



Dr. Carol Martínez

Research Scientist, Space Robotics Research Group (SpaceR),
SnT-University of Luxembourg, Campus Kirchberg-JFK building

+352 46 66 44 5323 carol.martinezluna@uni.lu

Google Scholar: <https://scholar.google.com/citations?user=3XPQq7AAAAAJ>

RESEARCH AND PROFESIONAL EXPERIENCE

Research Scientist, Space Robotics Research Group (SpaceR), SnT/University of Luxembourg
July 2020 - present

Assistant Professor, Pontificia Universidad Javeriana (PUJ), Bogotá
Maternity leave 3, 2018
July 2015 – June 2020

Postdoctoral Researcher, Universidad Politécnica de Madrid (UPM), Computer Vision Group
Maternity leave 2, 2015
September 2013 – July 2015

Visiting Researcher, University of Bristol (UK), Department of Aerospace Engineering
May – September 2011

Visiting Researcher, Australian Research Center for Aerospace Automation ARCAA-QUT Brisbane
July - October 2010

Researcher, Universidad Politécnica de Madrid (UPM), Computer Vision Group
Maternity leave, 2012
March 2007 - July 2013

Instrumentation Engineer, Consorcio Estudios Tecnicos S.A. (Etsa) – P.C.I. Ingenieros, Bogotá
January 2006 – August 2006

Project Engineer, Sensomatic & Cia Ltda, Bogotá
September 2004 - June 2005

EDUCATION

PhD in Robotics and Automation, Universidad Politécnica de Madrid (UPM)
Dissertation: "Visual Tracking, Pose Estimation, and Control of Aerial Vehicles"
Honors: "*Cum Laude*", "International mention", and "Best thesis award by UPM"
July 15 2013, Madrid-Spain

Master in Robotics and Automation, Universidad Politécnica de Madrid (UPM)
Thesis: "Trinocular Ground System to Control UAVs"
May 2009, Madrid-Spain

Bachelor in Mechatronics Engineering, Universidad Autónoma de Bucaramanga (UNAB)
Thesis: "Design of a Packing and Dosing Machine for Doughy Products", Honors: "*Cum Laude*"
July 2004, Bucaramanga-Colombia

ADDITIONAL EDUCATION

Space Resources Professional Course, International Space University
April 15-17, 2021

Data Science for ALL DS4A, Artificial Intelligence-Job-Readiness Training by Correlation One
October-December 2019

TEACHING EXPERIENCE

Assistant Professor

Pontificia Universidad Javeriana, Department of Industrial Engineering, Bogotá- Colombia

Courses:

- | | |
|--|-----------|
| - Laboratory of industrial processes | 2015-2020 |
| - Systems and mechanical design | 2017-2018 |
| - Convolutional Neural Networks (a module) | 2019 |

Teaching Assistant

University of Luxembourg

Interdisciplinary Space Master

Courses:

- | | |
|----------------------------|------|
| - Space Robotics II | 2020 |
| - Autonomous Space Systems | 2021 |

Universidad Politécnica de Madrid

Master in Robotics and Automation

Courses:

- | | |
|--|-----------|
| - Computer Vision | 2009-2015 |
| - Advanced Computer Vision Techniques | 2011-2015 |
| - Machine Learning and Neural Networks | 2014 |

SHORT COURSES AND INVITED TALKS

Invited Talks

- Orbital Robotics. Colombia in Space 2021. 2nd of December 2021, Keynote
- Space robotics for planetary exploration and in-orbit servicing. IEEE, International conference on Engineering. Oct. 2021, Keynote
- Women in Space. World space week Colombia Oct. 2021, Panelist
- Making Industrial Robots See. Universidad Nacional de Colombia, January 2019
- Challenges of Industrial robots in Industry 4.0. Pontificia Universidad Javeriana, March 2019
- Making Robots See. Universidad Don Bosco del Salvador, September 2018

Short course on Computer Vision for Robotics.

