

CV - José António Barata de Oliveira

Education:

- PhD in Electrical Engineering, Universidade Nova de Lisboa. 2004
- M.Sc. degree in Computer Science Engineering, Universidade Nova de Lisboa, 1995.
- Engineering degree in Computer Science, Universidade Nova de Lisboa, 1990.
- B.S. degree in Electrical Engineering, Instituto Superior de Engenharia de Lisboa, 1987.
- B.S degree in Maritime Telecommunications, Escola Náutica Infante D. Henrique, 1982.

Current Position:

- Professor at the Faculty of Sciences and Technology, Universidade Nova de Lisboa.
- Researcher of the Group of Robotic Systems and CIM of the Center for Intelligent Robotics of the UNINOVA Institute.

Teaching experience:

Data and Knowledge Representation Structures, Operating Systems, Microcomputers and Real Time, Robotics, Robotic Systems, Project of Robotic Systems in CIM, CIM Information Systems, Multimedia Information Systems, Intelligent Supervision.

Research activities:

Current research interests:

- Adaptive and Evolvable Manufacturing Systems
 - Self-Organisation
 - Emergence
 - Complexity Theory
 - Swarm Algorithms
- Information and knowledge integration for CIM
 - Shopfloor Integrating infrastructures,
- Monitoring, error diagnosis and recovery,
- Collaborative Organisations
 - Manufacturing Systems Life-Cycle,
 - Virtual Organisations,
 - Collaborative organisations
- Service Robots
 - Localisation,
 - Human Robot Interaction.

Participation in the following projects:

- ESPRIT II Projects: Nr. 2202 - CIM-PLATO: CIM Toolbox (1989-1994) (coordinator of the UNL team and speaker of the group for Information Integration in CIM);
- Ibero-American cooperation network on Flexible Production Systems (1991-1992).
- Esprit Basic Research B-LEARN II : Behavioral Learning - Combining sensing and action (1992-1995).
- COMETT 6647 PrintSIM- Training Environment for Printing Technology(1992-1995).
- JNICT SARPIC: Autonomous Systems in Robotics and CIM, 1990-1993.
- JNICT CIM-CASE: Tools for planning CIM systems, 1992-1995.
- PEDIP Project – Design and Implantation of a Flexible Manufacturing Cell, (1992 –1994)
- Esprit EC-Latin America Exploratory Collaborative Activity ECLA003: 76101 FlexSys: Design of FMS/FAS systems for SMEs (1993-1996).
- Robotized video cassette dispenser machine [1993-1995].
- VALUE EPDT (1995).
- Cooperation JNICT Portugal - Hungary – Design of Flexible Manufacturing Systems, (1996-1997)
- PRAXIS MAGMEC (1997-1999).

- PRAXIS TOD-CME – Desenvolvimento de Sistemas Complexos de Produção (1997-2000).
- Esprit ESCN 24883 – European Step Centres Network (1997-1999).
- INCO-DC ProSME (1997-2000).
- Leonardo PostPressSim - Computer Aided Training for Book Binding (1995-1998)
- TSER IFC – Integrated Funding Concept – (1999-2000)
- E-Learn – Tool for Remote Training – (1999-2000)
- Cooperation ICCTI – Embaixada de França / Portugal. Project 332-B4 – COMME-AGATHE - Communication Multi-Agents pour L’Atelier (1999, 2000)
- Project UNINOVA – BLAUPUNKT (Braga)– Robots for Quality Monitoring, 1999
- IST 13015 – FETISH – Federated European Tourism Information System Harmonisation, (2000-2002)
- Network CE-NET – IST – 1999-29107 – Concurrent Engineering Network of Excellence, (2001-2004)
- Network ASSEMBLY-NET – Growth - GIRT-CT-2001-05039– Precision Assembly Technologies for Mini and Micro Products, (2001-2004).
- IST-2000-29478 – THINKcreative - Thinking network of experts on emerging smart organizations (2001-2004).
- IST-2001-38379 Project – VMap – Roadmap Design for Collaborative Virtual Organisations in Dynamic Business Ecosystems, June 2002 / June 2003
- EC-FP6 Integrated Project – Integrating and Strengthening the ERA - EUPASS – Evolvable Ultra-Precision Assembly Systems - NMP2-CT-2004-507978 – 1st Nov 2004 / 31 Oct 2008.
- EC-FP6 Strep InLife – Integrated Ambient Intelligence and Knowledge-Based Services for Optimal Life-Cycle Impact of Complex Manufacturing and Assembly Lines – NMP2-CT-2005-517018 – 1st Nov 2005 / 31st Oct 2008.

