access*, Instituto Superior de Engenharia do Porto, Portugal, 11 November 2008.

[J102] MSc (pre-Bologna) of Manuel Pedro Macara Coutinho, *Integração Modular de Dispositivos de Entrada/Saída em Plataformas de Controlo Distribuído* (in Portuguese), Instituto Superior Técnico, Lisboa, Portugal, 6th October, 2008.

[J103] MSc of Ivo Alcantara Dias, *Rede Acústica Reconfigurável*, Faculdade de Engenharia da Universidade do Porto, Portugal, 24th July, 2008.

[J104] MSc of José Luis Rocha Melo, *Controlo Coordenado de Veículos Autónomos Submarinos e de Superfície*, Faculdade de Engenharia da Universidade do Porto, Portugal, 24th July, 2008.

[J105] MSc of Jelle Stuyvaert, *Underwater Acoustic Modem*, Faculdade de Engenharia da Universidade do Porto, Portugal, 24th July, 2008.

[J106] MSc of Fausto Filipe das Neves Dias Carramate, *Localização Relativa de Robôs Móveis Baseada no RSS de Comunicações RF* (in Portuguese), Universidade de Aveiro, Portugal, 8th July, 2008. (supervisor)

[J107] MSc of Marco António da Costa Gonçalves, *Reconfiguração Automática de Redes Inteligentes* (in Portuguese), Universidade de Aveiro, Portugal, 7th July, 2008. (supervisor)

[J108] MSc of Nuno Filipe Leite dos Santos, *Navegação de Veículo Submarino Autónomo em Rede Acústica Móvel* (in Portuguese), Faculdade de Engenharia da Universidade do Porto, Portugal, 28th March, 2008.

[J109] MSc (pre-Bologna) of Bertil Marques, *Aplicações Multimédia para Ambientes Industriais* (in Portuguese), Universidade do Porto, Portugal, 7th of February, 2007.

[J110] MSc (Brazil) of Lucas Wanner, *Suporte de Sistema Operacional para Redes de Sensores Sem Fios* (in Portuguese), Universidade Federal de Santa Catarina, Florianópolis, Brasil, 11th December, 2006.

[J111] MSc (pre-Bologna) of Sérgio Silva, *Arquitectura Estendida de Síntese de Comportamentos - Validação Experimental* (in Portuguese), Faculdade de Ciências e Tecnologia, Universidade de Coimbra, Portugal, 12 June 2003.

[J112] MSc (pre-Bologna) of Pedro Martins, *Concretização de uma Timely Computing Base* (in Portuguese), Faculdade de Ciências da Universidade de Lisboa, Portugal, 21 Feb 2003.

(other committees)

[J113] Habilitation to conduct research (HDR), Ahlem Mifdaoui, *Contributions to Performance Analysis of Networked Cyber-Physical Systems*, University of Toulouse III, France, 5th December, 2016.

[J114] Open position for Associate Professor in Information Processing Systems, Decrete n° 382/2016, Member of the committe, Scuola Superiore Sant'Anna, Pisa, Italy, 14th Nov, 2016.

[J115] Open position for Associate Professor in Information Processing Systems, Decrete n° 487/2015, President of the committe, Scuola Superiore Sant'Anna, Pisa, Italy, 13th Nov, 2015.

[J116] Assessment of pedagogical and scientific capacity for teachers of polytechnic institutes, Carlos Simplício, Instituto Politécnico de Leiria, 12th September, 2014.

[J117] Assessment of pedagogical and scientific capacity for teachers of polytechnic institutes, Rui Azevedo, Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto, 23rd Oct, 2012.

[J118] Assessment of pedagogical and scientific capacity for teachers of polytechnic institutes, Anabela Lopes, Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto, 11th May, 2012.

[J119] Assessment of pedagogical and scientific capacity for teachers of polytechnic institutes, Sérgio Santos, Instituto Superior de Engenharia do Porto, Instituto Politécnico do Porto, 11th May, 2012.

[J120] Open position for Assistant Professor in Embedded Systems, UFV-PA 2010/2619, specializing in Real-Time Embedded Software, External expert, Uppsala University, Uppsala, Sweden, May 2011.

[J121] Open position for Professor in Real-Time Systems specializing in Automotive Software Systems, re no 74-06, External rapporteur, Mälardalen University, Västeras, Sweden, August 2006.

POST-GRADUATION SUPERVISIONS

(on-going)

- **PhD supervisor** of Aqsa Aslam, Faculty of Engineering, University of Porto, Portugal, September 2015 to (on-going) (**Erasmus Mundus – Leaders competitive PhD grant** – international). Topic: Localization-based admission control for RATDMA in the scope of vehicular networks.

- **PhD supervisor** of Zahid Iqbal, Faculty of Engineering, University of Porto, Portugal, June 2013 to (on-going) (**FCT competitive PhD grant** – national). Topic: Dynamic and Adaptive Resource Reservation in Complex Distributed Systems.

- **PhD supervisor** of Luis Pinto, Faculty of Engineering, University of Porto, Portugal, and Carnegie Mellon University, USA, October 2011 to (on-going) (**CarnegieMellon/Portugal competitive PhD grant** – national). Became supervisor in may of 2014. Topic: Sensing Capacity for Improved Area Coverage by Teams of Cooperating Quadcopters. Co-supervisor: Anthony Rowe, Carnegie Mellon University, USA.

- **PhD co-supervisor** of André Moreira, Faculty of Engineering, University of Porto, Portugal, October 2011 to (on-going) (**FCT competitive PhD grant** – national). Became co-supervisor in the spring of 2013. Topic: Network Coding for constrained communication over multiple heterogeneous channels. Supervisor: Daniel Lucani, Aalborg University, Denmark.

- **PhD co-supervisor** of Luís Marques, University of Aveiro, Portugal, Jan 2008 to (on-going) (**FCT competitive PhD grant** – national). Topic: Design of adaptive safety critical applications based on the Flexible Time-Triggered Paradigm. Supervisor: Paulo Pedreiras, University of Aveiro.

(concluded Pos-Docs)

[PD1]. Luis Oliveira, researcher within IT-Porto, **19th February to 31st of March 2016**. Topic: Further developments of the ad-hoc self-synchronization protocol for team of mobile robots.

[PD2]. Ricardo Marau, researcher within the CodeStream project, **13th May to 31st of July 2015**. Topic: Development of a reliable multicast streaming protocol based on Network Coding and its integration in the laboratory demonstrator.

[PD3]. Alisson Brito, Professor at the Universidade Federal da Paraíba, João Pessoa, Brazil, visited the DaRTES Lab at FEUP, from **16th to the 31st of October 2014**, to conduct studies in co-simulation of multi-robot systems within the scope of an Erasmus Mundus grant.

[PD4]. Julio Cano, Pos-doc researcher within the CodeStream project, **1st April 2014 to 31st of March of 2015**. Topic: Development of a reliable multicast protocol for streaming applications, as well as of a laboratory demonstrator.

[PD5]. Iria Estevez Ayres, Professor at the University Carlos III, Madrid, Spain, visited the DaRTES Lab at FEUP, from **18th to the 21st of March 2014**, to discuss possibilities for collaboration in the area of management of online massive courses (MOOCs).

[PD6]. Martina Maggio, Pos-doc researcher at the University of Lund, Lund, Sweden, visited the DaRTES Lab at FEUP, from **4th to the 8th of March 2014**, to conduct joint work in dynamic bandwidth management in Ethernet links using competitive approaches.

[PD7]. Daniel Ferreira Coutinho, Professor at the Universidade Federal de Santa Catarina, Florianópolis, Brazil, visited the DaRTES Lab at FEUP, from **21st to the 29th of October 2013**, to conduct studies in networked control systems within the scope of the FCT-CAPES bilateral project *PICC – Communications and control co-design*.

[PD8]. Ubirajara Franco Moreno, Associate Professor at the Universidade Federal de Santa Catarina, Florianópolis, Brazil, visited the DaRTES Lab at FEUP, from **9th to the 31st of July 2013**, to conduct studies in networked control systems within the scope of the FCT-CAPES bilateral project *PICC – Communications and control co-design*.

[PD9]. Julian Proenza, Assitant Professor at the Universidad de las Islas Baleares, Palma de Mallorca, Spain, **11 April to 11 May of 2012**, collaboration on networks for dependable and real-time distributed embedded systems, within the scope of the Portuguese project Serv-CPS (PTDC/EEA-AUT/122362/2010) and the Spanish project FT4FTT (DPI2011-22992).

[PD10]. Ricardo Marau, invited assistant researcher within the iLAND project, **16 Nov 2009 to 30 June 2012**. Topic: Development of a deterministic and reconfigurable distributed platform to support the iLAND middleware and development of a laboratory demonstrator.

[PD11]. Moris Behnam, University of Porto, Portugal, **1 Feb 2011 to 31 Jul 2011** (iLAND grant – Artemis project). Topic: Hierarchical scheduling in Switched Ethernet.

[PD12]. Manuel Barranco, University of Porto, Portugal, **1 Oct 2010 to 28 Feb 2011** (FCT competitive Pos-Doc grant - national). Topic: Redundancy Strategy and Reliability Analysis of a new

Generation of Ethernet switches with strong temporal protections for Networked Embedded Systems.

[PD13]. Julian Proenza, Assitant Professor at the Universidad de las Islas Baleares, Palma de Mallorca, Spain, **1st of July to 1st of August 2010**. Continuation of the joint work in the field of networks for dependable and real-time distributed embedded systems in the scope of the Spanish research project CANbids (Ref: DPI2008-02195) and the ArtistDesign European Network of Excellence (ICT-NoE-214373).

[PD14]. Isidro Calvo, Assitant Professor at the Universidad del Pais Vasco, Victoria, Spain, visited the Electrical and Computer Engineering Department at University of Porto from **6 to 11 July 2009**. Continuation of the joint work in the scope of RT-CORBA, particularly towards the implementation of a synchronous scheduling service (following the FTT paradigm). Preparation of a journal paper.

[PD15]. João Perea Martins, Assistant Professor at the Universidade Estadual Paulista, Bauru, S. Paulo, Brazil, visited the Embedded Systems Lab at IEETA, from **22 June 2008 to 31 July 2008**, to conduct studies in sensor networks and associated protocols.

[PD16]. Iria Estevez, Assistant Professor at the Universidad Carlos III de Madrid, Spain, visited the Electronic Systems Lab at IEETA from **31 January to 29 February 2008**, to develop a working prototype of her dynamic service composition framework based on the FTT-SE protocol.

[PD17]. Isidro Calvo, Assitant Professor at the Universidad del Pais Vasco, Victoria, Spain, visited the Electronic Systems Lab at IEETA from **3 to 9 February 2008**. Continuation of the joint work in the scope of RT-CORBA, particularly towards the implementation of a synchronous scheduling service.

[PD18]. Federico Perez, Assistant Professor at the Universidad del Pais Vasco, Bilbao, Spain, visited the Electronic Systems Lab at IEETA from **1 of June to 30 of September 2007**, carrying out work in the scope of distributed industrial systems specified with the IEC 61499 standard, developing analytical tools to support holistic application design.

[PD19]. Javier Silvestre, Assistant Professor at the Universidad Politecnica de Valencia – Escuela Superior Politecnica de Alcoy, Spain, visited the Electronic Systems Lab at IEETA from **1 to 31 of July 2007**. Work carried out in the scope of adaptive distributed multimedia systems – bidimentional adaptation of a set of CBR channels and MJPEG sources, acting on the JPEG quantization factor and on the channel bandwidth.

[PD20]. Javier Silvestre, Assistant Professor at the Universidad Politecnica de Valencia – Escuela Superior Politecnica de Alcoy, Spain, visited the Electronic Systems Lab at IEETA from **1 June to 31 of July 2006**. Work carried out in the scope of adaptive distributed multimedia systems – adaptation of a VBR stream coming from an MJPEG encoder to a CBR channel, acting on the JPEG quantization factor .

[PD21]. Josep Fuertes, Full Professor at the Universidad Politecnica de Catalunya, Barcelona, Spain, visited the Electronic Systems Lab at IEETA from **16 to 30 November 2005** and from **1 to 15 February 2006**. Work carried out in the direction of flexible control systems with dynamic rate (jointly with the following).

[PD22]. Max Mauro Santos, Assitant Professor at the Universidade do Leste de Minas Gerais (Unileste MG), Brazil, visited the Electronic Systems Lab at IEETA from **1 November 2005 to 31 March 2006**. Work carried out in the direction of flexible control systems with dynamic rate.

[PD23]. Isidro Calvo, Assitant Professor at the Universidad del Pais Vasco, Bilbao, Spain, visited the Electronic Systems Lab at IEETA from **1 September 2005 to 31 January 2006**. Work carried out in the scope of RT-CORBA, particularly towards the implementation of a synchronous scheduling service (following the FTT paradigm).

(concluded PhDs)

[PhD1]. **PhD co-supervisor** of Mohammad Ashjaei, CORE – MRTC – IDT, Mälardalen University, Sweden, engaged in supervision in November 2014, concluded on 10th November 2016. *Real-Time Communication over Switched Ethernet with Resource Reservation*. Proposed different topologies, associated response time analysis and control protocols for multi-switch FTT-SE and HaRTES networks, being a significant contribution in the scope of Flexible Time-Triggered Switched Ethernet. Currently Pos-doc researcher at Mälardalen University, Västeras, Sweden.

