This document has 1 pages

1 Personal Data & Current position

Surname and name: CAMPOY, Pascual

Google Schoar: apPMLQ4AAAAJ h-index: 38
Orcid code: 0000-0002-9894-2009 h-index: 29
Researcher ID: H-6268-2011 h-index: 24
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Position: Full Professor and Group eader
Research Group: Computer Vision & Aerial Robotics
Centre: Centro de Automática y Robótica CSIC-UPM
Organization: Universidad Politécnica de Madrid.

2 Jobs

Category	Organism	From	To
Full Professor	U.P.M., ETSII	23-04-08	present
Visiting Professor	TUDelft (The Nethernads)	01-09-14	31-08-19
Visiting Professor	Tong Ji University (Shanghai-China)	01-11-13	15-12-3
Visiting Scientific	A.R.C.A.A.-Q.U.T. (Brisbane- Australia)	21-06-11	18-10-11
Full Professor	U.P.Cartagena	9-04-03	29-04-03
Funder	Spin-off "Innovacion Inspección Industrial Imágenes"	01-07-03	31-12-05
Associate Professor	U.P.M., ETSII	12-03-90	22-04-08
Temporal Associate Professor full-time	U.P.M., ETSII	17-10-89	11-03-90
Temporal Associate Professor part-time	U.P.M., ETSII	29-03-89	16-10-89
Visiting Researcher	IPA-Fraunhofer G. Stuttgart (Germany)	01-04-86	31-03-87
Researcher of Science Ministry	U.P.M., ETSII	01-01-85	31-12-88

3 Academic formation

- PhD on Automatics & Robotics at Universidad Politécnica Madrid, 1988
- Master on Engineering, esp. Automatics & Electronics at Universidad Politécnica Madrid, 1983

4 Lecturing activity

4.1 Master and PhD:

4.1.1 Master Systems and Control at TU Delft (The Neatherlands)

- "Visual Patern Recognition by Machine Learning" in English, 6 weeks, November 2014- January 2015.

4.1.2 International Master Program in Automatics at Tong-Ji University (Shanghai)

- "Machine Learning and Neural Networks" in English, 6 weeks, Novembe-December 2013.

4.1.3 Master in Industrial technologies at UPM (In Spanish)

- "Automation and Conntrol" 3ECTS, academic year 2015/16
- "INGENIA" , project based subject using System Ingeniering, 9 credits, academic year 2014/15 and 2015/16

4.1.4 Master and PhD "Automatics and Robotics" (Automática y Robótica) at U.P.M., awarded with the National Quality Nomination:

- "Machine Learning and Neural Networks" in English, 3 credits, academic year 2010-11, 2011-12, 2012-13, 2013-14, 2014-15 and 2015/16
- "Advanced Computer Vision Techniques" (in Spanish: Técnicas Avanzadas de Procesamiento de Imágenes), 3 credits, academic years 94/95, 96/97, 98/99, 10/11, 11/12, 12/13, 13/14, 14/15 and 15/16.
- "Neural Networks and Pattern Recognition" (in Spanish: Redes Neuronales y Reconocimiento de Patrones), 3 credits, academic years 06/07, 07/08, 08/09 y 09/10.
- "Computer Vision" (in Spanish: Visión por Computador), academic years 00/01, 01/02, 02/03, 03/04, 04/05 y 05/06.
- "Artificial Intelligence" (in Spanish: Inteligencia Artificial), academic years 02/03, 03/04 04/05 y 05/06.
- "Multimedia Processing" (in Spanish: Procesamiento Multimedia), academic years 00/01 y 01/02.
- "Visual Information Management" (in Spanish: Sistemas de Gestión de la Información Visual), academic year 98/99.

- "Machine Vision" (in Spanish: Sistemas de Visión Artificial), academic year 92/93, 93/94, 94/95, 95/96, 96/97, 97/98, 98/99 y 99/00.
- "Three-dimesnional Vision" (in Spanish: Visión Tridimensional), academic years 91/92, 93/94 y 95/96.
- "Pattern Recognition and Neural Networks applied to Image Processing" (in Spanish: Reconocimiento de Patrones y Redes Neuronales aplicados al Procesamiento de Imágenes), academic years 93/94, 95/96, 97/98 y 99/00.

4.2 Undergraduate:

4.2.1 Grade "Aerospace Avionics" at Queensland University of Technology, Australia (in English)

- "Linear Automatic Control with Applications in Manufacturing and Aerospace", four lectures (eight hours) for 3rd and 4th year students, August and September 2011.

4.2.2 Grade in Industrial Technologies at U.P.M. (in Spanish)

- "Linear System Dynamics", 3 credits, academic years 13-14, 14-15 and 2015/16
- "Multivariable Control" 3 credits, academic years 2013-14, 2014-15 and 2015/16
- "Automatics Grounds" 3 credits, academic years 13-14,

4.2.3 Grade in Chemical Ingebieering at U.P.M. (in Spanish)

- "Linear System Dynamics", 3 credits, academic years 12-13

4.2.4 Grade "Ingeniero Industrial" at E.T.S.I.I. in U.P.M. (in Spanish):

- "Elctronics and Automatic Control" (in Spanish: Electrónica y Regulación) 7th. semester, 9 credits, academic years 03/04, 04/05, 05/06, 06/07, 07/08, 08-09, 09/10, 10/11, 11/12, 12/13.
- "Advanced Control", 4.5 credits, academic year 13/14
- "Linear Systems" (in Spanish: Teoría de Sistemas) 5th. semester, 6 credits, academic years 02/03, 03/04, 04/05 y 05/06 .
- "Automatic Control I" (in Spanish: Regulación Automática I), 8th. Semester, academic year 85/86, 87/88, 88/89, 89/90, 92/93, 93/94, 94/95, 95/96, 96/97, 99/00, 00/01 y 01/02.
- "Automatic Control" (in Spanish: Regulación Automática), 10th. semester, academic year 85/86 87/88, 89/90, 90/91 y 02/03.
- "Automatic Control II" (in Spanish: Regulación Automática II), 10th. Semester, academic years 88/89, 89/90, 90/91, 91/92, 92/93, 93/94, 94/95, 95/96, 96/97, 97/98, 98/99, 99/00, 00/01, 01/02, 02/03 y 03/04 .

- "Automatic Control III" (in Spanish: Regulación Automática III), 12 th. semester, academic year academic year 91/92.

4.2.5 Grade "Ingeniero en Organización Industrial" at E.T.S.I.I. in U.P.M.:

- "Industrial Automation" (in Spanish: Automatización de Procesos Industriales), 4th. semester, 4,5 credits, academic years 04/05, 05/06, 06/07, 07/08, 08/09, 09/10 y 10/11.

4.2.6 Grade: "Ingeniero en Automática y Electrónica Industrial" at E.T.S.I.I. in U.P.M.:

- "Computer Control" (in Spanish: Control por Computador), 2nd semester, 6 credits, academic year 06/07.

5 Head of the R+D projects

5.1 Technology transfer projects

- "Soporte en Visión por Computador", tres proyectos de investigación continuados con la empresa Sigma_rail S.L. en temas de Vision y Machine Learning, comenzando el 21/02/2019 y terminando el 10/03/2020.

- "DAR System WP 1-A Drone platform definition for Outdoor and Indoor A/C Inspection", Contracted by AIRBUS Defense & Space, Ref: CT1807377, Duration: September 2018 to December 2018, Funding: 54,912.00

- "Detección Y Reconocimiento De Plantas Tropicales/Piñas En Imágenes Aéreas Adquiridas Por Drones" contracted by INDIGO Drones, Costa Rica, 2017-18

- "Indoors Visual Inspection of Power Plant Boilers using UAV" contracted by GASNATURAL-Union Fenosa, 2017-18

- "Autonomous System for Emergency Management (SALINE)" contracted by IXION Industry and Aerospace S.L. within the R&D program RETOS-Colaboración from the Spanish Ministry of Economy and Concurrence, 2016-18

- "Autonomous System for Surveillance and Security base don a Multirotor Swarm (ADVISE)" contracted by IXION Industry and Aerospace S.L. within the R&D program RETOS-Colaboración form the Spanish Ministry of Economy and Concurrence, 2016-18

- "Windmill blade inspection through Computer Vision" contracted by company Tratamiento Superficial Robotizado S.L. 2016-17

- "AEROS: Autonomous Working Windmill Inspection"

Project funded under the National R&D Program, RETOS-Colaboración RTC-2014-1977-3, with Diagnostiqa, Ixion Industry Aerospace y CENER-CIEMAT
Starting date: February 2014, Finishing date: May 2016

- "MESOANTEN: Security Improvement in UAV Operations in Naval Applications"

Project funded under the National R&D Program RETOS-Colaboración RTC-2014-1762-8, with Unmanned Solutions S.L.
Starting date: April 2014, Finishing date: December 2016

- "TAISAP: Alternative Technologies for Security Improvement on Precise Landing of UAVs"

Project funded under the National R&D Program AEESD, ref. nr. TSI-100103-2014-177, contracted by Unmanned Solutions S.L.
Starting date: December 2014, Finishing date: May 2016

- "Intelligent Power Line Inspection"

Project funded under the National R&D Program, INNPACTO IPT-2012-0491-120000, with Unión Fenosa S.A., INTA and Prysma S.A.
Starting date: September 2012, Finishing date: July 2015

- "SUPVERT: UAV for Otdoors Vertical Structure Inspection"

Project funded under the National R&D Program AVANZA ref. nr. TSI-020602-2012-43, contracted by , Ixion Industry Aerospace.
Starting date: Marz 2012, Finishing date: May 2014

- "Automatic drug detection system based on a visual test" contracted by the company Vincilab S.L.. S

Starting date: May 2013, Finish date: August 2013

- "E-Vision II: Prototype of a See and Avoid system for UAVs"

Contracted by Unmanned Solutions S.L. and supported by the AVANZA Program Ministery of Industry.
Starting date: September 2012, Finish date: December 2014

- "E-Vision I: Proof of concept for a See&Avoid system"

Contracted by Factoría Etsia S.L. and supported by the AVANZA Program Ministery of Industry.
Starting date: January 2011, Finish date: December 2012

- "On board Control and Visual Guidance of a New Prototype of Urban Vehicle"

Contracted by Siemens España S.A. and suported by the CDTI
Starting date: April 2010, Finish date: June 2011

- "DOLBA: Development of a New Device for Low Altitud Observation"

Contracted by Aries Ingeniería y Sistemas S.A.
Starting date: January 2010, Finish date: May 2011

- "Visual Guidance of a Commercial Compact Car"

Contracted by SIEMENS España S.A.
Starting date: November 2008, Finish date: October 2010

- "TEDESCODIM Technologies for Dynamics UAV Mission Reconfiguration"

Contracted by Aries S.A., Supported under national R&D program AVANZA
Starting date: March 2008, Finish date: April 2009

- "Visual Guidance Feasibility Study for and Outdoor Urban Vehicle"

Contracted by SIEMENS España S.A.
Starting date: November 2007, Finish date: March 2008

- "Automatic on-line calibration for the pulp visual inspection system"

Contracted by the spin-off Innovación en la Inspección Industrial de Imágenes S.L. (2004-2005)

- "On-line visual inspection system for the pulp industry using transmitted light"

Contracted by ENCE (1997-2003)

- "Power line visual inspection by UAV"

Contracted by REE (1998-2000)

- "ADETECT Sistema Automático de detección y Clasificación de Anuncios Televisivos"

Contracted by MAYO MULTIMEDIA S.A. y GECA CONSULTORES S.A. and supported by the Industry Ministry ATICA Program (1997-1998)

- "Digitalización Tridimensional para la Industria del Calzado"

Contracted by INESCOP (1995/97)

- "Lectura de Códigos de Barra Degradados en Botellas de Butano"

Contracted by REPSOL (1996/97)

- "Convenio de Colaboración para la Realización de Trabajos relacionados con el Desarrollo de Procesos de Fabricación Avanzados"

con Tecnología y gestión de la Innovación S.A. (1995)

- "Digitalizador Tridimensional de Piezas de Grandes Dimensiones para la Industria Aeronaútica"

Contracted by TECAL for company CASA (presently EADS), funded CDTI. (1994/96).

- SICOM "Sistema de inspeccion de elementos combustibles"

Contracted byTecnatom, PIE project with Iberdrola, Tecnaton & Enusa. (1994-95)

- "Transformación digital de imágenes para un sistema de visualización tridimensional"

Several contracts with REALVISION, partially funded by CDTI and by the PEIN II Programm of the MINISTRY of INDUSTRY(1991-94)

- "Análisis y Estudio de Software para la impresión de la Base de Datos de Metro Madrid"

Contracted by DECISA for Metro Madrid (1990).

- "Sistema de control del proceso de fabricación de leche condensada" Contracted by DECISA for Nestle Factory. (1990)

5.2 International R+D projects

- "Mohammed Bin Zayed International Robotics Challenge Sponsorship", ref: 2020-MBZIRC-10

PI and international coodinator: Pascual Campoy. Consortium with Pablo Olavide University (E) & Poznan Univ. of Technology (P) and coolaborating with LAAS (F)
Funded by Khalifa University of Science and Technology,
Duration: September 2018 – March 2020, Funding: 200,000$

- "AEROSTACK 3.0: Aerial robotics framework for the industry" funded by European Union through the H2020 Program ROS-IN, Duration: October 2018 to March 2019. Funding: 62400 €

- "Drone Autonomy" project with Arospace Controls Laboratory at MIT, headed by Prof. Jonathan How, funded by MISTI: MITInternational Science and Technology Iniciatives, Project Period: January 1, 2018–August 31, 2019

- "UECIMUAVS: USA and Europe Cooperation in Mini UAVs"

Funded by IRSES Program Marie Curie FP7
Partners: Universidad Politécnica de Madrid (UPM), coordinator, Spain
Linköping University (LiU), Sweden,
Arizona State University (ASU), USA

Starting Date: 2012-01-05, Finish date: 2016-01-04

- "OMNIWORKS: Omnidirectional vision for human-UAV co-working"

Funded by ECHORD Project in the Eruropean FP7
Partners: Universidad Politécnica de Madrid (coordinator) Spain
Skybotix AG Switzerland
APIA XXI S.A. Spain
Starting date: 2012-02-01, Finishing date: 2013-09-30

- "ICPUAS: International Cooperation Program for Unmanned Aerial Systems Research and Development"

Funded by IRSES Program Marie Curie FP7
Partners: Universidad Politécnica de Madrid (U.P.M.), coordinator, Spain
Cranfield University (C.U.-DCMT), United Kingdom
Queensland University of Technology (ARCAA-Q.U.T.), Australia
Starting Date: 2009-09-04, Finish date: 2012-09-03

- "Multi-rotors UAV for hydrothermal alterations in the Costa Rica Volcanic Mountains"

Funded by U.P.M.
Partners: Universidad Politécnica de Madrid (U.P.M.), coordinator, Spain,
Universdad de Costa Rica.
Starting Date: 2011-02-01, Finish date: 2012-01-31

- "Technologic consultancy in Pattern Recognition and Image Processing"

Contracted by Inspiralia S.A. that belongs to the PERA Group for the FP7 project EPOSBED
Starting Date: 2008-11-20, Finish date: 2011-05-30

- "Technologic Consultancy for European R&D Projects in Robotics and Computer Vision"
  Contracted by Dragados S.A.
  Starting Date: 2007, Finish date: 2008

- "PSI3 Personalised System or Integrated Internet Services"
  Funded by IST Program 1999-11056, (2000-2002)

- "IMDEX Integrated System for Multimedia Indexing, Matching and Retrieval"
  Funded by ESPRIT 23011 (1997-1999)

- QUALICAST "On line quality control of strip cast aluminum alloys" BREU CT91-0393 subvencionado por la CEE bajo el programa BRITE-EURAM (1991-95)

- CECA PP-183 "Expert Multisensorial System for Quality Control of Cold Strip Moving at High Speed", subcontratado por ENSIDESA y subvencionado por la CEE bajo el programa CECA (1992-94)
- EUREKA 283 "Synthetic TV", subcontratado por Telson S.A. y subvencionado por la CEE bajo el programa EUREKA. (1990-92)
- CRAFT 29 "System de desempilage et d´engagement de peaux" subvencionado por la CEE bajo el programa CRAFT. (1990-92)