PhD Evaluating Boards

- *Strategic Issues for Achieving Sustainable Automatic Assembly – Towards Evolvable Assembly Systems*, Henric Alsterman, KTH – Stockholm, 7th May 2004.
- *Module Property Verification – A method to plan and perform quality verifications in modular architectures*, Patrik Kenger, KTH – Stockholm, 22th May 2006.
- *Towards an Ontology Framework for the Integrated Design of Modular Assembly Systems*, Niels Lohse, University of Nottingham – Nottingham, 22th June 2006.
- *Behaviour and Navigation in Autonomous Vehicles Based on Fuzzy Models*, António Paulo Duarte Gomes de Abreu, FCT, Universidade Nova de Lisboa, 4th March 2008. Member of the Jury.
- *Collaborative Networks in Elderly Care*, Luís Octávio Gonzalez Castolo, FCT, Universidade Nova de Lisboa, 8th April 2008. Member of the Jury.
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Other activities:

Member of the Organizing Committee of:

- PRINTSIM, Course on Teaching and Training with Print Simulators in Multimedia Environment, Lisboa, 3-5 Mar 1994
- ECLA.CIM’93 - European Community - Latin America workshop on Computer Integrated Manufacturing 1993, 22-26 Nov 93, Lisboa, Portugal
- SPRINT Workshop on STEP: Product Data Technology and its industrial impact, Lisboa, Portugal, 14-15 Apr 94.
- ESCN Workshop on STEP: Introduction to STEP and Its Role for SMEs, Lisbon, Portugal - Mar 1999
- 6^a Jornadas Luso-Espanholas de Engenharia Electrotécnica, 7th to 9th Jul 1999. Lisbon. Portugal
- PROVE02 - 3rd IFIP Working Conference on INFRASTRUCTURES FOR VIRTUAL ENTERPRISES, 1st to 3rd May, Sesimbra, Portugal.
- ETFA 2003 - 9th IEEE International Conference on Emerging Technologies and Factory Automation, Lisboa, Portugal, 16-19 Setembro de 2003 (Registration Chairmain).

Program Committee Chair

- SIES 2007 – IEEE Second International Symposium on Industrial Embedded Systems, Costa da Caparica, Portugal, 4-6 July (Co-Chair).

Special Session Organiser in Scientific Conferences

- ISIE'06 – IEEE International Symposium on Industrial Electronics, Montreal, Canada, July 9th – 13th, 2006.
 - o Special Session *ss6 – Evolvable Production Systems*. 11 Jul 2006 – 10:30 to 12:30
- ISIE'07 – IEEE International Symposium on Industrial Electronics, Vigo, Spain, July 4th – 7th, 2007.
 - o Special Session *ss17 – Evolvable Production Systems (2 sessions EPS1 & EPS2)*.

Member of the Programme Committee of:

