

DEPARTAMENTO DE
INGENIERIA DE SISTEMAS Y
AUTOMATICA

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Actividades de investigación

Tesis Doctorales

- Control and communication systems for automated vehicles cooperation and coordination
Autor: HUSSEIN, A.A.M.
Director/Codirectores: ARMINGOL, J.M.; GARCIA, F.
Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018
- Design, development and evaluation of a robotic platform for gait rehabilitation and training in patients with cerebral palsy.
Autor: BAYÓN, C.
Director/Codirectores: MORENO, L.E.; ROCON, E.
Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018
- Medición de signos vitales mediante técnicas de visión artificial.
Autor: COBOS, J.C.
Director/Codirectores: ABDERRAHIM, M.
Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018
- Sistema robótico ambulatorio de rehabilitación de marcha. Solución integrada de inducción de movimientos y descarga parcial de peso del paciente.
Autor: URENDES, E.J.
Director/Codirectores: MORENO, L.E.; CERES, R.; PONS, J.L.
Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018
- Software architecture for self-driving navigation
Autor: Pablo Marín-Plaza
Director/Codirectores: ESCALERA, A.; MARTIN, D.
Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018
- Unmanned aerial vehicle mission planning based on fast marching square planner and differential evolution
Autor: GONZALEZ, V.
Director/Codirectores: BALAGUER, C.; MONJE, C.A.

Universidad: UNIVERSIDAD CARLOS III DE MADRID
Año: 2018

Publicaciones y actividades de difusión de resultados

Publicaciones en revistas científicas nacionales

- PANDIELLA, A.; MORENO, L.E.; GARCIA-ZORITA, C.; SANZ, E.
Model for estimating Academic Ranking of World Universities (Shanghai Ranking) scores, *Revista Espanola de Documentacion Cientifica*, Vol. 41, Núm. 2, 2018, pp. 1-14, ESPAÑA.

Publicaciones en revistas científicas internacionales

- AL KAFF, A.H.A.; MARTIN, D.; GARCIA, F.; ESCALERA, A.; ARMINGOL, J.M.
Survey of computer vision algorithms and applications for unmanned aerial vehicles, *EXPERT SYSTEMS WITH APPLICATIONS*, Vol. 92, 2018, pp. 447-463, ESTADOS UNIDOS DE AMERICA.
- ALHAMA, P.J.; ABU-DAKKA, F.J.M.D.; ABDERRAHIM, M.
Practical Use of Robot Manipulators as Intelligent Manufacturing Systems, *SENSORS*, Vol. 18, Núm. 9 (2877), 2018, SUIZA.
- BALAGUER, C.; QUANG, H.; ROYEL, S.; BALAGUER, C.
Low-energy structures embedded with smart dampers, *ENERGY AND BUILDINGS*, Vol. 177, 2018, pp. 375-384, SUIZA.
- CASTILLO, J.C.; ÁLVAREZ, D.; ALONSO, F.; MARQUES, S.; SALICHS, M.
Social robotics in therapy of apraxia of speech, *Journal of Healthcare Engineering*, Vol. 2018, 2018, pp. 1-11, REINO UNIDO.
- CASTRO, A.; ALCOCER, J.H.; MALFAZ, M. A.; Malfaz, Maria; ALONSO, F.; SALICHS, M.
Evaluation of artificial mouths in social robots, *IEEE Transactions on Human-Machine Systems*, Vol. 48, Núm. 4, 2018, pp. 369-379, ESTADOS UNIDOS DE AMERICA.
- COBOS, J.C.; ABDERRAHIM, M.; MARTINEZ, J.
Non-Contact, Simple Neonatal Monitoring by Photoplethysmography, *SENSORS*, Vol. 18, Núm. 12, 2018, SUIZA.
- COPACI, D.S.; SERRANO, D.; MORENO, L.E.; BLANCO, M. D.
A High-Level Control Algorithm Based on sEMG Signalling for an Elbow Joint SMA Exoskeleton, *SENSORS*, Vol. 18, Núm. 8 (2522), 2018, SUIZA.
- ESCALERA, J.A.; ABU-DAKKA, F.J.M.D.; ABDERRAHIM, M.
Symbolic Geometric Modelling of Tree-Structure Robotic Mechanisms Using Lie Groups and Graph Theory, *ASIAN JOURNAL OF CONTROL*, Vol. 20, Núm. 6, 2018, pp. 2088-2100, REINO UNIDO.