- Latin American Congress on Automation and Robotics LACAR2017. Panama, February 2017.
- Institute of Information Processing, Tsinghua University. Beijing-China, July 2014

Summer course on Service Robotics: Unmanned Aerial Vehicles for Civilian Tasks (Passive Sensors: "Cameras"). Pontificia Universidad Javeriana. Bogotá, Colombia. July 2016.

R&D PROJECTS

Helen: High-fidelity tEsting enviroNment for Active Space Debris Removal

FNR-Bridge, SpaceR-Spacety

Vice-PI January 2022 –2025

Novel Architecture for Active Space Debris Removal Based on Small Satellite Solutions

SnT partnership program SpaceR - Spacety

Vice-PI March 2021 – Oct. 2025

Modular Perception and Autonomy for Light-Weight On-Orbit Robotic Manipulators

SnT partnership program SpaceR - Made In Space Europe

Vice-PI April 2021 – Oct. 2025

Vision Based Navigation system (VBN) for autonomous satellite navigation in space

Eurostars FNR-INTER Grant Number: INTER20/EUROSTARS/15254521

Vice-PI, June 2021 – May 2023

SAFEMUV: Safe Airframe Inspection using Multiple UAVs

AAIP-University of York project

Researcher, July2020 – present

5G Space Communications Lab

SnT-Internal project

Researcher, July2020 – December2020

ZeroG Lab: Multi-Purpose Zero Gravity Lab Facility Communications Lab

SnT-Internal project

Researcher, July2020 – present

Portable Device to Analyze Thick Blood Smears for Malaria Diagnosis in Field Laboratories

Funded by Facebook in its Computer Vision for Global Challenges Request of Proposals

PI, November 2019 - May 2020

Passengers counting system for the bus rapid transit (BRT) system Transmilenio

Funded by Transmilenio

Co-PI, July 2019

Drones for Power Line Inspection

Funded by Pontificia Universidad Javeriana

Vice-PI, July 2019- January 2020

Exoskeleton for powerline workers

Sponsored by ENEL-CODENSA

Consulting R&D, 2019-2020

PIR Project: Perception for Industrial Robots

Funded by Pontificia Universidad Javeriana

PI, January 2018- December 2019

Machine Learning for Operation Room Programming.

Funded by Pontificia Universidad Javeriana

Vice-PI, January 2018 - December 2019

Aerial sensing and monitoring of rice crop fields applying precision agriculture techniques.

Consortia: PUJ and CIAT.

Funded by COLCIENCIAS conv. 715 2015. (2016-2019).

Co-PI, 2016 – 2019

Test and develop computer vision algorithms for aerial refuelling

Funded by Pontificia Universidad Javeriana

PI, January 2016

Computer Vision for Industrial Robot: object tracking with cameras and IMUs.

Funded by SENA Young Researcher Grant

PI, January 2016

I2L Project: Intelligent Power Line Inspection

Unión Fenosa Distribución, Prysm, INTA and Diagnóstica, and Universidad Politécnica de Madrid.

Funded under INPACTO Program Spanish Ministry of Economy and Competitividad IPT-2012-0491-120000

Researcher WP leader, August 2013 - June 2015

Computer Vision for UAV, from visual information to visual guidance.

Funded by the Spanish Ministry of Science MICYT #DPI2010-20751-C02-01.

Researcher, 2011 - 2013

PCUAS: International Cooperation Program for Unmanned Aerial Systems Research and Development
ARCAA, Cranfield University, and Universidad Politécnica de Madrid.
Funded by IRSES Program Marie Curie FP7
Researcher, 2009 - 2012

Computer vision for UAVs: Guidance, Control, Cooperation, and inspection.
Funded by the Spanish Ministry of Science MICYT #DPI2007-66156
Universidad Politécnica de Madrid (Computer Vision Group)
Researcher, January 2011 – December 2013