- PDT Europe'99-00-01-02-03-04-05-06 – Product Data Technology Europe.
- CARS&FOF'02 – 18th International Conference on CAD/CAM, Robotics and Factories of the Future. July. Porto.
- 1st International Conference on Industrial Applications of Holonic and Multi-Agent Systems (HOLOMAS 2003), Sep 2003.
- ETFA 2003 - 9th IEEE International Conference on Emerging Technologies and Factory Automation, Lisboa, Portugal, 16-19 Sep 2003 (Track 9 - Information Technology in Enterprise Integration).
- BASYS'04 - 6th IFIP International Conference on Information Technology for Balanced Automation Systems in Manufacturing and Services, Viena, Austria, 27-29 Sep 2004.
- PRO-VE'04 - 5th IFIP Working Conference on Virtual Enterprises, Toulouse – France, 23-26 Aug 2004.
- PRO-VE'05 - 6th IFIP Working Conference on Virtual Enterprises, Valência – Spain, 23-26 Sep 2005.
- INDIN'2005 – 3rd International IEEE Conference on Industrial Informatics, Perth – West Australia, 10-12 Aug 2005.
- ISC2005 – Industrial Simulation Conference 2005 – Track Simulation in Engineering Processes, Berlin – Germany, 9-11 June 2005.
- HOLOMAS'05 - 2nd International Conference on Industrial Applications of Holonic and Multi-Agent Systems, 29-31 Aug 2005, Copenhagen - Denmark.
- ESM2005 – European Simulation and Modelling Conference 2005 – Track Web Based Simulation, Porto – Portugal, 24-26 October 2005.
- JETC05 – Jornadas de Engenharia Electrónica e Telecomunicações e de Computadores, ISEL, Lisboa – Portugal, 17-18 Nov 2005.
- PRO-VE'06 - 7th IFIP Working Conference on Virtual Enterprises, Helsinki – Finland, 25-25 Sep 2006.
- ISC2006 – Industrial Simulation Conference 2006 – Track Simulation in Engineering Processes, Palermo – Italy, 5-7 June 2006.
- INDIN'2006 – 4th International IEEE Conference on Industrial Informatics, Singapore – West Australia, 16-18 Aug 2006.
- ESM2006 – European Simulation and Modelling Conference 2006 – Track Web Based Simulation, Toulouse – France, 23-25 October 2006.
- BASYS'06 – 7th IFIP International Conference on Information Technology for Balanced Automation Systems in Manufacturing and Services, Niagara Falls, Ontario, Canada, 4-6 Sep 2006.
- MESM 2006 – 8th International Middle Eastern Multiconference on Simulation and Modelling, Alexandria, Egypt, 28th – 30th August 2006.
- INADIS 2006 – Workshop on Industrial Applications of Distributed Intelligent Systems, Ribeirão Preto, Brazil, 23rd – 27th October.
- PRO-VE'07 - 8th IFIP Working Conference on Virtual Enterprises, Guimarães – Portugal, 10-12 Sep 2007.
- HOLOMAS'07 – 3rd International Conference on Industrial Applications of Holonic and Multi-Agent Systems, 3-5 Sep 2007, Regensburg - Germany.
- SOS'07 – Self-Organised Systems Workshop, Part of the 2007 Summer Computer Simulation Conference (SCSC'07), 14 – 19 Jul, San Diego, CA, USA.
- ISC2007 – Industrial Simulation Conference 2007 – Track Simulation in Engineering Processes, Delft – Netherlands, 11-13 June 2007.
- ESM2007 – European Simulation and Modelling Conference 2007 – Track Web Based Simulation, St Julian – Malte, 22-24 October 2007.

- ETFA 2007 – 12th IEEE International Conference on Emerging Technologies and Factory Automation, Patras - Greece, 25-28 Sep 2007 (Track 8 – Intelligent Robots and Systems).
- ISAM 2007 – IEEE International Symposium in Assembly and Manufacturing, Ann Arbor, Michigan – USA, 22-25 July 2007.
- INADIS 2007 – 2nd Workshop on Industrial Applications of Distributed Intelligent Systems, Salamanca, Spain, 12th November.
- IMS 2008 – 9th IFAC Workshop on Intelligent Manufacturing Systems, Szczecin, Poland, 9-10 October.
- SSCC 2008 – International Conference on Self-organization and Self-management in Computing and Communications, Glasgow, UK, 22-24 July.
- ETFA 2008 – 12th IEEE International Conference on Emerging Technologies and Factory Automation, Hamburg - Germany, 15-18 Sep (Track 6 – Intelligent Robots and Systems).
- INDIN 2008 – 6th International IEEE Conference on Industrial Informatics, Daejeon, Korea, 13-16 Jul.
- SIES 2008 – 3rd International Symposium on Industrial Embedded Systems, Montpellier, France, 11-13 June.
- HSI'08 – Conference on Human Systems Integration, Krakow, Poland, 25-27 May 2008.
- Robótica 2008 – 8th Conference on Autonomous Robot Systems and Competitions.
- PRO-VE'08 - 9th IFIP Working Conference on Virtual Enterprises, Poznam – Poland, 8-10 Sep 2008.
- ENICS 2008 – International Conference on Advances in Electronics and Micro-Electronics, Valencia – Spain, 29th Sep to 4th Oct 2008.
- SARC 2008 – Self-Adaptation for Robustness and Cooperation in Holonic Multi-Agent Systems, Venice – Italy, 20-24 Oct 2008.