[PhD2]. **PhD supervisor** of Luís Filipe Nunes Quaresma Oliveira, Faculty of Engineering, University of Porto, Portugal, April 2011 to February 2016 (Co-supervisor: Pedro Lima) (**FCT competitive PhD grant** – national). *Communications and Localisation for Cooperating Autonomous Mobile Robots*. Proposed an ad-hoc communication protocol that establishes a reconfigurable global TDMA framework that creates and destroys slots within a bounded round according to the current team membership and which is synchronized simply with nodes transmissions. Moreover, it also proposes relative localization mechanisms that use solely the RF transmissions and provide confidence information. Currently Pos-Doc researcher at the University of Pittsburgh, USA.

[PhD3]. **PhD supervisor** of Frederico Miguel do Céu Marques dos Santos, University of Aveiro, Portugal, 1st of Sep 2006 to 5th of June 2014 (co-supervisor: Luís Seabra Lopes) (**FCT competitive PhD grant** – national). *Design of adequate computing and communication architectures to support the real-time coordination of multiple autonomous robots*. Proposed a shared memory based middleware that decouples computations from communciations and provides the cooperating nodes local access to remote information via local proxies held in a replicated real-time database. The database replicas are synchronized with an adaptive TDMA communications protocol that reduces collisions at the medium access level. This work has been in use by several teams in the Middle Size League of RoboCup. Currently Professor at the Polytechnic Institute of Coimbra, Portugal.

[PhD4]. **PhD co-supervisor** of Ekain Asketa Ferreras, University of the Basque Country, Bilbao, Spain, Feb 2010 to 13th December 2013 (Supervisor: Marga Marcos). *Técnicas optimizadas de análisis y síntesis de sistemas de tiempo real distribuidos* (in Spanish). Proposed a new automatic synthesis method for CAN-based distributed systems, using Genetic Algorithm with a novel codification that allowed to optimze simultaneously the priorities assigned to tasks and messages while minimizing the number of nodes and of network segments needed to enforce schedulability. Moreover, also proposed a specific response-time analysis for CAN multi-packet messages that cross bridges, which is more efficient than other existing alternatives. Currently Research and Development Engineer at IK4-IKERLAN, Guipúscoa, Spain.

[PhD5]. **PhD supervisor** of Rui Gabriel Viegas dos Santos, University of Aveiro, Portugal, 1 October 2006 to 12 July 2011 (co-supervisor: Paulo Pedreiras) (**FCT competitive PhD grant** – national). *Enhanced Ethernet Switching Tecnology for Adaptive Hard Real-Time Applications*. Proposed a new design for an enhanced Ethernet switch that is capable of handling scheduled traffic according to the FTT paradigm together with unscheduled traffic, this one handled with a fully configurable hierarchy of servers that provides traffic isolation and delay guarantees in an open framework that is dynamically adatable and reconfigurable. Currently Research and Development Engineer at IMC Financial Markets, Singapore.

[PhD6]. **Host supervisor** and **PhD co-supervisor** of Manuel Alejandro Barranco Gonzàlez, University of Balearic Islands, Spain, concluded on 7 May 2010 (supervisor: Julian Proenza). Visited the Electronic Systems Lab at IEETA between the 1st of March 2004 to the 31st of July 2005. *Improving Error Containment and Reliability of Communication Subsystems Based on Controller Area Network (CAN) by Means of Adequate Star Topologies*. Contains two main contributions for reliable communication over CAN, namely the simplex star CANcentrate and the replicated star ReCANcentrate, being the first stars for CAN targeting improved dependability. The latter, in particular, has been the first replicated star proposed for CAN. Both stars were patented, designed, implemented, tested, modeled and formally analysed to support a quantitative reliability analysis. Currently Professor at the University of the Balearic Islands, Palma de Mallorca, Spain.

[PhD7]. **PhD supervisor** of Ricardo Roberto Duarte Marau, University of Aveiro, Portugal, 1 Jan 2005 to 13 November 2009 (co-supervisor: Paulo Pedreiras) (**FCT competitive PhD grant** – national). *Real-time communications over switched Ethernet supporting dynamic QoS management*. Expanded the Flexible Time-Triggered framework exploiting specific features of switched Ethernet, developed a low-level middleware for the exchange of global variables in a distributed system that supports dynamic QoS management. Currently partial-time Professor at the University of Aveiro, Portugal.

[PhD8]. **Host supervisor** and **PhD co-supervisor** of Iria Estevez Ayres, PhD student at the Universidad Carlos III de Madrid, Spain, concluded on 26 September 2007 (supervisor: Marisol Garcia-Valls). Visited the Electronic Systems Lab at IEETA from 1 March to 31 July 2006. *Técnicas de Soporte a la Flexibilidad Funcional en Sistemas Embarcados Distribuidos de*

Tiempo Real (in Spanish) Addresses the use of the service-oriented paradigm in distributed real-time systems including static and dynamic service composition. Contains several contributions related to the composition techniques and related figures of merit, as well as adequate architectures to support both cases, particularly the dynamic one, making use of an underlying flexible real-time network. Currently Professor at the University of Carlos III in Madrid, Spain.

[PhD9]. **Host supervisor** and **PhD co-supervisor** of Tullio Facchinetti, PhD student at the University of Pavia, Italy, (supervisor: Giorgio Buttazzo). Visited the Electronic Systems Lab at IEETA from 1 February to 31 July 2004. PhD concluded in June 2005. *Framework for Wireless Real-time Communication Among a Dynamic Set of Mobile Units*. Addresses the issues of dynamic team composition in a TDMA-like communication framework. Contains several contributions related to synchronization and flexible scheduling in ad-hoc wireless networks. Currently Professor at the University of Pavia, Italy.

[PhD10]. **PhD supervisor** of Joaquim Ferreira, University of Aveiro, Portugal, 1 Jan 2001 to 19 May 2005 (co-supervisor: José A. Fonseca). *Fault-Tolerance in Flexible Real-Time Communication Systems*. Addresses the issues of combining operational flexibility with fault-tolerance in distributed real-time systems. Contains several contributions particularly relevant to Controller Area Network (CAN) technology and within the Flexible Time-Triggered on CAN framework. Currently Professor at the University of Aveiro, Portugal.

[PhD11]. **PhD supervisor** of Paulo Pedreiras, University of Aveiro, Portugal, 1 Jan 2000 to 6 June 2003 (co-supervisor: José A. Fonseca) (**FCT competitive PhD grant** – national). *Supporting Flexible Real-Time Communications on Distributed Systems*. Addresses the issues of combining operational flexibility with real-time guarantees in ditributed real-time systems. Contains several contributions to the Flexible Time-Triggered framework, both on CAN and Ethernet. Currently Professor at the University of Aveiro, Portugal.

(concluded MScs)

[MSc1]. **Host supervisor and co-supervisor** (supervisor: Julian Proenza) of Inés Álvarez Vadillo, MSc student at Universitat de les Illes Balears, Palma de Maiorca, Spain. Carried out the experimental work at FEUP, from February to July 2016 (concluded on the 5th October 2016) *Study of the Admission Control in the Flexible Time-Triggered and the Audio Video Bridging Communication Protocols.*

[MSc2]. **MSc supervisor** of José Carlos Menino de Barros e Castro, University of Porto – Faculty of Engineering, Portugal, October 2015 to July 2016. *Sistema Andon*. Work carried out in collaboration with Kathrein Automotive Portugal.

[MSc3]. **MSc supervisor** of António Miguel Baldaia Moreira de Sousa, University of Porto – Faculty of Engineering, Portugal, October 2015 to July 2016. *Easy Peripherals for the Internet of Things*. Work carried out in collaboration with the Fraunhofer AICOS Portugal.

[MSc4]. **Host supervisor** of Luis Feliphe Costa, MSc student at Universidade Federal da Paraíba, João Pessoa, Brazil. Carried out his MSc dissertation at FEUP, from February to August 2015. *Aspetos de co-simulação de equipas de robôs.* (Issues in co-simulation of multi-robot systems).

[MSc5]. **MSc supervisor** of Ana Rita Lobo Pereira, University of Porto – Faculty of Engineering, Portugal, September 2013 to September 2014. Topic: Assessing the benefits of limited preemption in scheduling the tasks of an autonomous electric car. Work carried out in the Engineering School of São Carlos in Brazil, in the scope of a student exchange program.

[MSc6]. **MSc supervisor** of Tiago Filipe Canedo Pinto da Silva, University of Porto – Faculty of Engineering, Portugal, September 2013 to July 2014. Topic: Reconfigurable video system using the iLAND middleware for ambient intelligence scenarios.

[MSc7]. **MSc supervisor** of Hui Xia, University of Porto – Faculty of Engineering, Portugal, September 2013 to July 2014. Topic: Controlling transmissions in WiFi networks in overload scenarios.

[MSc8]. **MSc supervisor** of Vasco Sotomaior, University of Porto – Faculty of Engineering, Portugal, September 2012 to March 2013. Topic: Rede de Sensores Sem Fios Para Veículo Frigorífico e/ou Industria Alimentar.

[MSc9]. **MSc supervisor** of Miguel Alberto Ribeiro de Freitas Rodas, University of Porto – Faculty of Engineering, Portugal, September 2011 to March 2013. Topic: Auto-Sincronização em Sistemas de Controlo Distribuídos.

[MSc10]. **MSc supervisor** of João Pedro Ramos Reis, University of Porto – Faculty of Engineering, Portugal, September 2011 to March 2013. Topic: Sistema de Vídeo Vigilância sobre Ethernet com QdS dinâmica.

[MSc11]. **MSc supervisor** of Rui Duarte Teixeira Henriques, University of Porto – Faculty of Engineering, Portugal, March 2011 to July 2011. Topic: Network Driver for Distributed Real-Time Systems.

[MSc12]. **MSc co-supervisor** of Ana Cristina Carvalho da Ponte, University of Porto – Faculty of Engineering, Portugal, March 2010 to July 2010. Topic: Performance Assessment of Relative Localization Techniques of Mobile Robots based on the RSS in Indoor Environments (supervisor: António Paulo Moreira).

[MSc13]. **MSc supervisor** of André Soares Oliveira Leite, University of Porto – Faculty of Engineering, Portugal, September 2009 to February 2010 (Dissertation Preparation), and March 2010 to July 2010 (Dissertation). Topic: Wireless Sensor Network for a Refrigerator Truck and/or Food Industry (in cooperation with FoodInTech, Porto)

[MSc14]. **MSc supervisor** of Luis Oliveira, University of Aveiro, Portugal, September 2008 to November 2009. Topic: Mobile Robot Navigation based on Ad/hoc RF Communication (in cooperation with Zhejiang University, Hangzhou, China)

[MSc15]. **MSc supervisor** of Pedro Samuel Nunes da Silva, University of Aveiro, Portugal, October 2008 to July 2009. Topic: Experimental characterization of powerline communications in vehicles (in cooperation with University of Pavia and Mälardalen University, partly done at Pavia with an Erasmus grant)

[MSc16]. **MSc co-supervisor** of Nelson José Valente da Silva, University of Aveiro, Portugal, October 2007 to July 2008. Topic: Real-Time Kernel for cores embedded in FPGAs (supervisor: Arnaldo Oliveira).

[MSc17]. **MSc** of Marco Gonçalves, University of Aveiro, Portugal, October 2007 to July 2008. Topic: Automatic Reconfiguration of Intelligent Networks (in cooperation with PT-Inovação).

[MSc18]. **MSc** of Fausto Carramate, University of Aveiro, Portugal, October 2007 to July 2008. Topic: Navigation of autonomous agents in radio-frequency fields (in cooperation with Zhejiang University, China).

(all MSc above are within the Bologna process)

[MSc19]. **Host supervisor** and **MSc Co-supervisor** of Miguel Palomera, MSc student at the Universidad Nacional Autonoma de Mexico, Mexico, (supervisor: Hector Benitez-Perez). Visited the Electronic Systems Lab at IEETA from 1 April 2005 to 31 July 2005. MSc concluded in November 2005. Thesis entitled: *Desarrollo de un Sistema de Tiempo Real para Cómputo de Alto Desempeño* (in Spanish). Contains the holistic analysis of a particular distributed real-time system with a case study on an Adaptive Ressonance Application.

[MSc20]. **MSc supervisor** of Sérgio Pinheiro, University of Aveiro, Portugal, September 2003 to 28 September 2005. Thesis entitled: *Impacto da Rede de Comunicação em Sistemas de Controlo Distribuídos* (in Portuguese). Contains several experimental results on the impact of the network in the control performance of distributed control loops.

(hosting of external students - without thesis co-supervision)

[ES1]. **Host supervisor** of Sidney Carvalho, PhD student at Universidade Federal de Santa Catarina, Florianópolis, Brazil, during his visit to FEUP, from **March to November 2016**. Work on network impact on network topology control in teams of mobile robots.

[ES2]. **Host supervisor** of Daniel Ramos, PhD student at Universidade Federal de Santa Catarina, Florianópolis, Brazil, during his visit to FEUP, from **January to September 2015**. Work on network impact on the control of multi-robot systems, within the PICC project.