5.3 National R+D Projects

- "COMplex Coordinated Inspection and Security missions by UAVs in cooperation with UGV" Funded by the Spanish Ministry of Economy and Competitivity RTI2018-100847-B-C21. Starting date: 2019, Finish date: 2021

- "AIRTEC: Integral Evaluation of the Urban Air Quality and Climat Change" funded by the Madrid Government within the R&D Program in Technology, reference nr. P2018/EMT-4329. Starting date: January 2019, Finish date: December 2022

- "Visual Autonomy for UAV in Dynamic Environments"
  Funded by the Spanish Ministry of Economy and Competitivity DPI2014-60139-R. Starting date: 2015, Finish date: 2018

- "AIRBIOTA: Urban Air Biologic Pollution Monitoring"
  Funded by the Madrid Goverment ref. nr. S2013/MAE-2874, with U.C.M., U.A.M. and CBM-CSIC
  Starting date: October 2014, Finish date: Sept 2017

- "Computer Vision for UAV, from visual information to visual guidance"
  Funded by the Spanish Ministry of Science MICYT #DPI2010-20751-C02-01
  Starting date: 2011-01-01, Finish date: 2014-08-31

- "Computer Vision for UAV. Guidance, Control, Cooperation, and Inspection"
  Funded by the Spanish Ministry of Science MICYT #DPI2007-66156
  Starting date: 2007-12-01, Finish date: 2010-11-30

- "Outdoors Structures Visual Inspection by Unmanned Aerial Vehicles (UAV)"
  Funded by the Spanish Ministry of Science MICYT #DPI2004-06624
  Starting date: 2004-12-13, Finish date: 2007-12-12

- "SLAM Visual 3D"

Funded by Madrid State C.A.M.
Starting date: 2006-01-01, Finish date: 2006-12-31

- "PROMAPA: Parrallel, Massive, Real-time Image Processing for Industrial Applications"
  Funded by the Spanish Ministry of Science
  Starting date: 2003-12-01, Finish date: 2004-11-11

- "Computer Vision System for UAV 3D Guidance. Application to Power Line Inspection"
  Funded by the Spanish Ministry of Science
  Starting date: 2000, Finish date: 2002

- "Computer Vision for Detection and Image Acquisition for UAV in Power Line Inspection"
  Funded by the Spanish Ministry of Science
  Starting date: 1997, Finish date: 1999

5.4 Innovative Education Projects

- "Tools for Learning in Cooperative Aulas"

Funded by Comisión de Innovación Educativa U.P.M. within the programm "Ayudas a la Innovacion Educativa y a la Mejora de la Calidad de la Enseñanza", 2010/2011.

- "Diseño, desarrollo y evaluación de prácticas a distancia para las asinaturas de Regulación Automática mediante la plataforma AulaWeb"

Funded by Comisión de Innovación Educativa U.P.M. within the programm "Ayudas a la Innovacion Educativa y a la Mejora de la Calidad de la Enseñanza", en el marco del proceso de Implantación del Espacio Europeo de Educación Superior y la mejora de la calidad de la enseñanza, 2009/10.

- "Aprendizaje activo y adquisición de competencias transversales en la EU de Informática"

Funded by Comisión de Innovación Educativa U.P.M. within the programm "Ayudas a la Innovacion Educativa y a la Mejora de la Calidad de la Enseñanza", en el marco del proceso de Implantación del Espacio Europeo de Educación Superior y la mejora de la calidad de la enseñanza, 2009/10.

- "Diseño de actividades de aprendizaje activo y mecanismos evaluadores en un proceso de evaluación continua con feedback a los estudiantes"

Funded by the UPM academic year 2008/2009.

- "La influencia de las técnicas de aprendizaje activo en el desarrollo de competencias transversales: diseño de medidas y evaluación"

Funded by Comisión de Innovación Educativa U.P.M. within the programm "Ayudas a la Innovacion Educativa y a la Mejora de la Calidad de la Enseñanza", en el Marco del Proceso de Implantación del Espacio Europeo de Educación Superior y a la Mejora de la Calidad de la Enseñanza de la Universidad Politécnica de Madrid, academic year 2006-2007.

- "CONSIS: Ejercicios Prácticos de Control de Sistemas"

Funded by Sociedad de Amigos de la Escuela (ETSIIM) programa PAUTANET. (Sept 2000 hasta Enero 2002)

- "SIVANET Visualización y Análisis de la Evolución Temporal de Procesos Físicos mediante la Transmisión de Secuencias de Imágenes por Internet"

Funded by Asociación de Amigos de la Escuela T.S.I.I.M. (1999-00)

- "TITERE Realización de prácticas de laboratorio en puestos de trabajo remotos, mediante la transmisión de imágenes reales por red telefónica conmutada"

Funded by ETSII a través de su programa PAUTA Programa de mejora de las enseñanzas Prácticas basadas en AUToAprendizaje, (1996/98)

5.5 Spin-off activity

- Funder of the spin-off company "Innovación en la Inspección Industrial de Imágenes S.L." spin-off Universidad Politécnica de Madrid, from July-2003 to Decembre-2005.

  Projetcs:
  - Contrato de mantenimiento con ENCE de sistemas de Inspección Visuales línea de Pasta de Papel, en las fábricas de Pontevedra, Huelva y Navia (2004 y 2005)
  - Contrato con ENCE para el desarrollo de un Sistema Modular Flexible de Inspección en Línea de Pasta de Papel (2005)
  - Desarrollo de un prototipo de Inspección fuera de línea de productos planos con auto-posicionamiento de cámara de tipo TDI (2003-2005).

6 Journal papers

Year 2020

"Adaptive Inattentional Framework for Video Object Detection With Reward-Conditional Training"
A. Rodriguez-Ramos, J. Rodriguez-Vazquez, C. Sampedro and P. Campoy
Journal: IEEE Access, vol. 8, pp. 124451-124466, 2020
doi: 10.1109/ACCESS.2020.3006191
JCR (Clarivate) in 2018: 4.098
Ranking: Computer Science, Information Systems Q1
Engineering Electrical & Electronic Q1
SiteScore (SCOPUS) in 2018: 4.96
Ranking: Engineering Q1
Computer Sicience Q1

"Tracking of Unicycle Robots Using Event-Based MPC With Adaptive Prediction Horizon"
Z. Sun, Y. Xia, L. Dai and P. Campoy,
Journal: IEEE/ASME Transactions on Mechatronics, vol. 25, no. 2, pp. 739-749
Print ISSN: 1083-4435
Electronic ISSN: 1941-014X
April 2020
doi: 10.1109/TMECH.2019.2962099
JCR (Clarivate) in 2018: 4.943
Ranking: Automatacionn and Control Systems Q1
Engineeing and Manufacturing Q1
Engineering Mechanical Q1
Engineering Electrical & Electronic Q1
SiteScore (SCOPUS) in 2018: 5.94
Ranking: Conntrol and System Engineering Q1
Computer Sicience Applications Q1

“Building the executive system of autonomous aerial robots using the Aerostack open-source framework”
Martin Molina , Abraham Carrera, Alberto Camporredondo,
Hriday Bavle, Alejandro Rodriguez-Ramos and Pascual Campoy
International Journal of Advanced Robotic Systems, Volume: 17 issue: 3
ISSN:1729-8806, DOI: 10.1177/1729881420925000

online: June 11, 2020; Issue published: May 1, 2020
JCR (Clarivate) in 2018: 1.223
Ranking: Robotics Q4
SiteScore (SCOPUS) in 2018: 1.65
Ranking: Computer Science Applications Q2 53%
Artificial Intelligence Q3 50%
Software Q3 45%

"VPS-SLAM: Visual Planar Semantic SLAM for Aerial Robotic Systems"
H. Bavle, P. De La Puente, J. How and P. Campoy
Journal: IEEE Access, Volume: 8, Issue:1
Print ISSN: 2169-3536 Online ISSN: 2169-3536
DOI: 10.1109/ACCESS.2020.2983121
Date: 24 March 2020
JCR (Clarivate) in 2018: 4.098
Ranking: Computer Science, Information Systems Q1
Engineering Electrical & Electronic Q1
SiteScore (SCOPUS) in 2018: 4.96
Ranking: Engineering Q1
Computer Sicience Q1

“Onboard Detection and Localization of Drones Using Depth Maps”
Adrian Carrio, Sai Vemprala, Srikanth, Pascual Campoy and Jonathan P. How
Journal: IEEE Access, Volume: 8, Issue:1, Pages: 30480-30490s
Print ISSN: 2169-3536 Online ISSN: 2169-3536
DOI: 10.1109/ACCESS.2020.2971938
Date: February 2020
JCR (Clarivate) in 2018: 4.098
Ranking: Computer Science, Information Systems Q1
Engineering Electrical & Electronic Q1
SiteScore (SCOPUS) in 2018: 4.96
Ranking: Engineering Q1
Computer Sicience Q1

Year 2019

“Deep Learning-Based System for Automatic Recognition and Diagnosis of Electrical Insulator Strings”
Carlos Sampedro, Javier Rodriguez-Vazquez, Alejandro Rodriguez-Ramos, Adrian Carrio, (Member, Pascual Campoy

Published in: IEEE Access (Volume: 7), Page(s): 101283 – 101308, Date of Publication: 25 July 2019 , Electronic ISSN: 2169-3536, INSPEC Accession Number: 18880601, DOI: 10.1109/ACCESS.2019.2931144
JCR (Clarivate) in 2018: 4.098
Ranking: Computer Science, Information Systems Q1
Engineering Electrical & Electronic Q1
SiteScore (SCOPUS) in 2018: 4.96
Ranking: Engineering Q1
Computer Sicience Q1

"Vision-Based Multirotor Following Using Synthetic Learning Techniques"
Rodriguez-Ramos, Alejandro and Alvarez-Fernandez, Adrian and Bavle, Hriday andmCampoy, Pascual and How, Jonathan P.
Journal: Sensors, volume 19, year: 2019}, number: 21, article number: 4794,
URL = {https://www.mdpi.com/1424-8220/19/21/4794},
ISSN = {1424-8220},
JCR (Clarivate) IF in 2019: 3.275
Ranking: Instruments and Instrumentation 5/64 (Q1)
Engineering, Electrical & Electronic 77/266 (Q2)
SiteScore (SCOPUS) in 2019: 5.0
Ranking: Instrumentation 17/139 (Q1)
Electrical & Electronic Engineering 147/670 (Q2)

"Survey of Bayesian Networks Applications to Intelligent Autonomous Vehicles"
Rocío Díaz de León Torres, Martín Molina, Pascual Campoy
journal {arXiv e-prints}, 34 pages, 2 figures, 3 tables
Subjects: Artificial Intelligence (cs.AI); Computers and Society (cs.CY)
Cite as: arXiv:1901.05517 [cs.AI] January, 2019

Year 2018

"Attitude Estimation using Horizon Detection in Thermal Images"
Adrian Carrio, Hriday Bavle and Pascual Campoy
Intenational Journal of Micro Aerial Vehicle, p. 352–361.
DOI:10.1177/1756829318804761, First Published October 17, 2018
JCR (Clarivate) in 2018: 0.854 (Q3),
Cite Score (Scopus): 1.23 (Q2)

"Fast and Robust Flight Altitude Estimation of Multirotor UAVs in Dynamic Unstructured Environments Using 3D Point Cloud Sensors"

Hriday Bavle, Jose Luis Sanchez-Lopez , Paloma de la Puente, Alejandro Rodriguez-Ramos, Carlos Sampedro and Pascual Campoy
Aerospace 2018, 5(3), 94; ISSN = {2226-4310} doi: https://doi.org/10.3390/aerospace5030094
Emerrging Sources Citation Index
CiteScore (Scopus): 1.58
Aerospace Enginerring Q2

"Drone Detection Using Depth Maps", Adrian Carrio, Sai Vemprala, Andres Ripoll, Srikanth Saripalli and Pascual Campoy, arXiv.org arXiv:1808.00259 August 2018

"A Fully-Autonomous Aerial Robot for Search and Rescue Applications in Indoor Environments using Learning-Based Techniques"
Carlos Sampedro, Alejandro Rodriguez-Ramos, Hriday Bavle, Adrian Carrio, Paloma de la Puente, Pascual Campoy
Journal of Intelligent & Robotic Systems DOI https://doi.org/10.1007/s10846-018-0898-1 Springer Netherlands Print ISSN0921-0296 Online ISSN 1573-0409
Published on line 03 July 2018
JCR (Clarivate) in 2018: 2.020
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2018: 2.83
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2

"A Deep Reinforcement Learning Strategy for UAV Autonomous Landing on a Moving Platform"
Alejandro Rodriguez-Ramos, Carlos Sampedro, Hriday Bavle, Paloma de la Puente and Pascual Campoy
Journal of Intelligent & Robotic Systems https://doi.org/10.1007/s10846-018-0891-8 Springer Netherlands Print ISSN 0921-0296 Online ISSN 1573-0409
Published on line 03 July 2018
JCR (Clarivate) in 2018: 2.020
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2018: 2.83
Ranking: Mechanical Engineering Q1

Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2

"The Power Line Inspection Software (PoLIS): A versatile system for automating power line inspection"
Carol Martinez, Carlos Sampedro, Aneesh Chauhan, Jean Franois Collumeau and Pascual Campoy
Engineering Applications of Artificial Intelligence, ISSN: 0952-1976, Volume 71, Pages 293-314, Pergamon-Elsevier Science LTD, May 2018,
https://doi.org/10.1016/j.engappai.2018.02.008
JCR (Clarivate) in 2018: 3.526
Multidisciplinary Engineering Q1
Artificial Intelligence, Computer Science: Q2
Electrical and Electronics Engineering: Q2
Automation & Control Systems Q2
SiteScore (SCOPUS) in 2018: 4.58
Artificial Intelligence Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q1

Year 2017

"TML: a language to specify aerial robotic missions for the framework Aerostack", Authors: Martin Molina, Ramon A. Suarez-Fernandez, Carlos Sampedro, Jose Luis Sanchez-Lopez and Pascual Campoy,
International Journal of Intelligent Computing and Cybernetics, Vol. 10 Issue: 4, pp.491-512, https://
doi.org/10.1108/IJICC-03-2017-0025, https://doi.org/10.1108/IJICC-03-2017-0025, 13 November 2017,

"A Review of Deep Learning Methods and Applications for Unmanned Aerial Vehicles"
Adrian Carrio, Carlos Sampedro, Alejandro Rodriguez-Ramos, and Pascual Campoy
Journal of Sensors, vol. 2017, Article ID 3296874, 13 pages, 2017.
doi:10.1155/2017/3296874
JCR (Clarivate): 2.057 (2017)
Electrical and Electronics Engineering: Q2

Instuments & Instumentation: Q2
SiteScore (SCOPUS) in 2017: 1.39
Instrumentations Q2
Electrical and Electronic Engineering Q2
Control and Systems Engineering Q2
14 Agosto 2017

"A Multi-Layered Component-Based Approach for the Development of Aerial Robotic Systems: The Aerostack Framework",
Sanchez-Lopez, Jose Luis; Molina, Martin; Bavle, Hriday; Sampedro, Carlos; Suárez Fernández, Ramón A.; Campoy, Pascual,
Journal "Journal of Intelligent & Robotic Systems", issn="1573-0409", doi="10.1007/s10846-017-0551-4", url=http://dx.doi.org/10.1007/s10846-017-0551-4
JCR (Clarivate) in 2017: 1.583
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2017: 2.83
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2
December 2017

"Obstacle Detection System for Small UAVs using ADS-B and Thermal Imaging"
A Carrio, Y Lin, S Saripalli, P Campoy
Journal "Journal of Intelligent & Robotic Systems", issn="1573-0409", doi="10.1007/s10846-017-0551-4",
url="https://link.springer.com/article/10.1007/s10846-017-0529-2"
JCR (Clarivate) in 2017: 1.583
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2017: 2.83
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2
and Artificial Intelligence Q3

