

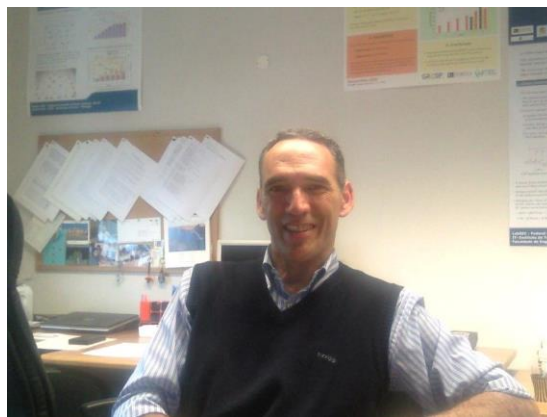
***Curriculum vitae* of Francisco Vasques**

Personal data:

Name: Francisco M. M. C. Vasques de Carvalho
Place and date of birth: July 7, 1964, Porto, Portugal
Nationality: Portuguese

E-mail: vasques@fe.up.pt
<http://paginas.fe.up.pt/~vasques/>

Address: Rua Dr. Roberto Frias s/n, 4200-465 Porto, Portugal
Phone: +351 225081702



Academic Degrees

Year	Degree	Institution
1996	Doctorat en Informatique Industrielle (PhD in Computer Systems)	Université Paul Sabatier, Toulouse, France
1992	DEA en Informatique Industrielle (MSc in Computer Systems)	Université Paul Sabatier, Toulouse, France
1987	Licenciatura em Engenharia Electrotécnica (Graduation in EE)	FEUP, Portugal

Teaching and Research Positions

Associate Professor at the Mechanical Engineering Department (DEMec) of the University of Porto, since 2004;

Senior Researcher at the “Systems Integration and Automated Processes” Research Unit (UISPA-INEGI), since 1999. This Unit is integrated in the Portuguese National Laboratory LAETA, <http://www.idmec.ist.utl.pt/laeta/>;

Collaborating Researcher at the “Centre for Power and Energy Systems” Research Unit (CPES-InescTEC), since 2015. This Unit is integrated in the Portuguese National Laboratory INESC-TEC, <http://www.inesctec.pt/>.

Past Positions

Head of the Mechanical Engineering Masters (Mestrado Integrado em Engenharia Mecânica) at the Faculdade de Engenharia da Universidade do Porto, since November 2006 till October 2014;

Main Research Domains

Real-Time Systems; Embedded Systems; Real-Time Communication Systems; Industrial Communications; Reliability issues in Communication.

<http://www.scopus.com/authid/detail.url?authorId=6603542902>

<http://www.researcherid.com/rid/B-2494-2013>

<https://www.authenticus.pt/en/profileOfResearchers/publicationsList/5527>

<http://lattes.cnpq.br/6852990292313124>

<http://scholar.google.com/citations?user=k14YI3MAAAAJ>

Short résumé:

Francisco Vasques got the MSc and PhD degrees in Computer Science at LAAS-CNRS, Toulouse, France, in respectively 1992 and 1996. Since January 2004, he is Associate Professor at the Mechanical Engineering Department of the University of Porto.

Prof. Francisco Vasques is author or coauthor of more than 150 technical papers in the areas of real-time systems and industrial communication systems. His current research interests include real-time communication systems, industrial communication, fault-tolerant systems, and real-time system architectures. Additionally, he is also interested in safety-critical computing systems and communications.

Prof. Francisco Vasques is Associate Editor of the IEEE Transactions on Industrial Informatics for the topic Industrial Communications, since 2007. He is also Member of the Editorial Board for the following scientific journals: International Journal of Distributed Sensor Networks (Hindawi Publishing), ISRN Communications and Networking (Hindawi Publishing), and Journal of Ubiquitous Systems and Pervasive Networks (IASKS Publications).