Chairman

- Co-chairman of session on *Robótica – Manipuladores* - 4ths Jornadas Nacionais de PPPAC; Ordem dos Engenheiros
- Chairman of session on **Systems Engineering 3** (SE3) - INES'97, IEEE International Conference on Intelligent Engineering Systems 1997, Budapest, 15-17 Sep 1997
- Chairman of session 13 on **New Markets for STEP** – PDT'99, Product Data Technology Europe 1999, Stavanger, 13-16 Apr 1999
- Chairman of the Session B2 – Distributed Production Planning - 2nd IFIP/MASSIVE Working Conference on Infrastructures for Virtual Enterprises (PRO-VE 2000), Dec 2000
- Chairman of the Session A7 – Advanced Logistics - 18th International Conference on CAD/CAM, Robotics and Factories of the Future (CARS&FOF2002), Jul 2002
- Chairman of the session Distributed Artificial Intelligence - ETFA 2003 - 9th IEEE International Conference on Emerging Technologies and Factory Automation, Lisboa, 16-19 Sep 2003
- Chairman of the session Assembly and Microassembly - IMG 2004 - International Conference on Intelligent Manipulation and Grasping, Genova, 1-2 July 2004
- Chairman of the session Assembly Configurations and Applications - BASYS 2004 – 6th International Conference on Information Technology for Balanced Automation Systems in Manufacturing and Services, Vienna, Austria, 27-29 September 2004
- Chairman of the sessions Sensors and Control and Architectures and Models - ETFA 2005 - 10th IEEE International Conference on Emerging Technologies and Factory Automation, Catania - Italy, 19-22 September de 2005
- Chairman of the sessions AOSE, modelling and methodologies III and Learning and evolution of MAS I - CEEMAS 2005 – 4th International Central and Eastern European Conference on Multiagent Systems, Budapest - Hungary, 15-17 Sep de 2005
- Chairman of the session IIT-1 at ISIE'06 – IEEE International Symposium on Industrial Electronics, Montreal, Canada, July 9th – 13th, 2006.
- Chairman of the session Multiagent and Holonic Systems in Manufacturing at BASYS 2006 – 7th IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS in Manufacturing and Services, Niagara Falls, Canada, 4-6 September 2006.
- Chairman of the session Intelligent Manufacturing Systems at IAD/IMS 2007 – IFAC International Workshops on Intelligent Assembly and Disassembly, and Intelligent Manufacturing Systems, Alicante – Spain, 23-25 May 2007.
- Chairman of the sessions EPS1, EPS2 and FTPEC1 at ISIE'07 – IEEE International Symposium on Industrial Electronics, Vigo, Spain, June 4th – 7th, 2007.

Reviewer

- Reviewer for the 6th EU Framework Programme for Research and Technological Development (FP6). Marie Curie EIF, OIF, and IIF. March and April 2006.
- Reviewer for the 6th EU Framework Programme for Research and Technological Development (FP6). Integrated Projects: call FP6-2003-NMP-NI-4. October 2005.
- Reviewer and Jury for the ARCHIMEDES PRIZE from the EU Fifth Framework Program, Horizontal Program - Improving Human Research Potential and the Socio-economic Knowledge Base, Brussels, 2-3 October 2000.
- Program “Investigación Científica y Tecnológica”, Agencia Nacional de Promoción Científica y Tecnológica, Argentina.

Jury

- MicroRatos 99-01 - MicroRatos Mobile Robots Contest. Organised by the University of Aveiro.