Visual Guidance of a Commercial Compact Car
Company: SIEMENS Spain S.A.
Universidad Politécnica de Madrid
Researcher, November 2008 - October 2010

International Cooperation Program for Unmanned Aerial Systems Research and Development
IRSES Program FP7
ETSII UPM -Cranfield University (UK) and the Queensland University of Technology (Australia)
Researcher, September 2009 – September 2012

THESIS SUPERVISION

PhD

- **Jose Delgado.** Processing of Lunar remote sensing data for purposes of landing site selection and surface exploration mission planning (Co-supervisor, member of the CET committee), 2020-current
- **Kuldeep Barad.** Towards Generalizable Vision-Based Autonomy for On-Orbit Manipulation (Co-supervisor, member of the CET committee), 2020-current
- **Mohatashem Reyaz.** Interaction Strategies of Robot Manipulators for On-Orbit Servicing applications (Co-supervisor, member of the CET committee), 2021-current
- **Andrej Orsula.** Reinforcement Learning for Space Manipulation Tasks (Co-supervisor, member of the CET committee), 2021-current
- **Maxime Hubert.** Design of a Capturing, Absorbing, and SEcuring system for active space Debris removal (Co-supervisor, member of the CET committee), 2021-current
- **Xiao Li.** Design and implementation of software in the loop architecture for active space debris removal high-fidelity scenarios, (Co-supervisor, member of the CET committee), 2021-current
- **Deebul Nair.** Exploiting Constraints for Dependable Learning Enabled Robotics and Autonomous Systems, (Member of the CET committee), 2021-Current

Master

- **Nicolás Barrera** Visual Inspection Using Deep Learning Techniques for Industrial Manufacturing Processes with Class Imbalance and Limited Labeled Data. (Supervisor). July 2020. Best thesis award
- **Diego Hernandez.** An Intelligent System for Counting People on Transmilenio. (Supervisor). July 2020
- **Esteban Fonseca.** Design and Implementation of a Hardware for Visual Servoing in an Industrial Manipulator. (Co-supervisor). July 2020
- **Wilson Hernandez.** An Intelligent Robotic System for Classifying Plastic Bottles. (Supervisor) July 2020. Best thesis award.
- **Wendy Fong.** Image processing for quality analysis of thick blood smears employed in malaria diagnosis (Supervisor) July 2020. Nominated for best thesis award.
- **Juan Pablo Rojas.** Image Mosaic for Monitoring Rice Crops. September 2018 (Co-supervisor)

Bachelor

- **Lina Amaya and Nicolás Duque.** Safety System for Industrial Robots based on Computer Vision and Deep Learning Techniques. (Supervisor). Best thesis award.
- **David Rodriguez and Steven Forero.** Automatic cup extraction system for plastic bottles. (Co-supervisor) Nov. 2019
- **Angie Medina, Juan Mora, and Esteban Ramirez.** Human Recognition Algorithm for Industrial Collaborative Robots in Automated Waste Separations Tasks. (Supervisor) July 2018
- **Nicolás Barrera and Didier Galvis.** Designing a Framework to Give Perception Capabilities to an Industrial Robot for Waste Separation Tasks. (Supervisor) January 2018. Best thesis award.

PUBLICATIONS

Papers: 23 Journals, 4 Book chapters, 28 Conferences, H-index: 18, Citations: 1242

INTERNATIONAL JOURNALS

ET-Class, an Energy Transfer-based Classification of Space Debris Removal Methods and Missions
Baris Yalcin, **Carol Martinez**, Maxime Hubert, Miguel Olivares-Mendez.
Frontiers in Space Technologies, section Space Debris, January 2022

SORA Methodology for Multi-UAS Airframe Inspections in an Airport,
Carol Martinez, Pedro Sanchez, Abhishek Bera, Miguel Olivares-Mendez.
Drones, November 2021, <https://doi.org/10.3390/drones5040141>