[ES3]. **Host supervisor** of Rafael Maestrelli, PhD student at Universidade Federal de Santa Catarina, Florianópolis, Brazil, during his visit to FEUP, from **December 2013 to November 2014**. Work

on control-scheduling co-design in distributed computer control systems, within the PICC project.

[ES4]. **Host supervisor** of Stefan Grösbrink, PhD student at University of Paderborn, Paderborn, Germany, during his visit to FEUP, from the 3rd of January 2013 to the 28th of February 2013. Work on hierarchical scheduling techniques for virtualization of multi-core systems.

[ES5]. **Host supervisor** of Shuguo Zhuo , PhD student at the Zhejiang University in Hangzhou, China, during his visit to FEUP, from the 22nd of July to the 1st of August 2012. Work on a new real-time MAC protocol for wireless sensor networks.

[ES6]. **Host supervisor** of Bernardo Ordoñez, PhD student at Universidade Federal de Santa Catarina, Florianópolis, Brazil, during his visit to FEUP, from the 15th of November 2011 to the 31st of May 2012. Work on synthesis of consensus algorithms based on optimization techniques.

[ES7]. **Host supervisor** of Augusto Oliveira, PhD student at Waterloo University in Waterloo, Canada, during his visit to FEUP, from the 10th of October 2010 to the 13th of November 2010. Work on real-time routing in switched Ethernet networks using tagging.

[ES8]. **Host supervisor** of Shantao Chen, MSc student at the Zhejiang University in Hangzhou, China, during his visit to FEUP, from the 3rd of April 2010 to the 30th of July 2010. Work on real-time routing within ZigBee wireless sensor networks using cluster-trees.

[ES9]. **Host supervisor** of Danilo Tardioli, PhD student at the University of Zaragoza, Spain, during his visit to FEUP, 1 April 2009 to 31 July 2009. Work on real-time wireless communication protocols for teams of mobile robots.

[ES10]. **Host supervisor** of Hongbin Li, PhD student at the Zhejiang University in Hangzhou, China, during his visit to the Electronic Systems Lab at IEETA, 1 April 2007 to 30 June 2007. Work on relative position determination of a set of autonomous mobile robots using signal strength of 802.15.4 communication, only.

[ES11]. **Host supervisor** of Pablo Basanta-Val, PhD student at the Universidad Carlos III de Madrid, Spain, during his visit to the Electronic Systems Lab at IEETA, 1 June to 31 October 2006. Work on the implementation of synchronous scheduling on RMI (FTT paradigm).

[ES12]. **Host supervisor** of Guillermo Rodriguez-Navas, PhD student at the University of Balearic Islands, Spain, during his visit to the Electronic Systems Lab at IEETA, 1 June to 15 July 2003. Work on fault-tolerance within the FTT-CAN framework.

(other)

[ES13]. **Supervisor** of Ana Rita Lobo Pereira, research contract in the scope of the CodeStream project, 1st of October 2014 to 28th February 2015. Application of scheduling approaches to the management of retransmissions and feedback in video streaming in a reliable multicast protocol.

[ES14]. **Supervisor** of João Pedro Ramos Reis, research contract in the scope of the CodeStream project, 17 April 2013 to 30 September 2014. Application of the FTT-SE protocol to a dynamic Quality of Sevice management scenario in video surveillance. Improvements in the Reconfigurable and Adaptive TDMA protocol framework.

[ES15]. **Supervisor** of Zahid Iqbal, research contract in the scope of the SENODS project, 17 Sept 2012 to 31 May 2013. Use of real-time hierarchical communications in data centers.

[ES16]. **Supervisor** of Shuai Wan, research contract in the scope of the SENODS project, 16 May 2011 to 31 January 2013. Analysis of temperature models in Data Centers and layout optimization.

[ES17]. **Supervisor** of Zahid Iqbal, research contract in the scope of the iLAND project, 25 Feb 2011 to 30 Aug 2012. Construction of a demonstrator. Focus on server based scheduling of asynchronous communications on top of FTT-SE.

[ES18]. **Supervisor** of Luis Oliveira, research contract in the scope of the SENODS project, 1 Dec 2010 to 31 March 2011. Definition of an architecture for a WSN-based monitoring system to capture environmental and operational parameters of a Data Center.

[ES19]. **Supervisor** of Farahnaz Yekeh, research contract in the scope of the iLAND project, 1 Oct 2010 to 31 Dec 2010. Construction of a demonstrator. Focus on distributed resource reservations.

[ES20]. **Supervisor** of Luis Oliveira, research contract in the scope of the PCMMC project, 1 Jan 2010 to 30 Nov 2010. Development of a middleware and wireless communication protocol for teams of mobile robots. Development of a relative localization service.

[ES21]. **Supervisor** of Pedro Silva, research contract in the scope of the iLAND project, 1 Oct 2009 to 30 Aug 2012. Development of a deterministic and reconfigurable communications platform.

[ES22]. **Supervisor** of Ricardo Jorge da Costa Leite, graduate contract in the scope of the ARTIST project, 11 Dec 2002 to 10 Dec 2003. Work within the FTT-Ethernet framework.

VISITS

[V1]. **Guest professor** at MDH – Mälardalen University (IDT School of Innovation, Design and Technology – Embedded Systems unit), Västerås, Sweden, 1st October 2014 to the 30th of September 2015. (grant from KKS, the Swedish Knowledge Foundation).

[V2]. **Visiting professor** at Universidade Federal de Santa Catarina (DAS – Automation and Systems Dep.), Florianópolis, Brazil, 19th of July to the 3rd of August 2014 (in the scope of the PICC project).

[V3]. **Visiting professor** at Universidade Federal de Santa Catarina (DAS – Automation and Systems Dep.), Florianópolis, Brazil, 16th to the 30th of November 2013 (in the scope of the PICC project).

[V4]. **Visiting professor** at Linköping University (IDA Dep. of Computer and Information Science), Linköping, Sweden, 9th to the 13th of June 2013. (local grant)

[V5]. **Visiting researcher** at Waterloo University (ECE Dep. Formal Methods Lab), Waterloo, Canada, 30 May to 11 June 2010. (grant from ArtistDesign NoE)

[V6]. **Visiting professor** in the Universitat de les Illes Baleares (Systems, Robotics and Vision group - SRV), Palma de Mallorca, Spain, 1 March to 6 April 2010. (grant from the UIB)

[V7]. **Visiting researcher** at Carnegie Mellon University (Real-Time and Multimedia Systems Lab), Pittsburgh, USA, 16-26 April 2008. (grant from the CMU|Portugal program)

[V8]. **Visiting researcher** at University of Pennsylvania (Computer Science Departament, Real-Time Systems group), Philadelphia, USA, 1-30 November 2006. (grant from Fundação Calouste Gulbenkian)

[V9]. **Visiting professor** in the Universitat de les Illes Baleares (Systems, Robotics and Vision group - SRV), Palma de Mallorca, Spain, 27 September to 25 October 2006. (grant from UIB)

[V10]. **Visiting researcher** at the RETIS Lab, Scuola Superiore Sant'Anna, Pisa, Italy, 24 March to 24 April 2003. (grant from Fundação Calouste Gulbenkian)

INVITED TALKS AND SEMINARS

[T1] L. Almeida. *Flexible Time-Triggered Switched Ethernet: Towards Flexible/Open Cyber-Physical Systems.* Keynote talk at the Real-Time Networks Seminar (FNRS 2016). Université Libre de Bruxelles, Belgium, 27th May 2016.

[T2] L. Almeida. *Controlar robôs nem sempre é fácil!* (in Portuguese). Invited talk in the scope of RoboParty 2016. Universidade do Minho, Guimarães, Portugal, 17th March 2016.

[T3] L. Almeida. *Communications for teams of cooperating robots.* Invited talk at the RoboCup MSL workshop, University of Aveiro, Portugal, 23rd November 2015. (available online at: https://www.youtube.com/watch?v=22lwkSKc2IU)

[T4] L. Almeida. *Flexible Time-Triggered Switched Ethernet: Towards Flexible/Open Cyber-Physical Systems.* Invited talk at the French Summer School on Real-Time Systems (ETR 2015). INRIA - University of Rennes, France, 28th August 2015.

[T5] L. Almeida. *Network Challenges in Cyber-Physical Systems.* Invited talk at KTH Royal Institute of Technology, Sweden, 28th January 2015.

[T6] L. Almeida. *Network Challenges in Cyber-Physical Systems.* Invited talk at Linköping University, Sweden, 26th January 2015.

[T7] L. Almeida. *Self-synchronizing to form teams of collaborating autonomous agents.* Invited talk at the final meeting of the KARYON FP7 project – Kernel-based Architecture for Safety-Critical Design. Borås, Sweden, 11th of December, 2014.

[T8] L. Almeida. *Virtualizing the Network to support Cyber-Physical Systems.* Invited talk at the Technical University of Eindhoven, Netherlands,31st October 2014.

[T9] L. Almeida. *Network Challenges in Cyber-Physical Systems.* Invited talk at Malardalen University, Sweden, 20th October 2014.

[T10] L. Almeida. *Network Challenges in Cyber-Physical Systems.* Invited talk at the 25th Anniversary of the Heinz Nixdorf Institute, Paderborn, Germany. 25th September, 2014.

[T11] L. Almeida. *Flexible Time-Triggered Switched Ethernet: Towards flexible/open Cyber-Physical Systems*. Invited talk at University of Lund, Sweden, 10th June 2014.

[T12] L. Almeida. *Collaborating with China 2005-2014*. Invited talk within the dissemination workshop of the DragonStar EU Project, Porto, Portugal, 14th May 2014.

[T13] L. Almeida. *Flexible Time-Triggered Switched Ethernet: current status and beyond*. Invoted talk at University of Koblenz-Landau, Koblenz, Germany, 8th May 2014.

[T14] L. Almeida. *Towards Flexible Distributed Computer Control Systems*. Seminar at the PICC project workshop, Universidade Federal de Santa Catarina, Florianópolis, Brazil, 20th Nov 2013.

[T15] L. Almeida. *Managing Communications within Robotic Teams*. RoboCup Tutorial, at RoboCup 2013, Eindhoven, Netherlands, 28th June 2013.

[T16] L. Almeida. *Network Challenges in Cyber-Physical Systems*. Invited talk at ISAE (Institut Superieur pour l'Aviation et l'Éspace), Toulouse, France, 30th May 2013.

[T17] L. Almeida. *Redes Industriais Sem Fios*. Seminário convidado no âmbito da disciplina SEAI (Sistemas de Engenharia e Automação Industrial) do MIEEC. 6 November 2012.

[T18] L. Almeida. *Collaborating with China 2005-2012*. Invited talk within at the session *EU Researchers: Experience in Collaborating with China,* ChinaAccess4EU Project Workshop, Porto, Portugal, 28 June 2012.

[T19] L. Almeida. *Network Challenges in Cyber-Physical Systems*. Keynote Speech at the 4th Workshop on Adaptive and Reconfigurable Embedded Systems (APRES 2012) – integrated in the CPSWEEK 2012, Beijing, China, 16 April 2012.

[T20] L. Almeida. *Network Challenges in Cyber-Physical Systems*. Advanced Disciplines Lectures, CCF (China Computer Federation) and ACM-China, Wuxi, China, 30 March – 1 April 2012.

[T21] L. Almeida. *Real-Time Networks*. ArtistDesign Special Session at DATE 2012, Dresden, Germany, 15th of March, 2012.

[T22] L. Almeida. *A Network-centric Perspective on Cyber-Physical Systems*. Dagstuhl Seminar on Cyber-Physical Systems, Dagstuhl, Germany, 2-4 November 2011.

[T23] L. Almeida. *On Cyber-Physical Systems*. EU-US Workshop on Networked Monitoring and Control, Brussels, Belgium, 28 June 2011.

[T24] L. Almeida. *When Time Becomes Real*. Seminar at the University of Aveiro, within the scope of the MAP-Tele PhD program, 18 Feb 2011.

[T25] L. Almeida. *Taming the Flexibility versus Safety Challenge in Distributed Embedded Systems*. Seminar at the Czech Technical University, Prague, Czech Republic, 1st of October 2010.

[T26] L. Almeida. *A Dynamic Scheduling Approach to Designing Flexible Safety-Critical Systems*. Seminar at McMaster University, Hamilton, Canada, 4th June 2010.

[T27] L. Almeida. *Taming the Flexibility versus Safety Challenge in Distributed Embedded Systems*. Seminar at the Technical University of Braunschweig, IDA Laboratory, Germany, 18th May 2010.

[T28] L. Almeida. *Robotics as Non-Formal Education: Some Examples from Portugal*. Invited talk at the Workshop on Robotics in Education, In the scope of the RoboCup Symposium 2010, Singapore, 25th June 2010.

[T29] L. Almeida. *Hierarchical Distributed Architectures for Autonomous Mobile Robots: A Case Study*. Invited talk at the Singapore Polytechnic, 16 March 2010.

[T30] L. Almeida. *The Robots Place Project*. Keynote Speech at ROBOFEST, Rulang Primary School, Singapore, 16 March 2010.