Prizes/Awards

- [3] Mitchel Felske, Carlos Montez, Alex S. R. Pinto, Francisco Vasques, Paulo Portugal. "GLHOVE: A Framework for Uniform Coverage Monitoring using Cluster-Tree Wireless Sensor Networks". **2013 ETFA Best Paper Award**, received at the 18th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA-2013), Cagliari, Italy, September 10-13, 2013.
- [2] Daniel G. Costa, Luiz Affonso Guedes, Francisco Vasques, Paulo Portugal. "Partial Energy-Efficient Hop-by-Hop Retransmission in Wireless Sensor Networks". **2013 INDIN Best Paper Award**, received at the IEEE 11th International Conference on Industrial Informatics (INDIN-2013), Bochum, Germany, July 29-31, 2013.
- [1] Tiago Semprebom, Carlos Montez, Gustavo Zomer and Francisco Vasques. "Guaranteed Time Slot Allocation for Periodic Messages with (m,k)-firm constraints in IEEE 802.15.4 Networks". **ETFA-2012 Best Paper Award**, received at the 17th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA-2012), Krakow, Poland, September 17-21, 2012.

Editorial Positions (present and past)

- [5] Member of the Editorial Board of the "International Journal of Distributed Sensor Networks", <http://www.hindawi.com/journals/ijdsn/>, since April 2014;
- [4] Member of the Editorial Board of the "International Scholarly Research Notices: Computer Engineering", <http://www.hindawi.com/journals/isrn/>, since February 2014;
- [3] Member of the Editorial Board of the "ISRN Communications Journal", <http://www.hindawi.com/isrn/>, since January 2010.
- [2] Member of the Editorial Board of the "Journal of Ubiquitous Systems and Pervasive Networks", <http://www.iasks.org/journals/juspn>, since 2010.
- [1] Associate Editor of the "IEEE Transactions on Industrial Informatics", for the topic of Industrial Communication Systems, since January 2007;

Steering Committee Positions

- [1] Member of the Steering Committee of the IEEE Workshop on Factory Communication Systems (WFCS) series, since September 2000;

Supervision of PhD thesis

On-Going Supervisions:

- [20] since Sept. 2015 – Co-Supervisor of the PhD thesis in Automation and Systems Engineering (Universidade Federal de Santa Catarina, Brazil), being done by Leonardo Rodrigues, entitled "Ajuste Adaptativo de Parâmetros e Escalonamento Adaptativo de Mensagens Garantidas em Redes IEEE 802.15.4".

- [19] since Sept. 2013 – Co-Supervisor of the PhD thesis in Informatics Engineering (FEUP) being done by Mara Martins, entitled "A Framework to Support Dependability Evaluation of WSNs from AADL Models".
- [18] since Sept. 2013 – Co-Supervisor of the PhD thesis in Informatics Engineering (FEUP) being done by Benedito Júnior, entitled "DySMCAr: Dynamic Star-Mesh Communication Architecture for Manufacturing Wireless Sensor Networks with IEEE 802.15.4e LLDN mode".
- [17] since Sept. 2012 - Supervisor of the PhD thesis in Informatics Engineering (FEUP) being done by Érico Leão, entitled "Alternative Paths in IEEE 802.15.4 Cluster-Tree Wireless Sensor Networks Using Inactive Periods".

Completed Supervisions:

