

Pablo Muñoz Martínez

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🌐 **Website:** <http://orcid.org/0000-0003-0581-5383>

Gender: Male **Nationality:** Spanish

WORK EXPERIENCE

[01/07/2006 – 31/08/2006] **IT technician**

Compusof S.A.

Address: Madrid, Spain

Main activities and responsibilities:
Maintenance of computers and help-desk.

[01/07/2007 – 27/02/2009] **IT technician**

Geography department, University of Alcalá

Address: Alcalá de Henares, Spain

Main activities and responsibilities:
Maintenance of computers and help-desk.

[01/04/2009 – 31/03/2011] **Researcher**

Computer engineering department, University of Alcalá

Address: Alcalá de Henares, Spain

Main activities and responsibilities:
Research on autonomy for robotics platforms.

[01/05/2011 – 30/09/2011] **Researcher**

Intelligent systems department, Technical University of Madrid

Address: Madrid, Spain

Main activities and responsibilities:
Research planning and scheduling techniques in the context of the SIGUEME project.

[01/10/2012 – 15/11/2016] **Predoctoral researcher**

Computer engineering department, University of Alcalá

Address: Alcalá de Henares, Spain

Main activities and responsibilities:
PhD on autonomous robots funded by ESA NPI programme.

[01/12/2016 – 31/01/2018] **Postdoctoral researcher**

Computer engineering department, University of Alcalá

Address: Alcalá de Henares, Spain

Main activities and responsibilities:
Writing project proposal for H2020, ESA ITT and Spain national and regional. Organizing the SMC-IT 2017 conference and continue previous research on autonomous robots.

[01/02/2018 – 31/07/2019] **Scientific employee**

Science & Technology

Address: Delft, Netherlands

Main activities and responsibilities:

Participate in the development of an adaptive driver decision support system in the context of the H2020 CERBERO project and in the implementation of the L2 Prototype Processors for the Sentinel 5 satellite.

[10/09/2019 – Current] **Engineering lecturer**

Computer engineering department, University of Alcalá

City: Alcalá de Henares

Country: Spain

**EDUCATION AND
TRAINING**

[09/2004 – 04/2009] **B.D. in Computer science**

Unviersity of Alcalá

Address: Alcalá de Henares, Spain

Level in EQF: EQF level 6

Main subject / occupational skills covered:

Degree dissertation: "autonomous control system for the locomotion of the Ptinto hexapod robot using the PIPSS planner".

[10/2010 – 01/10/2011] **M.D. in space technology**

University of Alcalá

Address: Alcalá de Henares, Spain

Level in EQF: EQF level 7

Main subject / occupational skills covered:

Masters dissertation: "Modular autonomous control architecture for the locomotion of the Ptinto hexapod robot".

Best academic record.

[01/10/2012 – 15/11/2016] **Ph.D. in space technology**

University of Alcalá

Address: Alcalá de Henares, Spain

Level in EQF: EQF level 8

Main subject / occupational skills covered:

Thesis dissertation: "evaluating and characterizing autonomous controllers".

Mentions: cum laude and international doctorate.

LANGUAGE SKILLS

Mother tongue(s): Spanish

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

PUBLICATIONS

Publications

<http://orcid.org/0000-0003-0581-5383>

Selection (see full list on orcid):

- D. Vaquerizo-Hdez, P. Muñoz, D. F. Barrero, and M. D. R-Moreno, "Continuous energy consumption measure approach using a DMA double-buffering technique," *EURASIP Journal on Wireless Communications and Networking*, no. 1, p. 172, 2021.
- A. Collado-Villaverde, P. Muñoz, and C. Cid, "Deep Neural Networks With Convolutional and LSTM Layers for SYM-H and ASY-H Forecasting," *Space Weather*, Apr. 2021.
- A. Collado-Villaverde, M. Cobos, P. Muñoz, and D. F. Barrero, "A Simulator to Support Machine Learning-Based Wearable Fall Detection Systems," *Electronics*, vol. 9, no. 11, p. 1831, Nov. 2020.
- F. Roperio, D. Vaquerizo-Hdez, P. Muñoz, D. F. Barrero, and M. D. R-Moreno, "LARES: An AI-based teleassistance system for emergency home monitoring," *Cognitive Systems Research*, vol. 56, pp. 213–222, 2019.
- F. Roperio, P. Muñoz, and M. D. R-Moreno, "TERRA: A path planning algorithm for cooperative UGV-UAV exploration," *Engineering Applications of Artificial Intelligence*, vol. 78, pp. 260–272, Feb. 2019.
- P. Muñoz, M. D. R-Moreno, D. F. Barrero, and F. Roperio, "MoBAR: a Hierarchical Action-Oriented Autonomous Control Architecture," *Journal of Intelligent & Robotic Systems*, Mar. 2018.
- P. Muñoz, M. D. R-Moreno, and B. Castaño, "3Dana: A Path Planning Algorithm for Surface Robotics," *Engineering Applications of Artificial Intelligence*, vol. 60, pp. 175–192, Apr. 2017.
- P. Muñoz, R-Moreno María D., and D. F. Barrero, "Unified Framework for Path-planning and Task-planning for Autonomous Robots," *Robotics and Autonomous Systems*, vol. 82, no. C, pp. 1–14, Aug. 2016.
- P. Muñoz, B. Castaño, and M. D. R-Moreno, "Simulation of The Hexapod Robot PTinto Walking on Irregular Surfaces," *International Journal of Simulation Modelling*, vol. 14, pp. 1–12, Mar. 2015.

HONOURS AND AWARDS

Honours and awards

- Best academic record M.D. in Space Technology (University of Alcalá, 2010)
- Second place in 8th contest of innovative ideas for creating new technological enterprises (University of Alcalá, 2015).
- International doctorate (cum laude) honored with the extraordinary doctorate award.

ORGANISATIONAL SKILLS

Organisational skills

I can manage and supervise of small teams. Particularly, I supervised the LARES project (3 undergraduate students and 2 PhD), an performed an industrial research project for Profine Iberia S.A. (6 researchers) as a PI. and I worked in the organizing committee of the SMC-IT 2017 international conference. I participated in several research projects proposals and as a reveiwer in international conferences and journals.

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

I have experience in teaching (more than 120 teaching hours in the university) and supervising undergraduate students (I supervised 4 B.D. and 2 M.D. dissertations). Currently I co-advise one PhD student. I participated as speaker in multiple international conferences and as a session chair in two conferences.