Robotics Q3
March 2017

Year 2016

"SIGS: Synthetic Imagery Generating Software for the Development and Evaluation of Vision-based Sense-And-Avoid Systems"
Adrian Carrio, Changhong Fu, Jean-Francois Collumeau, Pascual Campoy
Journal of Intelligent & Robotic Systems, DOI 10.1007/s10846-015-0286-z
Print ISSN 0921-0296, Online ISSN 1573-0409
JCR (Clarivate) in 2016: 1.512
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2016: 2.27
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2
October 2016

"A Reliable Open-Source System Architecture for the Fast Designing and Prototyping of Autonomous Multi-UAV Systems: Simulation and Experimentation"
Jose Luis Sanchez-Lopez , Jesús Pestana, Paloma de la Puente, Pascual Campoy
Journal of Intelligent & Robotic Systems, DOI 10.1007/s10846-015-0286-z
Print ISSN 0921-0296, Online ISSN 1573-0409
JCR (Clarivate) in 2016: 1.512
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2016: 2.27
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2
October 2016

"A Vision-based Quadrotor Multi-robot Solution for the Indoor Autonomy Challenge of the 2013 International Micro Air Vehicle Competition"
Jesús Pestana , Jose Luis Sanchez-Lopez, Paloma de la Puente, Adrian Carrio, Pascual Campoy

Journal of Intelligent & Robotic Systems, DOI 10.1007/s10846-015-0286-z
Print ISSN 0921-0296, Online ISSN 1573-0409
JCR (Clarivate) in 2016: 1.512
Ranking: Computer Science and Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2016: 2.27
Ranking: Mechanical Engineering Q1
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2
October 2016

"Vision-Based Steering Control, Speed Assistance and Localization for Inner-CityVehicles"
Authors: Miguel Angel Olivares-Mendez, Jose Luis Sanchez-Lopez, Felipe Jimenez, Pascual Campoy, Seyed Amin Sajadi-Alamdari and Holger Voos
Journal: Sensors 2016, 16, 362; doi:10.3390/s16030362, ISSN = {1424-8220}
Impact Factor (Clarivate) in 2016: 2.677
Ranking: Instruments & Instrumentation Q1
Chemistry, Analytical Q2
Electrochemistry Q2
SiteScore (SCOPUS) in 2016: 2.78
Ranking: Electrical and Electronic Engineering Q1
Atomic and Molecular Physics and Optics Q1
Analytical Chemestry Q2
BioChemestry Q2
March 2016

"Evolución histórica de los vehículos aéreos no tripulados hasta la actualidad"
Authors: Cristina Cuerno-Rejado, Luis García-Hernández, Alejandro Sánchez-Carmona, Adrián Carrio, Jose Luis Sanchez-Lopez, Pascual Campoy
Journal: DYNA 90, no. 3 (2016). Volumen: 90 - Páginas: 282-288
DOI: http://dx.doi.org/10.6036/7781
Impact Factor 2016: 0.541
Engineering, Multidiciplinay: Q4
May 2016

"Monitorización del comportamiento térmico de fachadas mediante UAV aplicaciones en la rehabilitación de edificios"
Authors: Beatriz González Rodrigo, Ricardo Tendero Caballero, María García de Viedma, Jesús Pestana Puerta, Adrián Carrio, José Luis Sánchez López, R. Suarez

Fernandez, Pascual Campoy Cervera, Javier Bonatti González, Juan Gregorio Rejas Ayuga, Rubén Martínez Marín, Miguel Marchamalo
Journal: DYNA, ISSN 0012-7361, Vol. 91, Nº 5, 2016, págs. 571-577
DOI: http://dx.doi.org/10.6036/7899
Impact Factor 2016: 0.541
Engineering, Multidiciplinay: Q4
June 2016

Year 2015

"Towards an Autonomous Vision-Based Unmanned Aerial System against Wildlife Poachers"
Miguel A. Olivares-Mendez, Changhong Fu , Philippe Ludivig , Tegawendé F. Bissyandé ,Somasundar Kannan, Maciej Zurad, Arun Annaiyan, Holger Voos and Pascual Campoy
Sensors 2015, Vol: 15, Nr: 12, 31362–31391;
doi:10.3390/s151229861, ISSN = 1424-8220
JCR (Clarivate) in 2015: 2.033
Instruments & Instrumentation Q1
Analytical Chemestry Q2
Electro Chemestry Q3
SiteScore (SCOPUS) in 2015: 2.21
Ranking: Electrical and Electronic Engineering Q1
Atomic and Molecular Physics and Optics Q1
Analytical Chemestry Q2
BioChemestry Q2
12 December 2015

"UBRISTES: UAV-Based Building Rehabilitation with Visible and Thermal Infrared Remote Sensing"
Adrian Carrio, Jesús Pestana, Jose-Luis Sanchez-Lopez, Ramon Suarez-Fernandez, Pascual Campoy, Ricardo Tendero, María García-De-Viedma, Beatriz González-Rodrigo, Javier Bonatti,Juan Gregorio Rejas-Ayuga, Rubén Martínez-Marín and Miguel Marchamalo-Sacristán
Robot 2015: Second Iberian Robotics Conference
Volume 417 of the series Advances in Intelligent Systems and Computing pp 245-256, Springer International Publishing AG Switzerland
ISSN 2194-5357 ISSN 2194-5365 (electronic)
ISBN 978-3-319-27145-3 ISBN 978-3-319-27146-0 (eBook)
DOI 10.1007/978-3-319-27146-0
Date: December 2015

"FuSeOn: A Low-Cost Portable Multi Sensor Fusion Research Testbed for Robotics"
Jose Luis Sanchez-Lopez , Changhong Fu, Pascual Campoy
Robot 2015: Second Iberian Robotics Conference
Volume 417 of the series Advances in Intelligent Systems and Computing pp 57-68, Springer International Publishing AG Switzerland
ISSN 2194-5357 ISSN 2194-5365 (electronic)
ISBN 978-3-319-27145-3 ISBN 978-3-319-27146-0 (eBook)
DOI 10.1007/978-3-319-27146-0
Date: December 2015

Year 2014

Tittle: "Do Classes in Cooperative Classrooms Have a Positive Influence on Creativity and Teamwork Skills for Engineering Students?"
Authors: Raquel Martínez, Camino Gonzalez, Pascual Campoy, Alvaro Garcia-Sánchez and Miguel Ortega-Mier.
Journal: International Journal of Engineering Education Vol. 30, No. 6(B), pp. 1729–1740, 2014,
Impact Factor: 0.36
Education, scientific disciplines Q4
Engineering, multidisciplinary Q4
issn=ISSN 0949-149X,
TEMPUS Publications, 2014

Tittle: "HMPMR strategy for real-time tracking in aerial images, using direct methods"
Authors: Martínez, Carol and Campoy, Pascual and Mondragón, IvánF. and Sánchez-Lopez, JoséLuis and Olivares-Méndez, MiguelA.
Journal: Machine Vision and Applications,
issn=0932-8092,
doi= 10.1007/s00138-014-0617-2,
url= http://dx.doi.org/10.1007/s00138-014-0617-2,
JCR (Clarivate) in 2014: 1.351
Computer Science, Cybernetics Q2
Engineering, Electrical & Electronic Q2
Computer Science, Artificial Intelligence Q3
Cite Score (SCOPUS) in 2014: 1.84
Harward and Archtecture Q1
Computer Science and Aplications Q2
Software Q2
Computer Vision nad Pattern Recognition Q2
Springer Berlin Heidelberg, June 2014,

Tittle: "Monocular Visual-Inertial SLAM-Based Collision Avoidance Strategy for Fail-Safe UAV Using Fuzzy Logic Controllers"
Authors: Fu, Changhong; Olivares Mendez, Miguel Angel; Suarez-Fernandez, Ramon; Campoy, Pascual
Journal: Journal of Intelligent & Robotic Systems, Volume 73, Issue 1-4, pp 513-533
issn={0921-0296}, doi={10.1007/s10846-013-9918-3},
url={http://dx.doi.org/10.1007/s10846-013-9918-3},Springer Netherlands,
JCR (Clarivate) in 2014: 1.202
Computer Science, Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2014: 1.91
Ranking: Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q1
Mechanical Engineering Q1
Software Q2
Artificial Intelligence Q2
January 2014

Tittle: "An Approach Toward Visual Autonomous Ship Board Landing of a VTOL UAV"
Authors: Sanchez-Lopez, JoseLuis and Pestana, Jesus and Saripalli, Srikanth and Campoy, Pascual
Journal: Journal of Intelligent & Robotic Systems, Volume 74, Issue 1-2, pp 113-127
issn=0921-0296, doi= 10.1007/s10846-013-9926-3,
url= http://dx.doi.org/10.1007/s10846-013-9926-3, Springer Netherlands,
JCR (Clarivate) in 2014: 1.202
Computer Science, Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2014: 1.91
Ranking: Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q1
Mechanical Engineering Q1
Software Q2
Artificial Intelligence Q2
April 2014,

Tittle: "A General Purpose Configurable Controller for Indoors and Outdoors GPS-Denied Navigation for Multirotor Unmanned Aerial Vehicles"
Authors: Pestana, Jesus, Mellado-Bataller, Ignacio, Sanchez-Lopez, JoseLuis, Fu, Changhong, Mondragon, Ivan F., Pascual

Journal: Journal of Intelligent & Robotic Systems,Volume 73, Issue 1-4, pp 387-400
issn=0921-0296, doi=10.1007/s10846-013-9953-0,
url=http://dx.doi.org/10.1007/s10846-013-9953-0, Springer Netherlands,
JCR (Clarivate) in 2014: 1.202
Computer Science, Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2014: 1.91
Ranking: Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Control and Systems Engineering Q1
Mechanical Engineering Q1
Software Q2
Artificial Intelligence Q2
January 2014,

Year 2013

Tittle: "A Vision-Based Strategy for Autonomous Aerial Refuelling Tasks"
Authors: Carol Martínez; Thomas Richardson; Peter Thomas; Jonathan Luke du Bois; Pascual Campoy; Ujjar Bhandari; Steve Bullock
Journal: Robotics and Autonomous Systems,
Elsevier, Vol 61, nr. 8, pages 876-895, August 2013
issn= 0921-8890,
doi=http://dx.doi.org/10.1016/j.robot.2013.02.006,
url=http://www.sciencedirect.com/science/article/pii/S0921889013000420,
JCR (Clarivate) in 2013: 1.864
Computer Science, Artificial Intelligence Q3
Robotics Q3
Automation & Control Systems Q3
Cite Score (SCOPUS) in 2013: 2.98
Computer Science Applications Q1
Control and Systems Engenieering Q1
Sotware Q1
General Mathematics Q1

Tittle: "Identification and cascade control by nonlinearities reversion of a quadrotor for the Control Engineering Competition CEA IFAC 2012"
Authors: Lucía Hernández Hernández, Jesús Pestana, Daniel Casares Palomeque, Pascual Campoy, Jose Luis Sanchez-Lopez
Journal: Revista Iberoamericana de Automática e Informática Industrial RIAI, Volume 10, Issue 3 Pages 356–367

Publishing date: , July–September 2013,
Impact factor (2014): 0.318
Automation & Control Systems Q4
Robotics Q4

Tittle: "A Hierarchical Tracking Strategy for Vision-Based Applications On-Board UAVs"

Authors: Carol Martínez, Iván F. Mondragón , Pascual Campoy, José Luis Sánchez-López ,Miguel A. Olivares-Méndez
Journal: Journal of Intelligent & Robotic Systems,
Publisher: Springer Netherlands, ISSN: 0921-0296, doi: 10.1007/s10846-013-9814-x,
url: http://dx.doi.org/10.1007/s10846-013-9814-x, *date*: on line 13 March 2013
JCR (Clarivate) in 2013: 0.810
Computer Science, Artificial Intelligence Q3
Robotics Q3
SiteScore (SCOPUS) in 2013: 1.74
Industrial and Manufacturing Engineering Q1
Electrical and Electronic Engineering Q1
Mechanical Engineering Q1
Control and Systems Engineering Q2
Software Q2
Artificial Intelligence Q2

Tittle: "Vibration reduction for vision systems on board UAV using a neuro-fuzzy controller""

Authors: Nicolas Marichal, Maria Tomas-Rodriguez, Angela Hernandez, Salvador Castillo- Rivera, Pascual Campoy
Journal: Journal of Vibration and Control,
Sage Publications Ltd, 25 June 2013
ISSN: 1077-5463, doi= 10.1177/1077546313479632 ,
url=http://jvc.sagepub.com/content/early/2013/06/24/1077546313479632.abstract
JCR (Clarivate) in 2013: 4.355
Acustics Q1
Engineering, Machanical Q1
Mechanics Q1
SiteScore (SCOPUS) in 2013: 2.66
Aerospace Engineering Q1
Autimotive Engineering Q1
Mechanical Engineering Q1
Mechanics of Materials Q1

Year 2012

Tittle: "Cross-Entropy Optimization for Scaling Factors of a Fuzzy Controller: A See-and-Avoid Approach for Unmanned Aerial Systems"
Authors: Miguel A. Olivares-Mendez, Luis Mejias, Pascual Campoy, Ignacio Mellado-Bataller
Journal: Journal of Intelligent & Robotic Systems
Springer Netherlands, Volume 69, Issue 1-4, pp 189-205
ISSN: 0921-0296
DOI 10.1007/s10846-012-9791-5,
Published on line November 14th 2012
Published January 2013
Impact factor: IF(2011) 0.829
Subject Categories:
Computer Science, Artificial Intelligence 73/111 (Q3)
Robotics 13/19 (Q3)

Tittle: "Discernment of bee pollen loads using computer vision and one-class classification techniques"
Authors: Manuel Chica, Pascual Campoy
Journal: Journal of Food Engineering 112 (2012), pages 50-59
ELSEVIER SCI, ISSN 0260-8774
DOI http://dx.doi.org/10.1016/j.jfoodeng.2012.03.028,
Published on line 29 March 2012
Impact factor: IF(2010) 2.168
Subject Categories: Engineering, chemical 26/135 (Q1)
Food science & technology 27/128 (Q1)

- *Tittle:* "Real-time recognition of patient intentions from sequences of pressure maps using artificial neural networks"
  Authors: Manuel Chica, Pascual Campoy , María Ana Pérez, Tomás Rodríguez, Rubén Rodríguez , Oscar Valdemoros
  Journal: Computers in Biology and Medicine, Vol 42, Issue 4 , Pages: 364–375,
  DOI http://dx.doi.org/10.1016/j.compbiomed.2011.12.003
  ISSN: 0010-4825
  Published: APRIL 2012
  Impact Factor: IF(2010): 1.127
  Subject Categories: Biology 50/86 (Q3)
  Computer science, interdisciplinary applications 55/97 (Q3)
  Engineering, biomedical 47/70 (Q3)
  Mathematical & computational biology 28/37 (Q4)

Year 2011 and before

- *Tittle:* "On-board and Ground Visual Pose Estimation Techniques for UAV Control"
  Authors: Carol Martínez, Iván F. Mondragón, Miguel A. Olivares-Méndez and Pascual Campoy
  Journal: Journal of Intelligent & Robotic Systems,
  Vol: 61 Issue: 1-4, Pages: 301-320 DOI: 10.1007/s10846-010-9505-9
  ISSN: 0921-0296
  Published: MAR 2011
  Impact Factor: IF(2010): 0.757
  Subject Categories: Robotics 12/17 (Q3)
  Computer Science, Artificial Intelligence 80/108 (Q3)

- *Tittle:* "A New User-Friendly Blast Furnace Advisory Control System Using a Neural Network Temperature Profile Classifier"

Authors: F. A. García, P. Campoy, J. Mochón, I. Ruiz-Bustinza, L. F. Verdeja, R. Martín D.
Journal: ISIJ International. Vol 50, Issue: 5, Pages: 730-737,
DOI: 10.2355/isijinternational.50.730
The Iron and Steel Institute of Japan
ISSN: 1347-5460; Print ISSN: 0915-1559.
Published: May, 2010
Impact Factor: IF (2010)= 0.745.
Subject Categories: Metallurgy & Metallurgical Engineering 25/76 (Q2)

Tittle: "Unmanned Aerial Vehicles UAVs attitude, height, motion estimation and control using visual systems"
Authors: Ivan F Mondragon; Pascual Campoy; Miguel Olivares; Carol V. Martinez; Luis Mejias
Journal: Autonomous Robot, Vol: 29 Issue: 1 Pages: 17-34 DOI: 10.1007/s10514-010-9183-2
Springer Verlag
ISSN: 0929-5593 (print), ISSN: 1573-7527 (online)
Published: JUL 2010
Impact Factor: IF (2010) = 2,033.
Subject Categories: Robotics = 5/17 (Q2)
Computer Science, Artificial Intelligence 30/108 (Q2)

Tittle: "Omnidirectional Vision applied to Unmanned Aerial Vehicles UAVs attitude and heading estimation"
Authors: Ivan F Mondragon. Pascual Campoy, Carol V. Martinez, Miguel Olivares
Journal: Robotics and Autonomous Systems, Volume: 58 Issue: 6 Special Issue: SI Pages: 809-819 DOI: 10.1016/j.robot.2010.02.012

Elsevier
ISSN: 0921-8890. 5.
Published: JUN 2010.
Impact Factor: IF (2010) = 1.313.
Subject Categories: Robotics = 7/17 (Q2)
Automation & Control Systems 24/60 (Q2)
Computer Science, Artificial Intelligence 58/108 (Q3)

Tittle: "Visual 3-D SLAM from UAVs"
Authors: Jorge Artieda; Jose M Sebastian; Pascual Campoy; Juan F Correa; Ivan, Fernando Mondragon; Carol Martínez; Miguel Olivares
Journal: Journal of Intelligent and Robotic Systems, Vol: 55 Issue: 4-5 Pages: 299-321 DOI: 10.1007/s10846-008-9304-8
Springer Netherlands
ISSN 0921-0296 (Print) 1573-0409 (Online)
Published: AUG 2009
Impact Factor: IF(2009): 0.858
Subject Categories: Robotics 13/16 (Q4)
Computer Science, Artificial Intelligence 79/103 (Q4)
Cited: 6 times up to Dic 2011

Tittle: "Estimating the Embedding Dimension Distribution of Time Series with SOMOS"
Authors: Pedro Zufiria y Pascual Campoy
Journal: Lecture Notes in Computer Science, 2009, Volume 5517, Bio-Inspired Systems: Computational and Ambient Intelligence, Pages 1168-1175
Springer-Verlag
ISSN: 0302-9743, ISBN: 978-3-642-02477-1
Published: 2009.