- [16] Rodrigo Lange. "Métodos de Escalonamento de Mensagens para o Sistema de Comunicação FlexRay". PhD thesis in Automation and Systems Engineering (Universidade Federal de Santa Catarina, Brazil), September 2015 (co-supervisor).
- [15] Carlos Viegas, "Real-Time Communication Support in IEEE 802.11 Wireless Mesh Networks", PhD thesis in Informatics Engineering, Faculdade de Engenharia da Universidade do Porto, July 2015.
- [14] Sílvio Sampaio, "DHT-based Cluster Routing Protocol (DCRP): A Scalable Path Selection and Forwarding Protocol for IEEE 802.11s Mesh Networks". PhD thesis in Informatics Engineering, Faculdade de Engenharia da Universidade do Porto, June 2015.
- [13] Paulo Bartolomeu. "Dependable Wireless Real-Time Communications for Open Environments". PhD thesis in Electronic and Telecommunications Engineering (Universidade de Aveiro), September 2014 (co-supervisor).
- [12] Odilson Tadeu Valle. "Codificação de Rede na Retransmissão Oportunista de Mensagens em Redes de Sensores sem Fio IEEE 802.15.4". PhD thesis in Automation and Systems Engineering (Universidade Federal de Santa Catarina, Brazil), October 2014 (co-supervisor).
- [11] Ivanovitch Silva. "Uma Metodologia para Modelagem e Avaliação da Dependabilidade de Redes Industriais sem Fios". PhD thesis in Control and Automation Engineering (Universidade Federal do Rio Grande do Norte, Brazil), January 2013 (co-supervisor).
- [10] Tiago Semprebom, "Explorando Descartes de Ativações Periódicas para Provimento de Qualidade de Serviço em Redes IEEE 802.15.4", PhD thesis in Automation and Systems Engineering (Universidade Federal de Santa Catarina, Brazil), July 2012 (co-supervisor).
- [9] Raimundo Viegas Jr., "GSC: Especificação e Análise de Desempenho de um Mecanismo de Comunicação de Tempo-Real Compatível ao Padrão IEEE 802.11/11e Aplicado à Automação Industrial", PhD

thesis in Electrical Engineering (Universidade Federal do Rio Grande do Norte, Brasil), February 2010 (co-supervisor).

- [8] Valério Rosset, "Services for Safety-Critical Applications on Dual-Scheduled TDMA Networks", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, July 2009 (co-supervisor).
- [7] Francisco Carreiro, "Using the Ethernet Protocol for Real-Time Communication in Embedded Systems", PhD thesis in Electronic and Telecommunications Engineering, University of Aveiro, February 2008 (co-supervisor).
- [6] Ricardo Moraes, "Supporting Real-Time Communication in CSMA-Based Networks: The VTP-CSMA Virtual Token Passing Approach", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, July 9, 2007.
- [5] Luis Ferreira, "A Multiple Logical Ring Approach to Real-time Wireless-enabled PROFIBUS Networks", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, February 2005 (co-supervisor).
- [4] Max Mauro Santos, "Real-Time Communication Mechanisms for Control Systems interconnected by Industrial Communication Networks", PhD thesis in Electrical Engineering (UFSC, Florianópolis, Brazil), September 2004 (co-supervisor).
- [3] Mário Alves, "Real-Time Communications over Hybrid Wired/Wireless PROFIBUS-Based Networks", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, February 2003.
- [2] Luis Miguel Pinho, "A Framework for the Transparent Replication of Real-Time Applications", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, September 2001.
- [1] Eduardo Tovar, "Supporting Real-Time Communications with Standard Factory-Floor Networks", PhD thesis in Electrical and Computer Engineering, Faculdade de Engenharia da Universidade do Porto, July 1999.

Publications: Thesis

- [2] Francisco Vasques, "Sur l'Intégration de Mécanismes d'Ordonnement et de Communication dans la Sous-Couche MAC de Réseaux Locaux Temps-Réel", tese de doutoramento em "Informatique Industrielle", pela "Université Paul Sabatier (Toulouse III)", França, 1996.
- [1] Francisco Vasques, "Modélisation et Analyse de Mécanismes de Communication de la Norme ISA SP-50 (Réseaux Locaux Temps Critique)", "Rapport de DEA de l'Université Paul Sabatier (Toulouse III)", Toulouse, França, Julho de 1992.

Publications: Books (Editor)

- [4] Lucia lo Bello, Francisco Vasques (eds.), Proceedings of the 13th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'08), Hamburg, Germany, September 15-18, 2008.
- [3] Gianluca Cena, Francisco Vasques (eds.), Proceedings of the 6th IEEE International Workshop on Factory Communication Systems (WFCS-2006), Torino, Italy, June 2006, ISBN: 1-4244-0379-0
- [2] Thilo Sauter, Francisco Vasques (eds.), Proceedings of the 5th IEEE International Workshop on Factory Communication Systems (WFCS-2004), Vienna, Austria, September 2004, ISBN: 0-7803-8734-1.
- [1] Guy Juanole, Francisco Vasques (eds.), Proceedings of the 3rd IEEE International Workshop on Factory Communication Systems (WFCS-2000), Porto, Portugal, September 2000, ISBN: 0-7803-6500-3.