Image Features for Quality Analysis of Thick Blood Smears Employed in Malaria Diagnosis
Wendy Fong Amarís, **Carol Martínez**, Daniel Suárez Venegas, and Liliana Cortes
Malaria Journal, (under-revision) pre-print <https://www.researchsquare.com/article/rs-403293/v1>

Deep Learning for Safe Human-Robot Collaboration
Nicolás Duque Suárez, Lina María Amaya Mejía, **Carol Martinez**, Daniel Jaramillo-Ramirez
Advances in Automation and Robotics Research, Lecture Notes in Networks and Systems, November 2021
DOI: 10.1007/978-3-030-90033-5_26

Enhancing Lunar Reconnaissance Orbiter Images via Multi-frame Super Resolution for Future Robotic Space Missions
Jose Delgado, Pedro Sanchez, **Carol Martinez**, Miguel Olivares-Mendez
IEEE Robotics and Automation Letters Submission RA-L, October 2021

Machine Learning for Surgical Time Prediction
Oscar Martinez, **Carol Martinez**, Carlos Parra, Saul Rugeles, Daniel Suárez
Computer Methods and Programs in Biomedicine, September 2021

Power Line Insulator Inspection Based on Artificial Intelligence
Sergio Beleno, **Carol Martinez**, Ivan Mondragon, Carlos Parra
Revista Colombiana de Tecnologia de Avanzada ISSN: 1692-7257 Volume 2 number 36. June 2020

A Fast Solution to the Dual Arm Robotic Sequencing Problem.
Francisco Suarez Ruiz and **Carol Martinez**.
Advances in Automation and Robotics Research, Lecture Notes in Networks and Systems DOI. 10.1007/978-3-030-40309-6_19 ISBN 978-3-030-40309-6. January 2020 Springer.

A Collaborative Vacuum Tool for Humans and Robots.
Wilson Hernandez, Alvaro Hilarión and **Carol Martinez**.
Advances in Automation and Robotics Research, Lecture Notes in Networks and Systems. January 2020 ISBN 978-3-030-40309-6. Springer.

High-Throughput Biomass Estimation in Rice Crops Using UAV Multispectral Imagery Carlos A. Devia, Juan P. Rojas, E. Petro, **Carol Martinez**, Ivan F. Mondragon, D. Patino, M. C. Rebolledo, J. Colorado Journal Intelligent and Robotic System. 2019 Springer

The Power Line Inspection Software (PoLIS): A Versatile System for Automating Power Line Inspection.
Carol Martinez, Carlos Sampedro, Aneesh Chauhan, Jean François Collumeau, Pascual Campoy.
Engineering Applications of Artificial Intelligence, 2018, ISSN 0952-1976, Elsevier.

HMPMR Strategy for Real-Time Tracking in Aerial Images, Using Direct Methods
Carol Martinez and Campoy, Pascual and Mondragón, Iván F. and Sánchez-Lopez, José Luis and Olivares-Méndez, Miguel A.,
Journal of Machine Vision and Applications, issn=0932-8092, Springer, June 2014

A Vision-Based Strategy for Autonomous Aerial Refuelling Tasks.
Carol Martínez, Thomas Richardson, Peter Thomas, Jonathan Luke du Bois, Pascual Campoy
Journal of Robotics and Autonomous Systems. 2013 Elsevier

Autonomous Guided Car Using a Fuzzy Controller

Miguel A. Olivares-Méndez, Pascual Campoy, Ignacio Mellado, Iván F. Mondragón, **Carol Martínez**, José Luis Sánchez-Lopez

Book Chapter: Recent Advances in Robotics and Automation. Springer 2013

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

Carol Martínez, Iván F. Mondragón, Pascual Campoy, José Luis Sánchez-Lopez, and Miguel A. Olivares-Méndez

Journal Intelligent and Robotic System. 2012 Springer

On-board and Ground Visual Pose Estimation Technique for UAV Control

Carol Martínez, Iván F. Mondragón, Miguel A. Olivares-Méndez, and Pascual Campoy

Journal Intelligent and Robotic System. Volume 61, Issue 1-4. 2011 Springer

Unmanned Aerial Vehicles UAVs attitude, height, motion estimation and control using visual systems