Tittle: "Computer Vision Onboard UAVs for Civilian Tasks"
Authors: Pascual Campoy, Juan F. Correa, Ivan Mondragón, Carol Martínez, Miguel Olivares, Luis Mejías y Jorge Artieda
Journal: Journal of Intelligence and Robotic Systems, Vol: 54, Issue: 1-3 Pages: 105-135 DOI: 10.1007/s10846-008-9256-z
Springer Netherlands
ISSN: 0921-0296 (Print) 1573-0409 (Online)
Published: MAR 2009
Impact Factor: IF(2009): 0.858
Subject Categories: Robotics 13/16 (Q4)
Computer Science, Artificial Intelligence 79/103 (Q4)
Cited: 6 times up to Dic 2011

Tittle: "Visual Servoing of an Autonomous Helicopter in Urban Areas Using Feature Tracking"
Authors: Luis Mejias, Srikanth Saripalli, Pascual Campoy, Gaurav S. Sukhatme
Journal: Journal of Field Robotics, Vol: 23, Issue: 3-4, Pages: 185–199 DOI: 10.1002/rob.20115
John Wiley & Sons Inc
ISSN: 1556-4959
Published: MAR-APR 2006
Impact Factor: IF(2008): 2.604
Subject Categories: Robotics 3/14 (Q1)
Cited: 36 times up to Dic 2011

- *Tittle:* "Image compression by a time enhanced self organizing Map"

Authors: Pascual Campoy, Pedro Gutierrez
Journal: Lecture Notes in Computer Science. ISN 0302-9743, November 2006

- *Tittle:* "InsPulp-I ©: an On-line Visual Inspection System for the Pulp Industry"

Journal: Computers in Industry, vol 56, Ed. Elsewier, Dic-2005, pag. 935-942.
Impact Factor: 0.935

- *Tittle:* "Residual Activity in the Neurons Allows SOMs to Learn Temporal Order"

Journal: Lecture Notes in Computer Science. Volume 36/2005 ISN 0302-9743 September 2005, pag. 379-384

- *Tittle:* "Defects Detection in Continous Manufacturing by Means of Convolutional Neural Networks"

Journal: Lecture Notes in Computer Science. ISN 0302-9743 Junio 2003, pag. 528-535

- *Tittle:* "An Stereoscopic Vision System Guiding an Autonomous Helicopter for Overhead Power Cable Inspection"

Journal: Lecture Notes in Computer Science. ISN 0302-9743 2001 pp. 235-245

- *Tittle:* Helicóptero Autónomo Guiado por Visión Artificial para la Inspección de Líneas Aéreas de Alta Tensión

Journal: Energía, nr. 157 ISN 0210-2056 Mayo/ Junio 2001 pp. 135-141

- *Tittle:* "Automatic Generation of Digital Filters by NN Based Learning: An application on Paper Pulp Inspection"

Journal: Lecture Notes in Computer Science ISN 0302-9743 2001 pp. 115-124

- *Tittle:* "Arquitectura Neuronal con Aprendizaje Incremental y Creación de Mapas: el Modelo ARM"

Journal: Inteligencia Artificial, No. 10 ISN 1137-3601 2000 pp. 67 -75

- *Tittle:* "Sistemas Inteligentes de Inspección Visual Automática"

INDUSTRIA XXI Deposito Legal M-27968-2000 2001 pp. 23-33

- *Tittle:* "Inspección Visual Automatizada. Aplicación de las Redes Neuronales"

Journal: Automática e Instrumentación ISSN 0213-3113 Noviembre 1998 pp. 87-95

- *Tittle:* "Sistema de inspección visual automático. Control de calidad de baldosas"

Automática e instrumentación. ISSN 0213-3113 Marzo 1998 pp. 79-82

- *Tittle:* "Intelligent On-Line Surface Inspection on a Skin-Pass Mill"

Journal: Iron and Steel Engineer ISSN 0021-1559 Septiembre 1997 pp. 29-34

- *Tittle:* "An Automatic System for the Real Time Integration of Live Action and Synthetic 3-D Computer Images"

Journal: Eurographics Technical Report Series ISSN 1017-4656 September 1993 pp 59-77

- *Tittle:* "A realistic Depth of Field Effect Based on Real Cameras for Blending Real and Computer Generated Images "

Journal: Eurographics Technical Report Series ISSN 1017-4656 September 1993 pp 23-39

- *Tittle:* "Eureka 283- Synthetic TV"

Journal: Indumática Marzo 1993 pp. 8-15

- *Tittle:* "Robots móviles una nueva generación de robots"

Journal: Automática e Instruentación ISSN 0213-3113 Marzo 1990 pp. 197-204

- *Tittle:* "Robots móviles"

Journal: Automatización de la producción Marzo 1988 pp. 40-44.

7 Books and book chapters

Chapter tittle: "Visual Quadrotor Swarm for the IMAV 2013 Indoor Competition"

Authors: Sanchez-Lopez, JoseLuis and Pestana, Jesús and Puente, Paloma and Carrio, Adrian and Campoy, Pascual

Book: ROBOT2013: First Iberian Robotics Conference

Editors: Armada, Manuel A. and Sanfeliu, Alberto and Ferre, Manuel

Springer Berlin Heidelberg,

pages=55-63

series=Advances in Intelligent Systems and Computing

doi=10.1007/978-3-319-03653-3_5
isbn=978-3-319-03652-6
volume=253
url=http://dx.doi.org/10.1007/978-3-319-03653-3_5
publisher=Springer International Publishing
year=2014

Chapter title=Floor Optical Flow Based Navigation Controller for Multirotor Aerial Vehicles,
author=Pestana, Jesús and Mellado-Bataller, Ignacio and Sanchez-Lopez, JoseLuis and Fu, Changhong and Mondragón, IvánF. and Campoy, Pascual,
booktitle=ROBOT2013: First Iberian Robotics Conference,
editor=Armada, Manuel A. and Sanfeliu, Alberto and Ferre, Manuel,
series=Advances in Intelligent Systems and Computing,
isbn=978-3-319-03652-6,
volume=253,
pages=91-106
doi=10.1007/978-3-319-03653-3_8,
url=http://dx.doi.org/10.1007/978-3-319-03653-3_8,
publisher=Springer International Publishing,
year=2014,

- *Chapter tittle:* "Autonomous Guided Car Using a Fuzzy Controller"
  Authors: Olivares Mendez, Miguel Angel; Campoy, Pascual; Mellado-Bataller, Ignacio; Mondragon, Ivan; Martinez, Carol; Sanchez-Lopez, Joseluis
  Book: Recent Advances in Robotics and Automation, Collection: Studies in Computational Intelligence
  Editors: Sen Gupta, Gourab; Bailey, Donald; Demidenko, Serge; Carnegie, Dale
  Springer Berlin Heidelberg, 2013
  Pages : 37-55
  ISBN : 978-3-642-37386-2
  http://hdl.handle.net/10993/9997
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Chapter tittle: "MAVwork: A Framework for Unified Interfacing between Micro Aerial Vehicles and Visual Controllers"
Authors: Ignacio Mellado-Bataller, Jesús Pestana, Miguel A. Olivares-Mendez, Pascual Campoy and Luis Mejias
Book: Frontiers of Intelligent Autonomous Systems
Series: Studies in Computational Intelligence

pp 165-179, Volume 466, 2013
Editorial: Springer Berlin Heidelberg
ISBN: 978-3-642-35484-7
DOI: 10.1007/978-3-642-35485-4_13
URL: http://dx.doi.org/10.1007/978-3-642-35485-4_13

Chapter tittle: "On-board and Ground Visual Pose Estimation Techniques for UAV Control"
Authors: Carol Martiínez, Iván F. Mondragón, Miguel A. Olivares-Méndez y Pascual Campoy, pag: 301-320
Book: "Unmanned Aerial Vehicles" 1st Edition., VI, 2011, 586 p. 100 illus.
ISBN: ISBN 978-94-007-1109-9
Springer 2011

"Computational Intelligence", Ed. Word Scientific, ISBN: 978-981-4324-69-4, 981-4324-69-8, July 2010.
"Visual Servoing for UAVs" capítulo del libro "Visual Servoing", Edited by Rong-Fong Fung, Publisher: INTECH, ISBN 978-953-307-095-7, April 2010.
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"Control en el Espacio de Estado" Sección de Publicaciones ETSII-U.P.M., 2000, 196 páginas
"Pattern Recognition and Applications." Frontiers in Artificial Intelligence and Applications Series IOS Press pag: 126-133, 2000.
"Nuevas Tendencias sobre Control Avanzado: Redes Neuronales". Fundación Repsol Publicaciones pag: 37-53, 1999
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"Image Analysis and Síntesis" R. Oldenbourg Verlag pag: 93-102, 1993.
"Intelligent Components and Instruments for Control Applications" Pergamon Press pag: 351-354, 1993.
"Information Control Problems in Manufacturinng Technology" Pergamon Press pag: 487-493 y 659-665, 1989.
"Robot Control", Pergamon Press pag: 239-244, 1987.

8 International congresses and Symposia

Year 2020

- "Extensions of the Open-Source Framework Aerostack 3.0 for the Development of More Interactive Flights between UAVs"
  Giernacki, Wojciech; Cieślak, Jacek, Molina, Martin; Campoy, Pascual
  Conference: 2020 International Conference on Unmanned Aircraft Systems (ICUAS)
  Date of Conference: September 1-4, 2020
  Conference Location: Athens, Greece

- "Bebop 2 Quadrotor As a Platform for Research and Education in Robotics and Control Engineering"
  Giernacki, Wojciech; Kozierski, Piotr; Michalski, Jacek; Retinger, Marek; Madonski, Rafal; Campoy, Pascual
  Conference: 2020 International Conference on Unmanned Aircraft Systems (ICUAS)
  Date of Conference: September 1-4, 2020
  Conference Location: Athens, Greece

- "The Skyeye Team Participation in the 2020 Mohamed Bin Zayed International Robotics Challenge"
  Ramon A Suarez Fernandez, Alejandro Rodriguez-Ramos, Adrian Alvarez, Javier Rodriguez Vazquez, Hriday Bavle, Liang Lu, Miguel Fernandez, Alberto Rodelgo, Jose Cobano, David Alejo, Domingo Acedo, Rafael Rey, Simon Martinez-Rozas, Martin Molina, Luis Merino; Fernando Caballero, Pascual Campoy
  Conference: Mohamed Bin Zayed International Robotics Challenge MBZIRC 2020 Symposium
  Date of Conference: 26-27 February 2020
  Conference Location: Abu Dhabi, United Arabic Emirates

Year 2019

- "Laser-based Collision Avoidance and Reactive Navigation using RRT* and Signed Distance Field for Multirotor UAVs"
  Liang Lu, Carlos Sampedro, Javier Rodriguez-Vazquez and Pascual Campoy
  2019 International Conference on Unmanned Aircraft Systems (ICUAS)
  Date of Conference: 11-14 June 2019, Date Added to IEEE Xplore: 15 August 2019

INSPEC Accession Number: 18924019, DOI: 10.1109/ICUAS.2019.8798124
Conference Location: Atlanta, GA, USA, USA

- "Visual Controllers for Relative Positioning in Indoor Settings"

Luis Mejias and Pascual Campoy
2019 International Conference on Unmanned Aircraft Systems (ICUAS)
Date of Conference: 11-14 June 2019, Date Added to IEEE Xplore: 15 August 2019
INSPEC Accession Number: 18924035, DOI: 10.1109/ICUAS.2019.8797954
Conference Location: Atlanta, GA, USA, USA

Year 2018

- "A Deep Reinforcement Learning Technique for Vision-Based Autonomous Multirotor Landing on a Moving Platform", Alejandro Rodriguez-Ramos, Carlos Sampedro, Hriday Bavle, Ignacio Gil Moreno and Pascual Campoy, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, https://www.iros2018.org/ October 1st-5th 2018, Madrid

- "Drone Detection Using Depth Maps", Adrian Carrio, Sai Vemprala, Andres Ripoll, Srikanth Saripalli and Pascual Campoy, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, https://www.iros2018.org/ October 1st-5th 2018, Madrid

- "Laser-Based Reactive Navigation for Multirotor Aerial Robots using Deep Reinforcement Learning", Carlos Sampedro, Hriday Bavle, Alejandro Rodriguez-Ramos, Paloma de la Puente and Pascual Campoy, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, https://www.iros2018.org/ October 1st-5th 2018, Madrid

- "Stereo Visual Odometry and Semantics based Localization of Aerial Robots in Indoor Environments", Hriday Bavle, Stephan Manthe, Paloma de la Puente, Alejandro Rodriguez-Ramos, Carlos Sampedro, Pascual Campoy, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, https://www.iros2018.org/ October 1st-5th 2018, Madrid

- "Image-Based Visual Servoing Controller for Multirotor Aerial Robots Using Deep Reinforcement Learning", Carlos Sampedro, Alejandro Rodriguez-Ramos, Ignacio Gil, Luis Mejias and Pascual Campoy, IEEE/RSJ International

Conference on Intelligent Robots and Systems IROS,
https://www.iros2018.org/ October 1st-5th 2018, Madrid

Year 2017

- "Visual Marker based Multi-Sensor Fusion State Estimation"

Jose Luis Sanchez-Lopez, Victor Arellano-Quintana; Marco Tognon, Pascual Campoy, Antonio Franchi

The 20th World Congress of the International Federation of Automatic Control, Tolouse France, 9-14 July 2017

- "A Robust Real-Time Path Planner for the Collision-Free Navigation of Multirotor Aerial Robots in Dynamic Environments"

Jose Luis Sanchez-Lopez and Jesus Pestana and Pascual Campoy
2017 International Conference On Unmanned Aircraft Systems,
http://www.uasconferences.com, June 13-16, 2017, Miami, FL USA