Publications: Journal Papers

- [46] Odilson Valle, Carlos Montez, Gustavo Araújo, Ricardo Moraes, Francisco Vasques. "NetCoDer: A Retransmission Mechanism for WSNs based on Cooperative Relays and Network Coding". In *Sensors* 2016, 16(6), 799; <http://dx.doi.org/10.3390/s16060799>.
- [45] Sílvio Sampaio, Pedro Souto and Francisco Vasques. "A Review of Scalability and Topological Stability issues in IEEE 802.11s Wireless Mesh Network Deployments". In *International Journal of Communication Systems – Wiley*, 2016. <http://dx.doi.org/10.1002/dac.2929>.
- [44] Pedro Souto, Paulo Portugal and Francisco Vasques. "A Reliability Evaluation of Broadcast Protocols for FlexRay". In *IEEE Transactions on Vehicular Technology*, (Vol.:65, Issue: 2), pp. 525 - 541 2016. <http://dx.doi.org/10.1109/TVT.2015.2402216>
- [43] Rodrigo Lange; Romulo Oliveira, Francisco Vasques. "A Reference Model for the Timing Analysis of Heterogeneous Automotive Networks". *Computer Standards & Interfaces*, Elsevier, November Vol. 45, March 2016, pp. 13–25. <http://dx.doi.org/10.1016/j.csi.2015.10.004>
- [42] Sílvio Sampaio, Pedro Souto, Francisco Vasques. "DCRP: a Scalable Path Selection and Forwarding Scheme for IEEE 802.11s Wireless Mesh Networks". In *EURASIP Journal on Wireless Communications and Networking* 2015, 2015:211. <http://dx.doi.org/10.1186/s13638-015-0438-7>
- [41] Daniel Costa, Affonso Guedes, Francisco Vasques, Paulo Portugal. "Um Protocolo Genérico Eficiente de Energia para Aplicações em Redes de Sensores sem Fio sem Restrição de Tempo de Resposta". In *Revista de Tecnologia da Informação e Comunicação (RTIC)*, Volume 5, Numero 1, 2015, 8-15. <http://dx.doi.org/10.12721/2237-5112/rtic.v5n1p8-15>
- [40] Rodrigo Lange, Francisco Vasques, Rômulo Oliveira, Paulo Portugal. "A Scheme for Slot Allocation of the