Iván F. Mondragón, Miguel A. Olivares-Méndez, Pascual Campoy, **Carol Martínez**, and Luis Mejías

Journal of Autonomous Robots DOI: DOI: 10.1007/s10514-010-9183-2 2010 Springer

Omnidirectional Vision Applied to Unmanned Aerial Vehicles UAVs Attitude and Heading Estimation

Iván F. Mondragón, Pascual Campoy, **Carol Martínez**, and Miguel A. Olivares-Méndez

Journal of Robotics and Autonomous System (Elsevier) 2010 Elsevier

Visual Servoing for UAVs

Pascual Campoy, Iván F. Mondragón, Miguel A. Olivares-Méndez, and **Carol Martínez**

Book chapter: "Visual Servoing",

Intechweb.org Online Publication 2010

Non-Symmetric Membership Function for Fuzzy-based Visual Servoing On-board a UAV

Miguel A. Olivares-Méndez, Pascual Campoy, Iván F. Mondragón, **Carol Martínez**,

Book chapter in Computation Intelligence Foundations and Applications

August 2010. Chengdu, China

Computer Vision Onboard UAVs for civilian tasks

Pascual Campoy, Juan Correa, Iván Mondragón, **Carol Martínez**, Miguel Olivares, Jorge Artieda, Luís Mejías.

Journal of Intelligent and Robotic Systems

2009 Springer Netherlands & Online Publication 2009

Visual 3D SLAM from UAVs

Jorge Artieda, Jose Maria Sebastian, Pascual Campoy, Juan Correa, Iván Mondragón, **Carol Martínez**, and Miguel Olivares

Journal of Intelligent and Robotic Systems. 2009, Springer

Fuzzy Control System Navigation Using Priority Areas

Miguel Olivares, Pascual Campoy, **Carol Martínez**, Juan Correa Iván Mondragón,

Book chapter Computational Intelligence in Decision and Control

August 2008. Madrid, Spain

INTERNATIONAL CONFERENCES

Towards Incremental Autonomy Framework For On-Orbit Vision-Based Grasping

Kuldeep R. Barad, **Carol Martínez**, Jan Dentler, Miguel Olivares-Mendez

27th International Astronautical Congress, Dubai, United Arab Emirates, 25-29 October 2021.

Lunar Highres-Net: Super Resolution For Lunar Surface Imagery

Jose Delgado, Pedro Sanchez, **Carol Martínez**, Miguel Olivares-Mendez

27th International Astronautical Congress, Dubai, United Arab Emirates, 25-29 October 2021.

Lunar Surface Images Enhancement for Space Resources Localization and Extraction

Jose Delgado, Pedro Sanchez, **Carol Martínez**, Miguel Olivares-Mendez

Space Resources Week 2021

The 5GSpaceLab

J. Querol, A. Astro, Z. Bokai, J. Duncan, M. Gholamian, O. Kodheli, J. Krivochiza, S. Kumar, **Carol Martínez**,

N. Maturo, L. Rana, J. Thoemel, S. Chatzinotas, M. Olivares-Mendez, T. Van Dam, B. Ottersten

Space Resources Week 2021

A Vision-Based System for Evaluating the Quality of the Coloration of Thick Blood Smears in Malaria Diagnosis.
Wendy Fong Amarís, **Carol Martínez** and Daniel Suárez Venegas
II Congreso Latinoamericano de Automática y Robótica LACAR, 2019, Cali, Colombia.

A Deep Learning Approach to Detect and Classify Plastic Bottles for a Recycling Robot.
Wilson Hernandez and **Carol Martínez**
II Congreso Latinoamericano de Automática y Robótica LACAR, 2019, Cali, Colombia.