Member of Technical Committees:

- IFAC TC on Cost Effective Automation (since 2001)

Industrial Experience (participation in projects)

- Blaupunkt – Automatic Assembly Line (OPEL Line) project
- Blaupunkt – Automatic Assembly Line (Hidro 2) project
- Blaupunkt – Automatic Assembly Line (Hidro 2) project
- Blaupunkt – Quality Control Inspection Cell
- ARP (Autoradios de Portugal) – Assembly Line for Recording Mechanisms
- SECIL – Truck Automatic Loading System
- INAPA – Maintenance of the Automatic Warehouse
- INAPA – Manual of Maintenance Procedures
- IntRoSys SA – Responsible for the Research in an Autonomous Robot for Surveillance and Demining actions

Member of the following associations: IEEE (since 1987), AAAI (since 1998), ACM (since 1992), ICS (since 1998).

Relevant Publications:

1. Camarinha-Matos, L.M.; H. Pita; R. Rabelo; J. Barata , *Towards a taxonomy of CIM Engineering Activities*, International Journal of Computer Integrated Manufacturing , Vol. 8, N. 3, May-June 95.
2. Camarinha-Matos, L.M.; L.S. Lopes; J. Barata, *Integration and learning in supervision of Flexible Assembly Systems* , *IEEE Trans. on Robotics and Automation*, Vol. 12, N. 2, Apr 96.
3. Camarinha-Matos, L.M.; Barata, J. *Manufacturing Systems Life Cycle Support and Shop Floor Reengineering in INES'98 - IEEE International Conference on Intelligent Engineering Systems 1998*, 17-19 Setembro 1998. Vienna: Austria.
4. Barata, J.; Camarinha-Matos, L.M. *Simulation Environment to Support the Life-Cycle of Book Production Systems in ESM'99 – 13th European Simulation Multiconference 1999*, 1-4 Junho 1999. Warsaw: Poland.
5. Colombo, W.; Camarinha-Matos, L.M.; Barata, J. *An Approach for Design, Optimization and Implementation of Flexible Production Systems Integrating Discrete-Event and 3D-Kinematics Simulations in ESM'99 – 13th European Simulation Multiconference 1999*, 1-4 Junho 1999. Warsaw: Poland.
6. Barata, J.; Camarinha-Matos, L.M.; and Freitas, Paulo. *Integração de um Sensor com Magneto-Resistência Gigante em Células Flexíveis de Produção* in 6^a Jornadas Luso Espanholas de Engenharia Electrotécnica, ISBN 972-595-095-X, Vol. 4 pp 489-496, 7-9 Jul 1999. Lisbon: Portugal.
7. Wanjun, K., Freitas, P., Compadrinho, P., & Barata, J. (2000). Precision X-Y robotic object handling using a dual GMR bridge sensor. *IEEE Transactions on Magnetics*, 36(5), 2782-2784.
8. Barata, J.; Camarinha-Matos, L.M. *Shopfloor Re-engineering To Support Agility in Virtual Enterprise Environments* in *PRO-VE 2000 – 2nd IFIP/MASSIVE Working Conference on Infrastructures for Virtual Enterprises*, Kluwer, pp. 287-291, ISBN 1-56555-172-9, 4-6 Dec 2000. Florianópolis: Brazil.