- FlexRay Static Segment Based on Response Time Analysis". In *Computer Communications*, Elsevier, Volume 63, 1 June 2015, Pages 65–76, 2015. <http://dx.doi.org/10.1016/j.comcom.2015.02.016>
- [39] Daniel Costa, Luiz Affonso Guedes, Francisco Vasques and Paulo Portugal. "Research trends in wireless visual sensor networks when exploiting prioritization". In *Sensors* 2015, 15(1), pp. 1760-1784; <http://dx.doi.org/10.3390/s150101760>.
- [38] Carlos Viegas, Francisco Vasques, Paulo Portugal, Ricardo Moraes. "Real-Time Communication in IEEE 802.11s Mesh Networks: Simulation Assessment considering the Interference of Non Real-Time Traffic Sources". In *EURASIP Journal on Wireless Communications and Networking*, 2014, 2014:219. <http://dx.doi.org/10.1186/1687-1499-2014-219>.
- [37] Daniel Costa, Luiz Affonso Guedes, Francisco Vasques and Paulo Portugal. "Relevance-based partial reliability in wireless sensor networks". In *EURASIP Journal on Wireless Communications and Networking*, 2014, 2014:142. <http://dx.doi.org/10.1186/1687-1499-2014-142>.
- [36] Daniel Costa, Ivanovitch Silva, Luiz Affonso Guedes, Francisco Vasques and Paulo Portugal. "Availability Issues in Wireless Visual Sensor Networks". *Sensors* 2014, n.º 14, pp. 2795-2821. <http://dx.doi.org/10.3390/s140202795>
- [35] Odilson Valle, Carlos Montez, Gustavo Araújo, Paulo Portugal and Francisco Vasques. "Enhancing Wireless Sensor Network Simulators with a Realistic Battery Discharge Function". In *INFORMATION Journal*, Vol.16, No.12(B), December, 2013, pp.8767-8780. http://www.information-iii.org/abs_e2.html
- [34] A. Pinto, C. Montez, G. Araújo, F. Vasques, P. Portugal, "An Approach to Implement Data Fusion Techniques in Wireless Sensor Networks using Genetic Machine Learning Algorithms". In *Special Issue on Resource Constrained Networks, Information Fusion*, Elsevier, vol. 15, Jan 2014, Pages 90–101, <http://dx.doi.org/10.1016/j.inffus.2013.05.003>
- [33] Daniel Costa, Luiz Affonso Guedes, Francisco Vasques and Paulo Portugal. "Adaptive Monitoring Relevance in Camera Networks for Critical Surveillance Applications". In *Special Issue on Recent Advances in Wireless Visual Sensor Networks, International Journal of Distributed Sensor Networks*, vol. 2013 (2013), 14 pages, <http://dx.doi.org/10.1155/2013/836721>
- [32] Daniel G. Costa, Luiz Affonso Guedes, Francisco Vasques, Paulo Portugal. "Redundancy-Based Semi-Reliable Packet Transmission in Wireless Visual Sensor Networks Exploiting the Sensing Relevancies of Source Nodes". In *WSEAS Transactions on Communications*, ISSN: 1109-2742, E-ISSN: 2224-2864, Volume 12, 2013.
- [31] Tiago Semprebom, Carlos Montez and Francisco Vasques. "(m,k)-firm Pattern Spinning to Improve the GTS Allocation of Periodic Messages in IEEE 802.15.4 Networks". In *EURASIP Journal on Wireless Communications and Networking*, 2013. <http://dx.doi.org/10.1186/1687-1499-2013-222>