Aerial Monitoring of Rice Crop Variables Using a UAV Robotic System
C. Devia, J. Rojas, E. Petro, C. Martinez, I. Mondragon, D. Patino, C. Rebolledo, and J. Colorado. 16th International Conference on Informatics in Control, Automation and Robotics 2019, Prague, Czech Republic.

Safety Protocol for Collaborative Human-Robot Recycling Tasks.
Angie C. Medina, Juan F. Mora, **Carol Martínez**, Nicolas Barrero, Wilson Hernandez
9th IFAC Conference Manufacturing Modelling, Management and Control MIM 2019, Berlin Germany.

A Vision-Based Security System for Collaborative Human-Robot Waste Separation Tasks.
Juan f. Mora, Angie C. Medina, Nicolás Barrero, Wilson Hernández, and **Carol Martínez**. Congreso Internacional de Ingeniería Mecánica, Mecatrónica y Automatización. Bogotá Colombia 2019

A Tool For Human-Robot Collaborative Tasks.
Wilson Hernández, Álvaro Hilarión, Nicolás Barrero, and **Carol Martínez**. Congreso Internacional de Ingeniería Mecánica, Mecatrónica y Automatización. Bogotá Colombia 2019

Aerial Mapping of Rice Crops Using Mosaicking Techniques for Vegetative Index Monitoring
Juan P. Rojas B., Carlos A. Devia P., E. Petroy, **Carol Martínez**, Ivan F. Mondragon B, D. Patino, MC. Rebolledo, and J. Colorado.
2018 International Conference on Unmanned Aircraft Systems (ICUAS), Dallas, TX, USA, 2018

Industrial Robots for Waste Separation Tasks: An Approach to Industry 4.0 in Colombia
Nicolas Barrero, Didier Galvis, and **Carol Martínez**
The 9th International Conference on Production Research-Americas 2018

Towards Image Mosaicking with Aerial Images for Monitoring Rice Crops
Juan Rojas, **Carol Martínez**, Iván Mondragón, and Julián Colorado
1st Latin American Congress on Automation and Robotics, Panama City, Panama 2017

Setup of the Yaskawa SDA10F Robot for Industrial Applications, Using ROS-Industrial
Carol Martínez, Nicolás Barrero, Wilson Hernandez, Cesar Montaña and Iván Mondragón
1st Latin American Congress on Automation and Robotics, Panama City, Panama 2017

Towards Autonomous Detection and Tracking of Electric Towers for Aerial Power Line Inspection
Carol Martínez, Carlos Sampedro, Aneesh Chauhan and Pascual Campoy
International Conference on Unmanned Aircraft Systems ICUAS, May 2014. Orlando, USA

A Supervised Approach to Electric Tower Detection and Classification for Power Line Inspection
Carlos Sampedro, **Carol Martínez**, Aneesh Chauhan and Pascual Campoy
International Joint Conference on Neural Networks (IJCNN), July 2014, Beijing China.

Towards Autonomous Air-to-Air Refuelling for UAVs Using Visual Information
Carol Martínez, Thomas Richadson, and Pascual Campoy
IEEE International Conference on Robotics and Automation ICRA 2013, Karlsruhe, Germany. May 6 - 11

A Hierarchical Strategy for Real-Time Tracking On-board UAVs
Carol Martínez, Pascual Campoy, Iván Mondragón, Jose Luis Sánchez-Lopez, Miguel A. Olivares-Méndez.
The 2012 International Conference on Unmanned Aircraft Systems ICUAS'12, June 12-15, 2012. Philadelphia, PA USA.

Aerial Object Following Using Visual Fuzzy Servoing
Miguel A Olivares-Mendez, Ivan Mondragon, Pascual Campoy Cervera, Luis Mejias, **Carol Martínez**
Research, Development and Education on Unmanned Aerial Systems (RED-UAS 2011), Seville, Spain.

