



## CURRICULUM VITAE (CVA)

**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website**

CV date	01/05/2024
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### Part A. PERSONAL INFORMATION

First name	Juan Pedro		
Family name	Bandera Rubio		
Gender (*)	Male	Birth date (dd/mm/yyyy)	18/04/1979
Social Security, Passport, ID number	291021885119		74846825H
e-mail	jpbandera@uma.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0003-3814-0335		

(\*) Mandatory

#### A.1. Current position

Position	Profesor Titular de Universidad (Assistant Professor)		
Initial date	2017		
Institution	Universidad de Málaga		
Department/Center	Tecnología Electrónica	ETSI Telecomunicación	
Country	Spain	Teleph. number	+34952132845
Key words	Artificial vision, image processing, social robotics, socially assistive robots, smart environments		

#### A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
2014-2017	Prof. Contratado Doctor / Universidad de Málaga / Spain / Gaining a position as Assistant Professor
2006-2014	Prof. Ayudante y Ayudante Doctor / Universidad de Málaga / Spain / Promotion
2005-2006	Becario FPU / Ministerio de Educación y Ciencia / Spain / Gaining a position as Prof. Ayudante
2003	Contratado Investigación / Universidad de Málaga / Spain / Gaining a FPU predoctoral grant

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Doctor Ingeniero de Telecomunicación	Universidad de Málaga / Spain	2010
Ingeniero de Telecomunicación Especialidad Electrónica y Comunicaciones	Universidad de Málaga / Spain	2003

### Part B. CV SUMMARY (max. 5000 characters, including spaces)

Sexenios: 2 (2005-2012; 2013-2018)

Sexenios de transferencia: 1 (2012-2018)

Total cites (Scopus – 01/05/2024): 419

Promedio de citas/año durante 2018-2023 (fuente: Scopus – 01/05/2024): 40,8

Q1 JCR publications: 4

h index (Scopus): 12

Dr. Bandera got his bachelor degree in 2003 and his PhD in 2010, both at University of Málaga. He has been working in this institution for the last 17 years, got an FPU doctoral grant in 2004, and joined the teaching corpus in 2006 as teaching assistant. After successive promotions, since 2017 he is holding an Assistant Professor position at that institution. He is a member of the Grupo de Ingeniería de Sistemas Integrados (TIC-125). His research focuses on social robotics, artificial vision and, more recently, socially assistive robots and smart environments. More precisely, he has worked in the design and implementation of gesture detection and recognition systems, learning by imitation systems, inner knowledge representations and cognitive architectures, multimodal interaction systems, attentional mechanisms, smart environments and socially assistive robots. He has authored more than 15 papers in international journals, most of them indexed at JCR, more than 30 conference contributions, and several book chapters. He has participated in the tutorization of 4 Thesis and is actually tutoring another one, all of them devoted to robotics and artificial vision. Dr. Bandera has been invited by research institutions in Portugal, United Kingdom, Germany, Spain and Singapore, for a total of 12 months of pre and post doctoral research stays. He has worked, as participant or coordinator, in numerous regional, national and international research projects, along with knowledge transfer contracts. His recent research points towards the inclusion of socially assistive robots in smart environments, aiming to deploy the full potential of these agents in shared ambient assisted living settings. The base of this research are the EU project CLARC, the regional projects ROSI and ITERA, the national projects LifeBots, DEHESA and CAMPERO, and the EU DIH-Hero project SUSTAIN, where the performance of a socially assistive robot, designed following a co-creative process centered in the user, is evaluated in a retirement house, in a long term experiment that will last for more than six months. Regarding smart environments, it is relevant to mention his participation as principal investigator in 4 projects at University of Málaga in the last years. The teaching activities of Dr. Bandera focuses on Electronics, and he is a co-author of a book about Freescale microcontrollers published by McGrawHill in 2008. He has participated in 4 educational innovation projects, and since 2009 he teaches in postgraduate courses, and coordinates the subject 'Artificial Vision'. He has also been involved in recent years in several international cooperation projects, as participant or coordinator.

## **Part C. RELEVANT MERITS** (*sorted by typology*)

### **C.1. Publications** (*see instructions*)

A. Iglesias, R. Viciano, J.M. Pérez-Lorenzo, K. Lan Hing Ting, A. Tudela, R. Marfil, M. Qbilat, A. Hurtado, A. Jerez, J.P. Bandera. 2024. The Town Crier: A Use-Case Design and Implementation for a Socially Assistive Robot in Retirement Homes. *Robotics* 13, 61.

S. Guillén, J.P. Bandera, A. Hidalgo-Paniagua, A. Bandera. 2023. Evolution of Socially-Aware Robot Navigation. *Electronics* 12: 1570.

O. Engwall, J.P. Bandera, S. Bensch, K.S. Haring, T. Kanda, P. Núñez, M. Rehm, A. Sgorbissa. 2023. Editorial: Socially, culturally and contextually aware robots. *Front. Robot. AI* 10: 1232215.

A. Romero-Garcés, J.P. Bandera, R. Marfil, M. González-García, A. Bandera. 2022. CLARA: Building a Socially Assistive Robot to Interact with Elderly People. *Designs* 6: 125.

S. Guillén, L.V. Calderita, A. Hidalgo-Paniagua, J.P. Bandera. 2020. Measuring Smoothness as a Factor for Efficient and Socially Accepted Robot Motion. *Sensors* 20: 6822.