- [30] Daniel Costa, Luiz Affonso Guedes, Francisco Vasques and Paulo Portugal. "Energy-Efficient Packet Relaying in Wireless Image Sensor Networks Exploiting the Sensing Relevancies of Source Nodes and DWT Coding". *Journal of Sensor and Actuator Networks* 2013, 2(3), 424-448; <http://dx.doi.org/10.3390/jsan2030424>
- [29] Raimundo Viegas Jr., Luiz A. Guedes, Francisco Vasques, Paulo Portugal, Ricardo Moraes. "A new MAC scheme specifically suited for real-time industrial communication based on IEEE 802.11e". *Computers and Electrical Engineering*, 2012, <http://dx.doi.org/10.1016/j.compeleceng.2012.10.008>
- [28] Raimundo Viegas Jr., Luiz Afonso Guedes, Francisco Vasques, Paulo Portugal, Ricardo Moraes, "Real-Time Industrial Communication Over IEEE802.11e Wireless Local Area Networks". *IEEE Latin America Transactions*, Volume: 10, Issue: 3, pages: 1844-1849. April 2012. <http://dx.doi.org/10.1109/tla.2012.6222592>
- [27] Valério Rosset, Pedro F. Souto, Paulo Portugal, Francisco Vasques, "Modelling the Reliability of a Group Membership Protocol for Dual-Scheduled Time Division Multiple Access Networks". *Computer Standards & Interfaces*, Elsevier, March 2012, <http://dx.doi.org/10.1016/j.csi.2011.10.004>
- [26] Ivanovitch Silva, Luiz Affonso Guedes, Paulo Portugal, Francisco Vasques, "Reliability and Availability Evaluation of Wireless Sensor Networks for Industrial Applications". *Sensors* n. 12(1), pp. 806-838., 2012; <http://dx.doi.org/10.3390/s120100806>
- [25] Ricardo Moraes, Francisco Borges Carreiro, Paulo Bartolomeu, Valter Silva, José Alberto Fonseca and Francisco Vasques, "Enforcing the Timing Behavior of Real-Time Stations in Legacy Bus-based Industrial Ethernet Networks". *Computer Standards & Interfaces - CSI*, vol. 33, no. 3, pp. 249-261, 2011. <http://dx.doi.org/10.1016/j.csi.2010.05.002>
- [24] Ricardo Moraes, Francisco Vasques, Paulo Portugal, "Survey of Real-Time Communication in CSMA-Based Local Area Networks". *International Journal "Network Protocols and Algorithms"*, Vol. 2, Issue 1, Macrothink Editors, 2010. <http://dx.doi.org/10.5296/npa.v2i1.327>
- [23] Ricardo Moraes, Paulo Portugal, Francisco Vasques, and Ricardo F. Custódio, "Assessment of the IEEE 802.11e EDCA Protocol Limitations when Dealing with Real-Time Communication," *EURASIP Journal on Wireless Communications and Networking*, vol. 2010, pp. 1-15, 2010. <http://dx.doi.org/10.1155/2010/351480>
- [22] Ricardo Moraes, Francisco Vasques, Paulo Portugal, Pedro F. Souto. "A forcing collision resolution approach able to prioritize traffic in CSMA-based networks". In *Computer Communications*, Volume 33, Issue 1, 15 January 2010, Pages 54-64. <http://dx.doi.org/10.1016/j.comcom.2009.07.018>