9. Barata, J.; Camarinha-Matos, L.M.; Boissier, R.; Leitão, P.; Restivo, F.; Raddadi, M. *Integrated and Distributed Manufacturing, a Multi-Agent Perspective* in Proceedings of 3rd Workshop on European Scientific and Industrial Collaboration – WESIC 2001, June 27th – 29th 2001. University of Twente. Twente: The Netherlands.
10. Barata, J.; Camarinha-Matos, L.M.; Colombo, W. *Uma Aproximação Baseada em Componentes para Integrar Recursos Software e Hardware de Manufatura* in in 7^{as} Jornadas Hispano-Lusas de Ingeniería Eléctrica, ISBN 84-95821-04-4, Vol. 4 pp 291-296, 4-6 Jul 2001. Leganés (Madrid): España.
11. Camarinha-Matos, L.M.; Barata, J. *Contract-Based Approach for Shop-Floor Re-engineering* in Proceedings of 6th IFAC Symposium on Cost Oriented Automation – LCA 2001, October 8th - 9th 2001. Technische Universität Berlin – Center of Human-Machine-Systems, Berlin, Germany.
12. Leitão, P.; Barata, J.; Camarinha-Matos, L.M.; Boissier, Raymond. *Trends in Agile and Co-operative Manufacturing* in Proceedings of 6th IFAC Symposium on Cost Oriented Automation – LCA 2001, October 8th - 9th 2001. Technische Universität Berlin – Center of Human-Machine-Systems, Berlin, Germany
13. Barata, J. and Camarinha-Matos, L. M., *Contract Management in Agile Manufacturing Systems*, in *Collaborative Business Ecosystems and Virtual Enterprises*, Camarinha-Matos, L. M. Kluwer Academic Publishers, New York, 2002, pp. 109-122.
14. Barata, J. and Camarinha-Matos, L. M., *Contract-Governed Agents in Agile Manufacturing*, in *CARs&FOF'2002 - 18th International Conference on CAD/CAM, Robotics, and Factories of the Future*, Porto, Portugal, 2002, pp 683-692.
15. Barata, J. and Camarinha-Matos, L. M., *Shop Floor Re-engineering Using Agents*, in *33rd International Symposium on Robotics - ISR2002*, Stockholm, Sweden, 2002, pp 635-640.
16. Barata, J. and Camarinha-Matos, L. M., *Implementing a Contract-based Multi-Agent Approach for Shop Floor Agility*, in *Holomas 2002 - 3rd International Workshop on Industrial Applications of Holonic and Multi-Agent Systems, in conjunction with DEXA '02*, Aix-en-Provence, France 2002. pp. 639-645.
17. Barata, J., & Camarinha-Matos, L. M. *Coalitions of Manufacturing Components for Shop Floor Agility - The CoBaSA Architecture*. International Journal of Networking and Virtual Organisations, 2003, Vol 2, Number 1, pp 50-77.
18. Barata, J., & Camarinha-Matos, L. M. *Multiagent Coalitions in Shop Floor Reengineering*. To appear in International Journal of Computer Integrated Manufacturing.
19. Onori, M., Camarinha-Matos, L. M., & Barata, J. *European Assembly - Status Report*. Assembly Automation, January 2003, Vol 23, Number 1, pp 8-12.
20. Onori, M., Camarinha-Matos, L. M., & Barata, J. *European Assembly: Opportunities or Threats?* In Proceedings of ISATP2003 - 2003 IEEE International Symposium on Assembly and Task Planning, Besançon, France, pp xiii-xviii.
21. Onori, M., Barata, J., Lastra, J., & Tichem, M. (2003). *European Precision Assembly - Roadmap 2010: Assembly-Net Project*, ISBN 91-7283-637-7.
22. Barata, J. (2003). *Coalition based Approach for Shop Floor Agility - A Multiagent Approach*. Unpublished PhD thesis, Universidade Nova de Lisboa, Faculdade de Ciências e Tecnologia, Monte Caparica
23. Alsterman, H., Barata, J., & Onori, M. (2004). *Evolvable Assembly Systems Platforms: Opportunities and Requirements*. In R. Molfino (Ed.), *Intelligent Manipulation and Grasping* (Vol. 1, pp. 18-23). Genova: IMG'2004.
24. Barata, J., Banahan, E., Pinho-Sousa, J., Sturm, F., Afsarmanesh, H., Playfoot, J., Tschammer, V., & Camarinha-Matos, L. M. (2004). *Emerging Collaborative Forms*. In L. M. Camarinha-Matos & H. Afsarmanesh (Eds.), *Collaborative Networked Organisations - A Research Agenda for Emerging Business Models* (pp. 41-64). Boston: Kluwer Academic Publishers.
25. Barata, J., & Onori, M. (2004a). *A New Shop Floor Approach For Agile Assembly Systems*. In M. Taisch & E. Filos & P. Garelo & K. Lewis & M. Montorio (Eds.), *Global Challenges in Manufacturing - IMS International Forum 2004* (Vol. 1, pp. 349-354). Milano: IMS Forum.
26. Barata, J., & Onori, M. (2004b). *A New Shop Floor Approach for Agile Assembly Systems*. In Proceedings of IPAS'2004 - International Precision Assembly System Seminar, Bad Hofgastein, Austria.
27. Barata, J., & Camarinha-Matos, L. M. (2004). *A Methodology For Shop Floor Reengineering Based on Multiagents*. In L. M. Camarinha-Matos (Ed.), *Emerging Solutions for Future Manufacturing Systems* (Vol. 159, pp. 117-128). New York: Springer.
28. Barata, J. (2005). *FETISH-ETF: Federated European Tourism Information System Harmonization – Engineerink Task Force*. In L. M. Camarinha-Matos & H. Afsarmanesh (Eds.), *Virtual Organizations – Systems and Practices* (pp. 301-302). Springer Science.
29. Onori, M., & Barata, J. (2005). *An Architecture Development Approach for Evolvable Assembly Systems*. In Proceedings of ISATP'05 - 6th IEEE International Symposium on Assembly and Task Planning, Montreal - Canada.
30. Barata, J. (2005) *Coalition Based Approach For ShopFloor Agility*. Lisbon: ORION