- FERNANDEZ, R.; J. G. VICTORES; ESTEVEZ, D.; BALAGUER, C.
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- GARCIA, F.; PRIOLETTI, A.; CERRI, P.; BROGGI, A.
PHD filter for vehicle tracking based on a monocular camera, *EXPERT SYSTEMS WITH APPLICATIONS*, Vol. 91, 2018, pp. 472-479, ESTADOS UNIDOS DE AMERICA.

- GONZALEZ, V.; MALFAZ, M. A.; Malfaz, Maria; CASTRO, A.; CASTILLO, J.C.; ALONSO, F.; SALICHS, M.
Analyzing the impact of different feature queries in active learning for social robots, *International Journal of Social Robotics*, Vol. 10, Núm. 2, 2018, pp. 251-264, HOLANDA - PAISES BAJOS.

- GUINDEL, C.; MARTIN, D.; ARMINGOL, J.M.
Fast Joint Object Detection and Viewpoint Estimation for Traffic Scene Understanding, *IEEE Intelligent Transportation Systems Magazine*, Vol. 10, 2018, pp. 74-86, ESTADOS UNIDOS DE AMERICA.

- HERNANDEZ, J.; MARTINEZ DE LA CASA, S.; GARCIA, J.M.; BALAGUER, C.
Correction of visual perception based on neuro-fuzzy learning for the humanoid robot TEO, *SENSORS*, Vol. 18, Núm. 4, 2018, SUIZA.

- LOUPOS, K.; DOULAMIS, A.D.; STENTOUMIS, C.; PROTOPAPADAKIS, E.; MAKANTASIS, K.; DOULAMIS, N.D.; AMDITIS, A.; J. G. VICTORES; MONTERO, R.; MENENDEZ, E.; BALAGUER, C.; CHROBOCINSKI, P.; LOPEZ, R.; CANTERO, M.; NAVARRO, R.; RONCAGLIA, A.; BELSITO, L.; CAMARINOPOULOS, S.; KOMODAKIS, N.; SINGH, P.
Autonomous robotic system for tunnel structural inspection and assessment, *INTERNATIONAL JOURNAL OF INTELLIGENT ROBOTICS AND APPLICATIONS*, Vol. 2, Núm. 1, 2018, pp. 43-66.

- MARINETTO, E.; GARCÍA, D.; GARCIA, A.; MARTINEZ DE LA CASA, S.; DESCO, M.; PASCAU, J.
Multicamera Optical Tracker Assessment for Computer Aided Surgery Applications, *IEEE Access*, Vol. 6, 2018, pp. 64359-64370, ESTADOS UNIDOS DE AMERICA.

- MAROTO, M.; CASTRO, A.; CASTILLO, J.C.; MALFAZ, M. A.; Malfaz, Maria; SALICHS, M.
A Bio-inspired Motivational Decision Making System for Social Robots Based on the Perception of the User, *SENSORS*, Vol. 18, Núm. 8, 2018, SUIZA.

- MARTINEZ DE LA CASA, S.; GARCIA, J.M.; J. G. VICTORES; JARDON, A.; BALAGUER, C.
Experimental robot model adjustments based on force-torque sensor information, *SENSORS*, Vol. 18, Núm. 3, 2018, SUIZA.

