Jesus Nuevo: Resume with relevant publications

Personal Details

Full Name:	Jesús Nuevo Chiquero
Date and place of birth:	Nov, 4th, 1980. Madrid, Spain.
Phone no.:	+34-653217732
email:	jesus.nuevochiquero@gmail.com
Current Position:	Post-doctoral fellow
Institution:	Robotics and e-Safety Research Group. Dept. of Electronics, University of Alcalá

Areas of Expertise

Computer Vision methods and systems, focus on tracking and face modeling. System development under GNU/Linux
e-Safety (Advanced Driver Assistance Systems), focus on Driver Monitoring
Intelligent Vehicles (autonomous systems, cooperative driving)

Academic Background

1. PhD in Telecommunication Engineering. *Face Tracking with Active Models for a Driver Monitoring Application*. Universidad de Alcalá (October 2009)

2. Telecommunication Engineering Degree. University of Alcalá (May 2004)

Past Professional Experience

- Oct. of 2005 - Oct. 2009: Scholarship holder at Department of Electronics of the Universidad de Alcalá (Madrid) with a *Researcher Training Scholarship* awarded by the *Comunidad de Madrid* of Spain.

- March 2005 - Oct. 2005: Scholarship holder at Department of Electronics of the Universidad de Alcala (Madrid) with a *Researcher Training Scholarship* awarded by the *Universidad de Alcala*, Spain.

- 2003-2004: Scholarship holder at Department of Electronics of the Univeridad de Alcalá, under the "Intelligent Artificial Vision tools for a Safe Driving".

- 2003: Co-Founder and Vice-President of the student association: *"IEEE Student Branch Alcalá"*.

Journal and Conference Papers

- J. Nuevo, I.P. Alonso, J. Sjöberg, L.M. Bergsas, *Estimating surrounding vehicles' position using computer vision*. IEEE Intelligent Transportation Systems Conf. 2010. Madeira, Portugal, Sept. 2010.

- P. Jimenez, J. Nuevo, L.M. Bergasa, M.A. Sotelo. *Face tracking and pose estimation with automatic three-dimensional model construction*. IET Computer Vision. Special Issue on 3D Face Processing. Vol. 3. June 2009.

- L.M. Bergasa, J.M. Buenaposada, J. Nuevo, P. Jimenez, L. Baumela. *Analysing Driver's Attention Level using Computer Vision*. IEEE Intelligent Transportation System Conference, ITSC. Sept. 2008. Beijing, China.

- Pedro Jimenez, Jesus Nuevo, Luis M. Bergasa. *Face Pose Estimation and Tracking Using Automatic 3D Model Construction*. CVPR2008. IEEE Computer Society Conference on Computer Vision and Pattern Recognition, Workshop in 3D Face Processing. June 2008, Anchorage, Alaska, US.

- Luis M. Bergasa, J. Nuevo, M.A. Sotelo, R. Barea, E. Lopez. *Visual Monitoring of Driver Inattention*. Computational Intelligence in Automotive Applications. Springer 2008.

- Jesus Nuevo, Cedric Pradalier, Luis Miguel Bergasa. *Model-based load localisation for an autonomous hot metal carrier*. IROS2007. IEEE/RSJ International Conference on Intelligent Robots and Systems. Oct. 2007. San Diego, US.

- I.P. Alonso, D.F. Llorca, M.A. Sotelo, L. M. Bergasa, Pedro Revenga de Toro, J. Nuevo, M. Ocana, M.A.G. Garrido. *Combination of Feature Extraction Methods for SVM Pedestrian Detection*, IEEE Transactions on Intelligent Transportation Systems. Jun. 2007.

- J. Nuevo, L.M. Bergasa, M.A. Sotelo, M. Ocaña. *Real-Time Robust Face Tracking for Driver Monitoring* IEEE Intelligent Transportation Systems Conference. Sep. 2006. Toronto, Canada.

- L.M. Bergasa, J. Nuevo, M.A. Sotelo, R. Barea, M. E. López. *Real-time system for monitoring driver vigilance*. IEEE Transactions on Intelligent Transportation Systems. Mar. 2006

As of Oct. 29th, 2009, my *h-index* is 3, as reported by ISI Web of Knowledge.