- "Towards Fully Autonomous Landing on Moving Platforms for Rotary Unmanned Aerial Vehicles"

Alejandro Rodriguez-Ramos, Carlos Sampedro, Hriday Bavle, Zorana Milosevic, Alejandro Garcia-Vaquero and Pascual Campoy
2017 International Conference On Unmanned Aircraft Systems,
http://www.uasconferences.com, June 13-16, 2017, Miami, FL USA

- "L1 Adaptive Control for Wind Gust Rejection in Quad-Rotor UAV Wind Turbine Inspection*"

Ramón A. Suárez Fernández, Sergio Dominguez, and Pascual Campoy
2017 International Conference On Unmanned Aircraft Systems,
http://www.uasconferences.com, June 13-16, 2017, Miami, FL USA

- "Multi-Sensor Fusion for Estimating the Flight Altitude of Multirotor UAVs in Dynamic and Unstructured Indoor Environments"

Hriday Bavle, Jose Luis Sanchez-Lopez, Alejandro Rodriguez-Ramos, Carlos Sampedro, and Pascual Campoy
2017 International Conference On Unmanned Aircraft Systems,
http://www.uasconferences.com, June 13-16, 2017, Miami, FL USA

- "A Fully-Autonomous Aerial Robotic Solution for the 2016 International Micro Air Vehicle Competition"

Carlos Sampedro, Hriday Bavle, Alejandro Rodríguez-Ramos, Adrian Carrio, Ramon A. Suárez Fernández, Jose Luis Sanchez-Lopez, and Pascual Campoy

2017 International Conference On Unmanned Aircraft Systems, http://www.uasconferences.com, June 13-16, 2017, Miami, FL USA

Year 2016

- "Specifying Complex Missions for Aerial Robotics in Dynamic Environments"
  Martin Molina, Adrian Diaz-Moreno, David Palacios, Ramon A. Suarez-Fernandez, Jose Luis Sanchez-Lopez,Carlos Sampedro, Hriday Bavle and Pascual Campoy
  accepted for the International Micro Air Vehicle Conference and Competition 2016 (IMAV 2016) Beijing, China, 17-21 October 2016
- "A Monocular Pose Estimation Strategy for UAV Autonomous Navigation in GNSS-denied Environments"
  AUTHORS: Alejandro Rodríguez-Ramos, Carlos Sampedro, Adrian Carrio, Hriday Bavle, Ramon A. Suarez-Fernandez, Zorana Milosevic and Pascual Campoy
  accepted for the International Micro Air Vehicle Conference and Competition 2016 (IMAV 2016) Beijing, China, 17-21 October 2016
- "Convolutional Neural Networks for Electric Tower Detection"
  Adrian Carrio, Carlos Sampedro and Pascual Campoy
  BMVA technical meeting: Deep Learning for Computer Vision
  35London (UK) July 8th 2016
- "A Real-time Supervised Learning Approach for Sky Segmentation Onboard Unmanned Aerial Systems"

Adrian Carrio1, Carlos Sampedro, Changhong Fu, Jean-Franc¸ois Collumeau and Pascual Campoy
ICUAS'16, The 2016 International Conference on Unmanned Aircraft Systems, Arlington, VA (USA) June 7-10, 2016

- "AEROSTACK: An Architecture and Open-Source Software Framework for Aerial Robotics"
  Jose Luis Sanchez-Lopez, Ramon A. Suarez Fernandez, Hriday Bavle, Carlos Sampedro, Martin Molina, Jesus Pestana1, and Pascual Campoy

ICUAS'16, The 2016 International Conference on Unmanned Aircraft Systems, Arlington, VA (USA) June 7-10, 2016

- "A Flexible and Dynamic Mission Planning Architecture For UAV Swarm Coordination"
  Carlos Sampedro, Hriday Bavle, Jose Luis Sanchez-Lopez, Ramon A. Suarez Fern´ndez, Alejandro Rodrıguez-Ramos, Martin Molina, and Pascual Campoy

ICUAS'16, The 2016 International Conference on Unmanned Aircraft Systems, Arlington, VA (USA) June 7-10, 2016

- "Natural User Interfaces for Human-Drone Multi-Modal Interaction"
  Ramon A. Suarez Fernandez, Jose Luis Sanchez-Lopez, Carlos Sampedro, Hriday Bavle, Martin Molina, and Pascual Campoy

ICUAS'16, The 2016 International Conference on Unmanned Aircraft Systems, Arlington, VA (USA) June 7-10, 2016

- (National congress) "Vision on Board the UAVs"
  Autores: Pascual Campoy, Sergio Domínguez, Jose Luis Sanchez-Lopez, Adrián Carrio, Carlos Sampedro, Ramón A. Suárez-Fernández, Hriday Balve, Fu Changhong, Jesús Pestana, Carol Martínez, Aneesh Chauhan and Jean François Collumeau.
  CIVIL DRONE 2016, Madrid, January 26-27 29016
- (National congress) "Autonomous Visually-Guided Navigation of Unmanned Aerial Systems."
  Sanchez-Lopez, Jose Luis; Campoy, Pascual.
  Industrial Research Meeting 16
  ETSII, Madrid, April 20th 2016
- (National congress) "Computer Vision for Sense & Avoid onboard Unmanned Aerial Vehicles."
  Carrio, Adrian; Campoy, Pascual.
  Industrial Research Meeting 16
  ETSII, Madrid, April 20th 2016

Year 2015

- "A Vision Based Aerial Robot solution for the Mission 7 of the International Aerial Robotics Competition"
  Jose Luis Sanchez-Lopez, Jesus Pestana, Jean-Franois Collumeau, Ramon Suarez-Fernandez, Pascual Campoy, and Martin Molina
  2015 International Conference On Unmanned Aircraft Systems (ICUAS'15)
  Denver, USA. June 9-12, 2015

- "Efficient Visual Odometry and Mapping for Unmanned Aerial Vehicle Using ARM-based Stereo Vision Pre-Processing System"
  Changhong Fu, Adrian Carrio, Pascual Campoy
  2015 International Conference On Unmanned Aircraft Systems (ICUAS'15)
  Page(s): 957 – 962 Print ISBN: 978-1-4799-6009-5,
  DOI: 10.1109/ICUAS.2015.7152384, INSPEC Accession Number:15291543
  Denver, USA. June 9-12, 2015

- "Analysis of Professor/Student Perception On The Acquisition Of Creativity And Teamwork Skills In The Technical University Of Madrid"

Camino González, Raquel Martínez, Álvaro García-Sánchez, Miguel Ortega-Mier and Pascual Campoy
INTED15, 9th International Technology, Education and Development Conference
Madrid, 2nd-4th of March, 2015.

Year 2014

- "A Supervised Approach to Electric Tower Detection and Classification for Power Line Inspection"

Carlos Sampedro, Carol Martinez, Aneesh Chauhan, and Pascual Campoy
IEEE WCCI 2014 World Congress on Computational Intelligence
Beijing, China, July 6-11 2014

- "Using the Cross-Entropy Method for Control Optimization: A Case Study of See-and-Avoid on Unmanned Aerial Vehicles"

Miguel A. Olivares-Mendez*, Changhong Fu, Somasundar Kannan, Holger Voos, Pascual Campoy
MED14, 22nd Mediterranean Conference on Control and Automation
Palermo Italy, June 16 - 19, 2014

- "Robust Real-time Vision-based Aircraft Tracking From Unmanned Aerial Vehicles"

Changhong Fu, Adrian Carrio, Miguel A. Olivares-Mendez, Ramon Suarez-Fernandez, Pascual Campoy
ICRA 2014 IEEE International Conference on Robotics and Automation
Hong Kong, China, May 31 - June 7, 2014

- "A Ground-Truth Video Dataset for the Development and Evaluation of Vision-based Sense-and-Avoid systems"

Adrian Carrio, Changhong Fu, Jesus Pestana Puerta, Pascual Campoy
ICUAS'14 International Conference on Unmanned Aircraft Systems
Orlando, FL, USA, May 27-30 2014

- "Towards Autonomous Detection and Tracking of Electric Towers for Aerial Power Line Inspection"

Carol Martinez, Carlos Sampedro, Aneesh Chauhan, Pascual Campoy
ICUAS'14 International Conference on Unmanned Aircraft Systems
Orlando, FL, USA, May 27-30 2014

- "A System for the Design and Development of Vision-based Multi-robot Quadrotor Swarms"

Jose Luis Sanchez-Lopez, Jesus Pestana Puerta, Paloma de la Puente, Ramón A. Suárez Fernández, Pascual Campoy
ICUAS'14 International Conference on Unmanned Aircraft Systems

Orlando, FL, USA, May 27-30 2014

- "A Vision-based Quadrotor Swarm for the participation in the 2013 International Micro Air Vehicle Competition"

Jesus Pestana Puerta, Jose Luis Sanchez-Lopez, Paloma de la Puente, Adrian Carrio, Pascual Campoy
ICUAS'14 International Conference on Unmanned Aircraft Systems
Orlando, FL, USA, May 27-30 2014

- "Online Learning-based Robust Visual Tracking for Autonomous Landing of Unmanned Aerial Vehicles"

Changhong Fu, Adrian Carrio, Miguel A. Olivares-Mendez, Pascual Campoy
ICUAS'14 International Conference on Unmanned Aircraft Systems
Orlando, FL, USA, May 27-30 2014

- "Computer Vision Based General Object Following for GPS-denied Multirotor Unmanned Vehicles"

  Jesus Pestana, Jose Luis Sanchez-Lopez, Srikanth Saripalli and Pascual Campoy
  2014 American Control Conference (ACC), Portland, Oregon, USA
  Publisher: IEEE, Page(s):1886 - 1891, ISSN :0743-1619, Print ISBN:978-1-4799-3272-6
  DOI:10.1109/ACC.2014.6858831
  4-6 June 2014

Year 2013

- "Towards Autonomous Air-To-Air Refuelling for UAVs Using Visual Information"

  Carol Martínez*, Thomas Richardson, Pascual Campoy
  ICRA 2013, IEEE International Conference on Robotics and Automation
  Karlsruhe, Germany, May 6 - 10, 2013

- "Vision based GPS-deniedObject tracking and Following for Unmanned Aerial Vehicles"

  J. Pestana, J. L. Sanchez-Lopez, S. Saripalli, P. Campoy
  Best Paper Award Finalist in 2013
  The 11th IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR 2013). Linköping (Sweden). Oct 21-26, 2013.

- "Autonomous Landing of an Unmanned Aerial Vehicle using Image-Based Fuzzy Control"

  Miguel A. Olivares-Mendez*, Ivan F. Mondragon, Pascual campoy
  REDUAS, 2nd IFAC Workshop on Research, Education and Development of Unmanned Aerial Systems

Compiegne, France, November 20-22, 2013

- "Real-time Adaptive Multi-Classifer Multi-Resolution Visual Tracking Framework for Unmanned Aerial Vehicles"
  Changhong Fu*, Ramon Antonio Suarez Fernandez, Miguel A. Olivares-Mendez, Pascual campoy
  REDUAS, 2nd IFAC Workshop on Research, Education and Development of Unmanned Aerial Systems
  Compiegne, France, November 20-22, 2013

- "OMNIWORKS: Omnidirectional vision for human-UAV co-working"
  Pascual Campoy, Miguel A. Olivares-Méndez, Changhong Fu, Ramón Suárez-Fernández
  Workshop on "Scientific and Structural Achievements from Academia-Industry Projects in ECHORD"
  Conference on Robotics, Science and Systems 2013
  Berlin, Germany, June 28, 2013

- "Toward Visual Autonomous Ship Board Landing of a VTOL UAV"
  Jose Luis Sanchez-Lopez*, Srikanth Saripalli, Pascual Campoy, Jesus Pestana Puerta, Changhong Fu
  ICUAS 2013 International Conference on Unmanned Aircraft Systems
  Atlanta, GA, USA, May 28-31, 2013.

- "A General Purpose Configurable Navigation Controller for Micro Aerial Multirotor Vehicles"
  Jesus Pestana, Ignacio Mellado-Bataller, Changhong Fu, Jose Luis Sanchez-Lopez, Ivan Fernando Mondragon, and Pascual Campoy
  ICUAS 2013 International Conference on Unmanned Aircraft Systems
  Atlanta, GA, USA, May 28-31, 2013.

- "UAS See-and-Avoid Strategy using a Fuzzy Logic Controller Optimized by Cross-Entropy in Scaling Factors and Membership Functions"
  Changhong Fu, Miguel A. Olivares-Mendez, Pascual Campoy, Ramón A. Suárez Fernández
  ICUAS 2013 International Conference on Unmanned Aircraft Systems
  Atlanta, GA, USA, May 28-31, 2013.

- "Autonomous ship board landing of a VTOL UAV"

Jose Luis Sanchez-Lopez, Srikanth Saripalli, Pascual Campoy
AHS, 69th American Helicopter Society Annual Forum & Technology Phoenix, Arizona, USA, May 21-23, 2013

- "Visual Quadrotor Swarm for the IMAV 2013 Indoor Competition"
  José Luis Sánchez-López, Jesús Pestana, Paloma de la Puente, Adrián Carrio and Pascual Campoy
  ROBOT 2013: First Iberian Robotics Conference
  Madrid, Spain, November 28-29, 2013

- "Floor Optical Flow Based Navigation Controller for Multirotor Aerial Vehicles"
  Jesús Pestana, Ignacio Mellado-Bataller, José Luis Sánchez-López, Changhong Fu, Iván F. Mondragón, and Pascual Campoy
  ROBOT 2013: First Iberian Robotics Conference
  Madrid, Spain, November 28-29, 2013

Year 2012

- "Quadcopter See and Avoid Using a Fuzzy Controller"
  M. A. Olivares-Méndez**,** Luis Mejias, Pascual Campoy, Ignacio Mellado-Bataller
  International FLINS Conference on Uncertainty Modeling in Knowledge Engineering and Decision Making (FLINS 2012)
  Istanbul, Turkey, August 26-29, 2012

- "See-and-Avoid Quadcopter using Fuzzy Control Optimized by Cross-Entropy"
  Miguel A. Olivares-Mendez, Luis Mejias, Pascual Campoy and Ignacio Mellado-Bataller
  IEEE World Congress on Computational Intelligence (IEEE WCCI 2012)
  Brisbane, Australia, June 10-15, 2012

- "UAS See-and-Avoid using two different approaches of Fuzzy Control"
  Miguel A. Olivares-Mendez, Luis Mejias, Pascual Campoy, Ignacio Mellado-Bataller
  International Conference on Unmanned Aircraft Systems (ICUAS'12)
  Philadelphia, PA, USA, June 12-15, 2012

- "A Hierarchical Strategy for Real-Time Tracking On-board UAVs"
  Carol Martinez, Pascual Campoy, Iván F. Mondragón, José Luis Sánchez López, Miguel A. Olivares-Mendez
  International Conference on Unmanned Aircraft Systems (ICUAS'12)
  Philadelphia, PA, USA, June 12-15, 2012

- "Rapid Prototyping Framework for Visual Control of Autonomous Micro Aerial Vehicles"
  Ignacio Mellado-Bataller, Pascual Campoy, Miguel A. Olivares-Mendez, Luis Mejías

12th International Conference on Intelligent Autonomous System (IAS-12)
Jeju Island, Korea on June 26 - 29, 2012
Published in book: "Intelligent Autonomous Systems 12"
Pages: 487-499, vol. 193, Series: Advances in Intelligent Systems and Computing,Editorial: Springer Berlin Heidelberg
Doi: 10.1007/978-3-642-33926-4_45, ISBN: 978-3-642-33925-7,
url: http://dx.doi.org/10.1007/978-3-642-33926-4_45

- "Adaptive Control System based on Lineal Control Theory for the Path-Following Problem of a Car-Like Mobile Robot"
  Jose Luis Sanchez-Lopez, Pascual Campoy, Miguel A. Olivares-Mendez, Ignacio Mellado-Bataller, David Galindo
  IFAC Conference on Advances in PID Control, PID'12
  Brescia, Italy, 28-30 March 2012