[T31] L. Almeida. *Robotics: A Powerful Didactic Tool*. Keynote Speech at ROBOFEST, Singapore Science Center, Singapore, 15 March 2010.

[T32] L. Almeida. *Networks and Middleware*. Seminar within the Advanced Real-Time Systems Course at Mälardalen University, Västeras, Sweden, 11 December 2009.

[T33] L. Almeida. *When Time Becomes Real*. Back to Basics Seminars in the scope of the PhD program at FEUP, Porto, 14th October 2009.

[T34] L. Almeida. *Mobile Cyber-Physical Systems*. ArtistDesign Summer School in Europe 2009, Autrans, France, 7-11 September 2009.

[T35] L. Almeida. *Taming the Flexibility versus Safety Challenge in Distributed Embedded Systems*. Seminar at the 1st tubs.CITY Symposium, Technical University of Braunschweig, Germany, 1-3 July 2009.

[T36] L. Almeida. *Networks and Middleware*. Seminar at European Community Embedded Systems Unit, organized by the ArtistDesign NoE, Brussels, Belgium, 18-19 June 2009.

[T37] L. Almeida. *A Dynamic Scheduling Approach to Designing Flexible Safety-Critical Systems*. Seminar at the CISTER research Unit, Polytechnic Institute of Porto, Portugal, 5 June 2009.

[T38] L. Almeida. *Has the time come to flexible safety-critical systems?* Final DySCAS Workshop (FP6-STREP project), Brussels, Belgium, 18 February 2009.

[T39] L. Almeida. *Challenges of flexible real-time communication*. Doctoral Program, Dep. of Automatic Control and Systems Engineering, University of the Basque Country, Bilbao, Spain, 21 January 2009.

[T40] L. Almeida. *Challenges of flexible real-time communication*. Doctoral School, DETI, University of Aveiro, Portugal, 24 October 2008.

[T41] L. Almeida. *Challenges of flexible real-time communication*. ARTIST2 Summer School in Europe 2008, Autrans, France, 8-12 September 2008.

[T42] L. Almeida. *Mobility Issues in Cyber-Physical Systems*. EU-US Workshop on Networked Information and Control Systems, Stockholm, Sweden, 16 June 2008.

[T43] L. Almeida. *Adaptive and reconfigurable communication for distributed embedded systems*. ArtistDesign meeting on Adaptivity, 13-14 May 2008.

[T44] L. Almeida. *Traffic scheduling issues in Distributed Embedded Systems*. Seminar at the University of Aveiro, within the scope of the MAP-Tele PhD program, 1 Feb 2008.

[T45] L. Almeida. *Fieldbuses for Real-Time Applications*. Seminar at the University of Pavia, Pavia, Italy, within a workshop on "Fieldbuses for Automotive: the Powerline Alternative", 24 January 2008.

[T46] L. Almeida. *A Holistic View at the Real-Time Issues within Robotic Soccer*. Seminar at the Universidad Nacional del Sur, Bahia Blanca, Argentina, 17 August 2007.

[T47] L. Almeida. *A Holistic View at the Real-Time Issues within Robotic Soccer*. Seminar at the Zhejiang University, Hangzhou, China, 28 June 2007.

[T48] L. Almeida. *CAN and the challenge of designing Safety-critical automotive systems*. Seminar at the Linköping University, Linköping, Sweden, 11 June 2007.

[T49] L. Almeida. *Towards Flexible Distributed Computer Control Systems*. Seminar at the Halmstad University, Halmstad, Sweden, 14 May 2007.

[T50] L. Almeida. *Designing Distributed Real-time Systems: a Focus on Holistic Time-Triggered Design*. Lecture within the Real-Time Systems Course, Computer Science Departament, University of Pennsylvania, Philadelphia, USA, 28 November 2006.

[T51] L. Almeida. *Traffic Scheduling Anomalies within Temporal Partitions.* Invited Lecture at the Computer Science Departament, University of Pennsylvania, Philadelphia, USA, 14 November 2006.

[T52] L. Almeida. *Brief Tour of Real-Time Embedded Networks.* Lecture within the Real-Time Systems Course, Computer Science Departament, University of Pennsylvania, Philadelphia, USA, 14 November 2006.

[T53] L. Almeida. *Sistemas Automotivos de Segurança Crítica: Novos Desenvolvimentos em CAN* (in portuguese). UniLeste-MG, Coronel Fabriciano, Minas Gerais, Brazil, 31st May, 2006.

[T54] L. Almeida. *Nós e Eles, os Robôs: Utilizações Didácticas da Robótica Móvel* (in portuguese). Rotary Club de Viseu. 27 March 2006.

[T55] L. Almeida. *Micro-Ratos e Outra Bicharada* (in portuguese). Escola Secundária Emídio Navarro de Viseu, 27 March 2006.

[T56] L. Almeida. *Safety-Critical Automotive Systems: New Developments in CAN*. DATE'06 Special session on Design Issues in Distributed, Communication-Centric Systems, Munich, Germany, March 10, 2006.

[T57] L. Almeida. *Towards Flexible and Safe Real-Time Communication*, presented within the panel Grand Challenges in Embedded Systems, ERTSI 2005, the Embedded Real-Time Systems Implementation Workshop, in conjunction with IEEE RTSS 2005, Miami, USA. 5th December 2005.

[T58] L. Almeida. *The challenges of operational flexibility in real-time communication*. Keynote Speech at the Real-Time Systems Workshop within CEDI 2005, the 1st Spanish Congress on Informatics, Granda, Spain, 15th September 2005.

[T59] L. Almeida. *Robotic Soccer: A Wealth of Real-Time Problems*. Keynote Speech at WTR 2005, the Brazilian Workshop on Real-Time Systems, 13th May 2005.

[T60] L. Almeida. *Do Safety-Critical Systems Really Need to Be Static?* DATE'05 Special session on Embedded Systems Design: An Emerging Unified Discipline, Munich, Germany, March 11, 2005.

[T61] L. Almeida. *Introduction to FTT-CAN: Flexible Time-Triggered communication over Controller Area Network*. Instituto Politécnico de Castelo Branco (IPCB), Castelo Branco, Portugal. 12 Feb 2004.

[T62] L. Almeida. *The Architecture of FTT-CAN: Flexible Time-Triggered communication over Controller Area Network*. Universidad Nacional Autonoma de Mexico (UNAM), Mexico City, Mexico. 24 Oct 2003.

[T63] L. Almeida. *Real-Time Networks: the case of CAN*. Benemerita Universidad Autonoma de Puebla (BUAP), Puebla, Mexico. 21 Oct 2003.

[T64] L. Almeida. *A brief presentation of the FTT-CAN protocol for Flexible Time-Triggered communication over Controller Area Network*. RETIS Lab, Scuola Superior Sant'Anna, Pisa, Italy, 28 March 2003.

[T65] L. Almeida. *The FTT-CAN protocol for Flexible Time-Triggered Communication over Controller Area Network: Why and How*. Faculdade de Ciências da Universidade de Lisboa (FCUL), Dep. de Informática, 19 Nov 2002.

[T66] L. Almeida, P. Fonseca, J.L. Azevedo. *Concurso Micro-Rato da Universidade de Aveiro: Uma Perspectiva Didáctica* (in Portuguese). Inst. Politécnico de Bragança, 11 May 2000; Inst. Politécnico de Castelo Branco, 15 Mar 2000; Inst. Politécnico de Leiria, 27 Oct 1999.

[T67] L. Almeida. *Apresentação do Concurso Micro-Rato da Universidade de Aveiro* (in Portuguese). Universidade de Coimbra, Dep. de Engenharia Electrotécnica e de Computadores, 11 Jul 1998.

PATENTS

[P1] Paulo Pedreiras, Rui Santos, Luis Almeida. Dynamic Real-Time Ethernet Switch – Comunicação Tempo-Real, Baseada em Tecnologia Ethernet, para Utilização em Sistemas Embutidos Distribuídos com Requisitos Estritos de Pontualidade. Instituto Nacional da

Propriedade Industrial, Direcção de Serviço de Patentes, Portugal. (Patent submitted – May 2013).

[P2] M. Barranco, L. Almeida, J. Proenza. Red de comunicaciones de protocolo CAN con topología en estrella replicada y procedimiento de acoplamiento de dicha red. Patente de Invencion nº 2270724, Oficina Española de Patentes y Marcas, Spain, September 2005.

[P3] J. Proenza, M. Barranco, G. Rodriguez-Navas, L. Almeida. Red de comunicaciones de protocolo CAN con topologia en estrella. Patente de Invencion nº 2253100, Oficina Española de Patentes y Marcas, Spain, 16th September 2004.

[P4] J. A. Fonseca, L. Almeida, P. Fonseca, A. Mota, J.-P. Thomesse. FTT-CAN – Protocolo para transmissão de dados flexível, disparável temporalmente, para barramento CAN (Controller Area Network) (FTT-CAN – Flexible Time-Triggered Protocol for CAN). Patente de Invenção Nº 102375, Instituto Nacional da Propriedade Industrial, Direcção de Serviço de Patentes, Portugal. 15 de Novembro de 1999.

THESIS

[Th1] L. Almeida. *Flexibility and timeliness in fieldbus-based real-time systems.* PhD Thesis, Universidade de Aveiro, 11th November 1999.

BOOK CHAPTERS

[BC1] Luis Almeida, Frederico Santos, Luis Oliveira. Structuring Communications for Mobile Cyber-Physical Systems. In Management of Cyber Physical Objects in the Future Internet of Things: Methods, Architectures and Applications. A. Guerrieri, V. Loscri, A. Rovella, G. Fortino (Eds), Springer, Series on Internet of Things, Vol. 1: ISBN 978-3-319-26867-5, 2016. (DOI: 10.1007/978-3-319-26869-9)

[BC2] Bernardo Ordoñez, Ubirajara F. Moreno, Jés Cerqueira, and Luis Almeida. Generation of trajectories using predictive control for tracking consensus with sensing and connectivity constraint. In *Cooperative Robots and Sensor Networks*, Anis Koubaa, Abdelmajid Khelil (Eds.), Springer, Series on Studies in Computational Intelligence, Vol. **507**:19-37. ISBN 978-3-642-39300-6, 2014. (DOI:10.1007/978-3-642-39301-3)

[BC3] António J. R. Neves, José Luís Azevedo, Bernardo Cunha, Nuno Lau, João Silva, Frederico Santos, Gustavo Corrente, Daniel A. Martins, Nuno Figueiredo, Artur Pereira, Luís Almeida, Luís Seabra Lopes, Armando J. Pinho, João Rodrigues and Paulo Pedreiras. CAMBADA soccer team: from robot architecture to multiagent coordination. in *Robot Soccer*, Vladan Papić (ed), INTECH, pp:19-46. ISBN 978-953-307-036-0, January 2010. (DOI: 10.5772/7353)
available online: http://www.intechopen.com/books/robot-soccer

[BC4] J.Pimentel, J.Proenza, L.Almeida, G.Rodríguez-Navas, M.Barranco, J.Ferreira. Dependable Automotive CAN Networks. in *Automotive Embedded Systems Handbook*, N. Navet and F. Simonot-Lion (ed). CRC Press / Taylor and Francis, ISBN: 9780849380266, December 2008.

[BC5] Pedreiras, P., Almeida, L.. Task Management for Soft Real-Time Applications Based on General Purpose Operating Systems. in *Robotic Soccer*, Pedro Lima (ed). I-Tech Education and Publishing, Vienna, Austria , ISBN 978-3-902613-21-9, Dec. 2007. (DOI: 10.5772/5134)
available online: http://www.intechopen.com/books/robotic_soccer

[BC6] L. Almeida, P. Pedreiras, J. Ferreira, M. Calha, J. A. Fonseca, R. Marau, V. Silva, E. Martins. On-line QoS adaptation with the Flexible Time-Triggered (FTT) communication paradigm. in *Handbook on Real-Time and Embedded Systems*, I. Lee, J. Y. Leung, S. Son (ed). CRC Press, ISBN: 9781584886785, July 2007.

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[CN12] Julio Cano, Luis Almeida. Streaming video to large number of clients using WiFi multicast with scheduled acknowledgements. Poster at INforum2014 – Simposium de Informática. Porto, Portugal. 4-5 September 2014.

[CN13] Zahid Iqbal, Luis Almeida. Hierarchical Virtual Channels on Ethernet. StudECE 2013 – 2nd PhD Students Conference in Electrical and Computer Engineering. University of Porto, Porto, Portugal. 26 June, 2013.

[CN14] João Reis, Luis Almeida. Dynamic QoS Management of an Ethernet-based Video Surveillance System. IJUP 2013 – 6º Encontro de Investigação Jovem da Universidade do Porto. Porto, Portugal. 13-15 February, 2013.

[CN15] Vasco Sotomaior, Luis Almeida. Wireless Sensor Network for Refrigerated Vehicles and/or the Food Industry. IJUP 2013 – 6º Encontro de Investigação Jovem da Universidade do Porto. Porto, Portugal. 13-15 February, 2013.

[CN16] Pedro Silva, Ricardo Marau, Luis Almeida. Experimental validation of temporal isolation among dynamic communication channels. Poster session at INForum 2012 – 3º Simposium de Informática. Lisboa, Portugal. 6-7 Setembro 2012.