R. Marfil, A. Romero-Garcés, J.P. Bandera, (et al), D. Voilmy. Corresponding author A. Bandera. Number of authors: 10. Author position 3/10. 2020. Perceptions or actions? - Grounding how agents interact within a software architecture for cognitive robotics. *Cognitive Computation* 12: 479-497.

P. Bustos, L.J. Manso, A. Bandera, J.P. Bandera, I. García-Varea, J. Martínez-Gómez. 2019., The CORTEX cognitive architecture: Use cases. *Cognitive Systems Research* 55: 107-123.

J.P. Bandera, R. Marfil, A. Romero-Garcés, D. Voilmy. 2019. A new paradigm for autonomous human motion description and evaluation: Application to the Get Up & Go test use case. *Pattern Recognition Letters* 118: 51-60.

A. Hidalgo-Paniagua, J.P. Bandera, M. Ruiz-de-Quintanilla, A. Bandera. 2018. Quad-RRT: A real time GPU-based global path planner in large-scale real environments. *Expert systems with Applications* 99: 141-154.

### C.3. Research projects

- *Title (reference)*: Maximizando la eficiencia de ecosistemas robóticos de asistencia mediante la integración de mecanismos de autoadaptación. Capacidades Autoadaptativas para Mejorar la Próxima generación de Ecosistemas de vida asistida y Robots sociales. (TED2021-131739B-C21)

- *Funding entity and call*: Spanish Ministerio de Ciencia e Innovación. Proyectos de Transición Ecológica y Transición Digital 2021

- *Start and end dates*: 01/12/2022 – 01/12/2024

- *Principal Investigator*: Juan Pedro Bandera Rubio (Universidad de Málaga)

- *Number of participants*: 17

- *Budget*: 188.830,00 €

- *Participation*: Principal Investigator

- *Title (reference)*: Sistema de percepción para un robot socialmente consciente. (PDC2022-133597-C42)

- *Funding entity and call*: Spanish Ministerio de Ciencia e Innovación. Proyectos I+D+i Pruebas de Concepto 2022

- *Start and end dates*: 01/12/2022 – 01/12/2024

- *Principal Investigator*: Juan Pedro Bandera Rubio (Universidad de Málaga)

- *Number of participants*: 5

- *Budget*: 50.255,00 €

- *Participation*: Principal Investigator

- *Title (reference)*: DIH-HERO GAITREHAB (08.06.00.41.99).

- *Funding entity and call*: Digital Innovation Hub Healthcare Robotics platform, EU Horizon 2020 research and innovation programme under grant agreement No 825003

- *Start and end dates*: 01/12/2022 – 01/05/2023

- *Principal Investigator:* Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 2
  - *Budget:* 9.625,00 €
  - *Participation:* Principal Investigator
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- *Title (reference):* DIH-HERO SUSTAIN (8.06/5.58.5900).
  - *Funding entity and call:* Digital Innovation Hub Healthcare Robotics platform, EU Horizon 2020 research and innovation programme under grant agreement No 825003
  - *Start and end dates:* 01/02/2021 – 01/05/2022
  - *Principal Investigator:* Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 3
  - *Budget:* 25.000,00 €
  - *Participation:* Principal Investigator
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- *Title (reference):* Diseño paramétrico, adaptativo y evolutivo de envolventes inteligentes en la edificación existente y de nueva obra en la UMA (SENSITIVE PANEL).
  - *Funding entity and call:* Universidad de Málaga, II Plan Propio de Smart-Campus
  - *Start and end dates:* 01/02/2021 - 01/02/2023
  - *Principal Investigators:* Ferrán Ventura Blanch; Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 4
  - *Budget:* 43.700,00 €
  - *Participation:* Principal Investigator
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- *Title (reference):* Naturalización de espacios educativos para nuevos modelos docentes innovadores.
  - *Funding entity and call:* Universidad de Málaga, II Plan Propio de Smart-Campus
  - *Start and end dates:* 01/02/2021 - 01/02/2023
  - *Principal Investigators:* Ferrán Ventura Blanch; Dolores Madrid Vivar; Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 7
  - *Budget:* 94.800,00 €
  - *Participation:* Principal Investigator
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- *Title (reference):* ROSI: Asistentes robóticos para residencias de personas mayores (AT17\_5509\_UMA).
  - *Funding entity and call:* Junta de Andalucía, Plan Andaluz de Investigación, Desarrollo e Innovación (PAIDI 2020).
  - *Start and end dates:* 01/12/2019 - 30/11/2020
  - *Principal Investigators:* Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 12
  - *Budget:* 64.785,00 €
  - *Participation:* Principal Investigator
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- *Title (reference):* Design of Human-oriented Emulators for Social Awareness (DEHESA) (RTI2018-099522-B-C41).
  - *Funding entity and call:* Spanish MICINN, 2018 Proyectos I+D+i Retos Investigación.
  - *Start and end dates:* 01/12/2019 - 31/12/2021
  - *Principal Investigators:* Antonio J. Bandera Rubio and Juan Pedro Bandera Rubio (Universidad de Málaga)
  - *Number of participants:* 5
  - *Budget:* 77.924,00 €
  - *Participation:* Principal Investigator

#### **C.4. Contracts, technological or transfer merits**