31. Cruz, H., Lisboa, J., Santana, P., Maltez, R., Barata, J., and Flores, L. (2005) *Two Sustainable and Compliant Robots for Humanitarian Demining*, in Proceedings of IARP International Workshop on Robotics and Mechanical Assistance in Humanitarian Demining - HUDEM2005, Tokyo - Japan, pp. 64-69
32. Santana, P., Mestre, A., Barata, J., and Flores, L., (2005), *Roadmap for Mine Action Robotic Technology Development*. Journal of Mine Action, 9(1), 89 – 91
33. Santana, P., Barata, J., & Flores, L. (2005). Multiagents Applied to Humanitarian Demining. In M. Pechoucek & P. Petta & L. Z. Varga (Eds.), *Multiagent Systems and Applications V* (Vol. 3690): Springer
34. Santana, P., & Barata, J. (2005). *Unmanned Helicopters Applied to Humanitarian Demining*. In Proceedings of 10th IEEE International Conference on Emerging Technologies and Factory Automation - ETFA 2005, Catania – Italy
35. Santana, P., Barata, J., Cruz, H., Mestre, A., Lisboa, J., & Flores, L. (2005). *A Multi-Robot System for Landmine Detection*. In Proceedings of 10th IEEE International Conference on Emerging Technologies and Factory Automation - ETFA 2005, Catania – Italy
36. Barata, J., Camarinha-Matos, L. M., & Onori, M. (2005). *A Multiagent Based Control Approach for Evolvable Assembly Systems*. In Proceedings of 3rd International IEEE Conference on Industrial Informatics, Perth – Australia
37. Flores, L., & Barata, J. (2003). *Object Oriented Software Engineering for Programmable Logical Controllers - A Successful Implementation*. In Proceedings of 2003 IEEE Conference on Emerging Technologies and Factory Automation - ETFA 2003, Lisbon – Portugal.
38. Lohse, N., Valtchanov, G., Ratchev, S., Onori, M., & Barata, J. (2005). *Towards a Unified Assembly System Design Ontology using Protégé*. Paper presented at the 8th Intl. Protégé Conference, Madrid – Spain
39. N. Lohse, S. Ratchev, and J. Barata, "Evolvable Assembly Systems – On the Role of Design Frameworks and Supporting Ontologies," in *ISIE'06 - IEEE International Symposium on Industrial Electronics*, Montreal - Canada, 2006, pp. 3375 - 3380.
40. T. Maraldo, M. Onori, J. Barata, and D. Semere, "Evolvable Assembly Systems: Clarifications and Developments to Date," in *CIRP/IWES 6th International Workshop on Emergent Synthesis*, Kashiwa - Japan, 2006.
41. J. Barata, P. Santana, and M. Onori, "Evolvable Assembly Systems: A Development Roadmap," in *Information Control Problems in Manufacturing 2006*. vol. 1, A. Dolgui, G. Morel, and C. E. Pereira, Eds. St Etienne - France: Elsevier, 2006, pp. 167-172.
42. J. Barata, G. Cândido, and F. Feijão, "A Multiagent Based Control System Applied To An Educational Shop Floor " in *Information Technology for Balanced Manufacturing Systems*. vol. 220, W. Shen, Ed. Boston: Springer, 2006, pp. 119-128.
43. M. Onori, J. Barata, and R. Frei, "Evolvable Assembly Systems Basic Principles," in *Information Technology for Balanced Manufacturing Systems*. vol. 220, W. Shen, Ed. Boston: Springer, 2006, pp. 317-328.
44. J. Barata and M. Onori, "Evolvable Assembly and Exploiting Emergent Behaviour," in *ISIE'06 - IEEE International Symposium on Industrial Electronics*, Montreal - Canada, 2006, pp. 3353 - 3360.
45. J. Barata, "The CoBASA Architecture as an Answer to Shop Floor Agility," in *Manufacturing The Future - Concepts, Technologies, Visions*, V. Kordic, A. Lazinica, and M. Merdan, Eds. Mammendorf: pro literatur Verlag, 2006, pp. 31-76.
46. P. Santana, V. Santos, and J. Barata, "DSAAR: A Distributed Software Architecture for Autonomous Robots," in *ETFA 2006 - 11th IEEE Conference on Emerging Technologies and Factory Automation*, Prague, 2006, pp. 1017-1020.
47. P. Santana, C. Cândido, V. Santos, and J. Barata, "A Motion Controller for Compliant Four-Wheel-Steering Robots," in *ROBIO - 2006 IEEE International Conference on ROBOTICS and BIOMIMETICS*, Kunming - China, 2006, pp. 532 - 537.
48. R. Frei, J. Barata, and G. Serugendo, "A Complexity Theory Approach to Evolvable Production Systems," in *MARS 2007 – 3rd International Workshop on Multi-Agent Robotic Systems in conjunction with ICINCO 2007 – 4th International Conference on Informatics in Control, Automation and Robotics*, Angers - France, 2007, pp. 44-53.
49. P. Santana, J. Barata, and L. Correia, "Sustainable Robots for Humanitarian Demining," *International Journal of Advanced Robotic Systems*, vol. 4, pp. 207-218, 2007.
50. P. Leitão and J. Barata, "An Agent-based Disturbance Handling Architecture in Manufacturing Control," in *IMS'07 - IFAC Intelligent Manufacturing Systems*, Alicante - Spain, 2007.
51. J. Barata, G. Cândido, and A. W. Colombo, "A Multiagent Based Control System for an Assembly Cell," in *IMS'07 - IFAC Intelligent Manufacturing Systems*, Alicante - Spain, 2007.