[CN17] Bernardo Ordoñez, Luis Oliveira, Ubirajara F. Moreno, Jés Cerqueira, Luis Almeida, *Utilização de Protocolo de Comunicação para Sincronização das Mensagens para Controle Cooperativo Baseado em Consenso*, CBA 2012, Congresso Brasileiro de Automação, Campina Grande, Brasil, 2-6 Sept 2012.

[CN18] I. Calvo, E. Portillo, O. García, A. Armentia, M. Marcos, E. Estévez, R. Marau, L. Almeida, P. Pedreiras. Modelado de infraestructura para la composición y reconfiguración de sistemas distribuidos. Poster presented at XXXII Jornadas de Automática ISBN: 978-84-694-6454-0, Sevilla, España (in Spanish), September 2011.

[CN19] L. Marques, V. Vasconcelos, P. Pedreiras, L. Almeida, V. Silva. Towards Efficient Transient Fault Handling in Time-Triggered Systems. InForum 2011, Simpósio de Informática, Coimbra, Portugal, 8-9 September, 2011.

[CN20] Luís Oliveira, Hongbin Li, Luis Almeida. Experiments with navigation based on the RSS of wireless communication. ROBOTICA 2010 – 10th Conf. on Mobile Robots and Competitions, Leiria, Portugal, 24 March 2010.

[CN21] Rui Santos, Alexandre Vieira, Ricardo Marau, Paulo Pedreiras, Arnaldo Oliveira, Luis Almeida. Architectural Solutions for Server Scheduling Communication within Ethernet Switches. proc. of REC'10 – Jornadas sobre Sistemas Reconfiguráveis, Aveiro, Portugal, Feb 2010.

[CN22] João E. M. Perea Martins, Luís Almeida, Paulo Pedreiras. Análise da Conectividade e Distribuição de Carga em Redes de Sensoriamento com Colocação Aleatória de Nós (in portuguese). SBAI 2009 - 9th Brasilian Symposium on Intelligent Automation. Brasília, Brasil. 20-23 Sept 2009.

[CN23] Rui Santos, Ricardo Marau, Arnaldo Oliveira, Paulo Pedreiras, Luis Almeida. FPGA-based Implementation of an Ethernet Switch for Real-Time Applications. proc. of REC'09 – Jornadas sobre Sistemas Reconfiguráveis, Monte da Caparica, Portugal, Feb 2009.

[CN24] Arnaldo Oliveira, Luís Almeida, António Ferrari, "ARPA-MT – A Customizable Processor for Embedded Real-time Systems", proc. of REC'08 – Jornadas sobre Sistemas Reconfiguráveis, pp. 69-74, Braga, Portugal, Feb 2008.

[CN25] Milton Ruas, Carlos Silva, Paulo Pedreiras, Luís Almeida, Armando Pinho. Robotic Football Player Simulator Using Synthesized Images, ROBOTICA 2005, APCA Encontro Científico do 5º Fest. Nac. de Robótica Móvel, Coimbra, Portugal, April 2005.

[CN26] J. Vieira, J. Fonte, D. Gonçalves, L. Almeida. Localização de Fontes Sonoras com Tolerância a Ambientes Reverberantes, ROBOTICA 2003, APCA Encontro Científico do 3º Fest. Nac. de Robótica Móvel, Lisboa, Portugal, April 2003.

[CN27] V. Silva, F. Santos, L. Almeida. Auto-Localização em Pequenos Robôs Móveis e Autónomos: O Caso do Robô Bulldozer IV, ROBOTICA 2002, APCA Encontro Científico do Fest. Nac. de Robótica Móvel, Aveiro, Portugal, April 2002 (selected for journal).

[CN28] J. Vieira, J. Reis, P. Santos, L. Almeida. Detecção de Fontes Sonoras e Obstáculos Usando Técnicas de Correlação, ROBOTICA 2001, APCA Encontro Científico do Fest. Nac. de Robótica Móvel, Guimarães, Portugal, Abril 2001.

[CN29] J. Capucho, L. Almeida, G. Buttazzo. Using a Real-Time Kernel to Simulate the Micro-Rato Robotics Contest, ROBOTICA 2001, APCA Encontro Científico do Fest. Nac. de Robótica Móvel, Guimarães, Portugal, Abril 2001 (selected for journal).

[CN30] José A. Fonseca, Alexandre Mota, Pedro Fonseca, Luís Almeida, Fernando Santos. Controlo de Acessos com base em Barramentos de Campo, 1º Congresso Luso-Moçambicano de Engenharia, Maputo, Moçambique, Setembro de 1999.

JOURNAL PAPER REVIEWING

(more than 10 reviews)

[R1] *Journal of Real-Time Systems*, Springer (**AE**): 2016-2010 (22)

[R2] *Journal of Real-Time Systems*, Kluwer and then Springer (Reviewer): 2016-1999 (18)

[R3] *Transactions on Industrial Informatics*, IEEE Industrial Electronics Society: 2016- 2005 (18)

[R4] *Journal of Systems Architecture*, Elsevier (**AE**): 2016-2014 (12)

(4-10 reviews)

[R5] *Transactions on Industrial Electronics*, IEEE Industrial Electronics Society: 2013-2004 (10)

[R6] *Journal of Systems Architecture*, Elsevier (Reviewer): 2014-2003 (9)

[R7] *Transactions on Embedded Computing Systems*, ACM: 2009-2002 (8)

[R8] *Transactions on Computers*, IEEE Computer Society: 2014-2012 (6)

[R9] *Transactions on Parallel and Distributed Systems*, IEEE Computer Society: 2016-2000 (4)

(1-3 reviews)

[R10] *Controle e Automação*, Sociedade Brasileira de Automação: since 2010 (3)

[R11] *Journal of Computer Networks & Communications*, Hindawi Publishing Corp: 2016-2015 (2)

[R12] Software: Practice and Experience, Wiley InterScience: since 2014 (2)

[R13] *Studies in Computational Intelligence*, Springer: since 2012 (2)

[R14] Journal of Zhejiang University Science C - Computers & Electronics: 2012-2008 (2)

[R15] *Embedded Systems Letters*, IEEE Computer Society: 2011-2009 (2)

[R16] *Transactions on Information and Systems*, IEICE: 2008-2006 (2)

[R17] *ISA Transactions*, ISA Society: 2005-2004 (2)

[R18] IFAC *Control Engineering Practice*, Elsevier Sience: 2001-1999 (2)

[R19] *Journal of Systems and Software*, Elsevier Science: 2015 (1)

[R20] *Chinese Journal of Aeronautics,* Elsevier: 2014 (1)

[R21] *Scientific World Journal*, Hindawi Publishing Corp: 2014 (1)

[R22] *Journal of Intelligent Robotic Systems*, Springer: 2013 (1)

[R23] *The Computer Journal*, British Computer Society, Oxford University Press: 2013 (1)

[R24] Review of book proposal, CRC Press: 2012 (1)

[R25] *Concurrency and Computation: Practice and Experience*, John Wiley & Sons: 2010 (1)

[R26] *Mathematical Problems in Engineering*, Hindawi Publishing Corporation: 2010 (1)

[R27] *International Journal of Computers and Applications*, ACTA Press / IASTED: 2008 (1)

[R28] *Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering,* Professional Engineering Publishing: 2007 (1)

[R29] *Journal of Embedded Computing*, Elsevier Science: 2005 (1)

[R30] *International Journal of Production Research*, Taylor & Francis: 2004 (1)

[R31] *Proceedings of the IEEE*, IEEE Press: 2004 (1)

[R32] *Microprocessors and Microsystems*, Elsevier Science: 2003 (1)

[R33] *Transactions on Fuzzy Systems*, IEEE Press: 2002 (1)

[R34] *IEEE Micro*, IEEE Computer Society: 2002 (1)

[R35] *Transactions on Software Engineering*, IEEE Computer Society: 2001 (1)

[R36] *Journal of System Integration*, Elsevier Sience: 2001 (1)

PARTICIPATION IN SCIENTIFIC EVENTS

In the Organizing Committee:

- RTCSA 2017 – 23rd IEEE Conference on Embedded and Real-Time Computing Systems and Applications, Hsinchu, Taiwan, 16-18 August. 2017, *Track Chair*.

- SIES 2017 – 12th IEEE Symp. on Industrial Embedded Systems, Toulouse, France, 7-9 June 2017, *Program co-Chair*.

- IoTBDS 2017 – 2nd Int. Conference on Internet-of-Things, Big Data and Security, 24-26 April, 2017, *Doctoral Consortium Chair*.

- RTSS 2016 – 37th IEEE Real-Time Systems Symposium, Porto, Portugal, 29 Nov-2 Dec 2016, *Local Arrangements co-Chair*.

- ICARSC 2016 – 16th IEEE International Conference on Autonomous Robot Systems and Competitions, Bragança, Portugal, 4-6 May 2016, *Steering Committee.*

- WFCS 2016 – 11th IEEE World Conference on Factory Communication Systems, Porto, Portugal, 3-6 May 2016, *Member of the organizing committee (panel coordinator in the Industry Day)*.

- CRTS 2015 – 8th Workshop on Compositional Theory for Real-Time Systems (satellite of RTSS 2015), San Antonio, USA. 1st December 2015, *co-Chair*.

- RoboCup 2015, Hefei, China, 17-23 July 2015, *RoboCup International Symposium co-Chair.*

- APRES 2015 – 7th Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Seattle, USA. 13th April 2015 (within CPSWEEK 2015 – Embedded Systems Week), *Steering Committee*.

- ICARSC 2015 – 15th IEEE International Conference on Autonomous Robot Systems and Competitions, Vila Real, Portugal, 8-10 April 2015, *Program co-Chair.*

- VPPC 2014 – IEEE Vehicle Power and Propulsion Conference, Coimbra, Portugal, 27-30 October 2014 (Technical Track 5: Vehicular Electronics), *Track co-Chair*.

- WEROB 2014 – 4th RoboCup Workshop on Educational Robotics, João Pessoa, Brazil, 25th July 2014 (co-located with RoboCup Symposium 2014), *co-Chair*.

- SIES 2014 – 9th IEEE Symp. on Industrial Embedded Systems, Montpellier, France, 18-20 June 2014, *Special Session Chair*.

- APRES 2014 – 6th Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Berlin, Germany. 14th April 2014 (within CPSWEEK 2014 – Embedded Systems Week), *Steering Committee*.

- WEROB 2013 – 3rd RoboCup Workshop on Educational Robotics, Eindhoven, Netherlands, 1 July 2013 (co-located with RoboCup Symposium 2013), *co-Chair*.

- APRES 2013 – 5th Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Philadelphia, USA. 8th April 2013 (within CPSWEEK 2013 – Embedded Systems Week), *Steering Committee*.

- RTSS 2012 – 33rd IEEE Real-Time Systems Symposium, San Juan, Puerto Rico, USA, 5-7 Dec 2012, *General Chair*.

- WEROB 2012 – 2nd RoboCup Workshop on Educational Robotics, Mexico City, Mexico, 24th June 2012 (co-located with RoboCup Symposium 2012), *co-Chair*.

- DCOSS 2012 – 8th IEEE International Conference on Distributed Computing in Sensor Systems, Hangzhou, China, 18-20 May, 2012, **Demo Session co-Chair**

- APRES 2012 – 4th Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Beijing, China. 16th April 2012 (within CPSWEEK 2012 – Embedded Systems Week), **Steering Committee**.

- RTSS 2011 – 32nd IEEE Real-Time Systems Symposium, Vienna, Austria, 29 Nov-2 Dec 2011, **PC Chair**.

- NeRES 2011 – ARTIST Workshop on Networks for Real-Time Embedded Systems, Porto, Portugal, 10-11 November, 2011, **Workshop Chair**.

- ETFA 2011 – 16th IEEE Conf. on Emerging Technologies for Factory Automation, Toulouse, France, 5-9 Sept 2011, *PC co-Chair* (resigned).

- RoboCup 2011, Istambul, Turkey, 5-11 July 2011, *Junior League OC member.*

- APRES 2011 – 3rd Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Chicago, USA. 11th March 2011 (within CPSWEEK 2011 – Embedded Systems Week), **Steering Committee**.

- DATE 2011 – Design, Automation and Test in Europe, Grenoble, France, 14-18 March 2011, Topic on Real-Time and Dependable Systems – Principles and Practice, **Topic Chair**.

- RoboCup 2010, Singapore, 19-25 June 2010, *Junior League OC member and* **RobotDemos Chair**.

- WARM 2010 – 1st Int. Workshop on Adaptive Resource Management, Stockholm, Sweden, 12 April 2010(within CPSWEEK 2010 – Cyber-Physical Systems Week), **co-Chair**. http://www.artist-embedded.org/artist/Programme,2075.html

- DATE 2010 – Design, Automation and Test in Europe, Dresden, Germany, 8-12 March 2010, Topic on Real-Time and Dependable Systems – Principles and Practice, **Topic co-Chair**.

- RTSS 2009 – 30th IEEE Real-Time Systems Symposium, Washington DC, USA, Dec 2009, **Students Competition Chair**.