A Multi-resolution Image Alignment Technique Based on Direct Methods for Pose Estimation of Aerial Vehicles
Carol Martínez, Luis Mejías, and Pascual Campoy.

International Conference on Digital Image Computing: Techniques and Applications. December 6-8, 2011. Noosa, Queensland Australia.

A Visual AGV-Urban Car using Fuzzy Control

Miguel A Olivares-Mendez, Ignacio Mellado, Pascual Campoy, Ivan Mondragon, **Carol Martinez**

Proceeding of the 5th IEEE International Conference on Automation, Robotics and Applications ICARA'11. December 6 to 8 2011. Wellington, New Zealand.

3D Object Following Based on Visual Information for Unmanned Aerial Vehicles.

Iván F. Mondragón, Pascual Campoy, Miguel A. Olivares, **Carol Martínez**.

The Latin American Robotics Competition (LARC), The Latin American Robotics Symposium (LARS), The Colombian Conference on Automatic Control (CCAC) and The Industry Applications Colombian Workshop (IASCW). October 1-4, 2011 Bogotá-Colombia

On-board and Ground Visual Pose Estimation Technique for UAV Control

Carol Martínez, Iván F. Mondragón, Miguel A. Olivares-Méndez, and Pascual Campoy

3rd International Symposium on Unmanned Aerial Vehicles UAV'10. June 2010. Dubai, Arab Emirates

A Robotic Eye Controller Based on Cooperative Neural Agents

Oscar Chang, Pascual Campoy, **Carol Martínez**, Miguel A. Olivares-Méndez

International Joint Conference on Neural Networks (IJCNN). July 2010. Barcelona, Spain

Fuzzy Controller for UAV-Landing Task Using 3D-Position Visual Estimation

Miguel A. Olivares-Méndez, Iván F. Mondragón, Pascual Campoy, **Carol Martínez**

IEEE World Congress on Computational Intelligence (IEEE WCCI 2010-IEEEFUZZY 2010). July 2010 Barcelona, Spain

Fuzzy-4D/RCS for Unmanned Aerial Vehicles

Miguel A. Olivares-Méndez, Pascual Campoy, Iván F. Mondragón, **Carol Martínez**

International Congress of Brain Inspired Cognitive Systems BICS 2010

Madrid, Spain

3D Pose Estimation Based on Planar Object Tracking for UAVs Control

Iván Mondragón, Pascual Campoy, **Carol Martínez**, Miguel Olivares,

IEEE International Conference on Robotics and Automation ICRA 2010, May 2010 Anchorage, Alaska, USA

Trinocular Ground System to Control UAVs

Carol Martínez, Pascual Campoy, Iván Mondragón, Miguel Olivares

IEEE/RSJ International Conference on Intelligent Robots and Systems IROS 2009, October 2009. St. Louis, MO, USA

Pan-Tilt Camera Fuzzy Vision Controller on an Unmanned Aerial Vehicle

Miguel Olivares, Pascual Campoy, **Carol Martínez**, Iván Mondragón,

IEEE/RSJ International Conference on Intelligent Robots and Systems IROS 2009, October 2009. St. Louis, MO, USA

Vision for Guidance and Control of UAVs in Civilian Tasks

Pascual Campoy, Juan Fernando Correa, Iván Mondragón, **Carol Martínez**, Miguel Olivares

UAV'08 International Symposium on Unmanned Aerial Vehicles, June 2008. Orlando, Florida, USA.

Visually Guiding Autonomous Helicopters for Civilian Tasks

Pascual Campoy, Iván Mondragón, Juan Fernando Correa, **Carol Martínez**, Miguel Olivares

Innovation in Unmanned Aerial Systems. November 2007. Madrid, Spain.

Design of a Low-Cost Packing and Dosing Machine for Doughy Products.

Lengerke Pérez, Omar, **Martínez Carol Viviana**, Dutra Max Suell, Lopes e Silva Fabricio

19th International Congress of Mechanical Engineering, COBEM. November 2007. Brasília, DF.