52. J. Barata, L. Ribeiro, and A. W. Colombo, "Diagnosis using Service Oriented Architectures (SOA)," in *INDIN'07 - 5th IEEE International Conference on Industrial Informatics*, 2007.
53. J. Barata, L. Ribeiro, and M. Onori, "Diagnosis on Evolvable Production Systems," in *ISIE'07 - IEEE International Symposium on Industrial Electronics*, Vigo - Spain, 2007.
54. J. Barata, R. Frei, and M. Onori, "Evolvable Production Systems: Context and Implications," in *ISIE'07 - IEEE International Symposium on Industrial Electronics*, Vigo - Spain, 2007.
55. J. Barata, M. Onori, R. Frei, and P. Leitão, "Evolvable Production Systems: Enabling Research Domains," in *CARV'07 - 2nd International Conference on Changeable, Agile, Reconfigurable, and Virtual Production*, Toronto - Canada, 2007.
56. G. Cândido and J. Barata, "A Multiagent Control System for Shop Floor Assembly," in *Holonic and Multi-Agent Systems for Manufacturing*. vol. 4659/2007, V. Marik, V. Vyatkin, and A. W. Colombo, Eds. Berlin / Heidelberg: Springer 2007, pp. 293-302.
57. R. Frei, L. Ribeiro, J. Barata, and D. Semere, "Evolvable Assembly Systems: Towards User Friendly Manufacturing," in *ISAM'07 - IEEE International Symposium on Assembly and Manufacturing*, Ann Arbor - Michigan - USA, 2007, pp. 288-293.
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