- OÑA, E.D.; BALAGUER, C.; CANO, R.; COLLADO-VAZQUEZ, S.; JARDON, A.
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- OÑA, E.D.; BARROSO, G.; BALAGUER, C.; JARDON, A.
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- OÑA, E.D.; CANO, R.; SANCHEZ, P.; BALAGUER, C.; JARDON, A.
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- OÑA, E.D.; SANCHEZ, P.; CUESTA, A.; MARTINEZ DE LA CASA, S.; JARDON, A.; BALAGUER, C.
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- Pablo Marín-Plaza; HUSSEIS, A.H.A.; MARTIN, D.; ESCALERA, A.
Global and Local Path Planning Study in a ROS-Based Research Platform for Autonomous Vehicles, *JOURNAL OF ADVANCED TRANSPORTATION*, Núm. Article ID 6392697, 2018.
- RIEUCAU, G.; KISZKA, J.J.; CASTILLO, J.C.; MOURIER, J.; BOSWELL, K.M.; HEITHAUS, M.R.
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Colaboraciones en obras colectivas

- AL KAFF, A.H.A.; MORENO, F.M.; HUSSEIN, A.A.M.
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- ARMINGOL, J.M.; ALFONSO, J.; ALIANE, N.; CLAVIJO, M.; CAMPOS, S.; ESCALERA, A.; JAVIER DEL, S.; FERNANDEZ, J.; GARCIA, F.; JIMÉNEZ, F.; LOPEZ, A.M.; MATA, M.; MARTÍN, D.; MENENDEZ, J.M.; SANCHEZ, J.; VÁZQUEZ, D.; VILLALONGA, G.
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Ponencias y Comunicaciones a congresos

- ABIDI, B.; MORENO, F.M.; EL HAZITI, M.; HUSSEIN, A.A.M.; AL KAFF, A.H.A.; MARTIN, D.
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Underwater Robot Navigation for Maintenance and Inspection of Flooded Mine Shafts; en: 2018.
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- FERNANDEZ, R.; J. G. VICTORES; ESTEVEZ, D.; BALAGUER, C.
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- GARCIA, J.M.; MARTINEZ DE LA CASA, S.; BALAGUER, C.
Balance computation of objects transported on a tray by a humanoid robot based on 3D dynamic slopes; en: 2018 IEEE-RAS 18th International Conference on Humanoid Robots (Humanoids 2018): Beijing, China, November 6-9, 2018: [proceedings], IEEE INSTITUTE OF ELECTRICAL, 2018.
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- GARCIA, J.M.; OÑA, E.D.; MARTINEZ DE LA CASA, S.; HERNANDEZ, J.; BALAGUER, C.
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- GOMEZ, M.J.; ARMINGOL, J.M.; ESCALERA, A.
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- GOMEZ, M.J.; ARMINGOL, J.M.; ESCALERA, A.
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- GUINDEL, C.; MARTIN, D.; ARMINGOL, J.M.; STILLER, C.
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- HERNANDEZ, M.; OÑA, E.D.; GARCIA, J.M.; JARDON, A.; BALAGUER, C.
Towards an Automatic Spasticity Assessment by Means of Collaborative Robots; en: 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems: towards a robotic society: October, 1-5, 2018, Madrid, Spain: [proceedings], 2018.
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- MUÑOZ, J.; MONJE, C.A.; MARTIN, F.; BALAGUER, C.
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- POZO, V.; OÑA, E.D.; JARDON, A.; BALAGUER, C.
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- RAVANBAKHS, M.; BAYDOUN, M.; CAMPO, D.; Pablo Marín-Plaza; MARTÍN, D.; MARCENARO, L.; REGAZZONI, C.S.
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Actividades de formación y movilidad de personal investigador

Estancias en otros centros

- CARLOS GUINDEL GOMEZ
Título: Estancia de; Carlos Guindel Gómez
Universidad: Karlsruher Institut für Technologie (KIT)
Laboratorio: Institut für Mess- und Regelungstechnik (MRT) *Investigador:* Prof. Dr.-Ing. Christoph Stiller
Centro Externo: Karlsruher Institut für Technologie (KIT)
País: ALEMANIA
Duración: 05/03/2018 a 24/06/2018.
- MARIA JOSE GOMEZ SILVA
Título: Estancia de; María José Gómez Silva
Universidad: Queen Mary University of London (QMUL)
Laboratorio: Multimedia and Vision Group (MMV) *Investigador:* Prof. Dr. Ebroul Izquierdo
Centro Externo: Queen Mary University of London (QMUL)
País: REINO UNIDO
Duración: 09/04/2018 a 08/07/2018.