- APRES 2009 – 2nd Int. Workshop on Adaptive and Reconfigurable Embedded Systems, Grenoble, France, 11 October 2009 (within ESWEEK 2009 – Embedded Systems Week), **co-Chair**.

- RoboCup 2009, Graz, Austria, 29 June - 5 July 2009, *Junior League OC member and* **RobotDemos Chair**

- DATE 2009 – Design, Automation and Test in Europe, Munich, Germany, March 2009, Topic on Real-Time and Dependable Systems – Principles and Practice, **Topic co-Chair**.

- RTSS 2008 – 29th IEEE Real-Time Systems Symposium, Barcelona, Spain, Dec 2008, **Students Competition Chair**.

- RoboCup 2008, Suzhou, China, 14-20 July 2008, *Junior League OC member and* **RobotDemos Chair**

- DCOSS 2008 – IEEE/ACM 4th International Conference on Distributed Computing in Sensor Systems, Santorini Island, Greece, June 11 - 14, 2008, *Students Competition Chair - cancelled*

- SIES 2008 – 3rd IEEE Symp. on Industrial Embedded Systems, Montpellier, France, 11-13 June 2008, **Publicity co-Chair, Work-in-Progress Session co-Chair**.

- APRES 2008 – Workshop on Adaptive and Reconfigurable Embedded Systems, St. Louis, USA, April 21, 2008 (event within CPSWEEK 2008 – 1st Cyber-Physical Systems Week), **co-Chair**.

- ROBOTICA 2008, Aveiro, Portugal, 2-6 April 2008, **Junior League Chair**

- RTSS 2007 – 28th IEEE Real-Time Systems Symposium, Tucson, Arizona, USA, Dec 2006, **Simulation Competition Chair**.

- ETFA 2007 – 12th IEEE Conf. on Emerging Technologies for Factory Automation, Patras, Greece, 25-28 Sept 2007, Real-Time and Networked Embedded Systems Track, **Track co-Chair**.

- RoboCup 2007, Atlanta, USA, 1-11 July 2007, *Junior League OC member and **RobotDemos Chair***

- SIES 2007 – 2nd IEEE Symp. on Industrial Embedded Systems, Lisboa, Portugal, 4-6 July 2007, ***Publicity co-Chair***.

- RoboCup 2006, Bremen, Germany, 13-20 June 2006, *Junior League OC member and **RobotDemos Chair***

- NeRES 2007 – ARTIST Workshop on Networks for Reconfigurable Embedded Systems, Aveiro, Portugal, 2nd April, 2007, ***Workshop Chair***.

- RTSS 2006 – 27th IEEE Real-Time Systems Symposium, Rio de Janeiro, Brazil, Dec 2006, ***Publicity Co-Chair, Simulation Competition Chair***.

- WTR 2006 – 8th Brazilian Workshop on Real-Time Systems, Curitiba, Brazil, 2 June 2006, ***PC Chair***.

- INCOM 2006 – 12th IFAC Symposium on Information Control Problems in Manufacturing, St. Etienne, France, May 2006, ***Track co-Chair***.

- ROBOTICA 2006, Guimarães, Portugal, 28 April – 1 May 2006, *Junior League OC member*

- ETFA 2005 – 10th IEEE Conf. on Emerging Technologies for Factory Automation, Catania, Italy, 19-22 Sept 2005, ***Track Chair***.

- RoboCup 2005, Osaka, Japan, 12-19 July 2005, ***Junior League Chair***

- RTSS 2004 – 25th IEEE Real-Time Systems Symposium, Lisbon, Portugal, Dec 2004, ***Publicity Co-Chair***.

- RTN 2004 – 3rd International Workshop on Real-Time Networks, Catania, Italy, June 2004, ***Workshop Chair***.

- RoboCup 2004, Lisbon, Portugal, June/July 2004, ***Junior League Local co-Chair***

- RTAS 2004 – 10th IEEE Real-Time and Embedded Technologies and Applications Symposium, Toronto, Canada, May 2004, ***Publicity Co-Chair***.

- ROBOTICA 2004, Porto, Portugal, 23-25 April 2004, *Junior League OC member*

- RTSS 2003 – 24th IEEE Real-Time Systems Symposium, Cancun, Mexico, Dec 2003, ***Publicity Co-Chair***.

- SICICA 2003 – 5th IFAC Symposium on Intelligent Components and Instruments for Control Applications, Aveiro, Portugal, 9-11 Sept 2003, *OC member and **Co-Editor***.

- FET 2003 – 5th IFAC Conf. on Fieldbus Systems and Their Applications, Aveiro, Portugal, 7-8 Sept 2003, *OC member*.

- ECRTS'03 – Euromicro Conference on Real-Time Systems, Vienna, Austria, 2-4 Jul 2003, ***Work-in-Progress Session Chair***.

- ROBOTICA 2003, Lisboa, Portugal, 8-11 May 2003, *Junior League OC member*

- CONTROLO 2002, APCA Portuguese Conf. on Automatic Control, Aveiro, Sept 2002, *OC member*.

- ROBOTICA 2002, Aveiro, Portugal, 24-27 April 2002, *OC member*

- WFCS 2000 – 3rd IEEE Workshop on Factory Communication Systems, Porto, Portugal, 6-8 September 2000, ***Work-in-Progress session co-Chair***.

In Program matters (PC – Program Committee)**:**

- ETFA 2017 – 22nd IEEE Conf. on Emerging Technologies for Factory Automation, Limassol, Cyprus, 12-15 Sept 2017, Industrial Communication Systems and Embedded and Real-time Systems Tracks, ***PC member***.

- WFCS 2017 – 13th IEEE Int Workshop on Factory Communication Systems, Trondheim, Norway, 31 May- 2 June 2017, **PC member.**

- RTAS 2017 – 21st IEEE Real-Time and Embedded Technologies and Applications Symposium, Pittsburgh, USA, 18-21 April 2017, **PC member**.

- SAC 2017 – 32nd ACM/SIGAPP Symposium on Applied Computing. Marrakesh, Morocco. 3-6 April, 2017. **PC member**.

- RTSS 2016 – 37th IEEE Real-Time Systems Symposium, Porto, Portugal, 29 Nov-2 Dec 2016, **PC member**.

- EMSOFT 2016 – 16th ACM International Conference on Embedded Software, Pittsburgh, USA, October 2016, **PC member.**

- Future 5v – 1st EAI International Conference on Future Intelligent Vehicular Technologies. Porto, Portugal, 15-16 September, 2016. **PC member**.

- ETFA 2016 – 21st IEEE Conf. on Emerging Technologies for Factory Automation, Berlin, Germany, 6-9 Sept 2016, Industrial Communication Systems and Embedded and Real-time Systems Tracks, **PC member**.

- RTCSA 2016 – 22nd IEEE Conference on Embedded and Real-Time Computing Systems and Applications, Daegu, South Korea, 17-19 August. 2016, **PC member**.

- INDIN 2016 – 14th IEEE International Conference on Industrial Informatics. Poitiers, France. 18-21 July 2016, **PC member**.

- RTN 2016 – 14th International Workshop on Real-Time Networks, Toulouse, France, 5th July 2016, **PC member**.

- RoboCup Symposium 2016, Leipzig, Germany, 4th July 2018, **PC member**

- SSIV 2016 – 2nd Workshop on Safety and Security of Intelligent Vehicles, Toulouse, France, 28th June 2016, **PC member**.

- SIES 2016 – 11th IEEE Symp. on Industrial Embedded Systems, Kralow,Poland, 23-25 May 2016, **PC member**.

- WFCS 2016 – 11th IEEE World Conference on Factory Communication Systems, Porto, Portugal, 3-6 May 2016, **PC member.**

- SAC 2016 – 31st ACM/SIGAPP Symposium on Applied Computing. Pisa, Italy. 4-8 April, 2016. **PC member**.

- RTAS 2016 – 20th IEEE Real-Time and Embedded Technologies and Applications Symposium, Vienna, Austra, 11-14 April 2016, **Demo Session PC member**.

- DATE 2016 – Design, Automation and Test in Europe, Dresden, Germany, 16-18 March 2016, Topic on Real-Time and Dependable Systems – Principles and Practice, *Reviewer*.

- DSIE 2016 – 11th Doctoral Symposium in Informatics Engineering, Porto, Portugal, 3rd February 2016. **PC Member.**

- RTSS 2015 – 36th IEEE Real-Time Systems Symposium, San Antonio, USA, 1-4 Dec 2015, **PC member**.

- ROBOT 2015 – 2nd Iberian Robotics Conference. Lisbon, Portugal. 19-21 November 2015. **PC member**.

- SBESC 2015 – 5th Brazilian Symposium on Computing Systems Engineering. Foz do Iguaçu, Brazil. 3-6 November 2015. **PC member**.

- IROS 2015 – IEEE/RSJ International Conference on Intelligent Robots and Systems. Hamburg, Germany. 28th September to 2nd October, 2015. **Reviewer**.

- AFRICON 2015 – 12th IEEE Region 8 African Conference. Addis Ababa, Ethiopia. 14-17 September 2015. **PC member**.

- ETFA 2015 – 20th IEEE Conf. on Emerging Technologies for Factory Automation, Luxembourg, 8-11 Sept 2015, Industrial Communication Systems and Embedded and Real-time Systems Tracks, *PC member*.

- INForum 2015, 7º Simposium de Informática, Covilhã, Portugal, 7-8 September 2015, (track em Sistemas Embebidos e de Tempo-Real), *PC member*.

- RTCSA 2015 – 21st IEEE Conference on Embedded and Real-Time Computing Systems and Applications, Hong Kong, China, 19-21 August. 2015, *PC member*.

- INDIN 2015 – 13th IEEE International Conference on Industrial Informatics. Cambridge, UK. 22-24 July 2015, *PC member*.

- SSIV 2015 – 1st International Workshop on Safety and Security of Intelligent Vehicles (satellite of DSN 2015). Rio de Janeiro, Brazil. 22nd June, 2015. *PC member*.

- LCTES 2015 – ACM SIGPLAN/SIGBED Conference on Languages, Compilers, Tools and Theory for Embedded Systems. Portland, Oregon, USA. 18th-19th June 2015. *PC member*.

- SIES 2015 – 10th IEEE Symp. on Industrial Embedded Systems, Siegen, Germany, 8-10 June 2015, *PC member*.

- WFCS 2015 – 11th IEEE World Conference on Factory Communication Systems, Palma de Mallorca, Spain, 27-29 May, 2015, *PC member*.

- SAC 2015 – 30th ACM/SIGAPP Symposium on Applied Computing. Salamanca, Spain. 13-17 April, 2015. *PC member*.

- CRTS 2014 – 7th Workshop on Compositional Theory for Real-Time Systems (satellite of RTSS 2014), Rome, Italy. 2nd December 2014, *PC member*.

- SBESC 2014 – 4th Brazilian Symposium on Computing Systems Engineering. Manaus, Brazil. 3-7 November 2014.

- ETFA 2014 – 19th IEEE Conf. on Emerging Technologies for Factory Automation, Barcelona, Spain, 16-19 Sept 2014, Industrial Communication Systems and Embedded and Real-time Systems Tracks, *PC member*.

- INForum 2014, 6º Simposium de Informática, Porto, Portugal, 4-5 September 2014, (track em Sistemas Embebidos e de Tempo-Real), *PC member*.

- RTCSA 2014 – 20th IEEE Conference on Embedded and Real-Time Computing Systems and Applications, Chongqing, China, 20-22 August, 2014, *PC member*.

- ICECCS 2014 – 19th International Conference on Engineering of Complex Computer Systems, Tianjin, China, 4-7 August 2014, *PC member*.

- INDIN 2014 – 12th IEEE International Conference on Industrial Informatics. Porto Alegra, Brazil. 27-30 July 2014, *Reviewer*.

- RoboCup Symposium 2014, João Pessoa, Brazil, 25th July 2014, *PC member*

- WiSARN 2014 – 8th International Workshop on Wireless Sensor, Actuator and Robot Networks, Benidorm, Spain, 22-27 June, 2014, *PC member*.

- SIES 2014 – 9th IEEE Symp. on Industrial Embedded Systems, Pisa, Italy, 18-20 June 2014, *PC member*.

- WFCS 2014 – 10th IEEE International Workshop on Factory Communication Systems, Toulouse, France, 5-7 May, 2014, *PC member*.

- ICARSC 2014 – 13th Conf. on Autonomous Robots Systems and Competitions, Espinho, Portugal, May 2014, *PC member*.

- CRTS 2013 – 6th Workshop on Compositional Theory for Real-Time Systems (satellite of RTSS 2013), Vancouver, Canada, 3 December 2013, *PC member*.

- ROBOT 2013 – 1st Iberian Robotics Conference. Madrid, Spain. 28-29 November 2013, *PC member*.

- CRC 2013 – 13ª Conferência sobre Redes de Computadores. Leiria, Portugal. 14-15 Nov 2013, *PC member*.

- SBESC 2013 – 3º Simpósio Brasileiro de Engenharia de Sistemas Computacionais. Niterói, Brazil. 4-8 Nov 2013, Operating Systems Track, *PC member*.