- [21] Gianluca Cena, Francisco Vasques, "Guest Editorial: Special Section on Communication in Automation—Part II". In *IEEE Transactions on Industrial Informatics*, Volume 4, Number 2, May 2008, pp. 69-70. <http://dx.doi.org/10.1109/tii.2008.922082>
- [20] Gianluca Cena, Francisco Vasques, "Guest Editorial: Special Section on Communication in Automation—Part I". In *IEEE Transactions on Industrial Informatics*, Volume 4, Number 1, Feb. 2008, pp. 2-5. <http://dx.doi.org/10.1109/TII.2008.919014>
- [19] R. Moraes, F. Vasques, P. Portugal, J.A. Fonseca, "VTP-CSMA: A Virtual Token Passing Approach for Real-Time Communication in IEEE 802.11 Wireless Networks". In *IEEE Transactions on Industrial Informatics*, Volume: 3, Issue: 3, Aug. 2007, pp. 215-224. <http://dx.doi.org/10.1109/TII.2007.903224>
- [18] António J. Pires, João P. Sousa, Francisco Vasques, "Reducing the Priority Inversion of CAN Communications by Scheduling Messages at the Outgoing Queue". In *WSEAS Transactions on Computers*, Issue 10, Volume 5, pp. 2412-2419, October 2006.
- [17] A. S. M. De Franceschi, K. S. Borges, R. Moraes, F. Vasques, "Autonomic Computing Systems: Using AI Techniques for the Development of Agents in the Network Management Domain," *WSEAS Transactions on Communications*, vol. 5, no. 8, pp. 1353-1360, October 2006.
- [16] Thilo Sauter, Francisco Vasques, "Editorial: Special Section on Communication in Automation". In: *IEEE Transactions on Industrial Informatics*, Volume 2, Issue 2, May 2006. <http://dx.doi.org/10.1109/TII.2006.875801>
- [15] R. Moraes, F. Vasques, P. Portugal, J. A. Fonseca, "A Traffic Separation Mechanism (TSM) allowing the coexistence of CSMA and real-time traffic in Wireless 802.11e Networks," *WSEAS Transactions on Communications*, vol. 5, no. 5, pp. 890-897, May 2006.
- [14] Luís Miguel Pinho, Francisco Vasques, Andy Wellings, "Replication Management in Reliable Real-Time Systems". In *Journal of Real-Time-Systems*, Volume 26, Issue 3, April 2004, pp. 261-296. Kluwer Academic Publishers. [doi.org/10.1023/B:TIME.0000018248.18519.46](http://dx.doi.org/10.1023/B:TIME.0000018248.18519.46)
- [13] Max M. Santos, Francisco Vasques, Marcelo Stemmer. "Avaliação das propriedades temporais de duas redes de controle: CAN e PROFIBUS". In *Acta Scientiarum. Technology*, v. 25, n. 2 (2003), pp. 193-201. ISSN 1806-2563. <http://dx.doi.org/10.4025/actascitechnol.v25i2.2210>
- [12] Luís Miguel Pinho, Francisco Vasques, "Reliable Real-Time Communication in CAN Networks". In *IEEE Transactions on Computers*, Volume 52, Issue 12, Dec. 2003 pp. 1594-1607. <http://doi.org/10.1109/TC.2003.1252855>
- [11] Luís Almeida, Eduardo Tovar, José A. Fonseca, Francisco Vasques, "Schedulability Analysis of Real-Time Traffic in WorldFIP Networks: an Integrated Approach", *IEEE Transactions on Industrial Electronics*, Vol. 49, n° 5, October 2002. <http://doi.org/10.1109/TIE.2002.803242>
- [10] Luís Miguel Pinho, Francisco Vasques. "Using Ravenscar to support fault-tolerant real-time applications", In *ACM SIGAda Ada Letters* volume XXII issue 4, page 47 Dec 2002. <http://doi.org/10.1145/584417.584424>
- [9] Eduardo Tovar, Francisco Vasques, Alan Burns, "Communication Response Time in P-NET Networks: Worst-Case Analysis Considering the Actual Token Utilisation", *Journal of Real-Time-Systems*, 22, 229-249, 2002 Kluwer Academic Publishers. <http://doi.org/10.1023/a:1014554317965>
- [8] Luís Miguel Pinho, Francisco Vasques and Luís Ferreira, "Programming Atomic Multicasts in CAN", *ACM Ada Letters*, Vol. XXI, N. 1, pp 79-84, March 2001. <http://doi.org/10.1145/374369.374386>
- [7] Eduardo Tovar, Francisco Vasques, "Distributed Computing for the Factory-Floor: a Real-Time Approach using WorldFIP Networks", *Computers in Industry*, vol. 44/1, pp. 11-31, December 2000, Elsevier Press. [http://doi.org/10.1016/S0166-3615\(00\)00078-6](http://doi.org/10.1016/S0166-3615(00)00078-6)
- [6] Luís Miguel Pinho and Francisco Vasques, "To Ada or Not To Ada: Adaing vs. Javaing in Real-Time Systems", *ACM Ada Letters*, Vol. XIX, N. 4, pp 37-43, December 1999. <http://doi.org/10.1145/340396.340446>
- [5] Eduardo Tovar, Francisco Vasques, "Real-Time Fieldbus Communications Using Profibus Networks", *IEEE Transactions on Industrial Electronics*, Vol. 46, n° 6, pp 1241-1251, December 1999. <http://doi.org/10.1109/41.808018>
- [4] Eduardo Tovar, Francisco Vasques, "Cycle Time Properties of the PROFIBUS Timed Token Protocol", *Computer Communications*, vol. 22, September 1999, pp. 1206-1216, Elsevier Press. [http://doi.org/10.1016/s0140-3664\(99\)00123-1](http://doi.org/10.1016/s0140-3664(99)00123-1)
- [3] Eduardo Tovar, Francisco Vasques, Alan Burns, "Supporting Real-Time Distributed Computer-Controlled Systems with Multi-hop P-NET Networks", *Control Engineering Practice*, vol. 7, August 1999, pp. 1015-1025, Pergamon Press. [http://doi.org/10.1016/S0967-0661\(99\)00073-8](http://doi.org/10.1016/S0967-0661(99)00073-8)
- [2] Luis Miguel Pinho, Francisco Vasques, "Replica Management in Real-Time Ada 95 Applications", *Ada Letters*, vol XIX, n°2, July 1999, pp. 21-27, ACM Press. <http://doi.org/10.1145/334725.334731>
- [1] Luis Miguel Pinho, Francisco Vasques, "Multi- μ : an Ada 95 Based Architecture for Fault Tolerance Support of Real-Time Systems", *Ada Letters*, vol XVIII, n° 6, November 1998, pp. 52-60, ACM Press. <http://dx.doi.org/10.1145/301687.289532>