Year 2011

- "A Multiresolution Image Alignment Technique Based on Direct Methods for Pose Estimation of Aerial Vehicles"
  Carol Martínez, Luis Mejias & Pascual Campoy
  DICTA 2011 Digital Image Computing: Techniques and Applications, sponsored by IEEE and IAPR. Pag: 542-548
  Noosa, Queensland, Australia, December 6-8, 2011

- "A Visual AGV-Urban Car using Fuzzy Control"
  Miguel A. Olivares-Mendez, Ignacio Mellado, Pascual Campoy, Iván F. Mondragón & Carol Martinez
  ICARA 2011: The 5th IEEE International Conference on Automation, Robotics and Applications
  Wellington, New Zealand, December 06-08, 2011

- "Omnidirectional bearing-only see-and-avoid for small aerial robots"
  Luis Mejias, Ivan Mondragón and Pascual Campoy
  ICARA 2011: The 5th IEEE International Conference on Automation, Robotics and Applications
  Wellington, New Zealand, December 06-08, 2011

- "Aerial Object Following Using Visual Fuzzy Servoing"
  Miguel A. Olivares-Mendez, Iván F. Mondragón, Pascual Campoy, Luis Mejias & Carol Martinez
  RED-UAS 2011, Research, Development and Education on Unmanned Aerial Systems
  Sevilla, Spain, Nov-30 Dic-1 2011

- "3D Object following based on visual information for Unmanned Aerial Vehicles"
  Iván F. Mondragón, Pascual Campoy, Miguel A. Olivares-Mendez & Carol Martinez
  IEEE LARC - LARS - CCAC & IASCW 2011, XI Latin American Robotics Competition & Colombian Conference on Automatic Control & II Industry Applications Society Colombian Workshop
  Bogotá, Colombia, October 1-4, 2011

Year 2010

- "Non-symmetric membership function for Fuzzy-based visual servoing onboard a UAV"

Miguel A. Olivares-Mendez, Pascual Campoy, Carol Martinez and Ivan F. Mondragon
9th International FLINS Conference on Foundations and Applications of Computational Intelligence FLINS 2010
Chengdu(Emei), China, August 2-4, 2010

- "Autonomous Machine Learning"
  John Taylor, Edgar Koerner, Klaus Obermayer, Jose Principe, Danil Prokhorov, Carlo Morabito, Wlodzislaw Duch, Pascal Campoy, John Weng, DeLiang Wang, Fred Ham, Nik Kasabov, Khan M. Iftekharuddin, Plamen Angelov, Asim Roy
  IEEE-WCCI 2010 World Congress on Computational Intelligence,
  IJCNN, Internacional Join Conference on Neural Networks
  Barcelona, Spain, July 18-23, 2010.

- "A Robotic Eye Controller Based on Cooperative Neural Agents"
  Oscar Chang, Pascual Campoy, Carol Martinez and Miguel Olivares
  IEEE-WCCI 2010 World Congress on Computational Intelligence
  IJCNN, Internacional Join Conference on Neural Networks
  Barcelona, Spain, July 18-23, 2010.

- "Fuzzy Controller for UAV-landing task using 3D-position Visual Estimation."
  IEEE-WCCI 2010 World Congress on Computational Intelligence, IEEE-FUZZ2010
  Barcelona, Spain, July 18-23, 2010.

- "An intelligent control strategy based on ANFIS techniques in order to improve the performance of a low-cost unmanned aerial vehicle vision system"

Marichal, G.N.; Hernández, A.; Olivares-Méndez, M.; Acosta, L.; Campoy, P.
2010 IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications
Qingdao, ShanDong, China, July 15-17, 2010,

- "On-board and Ground Visual Pose Estimation Techniques for UAV Control"

Carol Martinez, Ivan F. Mondragon, Miguel A. Olivares-Mendez and Pascual Campoy
The 3rd International Symposium on Unmanned Aerial Vehicles UAV'10.
Dubai, Arab Emirates, June 21-23, 2010.

- "3D pose estimation based on planar object tracking for UAVs control"

Iván F. Mondragón, Pascual Campoy, Carol V. Martinez, Miguel A. Olivares
ICRA10 IEEE International Conference on Robotics and Automation
Anchorage, Alaska, USA, May 3-8, 2010

Year 2009

- "A Pan-Tilt Camera Fuzzy Vision Controller on an Unmanned Aerial Vehicle"
  Miguel A. Olivares-Mendez, Pascual Campoy, Carol Martinez, Iván F. Mondragón
  IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2009.
  St. Louis, MO; USA, October 2009.

- "Trinocular Ground System to Control UAVs"
  Carol Martinez, Pascual Campoy, Iván F. Mondragón, Miguel A. Olivares-Mendez
  IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2009.
  St. Louis, MO; USA, October 2009.

- 'Visual Servoing using Fuzzy Controllers on an Unmanned Aerial Vehicles'
  Miguel A. Olivares-Mendez, Pascual Campoy, Iván Fernando Mondragón, Carol Martinez
  EUROFUSE Workshop 2009
  Pamplona, Spain, 16-18 September 2009

- "Estimating the embedding dimension distribution of time series with SOMOS"
  Pedro Zufiria & Pascual Campoy
  International Work-conference on Artificial and Natural Neural Networks, IWANN 2009
  Salamanca, Sptember 2009

- "Dimensionality Reduction by Self Organizing Maps that preserve distances in the Output Space"

Pascual Campoy
International Joint Conference on Neural Networks IJCNN09
Atlanta GA USA, 14-19 June 2009

Year 2008

- "Computer Vision onboard UAVs for civilian tasks"
  UAV World Conference at AIRTECH
  Frankfurt, Germany. 12-14 November 2008.

- "Fuzzy Control System Navigation using Priority Areas"

Miguel Olivares, Pascual Campoy, Carol Martinez, Juan Fernando Correa Iván Mondragón
The 8th International FLINS Conference on Computational Intelligence in Decision and Control
Madrid, September 2008.

- "Vision for guidance and control of UAVs in civilian tasks"

Pascual Campoy, Iván Mondragón, Juan Fernando Correa, Carol Martinez, Miguel Olivares
UAV08 International Symposium on Unmanned Aerial Vehicles
Orlando, FL USA, June 23-25, 2008.

Year 2007

- "Visually Guiding Autonomous Helicopters for Civilian Tasks"

Pascual Campoy, Iván Mondragón, Juan Correa, Carol Martinez, Miguel Olivares
Innovation in Unmanned Aerial Vehicles
Madrid, November 2007.

- "Visual Model Feature Tracking for UAV Control"

Ivan Fernando Mondragón, Pascual Campoy, Juan Fernando Correa, Luis Mejias
5th IEEE International Symposium on Intelligent Signal Processing, WISP2007, Alcalá de Henares
Madrid, October 2007.

- "Stereo Visual System for Autonomous Air Vehicle Navigation"

Luis Mejias, Pascual Campoy, Ivan Mondragón, Patrick Doherty
IAV 2007 6th IFAC Symposium on Intelligent Autonomous Vehicles
3-5 September 2007
Tolouse, France.

- "Visually Guiding Autonomous Helicopters for Civilian Tasks"

Luis Mejias, Pascual Campoy, Ivan Mondragón, Juan Fernando Correa
UAV 2007 Conference, Workshop on Mini UAV
Paris, June 2007.

- "Colibri: Vision-Guided Helicopter for Surveillance and Visual Inspection"

Luis Mejias, Pascual Campoy, Patrick Doherty

video selected for the ICRA'07 IEEE International Conference on Robotics and Automation
Roma, Italy April 2007.

Year 2006

- "Image compression by a time enhanced self organizing Map"

Pascual Campoy, Pedro Gutierrez
Iberoamerican Congress on Pattern Recognition CIARP2006
Cancun-Mexico, November 2006.

- "Two Seconds to TouchDown. Vision-Based Controlled Forced Landing"

Luis Mejías, Pascual Campoy, Kane Usher, Jonathan Roberts, Peter Corke
IROS 2006, IEEE/RSJ International Conference on Intelligent Robots and Systems
Pekin China, Octubre 2006.

- "ISA Student Sections In Spain: Connecting Academic And Industry For Education"

Aragon J.M., Aragón V., Campoy P., Casado J., Castellanos J.A., Diaz-Andreu F., García M.A., López J.A., Mosquera J.L, Polanco O., Sacarano M., Sáez Bacuñana P., Sanchez-Avís F., Sanchez-Escribano G, Zamarreño J.M.
7th IFAC Symposium on Advances in Control Education
June 2006, Madrid.

- "An Application of Convolutional Neural Networks for Automatic Inspection"

Jose Antonio Calderón-Martinez y Pascual Campoy
2nd. IEEE International Conference on Cybernetics & Intelligent Systems
Bangkok, Thailand, June 7-9, 2006.

- "Visual Servoing for Tracking Features in Urban Areas Using an Autonomous Helicopter"

Luis Mejias, Pascual Campoy, Srikanth Saripalli, Gaurav S. Sukhatme
ICRA06, 22nd. IEEE International Conference on Robotics and Automation
Orlando-Florida, Mayo 2006.

Year 2005

- "Residual Activity in the Neurons Allows SOMs to Learn Temporal Order"

Pascual Campoy & Carlos Javier Vicente
International Conference on Artificial Neural Networks ICANN'05
Varsovia September 2005.

- "Detection and tracking of external features in urban environment using an autonomous helicopter"

Luis Mejias, Pascual Campoy, Srikanth Saripalli, Gaurav S.
ICRA05, 21st IEEE International Conference on Robotics and Automation

Abril 2005.
Barcelona, Spain

- "Image Compression by a Time Enhanced Neural Network"

Pedro Gutierrez & Pascual Campoy
International Conference on Multimedia, Image Processing and Computer Vision
March 2005
Madrid Spain

Before 2004

- "How can temporal order be learnead by SOM?"

Pascual Campoy & Carlos Javier Vicente
Word Automation Congress, Sevilla, Junio-Julio 2004.

- "InsPulp-I ©: a pulp inspection system under critical lighting conditions using TDI technology", Applied Machine Vision: Von Bildvearbeitung zu sehende Systemen, Stuttgart, Oktober 2003.

- "Defects Detection in Continous Manufacturing by Means of Convolutional Neural Networks", International Work-conference on Artificial and Natural Neural Networks, IWANN, Mahón, Menorca, Junio 2003.

- "A Convolutional Neural Architecture: An Application for Defects Detection in Continuous Manufacturing Systems", ISCAS 2003, IEEE International Symposium on Circuits and Systems Sunday May 2003, Bangkok, Thailand.

- "An autonomous helicopter guided by Computer vision for inspection of Overhead power cable", IROS 2002 IEEE/RSJ International Conference on Intelligent Robots and Systems, Lausane Switzerland, October 2002.

- "Auto-aprendizaje Práctico de Control de Sistemas", IE2002, 6th. Congreso Iberoamericano y 4th.Simposio Internacional de Informática Educativa y 7th. Taller Internacional de Software Educativo, Vigo, Noviembre 2002.

"Arquitectura Neuronal Convolucional para la Detección de Defectos en Productos en Continuo", CIARP 2002, VII Congreso Iberoamericano de Reconocimiento de Parones, Ciudad de Mexico, Noviembre 2002.

- "An Stereoscopic Vision System Guiding an Autonomous Helicopter for Overhead Power Cable Inspection" Robot Vision 2001, Aukland, New Zeland, Febrary 2001.

- "Automatic Generation of Digital Filters by NN Based Learning: An application on Paper Pulp Inspection", Artificial and Natural Nueral Networks IWANN 2001, Granada, June 2001
- "An auonomous helicopter guided by Computer vision for visual inspection of Overhead power cable". ICOLIM 2000, Madrid, May 2000.

- "Intelligent On-Line Surface Inspection on a High –Speed Skin-Pass Mill" Associatión of Iron and Steel Engineer, Annual Convention, Chicago USA, Septiembre 1996

- "Surface analysis of cast aluminum by means of artificial vision and A.I. based techniques" Machine Vision Applications in Industrial Inspection. San José, California. Jabuary 1996.

- "A new three-dimensional visualización system based on angular image differentation". Proceeding of the SPIE Stereoscopic Display and Aplications VI. San José, California USA. Febrero 1995.

- "Photogrammetric determination of the location and orientation of a group of cameras for a perspective transformation on a new autostereoscopic display." Proceeding of the SPIE Stereoscopic Displays and Aplications VI, San José, California USA, Febrero 1995.

- "A calibration system for a new 3D autostereoscopic device based on angular differentation." Proceeding of the SPIE Stereoscopic Displays and Aplications VI, San José, California USA. Febrero 1995.

- "On-line texture analysis for flat products inspection. Neural nets implementation" 20th International Conference on Industrial Electronics, Control and Instrumentation, 1994. IECON '94., , Volume: 2 , 1994 Page(s): 867 -872 vol.2

- "Three-dimensional digitizing system based in laser line projection". Rapid Prototyping for the Automotiv Industry. ISATA. Aachem, Germany. October 1994.

- "A neural Network based quality control system for steeel strip manufacturing". AIRTC´94 Symposium on Artificial Intelligence in Real Time Control. Universidad Politécnica de Valencia. Octubre 1994.

- "Classification Techniques based on A.I. Application to deffect classification in cast aluminum". Conference on Automated Visual Inspection. EOS/SPIE Symposium in Optics for Productivity in Manufacturing. Frankfurt. June 1994.

- ”Surface inspection of flat products by means of texture analysis. On-line implementation using Neural Nets”. Optics for Productivity in Manufacturing-Automated Visual Inspection. Frankfurt. June 1994.

- "Computer Vision System for Three dimensional Inspection" Conference on Robotics for Nuclear Enviropment. EOS/SPIE Symposium in Optics for Productivity in Manufacturing. Frankfurt. June 1994.

- ”Digitalizador tridimensional para la industria del calzado” II Congreso Venezolano de Métodos Numéricos en Ingeniería y Ciencias Aplicadas, Maracaibo 1994

- "Vision System for On-line Surface Inspection in Aluminum Casting Process". IECOM'93 9th Annual Conference of the IEEE Industrial Electronics Society. Hawaii. November 1993.

- "A New Lenticular System for Three-dimensional Reproduction". 4-th European Workshop on Three-Dimensional Television. Roma. October 1993.

- "An Automatic System for the Real Time Integration of Live Action and Synthetic 3-D Computer Images". 4-th Eurographics'93 Animation and Simulation Workshop. Barcelona. September 1993.

- "A realistic Depth of Field Effect Based on Real Cameras for Blending Real and Computer Generated Images". 4-th Eurographics'93 Animation and Simulation Workshop. Barcelona. September 1993.

- "On-line surface inspection for continous cast aluminum strip". Computer Vision for the Industry. International Symposium on Electronic Imaging Device Engineering. Munich. June 1993

- "Three-dimensional digitizer for the footwear industry". Computer Vision for the Industry. International Symposium on Electronic Imaging Device Engineering. Munich. June 1993.

- "On-line surface inspection for continous cast aluminum strip". International Workshop Image Analysis and Synthesis. Graz, Austria. June 1993

- "Expert System for Quality Control and Classification by Neural Networks". Neuron Data User Group Meeting. Granada. May 1993.

- "Artificial Vision Based Sensor for Detection of Staked Skins" ISIR'92 International Symposium on Industrial Robots". Barcelona. October 1992.

- "Quality Control of Ferrite Cores through Artificial Vision Techniques" SICICA'92 Symposium on Intelligent Components and Instruments for Control Aplications. Málaga. May 1992

- "Spanish Vision Market", IDENT-VISION, Stuttgart, Mayo 92.

- "Artificial Vision System for Automated Quality Control in the Canned Food Industry". FAMOS Workshop on Flexible Automated Assembly in Food Processing - EOLAS, Dublin, Noviembre 1989

- "A Production System for AGVS Control", 6th. IFAC/IFIP/IFORS/ IMACS Symposium on Information control Problems in Manufacturing Technology. Sept 1989.

- "Trayectory Planning Method for Autonomous Mobile Robots". 6th IFAC/IFIP/IFORS/IMACS Symposium on Information control Problems in Manufacturing Technology. Sept 1989.

- "On line AGV System Planning", 19th. ISATA Symposium, Montecarlo, Octubre 1988.