- ASCoMS 2013 – Int. Workshop on Architecting Safety in Collaborative Mobile Systems (satellite of Safecomp 2013), Toulouse, France, 24 September 2013, *PC member*.

- ETFA 2013 – 18th IEEE Conf. on Emerging Technologies for Factory Automation, Cagliari, Italy, 10-13 Sept 2013, Industrial Communication Systems Track, *PC member*.

- INForum 2013, 5º Simposium de Informática, Évora, Portugal, 5-6 September 2013, *PC member (track em Sistemas Embebidos e de Tempo-Real)*.

- ICECCS 2013 – 18th Annual IEEE Int. Conf. on the Engineering of Complex Computer Systems, Singapore, 17-19 July 2013, *PC member*.

- RoboCup Symposium 2013, Eindhoven,Netherlands, 1 July 2013, *PC member*

- SIES 2013 – 8th IEEE Symposium on Industrial Embedded Systems, Porto, Portugal, 19-21 June 2013, *PC member*.

- ICARSC 2013 – 13th Conf. on Autonomous Robots Systems and Competitions, Lisboa, Portugal, April 2013, *PC member*.

- RTAS 2013 – 19th IEEE Real-Time and Embedded Technologies and Applications Symposium, Phyladelphia, USA, 9-11 April 2013, *PC member*.

- DATE 2013 – Design, Automation and Test in Europe, Grenoble, France, 18-22 March 2013, Topic on Real-Time and Dependable Systems – Principles and Practice, *PC member*.

- CRTS 2012 – 5th Workshop on Compositional Theory for Real-Time Systems (satellite of RTSS 2012), San Juan, Puerto Rico, 4 December 2012, *PC member*.

- JAR 2012 – 7ªs Jornadas Argentinas de Robótica. Olavarría, Argentina. 21-23 Nov 2012, *PC member*.

- WSO 2012 – 9º Workshop (Brasileiro) de Sistemas Operacionais. Natal, Brazil, 5-9 November, *PC member*.

- SafeComp 2012 – 31st Ont. Conf. on Computer Safety, Reliability and Security. Magdeburg, Germany. 25-28 September 2012, *Reviewer*.

- INForum 2012, 4º Simposium de Informática, Caparica, Portugal, 6-7 September 2012, *PC member (track em Sistemas Embebidos e de Tempo-Real)*.

- RoboSense 2012, 1st The International Workshop on Cooperative Robots and Sensor Networks, Niagara Falls, Canada, 27-29 August 2012, *PC member*.

- CONTROLO 2012, 10th APCA Portuguese Conf. on Automatic Control, Funchal, Portugal, 23-25 July 2012, *PC member*.

- ICECCS 2012 – 17th Annual IEEE Int. Conf. on the Engineering of Complex Computer Systems, Paris, France, 18-20 July 2012, *PC member*.

- RTN 2012 – 11th International Workshop on Real-Time Networks, Pisa, Italy, 10 July 2011, *PC member*.

- ICESS 2012 – 9th IEEE International Conference on Embedded Software and Systems, Liverpool, UK, 25-27 June 2012, *PC member*.

- RoboCup Symposium 2012, Mexico City, Mexico, 24 June 2012, *PC member*

- SIES 2012 – 7th IEEE Symp. on Industrial Embedded Systems, Karlsruhe, Germany, 20-22 June 2012, *PC member*.

- WFCS 2012 – 9th IEEE Workshop on Factory Communication Systems, Lemgo, Germany, 21-24 May 2012, *PC member*.

- ROBOTICA 2012 – 12th Conf. on Mobile Robots and Competitions, Guimarães, Portugal, April 2012, *PC member*.

- ISCRAM 2012 – 9th International Conference on Information Systems for Crisis Response and Management, Vancouver, Canada, 22-25 April, **PC member**.

- RTAS 2012 – 16th IEEE Real-Time and Embedded Technologies and Applications Symposium, Beijing, China, 16-19 April 2012, **PC member**.

- RTSOAA 2011 – 4th IEEE Workshop on Real-Time Service-Oriented Architecture and Applications, Irvine, USA, 12-14 Dec 2011, **PC member**.

- CRTS 2011 – 4th Workshop on Compositional Theory for Real-Time Systems (satellite of RTSS 2011), Vienna, Austria, 29 Nov 2011, **PC member**.

- ICESS 2011 – 8th IEEE International Conference on Embedded Software and Systems, Changsha, China, 16-18 Nov 2011, **PC member**.

- EMSOFT 2011 – 11th ACM International Conference on Embedded Software, Pisa, Italy, Oct 2011, **PC member**.

- INForum 2011, 3º Simposium de Informática, Coimbra, Portugal, 8-9 September 2011, **PC member (track em Sistemas Embebidos e de Tempo-Real)**.

- RTN 2011 – 10th International Workshop on Real-Time Networks, Porto, Portugal, 5 July 2011, **PC member**.

- RoboCup Symposium 2011, Istambul, Turkey, 11 July 2011, **PC member**

- ISCRAM 2011 – 8th Int. Conf. on Information Systems for Crisis Response and Management, Lisbon, Portugal, 8-11 May, **PC member**.

- ICECCS 2011 – 16th Annual IEEE Int. Conf. on the Engineering of Complex Computer Systems, Las Vegas, USA, 27-29 April 2011, **PC member**.

- ROBOTICA 2011 – 11th Conf. on Mobile Robots and Competitions, Lisboa, Portugal, April 2011, **PC member**.

- ICCPS 2011 – 2nd Int. Conf. on Cyber-Physical Systems, Chicago, USA, 11-14 April 2011, **PC member**.

- CRTS 2010 – 3rd Workshop on Compositional Theory for Real-Time Systems, San Diego, USA, 30 Nov 2010, **PC member**.

- JAR 2010 – 6ªs Jornadas Argentinas de Robótica. Buenos Aires, Argentina. 3-5 Nov 2010, **PC member**.

- MICS 2010 – Int. Conf. on Models of Information and Communication Systems. Rabat, Morocco. 2-4 Nov 2010, **PC member**.

- SEUS 2010 – 8th IFIP Workshop on Software Technologies for Future Embedded and Ubiquitous Systems, Waidhofen/Ybbs, Austria, 13-15 Oct 2010, **PC member**.

- SmartGridComm 2010 – 1st IEEE Int. Conf. on Smart Grid Communications. Gaythersburg, NIST, USA, 4-6 Oct 2010, **PC member**.

- ETFA 2010 – 15th IEEE Conf. on Emerging Technologies for Factory Automation, Palma, Spain, 14-17 Sept 2010, Real-Time and Networked Embedded Systems Track, **PC member**.

- CONTROLO 2010, 9th APCA Portuguese Conf. on Automatic Control, Coimbra, Portugal, 8-10 September 2010, **PC member**.

- INForum 2010, 2º Simposium de Informática, Braga, Portugal, 9-10 September 2010, **PC member (track em Sistemas Embebidos e de Tempo-Real)**.

- RTN 2010 – 9th International Workshop on Real-Time Networks, Brussels, Belgium, 6 July 2010, **PC member**.

- ROBOCUP Symposium 2010, Singapore, 25 June 2010, **PC member**

- WFCS 2010 – 8th IEEE Workshop on Factory Communication Systems, Nancy, France, 18-21 May 2008, **PC member**.

- DYN-Agents-AAMAS, Workshop on Agents in Real-Time and Dynamic Environments (co-located with AAMAS 2010 – 9th Conf on Autonomous Agents and Multi-Agent Systems), Toronto, Canada, May 11, 2010, **PC member**.

- FeBID 2010 – 5th Int. Workshop Feedback Control Implementation and Design in Computing Systems and Networks, Paris, France, April 13, 2010, **PC member**.

- ROBOTICA 2010 – 10th Conf. on Mobile Robots and Competitions, Leiria, Portugal, April 2010, **PC member**.

- RTAS 2010 – 14th IEEE Real-Time and Embedded Technologies and Applications Symposium, Stockholm, Sweden, 12-15 April 2010, **PC member**.

- CRTS 2009 – 2nd Workshop on Compositional Theory for Real-Time Systems, Washington DC, USA, Dec 2009, *PC member*.

- ETFA 2009 – 14th IEEE Conf. on Emerging Technologies for Factory Automation, Palma, Spain, 22-26 Sept 2009, Real-Time and Networked Embedded Systems Track, *PC member*.

- INForum 2009, 1º Simposium de Informática, Lisboa, Portugal, 10-11 September 2009, *PC member (track em Sistemas Embebidos e de Tempo-Real)*.

- EUC 2009 – 7th IEEE/IFIP Conf. on Embedded and Ubiquitous Computing, Vancouver, Canada, 29-31 August, 2009, *PC member*.

- ROBOCUP Symposium 2009, Graz, Austria, 29 June - 5 July 2009, *PC member*

- ECRTS 2009 – Euromicro Conference on Real-Time Systems, Dublin, Ireland, 1-3 Jul 2009, *PC member*.

- RTN 2009 – 8th International Workshop on Real-Time Networks, Dublin, Ireland, 30 June 2009, *PC member*.

- WPCS 2009 – 2nd Int. Workshop on Cyber-Physical Systems, Montreal, Canada, 22 June 2009, *PC member*.

- WTR 2009 – 11th Brazilian Workshop on Real-Time Systems, Recife, Brazil, 25 May 2009, *PC member*.

- FET 2009 – 8th IFAC Conf. on Fieldbus Systems and Their Applications, Ansan, Korea, 20-22 May, *PC member*.

- ROBOTICA 2009 – 9th Conf. on Mobile Robots and Competitions, Castelo Branco, Portugal, April 2009, *PC member*.

- RTAS 2009 – 13th IEEE Real-Time and Embedded Technologies and Applications Symposium, San Francisco, USA, 13-16 April 2009, *PC member*.

- FeBID 2009 – 4th Int. Workshop Feedback Control Implementation and Design in Computing Systems and Networks, San Francisco, California, USA, April 16, 2009, *PC member*.

- RTSS 2008 – 29th IEEE Real-Time Systems Symposium, Barcelona, Spain, Dec 2008, *PC member*.

- CRTS 2008 – 1st Workshop on Compositional Theory for Real-Time Systems, Barcelona Spain, Dec 2008, *PC member*.

- SRDS 2008 – 27th IEEE Symposium on Reliable Distributed Systems, Napoli, Italy, 6-8 October, 2008, *PC member.*

- ETFA 2008 – 13th IEEE Conf. on Emerging Technologies for Factory Automation, Hamburg, Germany, 15-18 Sept 2008, Real-Time and Networked Embedded Systems Track, *PC member*.

- CONTROLO 2008, 8th APCA Portuguese Conf. on Automatic Control, Vila Real, Portugal, 21-23 July 2008, *PC member*.

- ROBOCUP Symposium 2008, Suzhou, China, 14-20 July 2008, *PC member.*

- IFAC 2008, 17th IFAC World Congress, Seoul, Korea, 6-11 July 2008, *Reviewer*.

- ECRTS 2008 – Euromicro Conference on Real-Time Systems, Prague, Czech Republic, 2-4 Jul 2008, *PC member*.

- RTN 2008 – 7th International Workshop on Real-Time Networks, Prague, Czech Republic, 1 July 2008, *PC member*.

- ICDCS 2008 – IEEE 28th Int Conf on Distributed Computing Systems, Beijing, China, 17-20 June 2008, Track on Distributed Cyber-Physical Systems, *PC member*.

- SUTC 2008 – 3rd IEEE Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, Taichung, Taiwan, 11-13 June 2008, *PC member*.

- WTR 2008 – 10th Brazilian Workshop on Real-Time Systems, Rio de Janeiro, Brazil, 31 May 2008, *PC member*.

- WFCS 2008 – 7th IEEE Workshop on Factory Communication Systems, Dresden, Germany, 20-23 May 2008, *PC member*.

- ROBOTICA 2008 – 8th Conf. on Mobile Robots and Competitions, Aveiro, Portugal, 2-6 April 2008, *PC member*

- SAC 2008 – 23rd ACM Symposium on Applied Computing, Fortaleza, Brazil, 16-20 March 2008, Track on Real-Time Systems, *PC member*.

- DATE 2008 – Design, Automation and Test in Europe, Munich, Germany, 10-14 March 2008, Topic on Real-Time and Dependable Systems – Principles and Practice, *PC member*.

- FET 2007 – 7th IFAC Conf. on Fieldbus Systems and Their Applications, Toulouse, France, 7-9 Nov 2007, *PC member*.

- ROBOCUP Symposium 2007, Atlanta, USA, 1-11 July 2007, *PC member*

- WSO 2007 – 4th Brazilian Workshop on Operating Systems, Rio de Janeiro, Brazil, 4-5 July 2007, *PC member*.

- WTR 2007 – 9th Brazilian Workshop on Real-Time Systems, Belém, Brazil, 28 May 2007, *PC member*.

- ROBOTICA 2007 – 7th Conf. on Mobile Robots and Competitions, Paderne, Portugal, 27-30 April 2007, *PC member*

- ICIC 2006 – Int Conference on Intelligent Computing, Kunming, China, August 2006, *Reviewer.*

- WFCS 2006 – 6th IEEE Workshop on Factory Communication Systems, Turin, Italy, June 2006, *PC member*.

