

Carlos Beltrán-González

Curriculum Vitæ

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Education

- 2002–2005 **PhD in Electronics and Computer Science**, *University of Genova*, Italy.
- 1996–1998 **MSc in Software Engineering**, *University of Valencia*, Spain.
- 1991–1995 **Bachelor in Computer Science**, *Polytechnic University of Valencia*, Spain.

Professional Experience

- 2005-2008 **Post-Doctoral Researcher**, *Laboratory for Integrated Advanced Robotics*, University of Genova, Italy.
Project RESCUER (FP6-IST-2003-511492). Deputy member of the Overall Control Board. Member of the Executive Technical Board. Responsibilities: project management, coordination, research and technical development.
- 2002-2005 **Researcher**, *Laboratory for Integrated Advanced Robotics*, University of Genova, Italy.
Research work related to humanoid robotics, real-time computing, distributed systems, autonomous systems, binocular vision and manipulation. Projects: CogVis (IST-2000-29375), ADAPT (IST-2001-37173), Neurobotics (FP6-IST-001917), Narval (Esprit LTR Project-30185), Virgo (TMR Vision-Based Robot Navigation Research Network).
- 2001-2002 **Software developer**, *Aitek Srl*, Genova, Italy.
Design and development of traffic realtime monitoring systems and web based traffic information services. Internal projects: DVS, Monitraf, INFO2000, Autostrada Intraned Portal (Jetspeed), H3G Internet Portal.
- 2000-2001 **Researcher**, *Laboratory for Integrated Advanced Robotics*, University of Genova, Italy.
Research work related to mobile robot localization using a stereo vision robotic head. EU funded project RobVision *Robust Vision for Sensing in Industrial Operations and Needs* Esprit project N° 28867.
- 1999-2000 **Training and Mobility of Researchers (TMR) Fellowship**, *Aitek Srl*, Genova, Italy.
TMR Fellowship in the research contract FMRX-CT96-52 "*Semi-autonomous Monitoring And robotics Technology*" (SMART II).
- Second half of 1998 **Research Assistant**, *Robotics Institute*, University of Valencia, Spain.
Design and development of a virtual environment software for visualization of ceramic decoration.
- Summer 1997 **Research Fellowship**, *Lisitt Laboratory for Intelligent Systems and Traffic Information Technologies*, Robotics Institute-University of Valencia, Spain.
Participation in the european founded project SERTI *Southern European Road Telematics Implementation*. Design and development of a web service for real time traffic information using Geographic Information Systems.

Languages

Spanish **Native**

English **Very good**

Italian **Very good**

Computer skills

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|-------------|---------------------------|----------------|---------------------------------|
| OS | Linux, Unix, Windows, Qnx | administration | Linux, Qnx |
| programming | JAVA, C/C++ | scripting | Perl, shell, make, cmake |
| scientific | Matlab | typography | L ^A T _E X |
| web design | HTML, Javascript | editors | Vim, Emacs |

Publications

Journals

Gusztav Arz, Andras Tsth, Daniel Bratanov, Nikolay Zlatov, Roberto Guzman Diana, Stefko Burdzhev, Antonios Gasteratos, David Pereira, **Carlos Beltrán**, and Uberto Delprato. Eu fp6 project rescuer: the development of a dexterous robot and intelligent information technologies for eod/iedd/rescue missions. *Bolyai Szemle*, 15(1):pp. 21–27, 2006.

Vincze, Ayromlou, Ponweiser, **Beltrán**, and Gasteratos. A system to navigate a robot into a ship structure. *Machine Vision and Applications*, 14(1), 2003.

Antonios Gasteratos, **Carlos Beltrán**, Giorgio Metta, and Giulio Sandini. Pronto: A system for mobile robot navigation via cad-model guidance. *Microprocessors and Microsystems*, 26, 2002.

Conferences and Workshops

Carlos Beltrán-González and Giulio Sandini. Visual attention priming based on crossmodal expectations. In *IEEE/RSJ International Conference of Intelligent Robots and Systems (IROS'05)*, 2005.

Gusztav Arz, Andras Tsth, Daniel Bratanov, Nikolay Zlatov, Roberto Guzman Diana, Stefko Burdzhev, Antonios Gasteratos, David Pereira, **Carlos Beltrán**, and Uberto Delprato. Eu fp6 project rescuer develops intelligent robot and information technologies for eod/iedd/rescue mission. In *1st Middle-East European Conference on Military Technology*, Budapest, Hungary, 19-20 October 2005.

C. Beltrán, M. Ayromlou, W. Ponweiser, O. Mansen, M.Vincze, and A. Gasteratos. Cad based vision for guiding a mobile robot. In *In Proceeding of Advanced Concepts for Intelligent Vision Systems*, 2001.

W. Ponwiser, M. Ayromloy, M.Vincze, **C. Beltrán**, O.Madsen, and A. Gasteratos. Robvision - vision based navigation for mobile robots. In *In Proceedings of the International Conference on Multisensor Fusion and Integration for Intelligent Systems*, pages pp. 109–114, August 2001.

Minu Ayromloy, **Carlos Beltrán**, Antonios Gasteratos, Ole Madsen, Wolfgang Ponwiser, and Markus Vincze. Robvision - vision based navigation for mobile robots. In *In Proceedings of the 25th Workshop ÖAGM/AAPR*, pages pp. 25–32, 2001.

O. Madsen, M.Ayromloy, **C. Beltrán**, A. Gasteratos, W. Ponweiser, and M.Vincze. Model and vision based pose estimation for mobile robots. In *In Proceedings fo the IASTED International Conference on Robotics and Applications*, pages pp. 12–22, Tampa, Florida, USA, November 2001.

S.Galt, D.S. Cooke, G.Sandini, A. Gasteratos, and **C. Beltrán**. An advanced walking vehicle with autonomous navigation capabilities. In *In Proceedings of the 3rd International Conference on Climbing and Walking Robots*, pages pp.731–739, Madrid, Spain, 2000.

Theses

Carlos Beltrán González. *Toward Predictive Robotics: The Role of Vision and Prediction on the Development of Active Systems.* PhD thesis, Department of Communications Computer and Systems Science. University of Genova, 2005. PhD Thesis.

Carlos Beltrán González. *Use of Geographic Information Systems in home automation environments.* PhD thesis, Computer Science and Electronics Department. University of Valencia, 1996. MSc Thesis.

Carlos Beltrán González. *Computer Terminal over AX25 Protocol for Operating System Linux.* PhD thesis, Computer Science University School. Polytechnic University of Valencia, 1996. Bachelor Thesis.

Technical Reports

Antonios Gasteratos, , and **Carlos Beltrán.** Finding the 3d orientation of a line using hough transform and a stereo pair. Technical Report TR 3/00, LIRALab, 2000.

Giulio Sandini, **Carlos Beltrán,** and Giulio Sandini. Relazione sullo stato dell'arte della visione artificiale nell'ambito di progetti di ricerca per la robotica spaziale. Technical report, Commissione "Robotica Spaziale" - Italian Space Agency, 2001.