- "Hierarchical Control System for Cooperation between two robots and part positioning device", Symposium on Robot Control'85 Barcelona 1985.

9 Patents

9.1 International Patents

- Title: “Remotely Operated Air Reconnaissance Device“
  International publication number: WO2011/144497
  International application number: PCT/EP2011/057503
  Priority number: 201030729 (ES)
  Publication date: 24 November 2011 (24.11.2011)
  Filing Date: 10 May 2011 (10.05.2011)
  Priority date: 201030729 17 May 2010 (17.05.2010)
  Applicant (for all designated states except US):
  ARIES INGENIERÍA Y SISTEMAS S.A. [ES/ES]; Paseo de la Castellana, 130 5a E-28046 Madrid (ES)
  Inventors (applicats for US only):
    - TEJADA ESTEBAN, Luis Felipe; Aries Ingeniería y Sistemas S.A. Paseo de la Castellana 130 E-28046 Madrid (ES)
    - FREIRE BOUILLON, Ladislas Ghislain; Aries Ingeniería y Sistemas S.A. Paseo de la Castellana 130 E-28046 Madrid (ES)
    - CAMPOY CERVERA, Pascual; Universidad Politécnica Madrid, Av Ramiro de Maeztu 7, E-28040 Madrid (ES)
    - MONDRAGÓN BERNAL, Iván F.; Universidad Politécnica Madrid, Av Ramiro de Maeztu 7, E-28040 Madrid (ES)

  Designated States:
  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
  European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW
  Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

- “Sistema automático de detección y reconocimiento de anuncios televisados”, derechos de explotación cedidos a MAYO AUDIVISUAL S.A., patentado en los siguientes países:
  Patente argentina nr. 99 01 00348

Patente brasileña nr. 99 00 626-0
Patente colombiana nr. 99004745
Patente chilena nr. 159-99
Patente costarriquense nr. 59-61
Patente ecuatoriana nr. 25.370
Patente mexicana nr. 99-01142
Patente panameña nr. PI-PA-991084-677
Patente peruana: nr. 9800180-9
Patente venezolana nr. 000097
Patente uruguaya nr. 25-370

- "Système automatique d'inspection d'objets tridimensionnels de grand dimensions", patente francesa con número de expediente 95-02231, presentada el 27 de Febrero de 1995. Los derechos de explotación cedidos a Hiberdrola, S.A., Tecnaton, S.A. y Empresa Nacional del Uranio, S.A.

9.2 National patents

- "Dispositivo de aislamiento de vibraciones semiactivo" Nº publicación: ES 2578807 B1, Nº Solicitud: P 201500086, fecha presentación: 28-01-2015, fecha concesión: 04-05-2017. Titulares: Universidad De La Laguna y Universidad Politécnica De Madrid, Inventores: Marichal Plasencia, Graciliano Nicolás; Hernández López, Ángela; Padrón Armas, Isidro; Rodríguez Hernández, José Ángel; Melón Rodríguez, Enrique; Rodríguez Pino, Raúl Y Campoy Cervera, Pascual.

- "Método para la interpretación y análisis de pruebas de detección o diagnóstico" ES 2452991 A1, número: P 201331853 (7) , presentado el 18 de Diciembre de 2013. Derecho de Explotación de VinciLab Healthcare S.L. Inventores: Pimienta Escobar, Miguel; Campoy Cervera, Pascual,; Sanchez Lopez, Jose Luis; Carrio Fernandez, Adrian; Sampedro Perez, Carlos

- "Método para la reducción de la dimensionalidad de datos", nr. de expediente 02521, presentada el 29/08/08. Derechos de explotación de la Universidad Politécnica de Madrid.

- "Sistema mezclador de campos simultáneos y homónimos de dos señales de vídeo entrelazadas en una única señal video para aplicaciones estereoscópicas", número de expediente P200500412/X, presentada el 23/02/2005. Derechos de explotación de la Universidad Politécnica de Madrid.

- "Sistema automático para la detección de similitud visual entre marcas comerciales", número de expediente ES20020003036 20021230 , presentada el 30 de Diciembre 2002. Derechos de explotación del GRUPO 10 EMPRESARIAL.

- "Sistema automático de detección y reconocimiento de anuncios televisados". Número de expediente P9800180, presentada el 30 Enero 1998. Los derechos de explotación cedidos a GECA Consultores S.A.

- "Sistema automático de contaje de personas en movimiento". Número de expediente P-9600360, presentada el 15 de Febrero de 1996. Los derechos de explotación cedidos a Universidad Politécnica de Madrid.

- Automatic remote inspection system esp. for nuclear fuel elements - using digital treatment of images taken from different positions around fuel element". Número de expediente P-0401360/8 presentada el 22 Junio 1994. Los derechos de explotación cedidos a Iberdrola, S.A., Tecnaton, S.A. y Empresa Nacional del Uranio, S.A.

10 Scientific and academic posts

10.1 Scientific committee posts

- Senior Editor at the "Journal of Intelligent & Robotic Systems", Editorial Springer, ISSN 0921-0296, since September 2010.
- Member of the Editorial Board of International Journal of Advanced Robotic Systems since 2013.
- Member of the Advisor Comettee of the International Conference on Unmanned Aircraft Systems ICUAS since 2012
- Member of the IPC at the International Conference on Unmanned Aircraft Systems ICUAS, since 2010.
- Member of the IPC at "Computer Vision in Vehicle Technology: From Earth to Mars" CVVT held in conjunction with ICCV since 2011.
- Organizer of the "Special Session on Dimensionality Reduction" dentro del IEEE-WCCI 2010 "Word Congress in Computer Intelligence", IJNN "International Conference on Neural Networks", July 2010.
- Member of the IPC at IEEE-WCCI 2010 "Word Congress in Computer Intelligence", IJNN "International Conference on Neural Networks", July 2010.
- Member of the IPC at VISAPP "International Conference on Computer Vision Theory and Applications" since 2009.
- Member of the IPC at 7th Mexican International Conference on Artificial Intelligence y miembro del Workshop Committe on Self-Orginizing-Maps at MICAI'08, Mexico, Octubre 2008.
- General Congress Co-chairman del "Innovation in Autonomous Aircraft Systems", organizado por el INTA y la ETSIIM, Noviembre 2007.
- Chairman en el International Congress on Artificial Neural Networks, Warsaw. September 2005.

- Miembro del Organizing Committee of "The Second ISA European student paper competition",St. Petersburg, Russia June 2006.
- Steering Comitee de la "European Vision Association"
- Miembro del IPC del "IX Simposium Nacional de reconocimiento de formas" Castellón 2001
- Miembro del IPC del "VIII Simposium Nacional de reconocimiento de formas" Bilbao 1999
- Miembro del comité organizador de las "XIX Jornadas de Automática" Madrid Septiembre 1998.
- Conference Co-chairman y miembro del International Program Commitee (IPC) "Automated Visual Inspection" en el "Europen Conference on Optics for Productivity in Manufacturing". Frankfurt 1994.. Comission of the European Comunities, EOS, SPIE
- Miembro del Comité Organizador "1as Jornadas de Inspección Visual Automatizada" Madrid, Septiembre 1991.
- Miembro del Comite Organizador (NOC) del IFAC/IFIC/-IMACS/IFORS Symposium on Information and Control Problems in Manufacturing Technology, INCOM'89.

10.2 Academic posts

- Funder and Advisor ISA Student Section at U.P.M., from 2004 until 2012.
- Coordinator of "Computer Vision Group" at UPM since September 2010.
- Member of the Comisión de Admisión del Master con mención de Calidad en "Automática y Robótica" de la U.P.M. desde su inicio en 2006 hasta la actualidad.
- Elected member of the claustro de la U.P.M., en la legislatura constituyente de 2002 y siguiente hasta 2006.
- Elected member of the Juntas de Escuela de la E.T.S.I.I.M. en las diversas legislaturas desde 1998 hasta 2009 and in 2013.
- Member of the Comisión Anticorrupción de la U.P.M., nombrado en 2006.
- Member of the Comisión de Compensación de la E.T.S.I.I.M. since 1999
- Coordinador of the Programa de Doctorado "Robótica y Visión por Computador" desde 1997

10.3 Other posts

- Co-funder and member of the steering committee of the Spanish Asociation for RPAS (AERPAS) in July 2013.
- Opponent for the Licentiate Degree of Ing. Piotr Rudol at Linköping University. November 4th 2011.
- Hoster for MIT Student Intership since 2010.

- Evaluador de proyectos de la Knwoledge Fundation KK-Stiftelsen, Stockolm, Sweden, en los años 2009 y 2010
- Miembro del Grupo de Innovación Educativa "GIE-9: Innovación Educativa en Automática"de la U.P.M. desde la 1ª convocatoria de creación de Grupos de Innovación Educativa, dede su incio hasta ahora.
- Miembro colaborador del Grupo de Innovación Educativa "GIE46: Desarrollo de Nuevas Metodologías de Aprendizaje/Evaluación del Departamento de Informática Aplicada" de la UPM.
- Evaluador de proyectos de programas europeos ESPRIT y BRITE.
- Representante español en la European Vision Association (1992-2000)
- Experto de la fundación COTEC en "Aplicaciones Tecnológicas de las Redes Neuronales"
- Evaluador de proyectos de I+D de la Universidad Politécnica de Madrid
- Experto de los informes DELPHI Español "Tendencias en Robótica y Automatización Avanzada" en 2002 y "Estudio sobre tendencias científico-tecnológicas en España" en 1997
- Representante de la Comisión Mixta del "Convenio Marco de Colaboración entre Red Eléctrica de España S.A. y la Universidad Politécnica de Madrid"
- Evaluador de la "Revista de Metalurgia" reflejada en el Scientific Citation Index Expanded
- Miembro del grupo promotor de la Asociación de Visión Española, y organizador del su Stand en la feria IDENT-VISION de Stutgart 1996
- Representante español en el Comité Gestor ("Steering Committe") de la acción Cost 232 "Stereoscopic TV"

11 Other credits

11.1 Prizes, mentions and individual grants

- Leader of the International Group clasified in 3rd position at Grand Challenge in the International Robotics & AI Competition MBZIRC 2020

- Two special awards on "Best Obstacle Avoidance Award" and "Best Trajectory Controller" in the World's Premier Aerial Robotics Challenge IARC14, the International Aerial Robotics Competition that is the longest running collegiate aerial robotics challenge in the world. August 2014. Yantai. China.
- First Prize in "Indoors Autonomy" at international competition IMAV13, International Micro Air Vehicle Conference and Flight Competition hold in Toulouse, September 2013.
- Prize to the "Best Automatic Performance" and the 2nd prize in "Indoor Flight Dynamics -Rotary Wing MAV" at the IMAV12 International Micro Air Vehicle Conference and Flight Competition hold in Braunsweig July 2012.

- Prize for the paper on Intelligent Control "Reducción de Vibraciones de un sistema de vision a bordo de un helicopter mediante n controlador inteligente" by G.Nicolas Mariscal, María Tomas, Pascual Campoy, Ángela Hernandez y Salvador Castillo, presented at the Jornadas de Automática Seprtember 2012 in Vigo-Spain.
- "Professor Mobility Grant" funded by Caja Madrid for a research stay of four months in ARCAA-QUT, Queensland, Australia. June to October 2011.
- Tres tramos reconocidos de labor investigadora 1993-1998 y 1999-2005 por el Ministerio de Educación y Ciencia.
- Seis tramos reconocidos de labor docente 1985-90, 1991-95, 1996-2000, 2001-2005 y 2005-2010 por el Ministerio de Educación y Ciencia.
- Premio José Morillo y Farfán a la labor bibliográfica en materia de Ingeniería Industrial por Fundación para el Fomento de la Innovación Industrial 2002.
- Premio Extraordinario a la Mejor Tesis en la E.T.S.I. Industriales de Madrid. Concedido por la Universidad Politécnica de Madrid en convocatoria de 1988.
- Premio a la mejor Tesis Doctoral en el área de Electrotecnia, Electrónica, Informática y Automática, concedido por la Fundación J.A. de Artigas y Sanz, convocatoria 1988.
- Beca concedida por la Fundación J.A. de Artigas y Sanz para la realización del proyecto de investigación "Aportación de soluciones en la generación de trayectorias libres de colisión para robots móviles", en el Departamento DISAM de la E.T.S.I.I.M., 1988.
- Beca en el IPA Institut für Produktionsteknik und Automatisierung de la Fraunhofer Gesellschaft en Stuttgart, financiada por el Mrio. de Industria alemán para trabajar en el proyecto "Development of a sensor-based control system for an autonomous mobile robot for use in simple structured rooms", Abril 1986 a Marzo 1987.
- Beca de Formación de Personal Investigador durante los años 1985, 86, 87 y 88, concedida por el Mrio. de Educación y Ciencia.
- Beca concedida por el Deutsche Akademische Austauschdienst, para el estudio del idioma alemán en el Instituto Goethe de Bremen. Julio y Agosto de 1984.

11.2 PhD theses advisor

- "Deep and Reinforcement Learning in Perception and Control for Autonomous Aerial Robots" by Alejandro Rodríguez Ramos, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel. December 10th 2020

- "Vision-based Aircraft Detection Technologies for Unmanned Aerial Vehicles" by Adrián Carrio Fernández, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel. November 18th 2020

- "Learning-Based Perception, Control, and Navigation for Autonomous Missions in Aerial Robotics" by Carlos Sampedro Pérez, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel. December 18th 2019

- "Advanced Motion Control Systems for Underwater Robotic Vehicles" by Ramón Suárez Fernández, co-advisor: Sergio Dominguez Cabrerizo. International honored PhD thesis which received a unanimous Summa Cum Laude from the panel. December 5th 2019

- "Positioning and Mapping for Aerial Robots using on-board Perception for Autonomous Missions" by Hriday Bavle, co-advisor: Paloma de la Puente. International honored PhD thesis which received a unanimous Summa Cum Laude from the panel. November 27th 2019

- "Vision-Based Autonomous Navigation of Multirotor Micro Aerial Vehicles" by Jesús Pestana Puerta, co-advisor: Prof Sergio Dominguez, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel in July 10th 2017

- "A General Architecture For Autonomous Navigation Of Unmanned Aerial Systems" by Jose Luis Sánchez-López, co-advisor: Prof Martin Molina, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel in May 8th 2017

- "Vision-Based Tracking, Odometry and Control for UAV Autonomy" by Fu Changhong International honored PhD thesis which received a unanimous Summa Cum Laude from the panel in October 19th 2015

- " Visual Tracking, Pose Estimation, and Control for Aerial Vehicles" by Carol V. Martinez, International honored PhD thesis which received a unanimous Summa Cum Laude from the panel in July 15th 2013, Premio a la major tesis ETSII 2013.

- "Soft-Computing Based Visual Control for Unmanned Vehicles", International PhD Thesis by Miguel A. Olivares Méndez, Apto cum laude por unanimidad, March 20th 2013. Premio a la mejor tesis doctoral EUSFLAT 2013.

- “On-board visual control algorithms for Unmanned Aerial Vehicles” European PhD thesis, by Ivan F. Mondragón, Sobresaliente cum laude por unanimidad, November 14th 2011.

- "Inspección Automática en Sistemas de Fabricación mediante Visión Artificial basada en Redes Neuronales" por José Antonio Calderón Martínez, Sobresaliente, Julio 2007.

- “Control of an Unmanned Aerial Vehicle in Outdoor Environment Using Feature Detection and Tracking” European awarded Thesis, by Luis Mejias Alvarez, Sobresaliente cum laude por unanimidad, Diciembre 2006.

- “Análisis de Secuencias de Imágenes en el Dominio Comprimido. Aportaciones a los Mapas Auto-organizativos para el Aprendizaje Temporal”por Arnaldo Cordeiro Machado. Sobresaliente cum laude por unanimidad, Julio 2001.

- “Inspección Automatizada de Superficies Homegeneas mediante Vision Artificial con Aportaciones al Reconocimiento de Formas” por Carlos Platero Dueñas. Apto cum laudem por unanimidad. Julio 1998

- “Técnicas Avanzadas de Procesamiento Morfológico y Textural. Aplicación a la Inspección de Baldosas Cerámicas” por Javier Fernandez de Andrés. Apto cum laude por unanimidad. Julio 1998.

