

## Dídac Busquets' Curriculum Vitae

### Personal details

First name:	Dídac
Last name:	Busquets Font
E-mail:	didac@cs.cmu.edu
Date of birth:	July 9 <sup>th</sup> , 1975
Place of birth:	Barcelona
Nationality:	Spanish

### Education

- 2003: **PhD in Computer Science** from the Technical University of Catalonia (UPC). The thesis was carried out in the Artificial Intelligence Research Institute (IIA-CSIC, Barcelona, Spain), under the supervision of Prof. Ramon López de Màntaras and Prof. Carles Sierra, and it was devoted to qualitative navigation in robotics. Title of the thesis: "A Multiagent Approach to Qualitative Navigation in Robotics".
- 1993-1999: Engineer on Computer Science, from Faculty of Computer Science (FIB) of the Technical University of Catalonia (UPC), Barcelona, Spain.

### Grants received

- 2004-2005: **Postdoctoral Fulbright Scholarship** awarded by Ministerio de Educación y Ciencia (Spanish Ministry of Education and Science). I am currently doing a postdoctoral stay at the Robotics Institute (Carnegie Mellon University, USA).
- 2000-03: Predoctoral scholarship (ref. 2000FI-191) for research personnel training, awarded by Generalitat de Catalunya (Catalan Government). During this time I carried out the doctoral thesis in the Artificial Intelligence Research Institute (IIA-CSIC).
- 1997-98: ERASMUS scholarship to study an academic year at the University of Bath (UK), School of Mathematics.

## **Participation in research projects**

- Title: Multiagent system for qualitative landmark-based navigation  
Carried out in the Artificial Intelligence Research Institute (IIIA-CSIC)  
Funded by: Spanish Ministry of Science and Technology  
From: 1<sup>st</sup> January 2001  
Until: 31<sup>st</sup> December 2003  
Responsible researcher: Ramon López de Màntaras

## **Participation in conferences**

- First International Conference on Informatics in Control, Automation and Robotics (ICINCO), Setúbal, Portugal, 2004, organized by Institute for Systems and Technologies of Information, Control and Communication (INSTICC), poster presentation.
- Summer school: Robots and humans, Santiago de Compostela, 2004, organized by Universidad de Santiago, participation in panel and talk.
- VI Catalan Conference on Artificial Intelligence (CCIA), Palma de Mallorca, Spain, 2003, organized by Catalan Association on Artificial Intelligence (ACIA), paper presentation.
- International Spatial Cognition Summer Institute, Bad Zwischenahn (Germany), August 24 – September 6, 2003, organized by University of Bremen and the International Quality Network on Spatial Cognition.
- First International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Bologna, Italy, 2002, organized by International Foundation for Multi Agent Systems (IFMAS) and Università di Bologna, poster presentation.
- V Catalan Conference on Artificial Intelligence (CCIA), Castelló, Spain, 2002, organized by Catalan Association on Artificial Intelligence (ACIA), paper presentation.
- AAAI Spring symposium, Stanford University, California, USA, 2001, organized by American Association for Artificial Intelligence (AAAI) and Stanford University, paper presentation.
- International Conference on Multi-Agent Systems (ICMAS), Boston, USA, 2000, organized by International Foundation for Multi Agent Systems (IFMAS), paper presentation.
- 14<sup>th</sup> European Conference on Artificial Intelligence (ECAI), Berlin, Germany, 2000, organized by European Coordination Committee on Artificial Intelligence (ECCAI), paper presentation.
- III Catalan Conference on Artificial Intelligence (CCIA), Vilanova i la Geltrú (Barcelona), 2000, organized by la Catalan Association on Artificial Intelligence (ACIA), paper presentation.

## Publications

### Journal articles

- D. Busquets, C. Sierra and R. López de Màntaras. *A multi-agent approach to fuzzy landmark-based navigation*. Journal of Multiple-Valued Logic and Soft Computing, Old City Publishing , Vol. 9, pp. 195-220, Old City Publishing, 2003.
- D. Busquets, C. Sierra and R. López de Màntaras. *A Multi-agent approach to qualitative landmark-based navigation*. Autonomous Robots Journal, Vol. 15, pp. 129-154, 2003.

### Conference contributions

- D. Busquets, R. López de Màntaras and C. Sierra. *Evolving a Multiagent System for Landmark-Based Robot Navigation*. Artificial Intelligence Research and Development (Proceedings of CCIA'03), pp. 87-98, IOS Press, 2003 (An extended version will appear in the International Journal of Intelligent Systems).
- T.G. Dietterich, D. Busquets, R. López de Màntaras and C. Sierra. *Action Refinement in Reinforcement Learning by Probability Smoothing*. Proceedings of the 19th International Conference on Machine Learning (ICML'02), pp. 107-114, 2002.
- D. Busquets, R. López de Màntaras, C. Sierra and T.G. Dietterich. *Reinforcement Learning for Landmark-based Robot Navigation*. Proceedings of the first International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2002, Bologna), pp. 841-842, ACM press, 2002.
- D. Busquets, T.G. Dietterich, R. López de Màntaras and C. Sierra. *A multi-agent architecture integrating learning and fuzzy techniques for landmark-based robot navigation*. Topics in Artificial Intelligence. Lecture Notes in Artificial Intelligence (Proceedings of CCIA'02), vol. 2504, pp. 269-281, Springer, Verlag, 2002.
- D. Busquets, R. López de Màntaras and C. Sierra. *A robust MAS coordination mechanism for action selection*. Proceedings of 2001 AAI Spring Symposium, Stanford, CA. Robust Autonomy Serie, pp. 38-40, 2001.
- Cortés, U., López-Navidad, A., Vázquez-Salceda, V., Vázquez S., Busquets, D., Nicolás, M., Lopes, S., F. Vázquez, F., Caballero, F. *An Agent Mediated Institution for the Exchange of Human Tissues among Hospitals for Transplantation*. Seventh International Conference on Information Networks, Systems and Technologies (ICINASTe-2001), pp. 206-213. Minsk, Bielorrussia, 2001.
- C. Sierra, R. López de Màntaras and D. Busquets. *Multiagent Bidding Mechanisms for Robot Qualitative Navigation*. Intelligent Agents VII. Lecture Notes in Artificial Intelligence, Vol. 1986 (Proceedings of ATAL 2000), pp. 198-212, Springer, Verlag, 2000.
- Cortés, U., López-Navidad, A., Vázquez-Salceda, V., Vázquez S., Busquets, D., Nicolás, M., Lopes, S., F. Vázquez, F., Caballero, F. *UCTx: A Multi-Agent approach to model a Transplant Coordination Unit*. 3r Congrés Català d'Intel·ligència Artificial (CCIA 2000). Butlletí de l'ACIA 22:23-28, 2000.

## Languages

<u>Language</u>	<u>Speaking</u>	<u>Writing</u>	<u>Reading</u>
Catalan (mother tongue)	Excellent	Excellent	Excellent
Spanish	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent
French	Fair	Fair	Fair
Japanese	Basic notions	Basic notions	Basic notions

<u>Certificates</u>	<u>Place and date of award</u>
Cambridge Certificate of Proficiency in English (CPE)	Bath, UK (June 1998)
Cambridge First Certificate in English (FCE)	Barcelona, Spain (June 1995)