Collaboration in Research Projects and Contracts (selected)

- *Intelligent Cabin for Road transportation (CABINTEC)*, a PROFIT Estratégico Singular project in collaboration with 17 Spanish Universities, Research Institutions and companies, under direction of D. Luis Miguel Bergasa Pascual, from Jul. 2007 to Dec. 2010.

- *Advanced Driver Assistance Systems: driver drowsiness detection, occupants monitoring and nightly pedestrian detection functions running on a demo-car* for FICOMIRRORS S.A., under direction of D. Luis Miguel Bergasa Pascual and D. Miguel Ángel Sotelo Vázquez, from Mar. 2008 to Dec. 2009.

- *Advanced Driver Assistance Systems: pedestrian detection and diagnosis functions* for FICOMIRRORS S.A., under direction of D. Luis Miguel Bergasa Pascual and D. Miguel Ángel Sotelo Vázquez, from Mar. 2008 to Dec. 2008.

- *Visual monitoring of driver vigilance state (MOVICON)*, a MCYT project of Univ. Politécnica de Madrid and Univ. of Alcalá, under direction of D. Luis Miguel Bergasa Pascual and D. Luis Baumela from Dec. 2005 to Dec. 2008.

- *Adaptive Light Control* for International Electronics and Engineering, under direction of D. Miguel Ángel Sotelo Vázquez and D. Luis Miguel Bergasa Pascual, from Mar. 2006 to Jun. 2006.

- *Intelligent Artificial Vision Tools for a Safe Driving* for Ministerio de Fomento of Spain. A collaboration of Univ.of Alcalá and CSIC's Instituto de Automática Industrial, under direction of D. Miguel Ángel Sotelo Vázquez, from Nov. 2002 to May 2005.

Patents

- *Electronic reminder for the correct intake of medicines* (Avisador electrónico para la correcta administración de medicamentos), by Jesús Nuevo Chiquero, filed in Dec. 27th, 2002. Spanish patent P200203024.

- *Multi-sensor system for monitoring the alertness state of the driver of a vehicle* (Sistema multisensorial para la monitorización del estado de alerta del conductor de un vehículo) , by L.M. Bergasa, Jesús Nuevo and M.A. Sotelo, filed in Nov 24th, 2004. Spanish patent P200402833.

- *Computer vision system for automobile adaptative cruise control* (Sistema de visión artificial para el control de crucero adaptativo en automóviles), by Miguel Ángel Sotelo, Jesús Nuevo, Raúl Mateos, Eugenio Naranjo, Luis Miguel Bergasa, Manuel Ocaña and Ramón Flores, filed in Jan. 13th, 2006. Spanish patent P200600079.

- *Computer vision system for the automatic activation of emergency lights of an automobile in case of possible accident* (Sistema de visión artificial para la activación automática de las luces de emergencia de un automóvil en caso de posible accidente), by Miguel Ángel Sotelo, Ignacio Parra, David Fernández, Eugenio Naranjo, Jesús Nuevo, Luis Miguel Bergasa and Manuel Ocaña filed in Jan. 13th, 2006. Spanish patent P200600081.

- *Automobile onboard alert system for involuntary lane exit* (Sistema embarcado de un automóvil para aviso de salida involuntaria de carril), by Miguel Ángel Sotelo, Ramón Flores, Pedro Revenga, Miguel Ángel García Garrido, Luis Miguel Bergasa, Manuel Ocaña and Jesús Nuevo, filed in Jan. 20th, 2006. Spanish patent P200600133. *pending*

Research outside Spain

1. Chalmers University of Technology, Gothenburg, Sweden. I worked on a project on *Car Orientation Estimation using Computer Vision* from Apr. 2009 to Jun. 2009, under supervision of Jonas Sjöberg.

2. QCAT, part of CSIRO, in Brisbane, Australia. I worked on a project on *Appearance based vision tracker for HMC Crucible handling*, from Sep. 25, 2006 to Apr. 30, 2007, under supervision of Cedric Pradalier.

Other data of interest

- Good knowledge of several programming languages (C/C++, MATLAB, Shell script) and LaTeX. Comprehensive experience with OpenCV libraries (5+ years).
- Languages: Fluent in English, notions of French and Russian.