- ”Adquisición y Modelado Tridimensional en Visión Artificial mediante Técnicas de Luz Estructurada” por Albino González Blanco. Apto cum laudem por unanimidad. Abril 1998.

- "Inspección de superficies planas mediante visión artificial. Integración en tiempo real en procesos productivos" por Carlos Fernández de Andrés. Apto cum Laudem por unanimidad. Julio 1997.

- “Arquitectura Neuronal de Aprendizaje Continuo con Crecimiento Topológicamente Coherente. Aplicación al Reconocimiento de Patrones Visuales” por Sergio Domínguez Cabrerizo. Apto cum laude por unanimidad 1996

- "Integración de imágenes reales en entornos virtuales". Andrés Iborra García. Calificación: Apto cum laude por unanimidad. Mayo 1993.

11.3 Master theses and grade theses advisor

"Diseño y simulación del sistema de condensado de una central de ciclo combinado y del sistema de control del mismo mediante esquemas de control de elementos típicos de centrales de ciclo combinado" por Raúl Nieto Romero, 2011.
"Sistema De Control Para El Seguimiento De Trayectorias De Un Ugv No Holonomico Tipo Ackermann" por Jose Luis López Sánchez, Octubre 2010.
"Stabilization of a particle beam for a synchrotron model with cavity dynamics" por David Sagües desarrollado en la T.U. Darmstat, Julio 2009.
"Seguimiento visual de objetos para vehículos aéreos no tripulados" por Diego Rodriguez Bartolomé, Mayo 2009.
"Investigación literaria de las baterías de iones de litio y construcción de un modelo para la valoración de los efectos del envejecimiento" ("Literaturrecherche zum Thema Li-Ionen Batterie und Aufbau eines Modells zur Berücksichtigung der Alterungseffekte"), por Alberto Lozano Avilés en la Uni. Stuttgart, 2008.
"Desarrollo Y Construcción De Un Sistema De Control Automático De Un Sistema De Inyección De Un Motor De Combustión Interna Alternativo Y Adecuación De Su Sistema De Adquisición De Datos" por Pablo Saez Bascuañana, 2007.
"Hierarchical Neural Networks Inspired by Cortex for Image Processing" por Jan Treiber, presentado conjuntamente en la Universidad de Karlsruhe en Institut für Nachrichtechnik dirigido por el Prof Kristian Kroschel, 2007.
"Diseño de Sistemas Expertos de Trading" por Pascal Osman, realizado conjuntamente dentro del Banco de Santander, 2006.
"Trajectory Planning for an Unmanned Aerial Vehicle" presentado conjuntamente en la Universidad de Karlsruhe en Institut für Nachrichtechnik dirigido por el Prof Kristian Kroschel, 2006.
"Control de una caldera de vapor" por Ana Maria Rodrigo Martín-Romo, realizado conjuntamente dentro de la empresa Honeywell, 2006.
"Calibracion 3D de un Sistema de Vision Estereoscopica para el Guiado de un Vehiculo Aereo Autonomo" por Monica García Vallejo, 2005.
"Control de Sistemas de Apuntamiento de Alta Precisión" por Ismael Gil Fernandez, 2005.
"CONSISNet: una Aplicación para el Autoaprendizaje de Control de Sistemas a través de Internet", Pablo Mendaña Sanjurjo, 2004.
"Mapas auto organizados con aprendizaje temporal: del SOM al TESOM", Carlos Javier de Vicente Peña, 2003.
"Integración de la Transformada de Hough Aleatoria (RHT) en el proyecto ELEVA)", Gustavo Pérez Jerez, 2003.
"Proyecto ConSis: Ejercicios prácticos de Control de Sistemas", Cristina Sánchez Cruzado, presentado y defendido en la Universidad de Málaga, 2002.
"Detección de defectos por medio de redes neuronales", Javier Navarro de Castro, 2002.
"Integración de las señales de video de un par estereoscopio para su transmisión en una única señal estándar CCIR" Mª Victoria Gómez Fernández. 2001.

“Generador de entornos para inspección de líneas eléctricas mediante su integración con simuladores de vuelo” Raúl González. 2000.
“Diseño de Filtros Digitales Inteligentes con Aprendizaje basado en Redes Neuronales para el Reconocimiento de Patrones”, David Muñoz García, 1999.
“Recuperación de Imágenes de marcas comerciales a partir de su descripción por momentos de Zernike” Diego Lafuente García. 1999.
“Reconocimiento de Secuencias de imágenes mediante segmentación y análisis Temporal” Gustavo García Ochoa. 1999.
“Compresión de imágenes en tiempo real mediante redes neuronales auto-organizadas” Pablo Gómez Moruelo. 1998.
“Sistema contador de personas automático basado en técnicas de visión artificial con luz estructurada” José Manuel Sánchez Monedero. 1998.
“Aplicaciones de los estándares MPEG y H32x a la transmisión de vídeo digital para la vigilancia remota de centrales hidráulicas” Pedro José García Pardo. 1998.
“Sistema experto para la determinación de la calidad y planificación de la producción de bobinas de banda de acero” Eduardo García Gil. 1995.
“Algoritmos de visión artificial basados en arquitecturas de redes neuronales “ Ángeles Martínez Núñez. 1995.
“Inspección dimensional de un elemento combustible de tipo PWR mediante un sistema de visión artificial” Luis Díaz Saco. 1994.
“Reducción de dimensión en patrones de alta complejidad. Aplicación a un clasificador neuronal” José Mª Madrigal Aranda. 1994
"Procesador de diagrama de bloques". Fco. José González González. 1994.
“Compactación de imágenes estáticas mediante algoritmos rápidos de la transformada discreta del coseno” Francisco Javier de Pablo Martínez. 1993.
"Animación de imagen y sonido en tiempo real". Encarnación Mesa Capela. 1993.
"Simulación del fenómeno de la profundidad de campo para la generación de imágenes sintéticas realistas". Miguel Ángel Lázaro Solana. 1993.
"Transformación de imágenes mediante métodos estadísticos. Aplicación a la segmentación y al análisis textural". Pablo Carbonell Cortes. 1993.
"Digitalizador tridimensional basado en técnicas de visión artificial". Frrancisco Gonzalez Rivero. 1993.
"Entorno software para el diseño de sistemas de iluminación para inspección de superficies". Fernando Martinez Ciriano. 1993
"Detección y Clasificación de defectos en plannchas de aluminio mediante visión artificial". Carlos Platero Dueñas. 1992.
"Sistema de corrección digital de perspectivas para un visualizador tridimensional". Javier Fernandez de Andrés. 1992.
"Calibración geométrica de una cámara de vídeo". Sergio Dominguez Cabrerizo. 1991.
"Sistema de visión artificial para la detección de bordes en objetos planos apilados". Francisco Peñafiel Bueno. 1991
"Reconocimiento de series alfanuméricas mediante el uso de técnicas de visión artificial". Alberto Rodriguez Velasco.1991

"Sistema de visión para la automatización del control de calidad de núcleos de ferrita". Leopoldo Maestu Miedes. 1990
"Sistema CAD para la definición de tareas de transporte en recintos industriales cerrados". Carlos Pelaez Martínez 1989
"Sistema de control de trayectorias en robots móviles". Jesús Albendea Ruiz. 1989.
"Generación de trayectorias para un robot móvil bidimensional mediante una adecuada representación del espacio libre de colisión". Gabriel Fernandez de Boadilla, 1988. Premio nacional al mejor Proyecto Fin de Carrera.
"Algoritmos heurísticos de búsqueda en grafo para la generación de trayectorias de robots móviles". Tilman Gruber Bergmann 1988.
"Entwurf einer digitalen Regelung für einen autonomen mobilen Roboter". Gernot Meiler. Technische Universität Stuttgart 1987.

11.4 International Masther thesis advisor

- “A General Purpose Control Design For Vision Based Autonomous Quadrotor Navigation” by Manuel Rucci at Delft Univeristy of Technology (NL), November 2017

- “3D_LIDAR Muilti Object Tracking for Autonomous Driving” by Arya Senna Abdul Rachman at Delft Univeristy of Technology (NL), November 2017

- “Low-memory Visual Route Following for Micro Aerial Vehicles in Indoor Envíronments” by Tom Van Dijk at Delft Univeristy of Technology (NL), October 2017

- “An On-Board Stereo Visual-Inertial Odometry System for an Unmanned Aerial Vehicle” by Stephan Manthe at Univerität Koblenz-Landau (D), April 2017

- “Control laws development and validation for a drone in an observation mission” by Carlos Sallé Moreno at Central Supelec and ONERA (F), 2016

“Design and sensor integration of a multirotor platform” by Fabio Rubino at Politecnico di Torino (I), March 2015

11.5 International PhD and Master Jury Member

- "A General Purpose Control Design For Vision Based Autonomous Quadrotor Navigation" by Manuel Rucci at Delft Univeristy of Technology (NL), November 2017
- "3D_LIDAR Muilti Object Tracking for Autonomous Driving" by Arya Senna Abdul Rachman at Delft Univeristy of Technology (NL), November 2017
- "Low-memory Visual Route Following for Micro Aerial Vehicles in Indoor Envíronments" by Tom Van Dijk at Delft Univeristy of Technology (NL), October 2017
- "Slung load transportation and manipulation using Unmanned Aerial Vehicles" by Praveen Jain at Delft Univeristy of Technology (NL), August 2015
- "Automated Shape Inspection of Deformable Parts" by Andrés Eleazar Jaramillo Velásquez at Universidad Nacional de Colombia, Junio 2012
- "Vision Based Unmanned Rotorcraft Shipboard Recovery" by Shanggang Lin at UNSW Canberra (Australia), remote evaluator, December 2016.
- "Using Deep Learning Models for Automatic Image Texture lassification: Application to Vision-Based Automatic Aircraft Landing" by Khai Ping, Lai at Queensland University of Technology (Australia) as remote evaluator, April 2016.
- "Increasing Autonomy of Unmanned Aircraft Systems Through the Use of Imaging Sensors" by Piotr Rudol at Linköping University (S) November 2011

11.6 Seminars and lectures

"An Eye in the Sky: Civil Applications of Drones", Jiading Campus at Tongji University, on November 28th 2013, as part of the cycle of conferences "Towards Future Cities" organized by the Sino-Spanish Campus at Tongji University.
"Linear Automatic Control with Applications in Manufacturing and Aerospace" lectures for 3rd and 4th year Q.U.T. Aerospace Avionics students at Queensland

University of Technology, Brisbane, Australia, August and September 1st, 8th, 15th, 22ndadn 29th 2011.
"Research on Vision for UAV at CVG-UPM" invited conference at Australian Research Centre for Aerospace Automation (ARCAA), Brisbane, Australia, on July 27th 2011.
"Vision and Control of UAV" at the 4th International Week about Engineering Mobility Solutions, invited by the Autonomous System Laboratory at Instituto Superior de Egenharia do Porto I.P.P. belonging to the INESC, 31 March and 1 April, 2011.
"Computer Vision for localization and navegation" at the Mater on Automatics, Robotics and Perception at Universidad Rey Juan Carlos on January 19th 2011.
"Visión Artificial en la Industria", panel participation at the Technical Meeting organized by the Spanish Section of the International Society of Automation (ISA), Septembre 30th 2010.
"Dimensionality Reduction and the SOMOS Algorithm", invited conference at the Watson Research Center IBM, New York, August 12th 2009.
Curso invitado de postgrado en Visión por Computador en la Universidad de San Luis en Argentina, con impartición de la totalidad de los módulos: "Marco General de la Visión por Computador", "Detección y Seguimiento de Puntos Sobresalientes", "Técnicas de Compresión de Imágenes" y "Redes Neuronales y Reconocimiento de Patrones", cinco días de duración en Junio-Julio 2006. San Luis, Argentina.
"El Cortex como inspiración de Redes Neuronales Artificiales", conferencia organizada y patrocinada por la Cátedra Telefónica-UCIIIM dentro del programa Akademos B, G2PI/DTSC en la UCIIIM, Mayo 2006.
"Visión para el guiado de Vehículos Aéreos Autónomos", conferencia dentro de las clases de doctorado de "Percepción Computacional y Robótica" en la Facultad de Informática de la U.P.M., Febrero 2006.
"Computer Visión Seminar", seminario de Visión por Computador, actividad complementaria dentro del programa de doctorado con mención de calidad de "Automática y Robótica" con invitación de los profesores externos Jürgen Beyerer (director del Instituto Faunhofer IITB) y Luis Baumela y Javier Lopez (Facultad Informática UPM) , lugar ETSII, actividad: organizador e impartición del módulo "Computer Vision at UPM: two study cases", 3 y 4 de Noviembre de 2005.
"Computer Vision at UPM-DISAM.Two study cases: Vision for UAV and Web Visual Inspection", seminario de verano en Center on Robotics and Embebed Systems de la Uneversity South of California, August 2005.
"Curso de Especialización en Bioingeniería y Telemedicina", curso de postgrado organizado por la Universidad de Alcalá. Academic year 2000-01
"Redes Neuronales: Inteligencia por Aprendizaje", 2nd Ciclo de Conferencias UNED, 2001.
"Visión por Computador", 2nd Ciclo de Conferencias UNED, 2001.
"Inteligencia por Aprendizaje", XX Jornadas de Automática, Salamanca 1999.
"I Course on Improvements on Control, Computer Vision and Robotics for engineer students in Finland"; Universidad de Málaga; Mayo 1999.

“Visión Artificial: Procesamiento digital de imágenes” Curso organizado por CONFEMETAL. Enero 1998
“Investigación en Visión por Computador en DISAM” Jornadas de Puertas Abiertas ETSIIM Enero 1998
“Redes Neuronales Artificiales en la Visión por Computador” impartida en el Seminario Multidisciplinar sobre “Imágenes y Visión” organizado por el Instituto de Óptica Daza Valdés. Junio 1997.
“Inspección Visual Automatizada mediante Redes Neuronales Artificiales” impartida en el Seminario de nuevas tecnologías organizado por el CENIM Centro Nacional de Investigaciones Metalúrgicas. Abril 1997.
“Aplicaciones Industriales de las Redes Neuronales: Reconocimiento de Patrones” impartida en el Seminario “Nuevas tendencias del Control Avanzado: Redes Neuronales” organizado por la Fundación Repsol. Febrero 1997.
"Aplicaciones Industriales de las Técnicas de Inspección Visual Automatizada". Seminario organizado por Unitronix. Abril 1994.
"Vision Artificial: Estado del la Técnica en Aplicaciones Industriales” en la Universidad de Zulia. Venezuela, Diciembre 1993.
"Aplicaciones y Realizaciones con Visión Artificial en la Industria". Seminario de Control de Calidad en Procesos Industriales, organizado por Unitronix. Madrid, Marzo 1993.
“State of art of computer vision in Spain”, ponente de “Overview of the european vision market” IDENT VISION. Stuttgart 1992
"Visión Artificial en la Industria. Aplicaciones", dentro del Seminario sobre Visión Artificial en los cursos de verano organizados por la Universidad de Cantabria. Julio 1992.
“I Curso de Automática Avanzada” Organizado por C.E.E.C.O. y subvencionado por la Consejería de Industria de la Comunidad de Madrid. Octubre 1991
“Visión Artificial: Procesamiento Digital de Imágenes” organizado por Confemetal y Eliop. Mayo 1991
"Segundo curso de Automatización Industrial Avanzada" organizado por ELIOP Patrocinado por la Dirección General de Electrónica e Informática (Ministerio Industria y Energía), 1989.
"Curso de formación de Nuevas Tecnologías", para el Instituto Madrileño de Desarrollo, 1988.
"Primer Curso de Automatización Industrial Avanzada" organizado por ADAMICRO y patrocinado por la Dirección General de Electrónica e Informática (Ministerio Industria y Energía), 1988.
"Curso sobre Automatización y Robótica Industrial", organizado por FYCSA. 1987.

11.7 Languages

English: very good level at speaking, reading and writing
German: quite good level at speaking, reading and writing

French: intermediate level at speaking, reading and writing.
Chinese: beginner (HSK I level)