- ROBOCUP Symposium 2006, Bremen, Germany, 13-20 June 2006, *PC member*

- RTNS 2006 – 14th Int. Conf on Real-Time and Networked Embedded Systems, Poitiers, France, May 2006, *PC member*.

- ROBOTICA 2006 – Encontro Científico, Guimarães, Portugal, 28 April – 1 May 2006, *PC member*

- RTAS 2006 – 12th IEEE Real-Time and Embedded Technologies and Applications Symposium, San Jose, USA, April 2006, *PC member*.

- FET 2005 – 6th IFAC Conf. on Fieldbus Systems and Their Applications, Puebla, Mexico, 14-15 Nov 2005, *PC member*.

- ECRTS'05 – Euromicro Conference on Real-Time Systems, Palma, Spain, 6-8 Jul 2005, *PC member*.

- ROBOTICA 2005 – Encontro Científico, Coimbra, Portugal, 29 April – 1 May 2005, *PC member*

- RTS 2005 – 13th Int. Conf on Real-Time and Embedded Systems, Paris France, Mar 2005, *PC member*.

- WFCS 2004 – 5th IEEE Workshop on Factory Communication Systems, Vienna, Austria, Sept 2004, *PC member*.

- EMSOFT 2004 – 4th ACM International Conference on Embedded Software, Pisa, Italy, Sept 2004, *PC member*.

- ISIAC 2004, 5th Int Symp on Intelligent Automation and Control, Seville, Spain, June/July 2004, *PC member*.

- CONTROLO 2004, APCA Portuguese Conf. on Automatic Control, Faro, Portugal, June 2004, *PC member*.

- ROBOTICA 2004 – Encontro Científico, Porto, Portugal, 23-25 April 2004, *PC member*

- WPDRTS 2004, 12th IEEE Workshop on Parallel and Distributed Real-Time Systems, Santa Fe USA, April 2004, *PC member*.

- RTS 2004 – 12th Int. Conf on Real-Time and Embedded Systems, Paris France, Mar/Apr 2004, *PC member*.

- MSR'03 – 4.ème congrès francophone sur la Modélisation des Systèmes Réactifs, Metz, France, Oct 2003, *PC member*.

- ECRTS'03 – Euromicro Conference on Real-Time Systems, Vienna, Austria, 2-4 Jul 2003, *PC member*.

- RTLIA'03 – 2nd Workshop on Real-Time LANs in the Internet Age, (satellite of ECRTS'03), Porto, Portugal, July 2003, *Session Chair*.

- ROBOTICA 2003 – Encontro Científico, Lisboa, Portugal, 8-11 May 2003, *PC member*

- WPDRTS 2003, 11th IEEE Workshop on Parallel and Distributed Real-Time Systems, Nice, France, April 2003, *PC member*.

- RTS 2003 – 11th Int. Conf on Real-Time and Embedded Systems, Paris France, Apr 2003, *PC member*.

- RTSS 2002 – 23rd IEEE Real-Time Systems Symposium, Austin USA, Dec 2002, *PC member*.

- WFCS 2002 – 4th IEEE Workshop on Factory Communication Systems, Vasteras, Sweden, Aug 2002, *PC member*.

- IFAC 2002, World Congress, Barcelona, June 2002, *Reviewer*.

- ECRTS'02 – Euromicro Conference on Real-Time Systems, Vienna, Austria, June 2002, *PC member and Session Chair*.

- RTLIA'02 – 1st Workshop on Real-Time LANs in the Internet Age, (satellite of ECRTS'02), Vienna, Austria, June 2002, *Session Rapporteur*.

- RTSS 2001 – 22nd IEEE Real-Time Systems Symposium, Londres, Dec 2001, *PC member and Session Chair*.

- FET 2001 – 4th IFAC Conf. on Fieldbus Systems and Their Applications, Nancy, France, 15-16 November 2001, *PC member*.

- ETFA 2001 – 8th IEEE Int. Conf. on Emerging Technologies for Factory Automation, Juan-les-Pins, France, 15-18 October 2001, *PC member*.

- ECRTS'01 – Euromicro Conference on Real-Time Systems, Delft, June de 2001, *Session Chair and Reviewer*.

- WFCS 2000 – 3rd IEEE Workshop on Factory Communication Systems, Porto, Portugal, 6-8 September 2000, *PC member*.

- ECRTS'00 – Euromicro Conference on Real-Time Systems, Stockholm, June 2000, *Reviewer*.

RECENT AND ON-GOING FUNDED PROJECTS

- "METRICS: prograMmablE daTacenter foR IioT appliCationS" (july 2016 – june 2018), supported by the Instituto de Telecomunicações (internal project), 57.960,00€ (Coordinated by IT-Aveiro, member of the research team). Aims at providing OpenFlow / SDN with explicit support for QoS in the time domain, for real-time flows, making use of the FTT paradigm over Ethernet and WiFi.

- "nanoStima: Macro-to-Nano Human Sensing: Towards Integrated Multimodal Health Monitoring and Analytics" (july 2015 – june 2018), supported by the Portuguese Government through Norte2020 - Programa Operacional Regional do Norte NORTE-01-0145-FEDER-000016, (Coordinated by INESC-TEC, member of the research team). Aims at developing an integrated

sensing system that collects vital signals from a myriad of participants, processes, integrates and records them in the cloud. Involvement in the communication parts for gathering the participants data.

- *"PICC: Projeto Integrado de Controladores e Comunicações para NCS"*, (apr 2013 – jul 2015), Bilateral cooperation with the Federal University of Santa Catarina, Brazil, supported in Portugal by the Portuguese Government through Fundação para a Ciência e Tecnologia, 9.000,00€, (coordinator of the portuguese part). Work focused on networked control of teams of autonomous mobile robots, merging control with traffic management.

- "*CodeStream: Real-time Network Coding for Real-time Streaming*", (1 may 2013 – 31 jul 2015), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PTDC/EEI-TEL/3006/2012, 145.284,00€, (project PI). Aims at merging Network Coding and real-time scheduling techniques applied to streaming to enhance the reliability of multicast transmissions in a bandwidth efficient way and boost the density of clients with adequate Quality of Service.

- "*Serv-CPS: Server-based Real-Time Ethernet Communication Architecture for Cyber-Physical Systems*", (1 Feb 2012 – 31 Jan 2015), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PTDC/EEA-AUT/122362/2010, 119.876,00€, (member of the research team, coordinator of IT team at FEUP). Aims at the exploration of the resource reservation paradigm in enhanced Ethernet Switches using flexible hierarchical scheduling techniques.

- "*SENODS: Cyber-Physical Systems Technologies for Energy-Optimized Data Centers*", October 2010 – December 2013, supported by the Portuguese Government through Fundação para a Ciência e Tecnologia CMU-PT/SIA/0045/2009, 292.075€ / 73.417€, *http://www.hurray.isep.ipp.pt/ projects/senods/* (member of the research team, coordinator of FEUP team). Aimed at using a sensor network to monitor environmental parameters with high spatial resolution within data centers to control load and energy consumption. The team at FEUP developed an allocation strategy that considers the temperature model of the data center and grants the data center operator the control over the peak temperature and services consolidation, allowing to minimize the number of needed servers for a give workload while avoiding hot-spots.

- "*PCMMC: Perception-Driven Coordinated Multi-Robot Motion Control*", 1 jan 2010 – 30 mar 2013, supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PTDC/EEA-CRO/100692/2008, 199.124€ /71.712€, *http://mediawiki.isr.ist.utl.pt/wiki/ PCMMC:_Perception-Driven_Coordinated_Multi-Robot_Motion_Control*. (member of the research team and coordinator of the IT Porto team) Aimed at the development of coordination strategies for teams of mobile robots that improve the overall team perception. The team main contribution was an extension of the Reconfigurable and Adaptive TDMA protocol, together with the RTDB middleware, to unstructured networks, operating with multi-hop topologies.

- "*iLAND -mIddLewAre for deterministic dynamically reconfigurable NetworkeD embedded systems* ", 1 feb 2009 – 30 aug 2012, supported by the European Community through the Joint Undertaking ARTEMIS – ARTEMIS/2008/0004, 1.547.632€ / 339.300€, *http://www.iland-artemis.org/* (local coordinator). Involved 9 institutions. Aimed at developing a middleware targeting dynamically reconfigurable and adaptive systems. Main work of the FEUP team was on the definition and development of an appropriate distributed platform that supported such level of flexibility under guaranteed timeliness. It is basically a global Resource Manager that allocates reservations in both CPU and network, the latter being supported interchangeably on both the FTT-SE protocol and Linux-TC.

- "*HaRTES: Hard Real-Time Ethernet Switching*", 1 jan 2009 – 31 dec 2011, supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PTDC/EEA-ACR/73307/2006, 90.000€, *http://www.ieeta.pt/lse/hartes/* (Principal Investigator until June 2009). Aims at the design of a new type of Ethernet Switches that include flexible transmission control capabilities together with enhanced traffic classification and filtering that boost safety and timeliness while maintaining operational flexibility.

- "*ArtistDesign: Network of Excellence on Embedded Systems Design*", 1 jan 2008 – 31 mar 2012, supported by the European Community through the ICT program- 7th FP, NoE ICT-214373, 4,5M€ / ~125k€, *http:// www.artist-embedded.org/* (Member of the Strategic Management Board and local coordinator). Involved 30 institutions and it was a continuation of the ARTIST2 NoE aiming at supporting integration with other groups across Europe in the broad area of Embedded Systems

Design. Main work of the FEUP/IT Porto team was on operational flexibility and dynamic reconfiguration in distributed real-time systems. In particular, the team leader, Luis Almeida was involved in the NoE Strategic Management Board, led the writing of a deliverable that systematically covered the research agenda in networks for embedded systems and participated in numerous outreach events around the world, namely summer schools in Europe, Asia (China), South America (Argentina) and Africa (Morocco). This NoE became the focal point of the Embedded Systems community in Europe. Its dissemination role was then taken up by the EMSIG special interest group within EDAA.

- *"ACORD: Adaptive Coordination of Robotic Teams"*, (2008 – 2009), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PTDC/EIA/70695/2006 (member of the research team).

- *RMS – Revolutionary Motorsport Systems* (2007-2009), supported by the Portuguese Government through Agência de Inovação, nº 70/00331, involving Bosh Engineering, Robert Bosch, Kulzer Consultores and Universidade de Aveiro (member of the UA team).

- *Concurso Micro-Rato da Universidade de Aveiro: Actividades de Divulgação da Robótica Móvel* (Sept 2005 – June 2008), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia, POCTI/DIV/2005/00132. Aims at developing a permanent exhibition to integrate in a science center addressing mobile robotics, starting from sensors, going through actuators up to behaviors.

- *"ARTIST2: Network of Excellence on Embedded Systems Design"*, (2004 – 2008), supported by the European Community through the IST program- 6th FP NoE IST-004527 (local coordinator). 35 institutions. Supports integration with other groups across Europe. Main work of the Aveiro team has been on operational flexibility and dynamic reconfiguration in distributed real-time systems.

- *QoS in Distributed Computer Control Systems*, (2005 – 2007), Bilateral cooperation with the University of Zhejiang, China (coordinator of the portuguese part). The work was shifted from the initial target of QoS in DCCS to topics in mobile ad-hoc wireless communication.

- *"CAMBADA: Cooperative, Autonomous, Mobile robots Based on an Advanced Distributed Architecture"*, (2002-2003), supported by the UA, (2003-2005) supported by the Portuguese Government through Fundação para a Ciência e Tecnologia POSI/ROBO/43908/202 (member of the research team).

- "ARTIST*: Advanced Real-Time Systems*", (2002 – 2005), supported by the European Community through the IST program- accompanying measures IST-2001-34820 (local coordinator, also coordinated the writing of the section on real-time networks in the *roadmap* generated as a deliverable within the project) 24 institutions.

- *"DISCO: Distributed Embeddable Systems for Control Applications"*, (2000 – 2003), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia PCTI/1999/SRI/34244 (member of the research team).

- *"CIDER: Communication Infrastructure for Dependable, Evolvable Real-time systems"*, (2000 - 2003), supported by the Portuguese Government through Fundação para a Ciência e Tecnologia POSI/1999/CHS/33139 (local coordinator).

- *"ARMONIO: Plug & Play Architecture for Monitoring the Water Quality along the Sea Coast"*, (2002-2003), supported by the Portuguese Government - Ministry of Defense (member of the research team).

PROJECT REVIEWING

- USA: University of Missouri : 2014-2015 (2)

- France: HCERES – Haut Conseil de l'Evaluation de la Recherche et de l'Enseignment Supérieur: 2015 (1)

- Check Republic : GACR – Czech Science Foundation: 2015 (1)

- Netherlands: NWO – Netherlands Organization for Scientific Research, Innovational Research Incentives Scheme Veni: 2014 (1)

- Italy: MIUR – Ministero dell'Istruzione, dell'Università e della Ricerca – PRIN, Futuro della Ricerca, POR Calabria: 2016-2003 (9)

- Sweden: Knowledge Foundation: 2011-2010 (2)

- Austria: FWF – Austrian Science Fund, Translational Research Programme: 2008 (1)