

Simposio

# SEGVAUTO-TRIES-CM



Tecnologías para una movilidad segura, accesible  
y sostenible



Conducción autónoma y  
sistemas inteligentes

Seguridad de vehículos y accidentología

Vehículos "verdes". Impacto medioambiental

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## PROGRAMA SIMPOSIO SEGVAUTO-TRIES-CM

Lugar de celebración: Escuela Técnica Superior de Ingenieros Industriales (Calle de José Gutiérrez Abascal, 2, 28006 Madrid) Jueves, 17/11/2016

09:00 a 09:30 h	RECEPCIÓN Y ENTREGA DE DOCUMENTACIÓN		
09:30 a 10:00 h	ACTO DE APERTURA  Con la intervención de autoridades académicas y el Director General de Universidades e Investigación de la Comunidad de Madrid		
10:00 a 11:00 h	Conferencia Inagural titulada "Euro NCAP Contributions to vehicles safety. Objectives for the future" a cargo de D. Michiel van Ratingen, Secretario General de Euro NCAP.		
11:00 a 11:30 h	CAFÉ		
11:30 a 13:30 h	43 ponencias divididas en las siguientes SESIONES		
	Aula C	Aula D	Aula Puig Adam
SESION de mañana	Conducción autónoma y sistemas inteligentes	Seguridad de vehículos y accidentología	Vehículos verdes. Sistemas de propulsión y combustibles alternativos
13:30 a 14:30 h	COMIDA		
14:30 a 16:30 h	SESIONES DE TARDE		
	Aula C	Aula D	Aula Puig Adam
SESION de tarde	Conducción autónoma y sistemas inteligentes	Seguridad de vehículos y accidentología	Vehículos verdes. Sistemas de propulsión y combustibles alternativos

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## Área de conducción autónoma y sistemas inteligentes: Aula C

HORARIO	TITULO	NOMBRE Y APELLIDOS	
11:30-11:45 h	Leveraging Li-Fi for Communications between Vehicles and Road	Luis Miguel	Sánchez Brea
11:45-12:00 h	A comparison of road curb detection using curvature values from LIDAR and stereo vision	Carlos	Fernández López
12:00-12:15 h	Pedestrian Intention and Pose Prediction through Gaussian Process Dynamical Models and Behaviour Classification	Raúl	Quintero Mínguez
12:15-12:30 h	Vehicle Motion Estimation based on 1-point Visual Odometry	Basam	Musleh Lancis
12:30-12:45 h	Integrating real driving routes in a simulated environment	Víctor Manuel	Zamora España
12:45-13:00 h	Testing ADAS thought simulated driving situations analysis: environment configuration	B. Óscar	Sipele Siale
13:00-13:15 h	Vehicular Communications for Safety Improvement in Critical Areas	José Javier	Anaya Catalán
13:15-13:30 h	Drivertive Team in the Grand Cooperative Driving Challenge 2016	Javier	Alonso Ruiz
14:30-14:45 h	Deployment of pilots for Cooperative autonomous Driving	José Eugenio	Naranjo Hernández
14:45-15:00 h	ROS-based architecture for autonomous vehicles	David	Martín Gómez
15:00-15:15 h	Use of combined smart materials to improve the efficacy of road signs	Alicia	Larena Pellejero
15:15-15:30 h	New developments in horizontal signaling: use of patterns for road marking	Josep	Merlo Mas
15:30-15:45 h	System for warning of traffic hotspots on mobile devices	Laura	García Cuenca
15:45-16:00 h	Hardware Implementation for Real-Time Execution of a Reversed Geometric Transformation	Fernando	Capellán Pizarroso
16:00-16:15 h	Remote driving of a military vehicle for danger areas supervision	Miguel	Clavijo Jiménez
16:15-16:30 h	Vehicle surroundings reconstruction using tridimensional LiDAR	Miguel	Clavijo Jiménez

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## Área de Seguridad de vehículos y accidentología. Aula D

HORARIO	TITULO	NOMBRE Y APELLIDOS	
11:30-11:45 h	Low-cost wheel sensor for measuring the tyre-road contact forces and moments	Javier	García de Jalón
11:45-12:00 h	Simulation Assessment of Alternative Rollover Approval Protocols According Regulation 66	Enrique	Alcalá Fazio
12:00-12:15 h	Methodology for benefit assessment of advanced braking systems for pedestrian injury mitigation through real-world accident investigations	Arturo	Furones Crespo
12:15-12:30 h	Thermoplastic Battery Rack Crashworthiness	Javier	Rivera Hoyos
12:30-12:45 h	Methodology of repair cost estimation in vehicles based on the deformation measurements in real world accidents	Francisco Javier	Páez Ayuso
12:45-13:00 h	Estimation of stiffness coefficients for frontal structures of passenger cars. Application to road accident reconstructions	Francisco Javier	Páez Ayuso
13:00-13:15 h	Adapted Dummies to Analyze Passive Safety of People Affected by Osteogenesis Imperfecta	Marta	De Loma Osorio
13:15-13:30 h	Analysis of City Buses Seats Safety with Q Family Dummies.	Antonio	García Álvarez
14:30-14:45 h	Finite Element Crash Dummy Models for Train Vehicles Interior Safety	Raquel	Peláez Bravo
14:45-15:00 h	Rollover Strength Assessment of Repaired Post-Collision Buses and Coaches	David	Rincón Dávila
15:00-15:15 h	An estimation of the mobility of vehicles of the Spanish fleet, from Periodic Motor Vehicle Inspection data by Decision Trees techniques	Blanca	Arenas Ramírez
15:15-15:30 h	Applying Decision Trees and Logistic Regression to the Analysis of the Dependence of Crash Collisions on Concomitant Factors	José Manuel	Mira McWilliams
15:30-15:45 h	Covariates selection for predicting collisions and run-off accidents in Spanish interurban network using tree-based models	Camino	González Fernández
15:45-16:00 h	Optical characterization of microstructures with application to vehicles	Daniel	Vázquez Moliní
16:00-16:15 h	Methodology for measuring the energy expenditure in the movements for getting in and out of cars using the motion capture system Kinect	Francisco	Martínez Gala

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## Área de Vehículos verdes. Sistemas de propulsión y combustibles alternativos. Aula Puig Adam

HORARIO	TITULO	NOMBRE Y APELLIDOS	
11:30-12:00 h	Aplicación del vehículo eléctrico en el servicio urbano	Jesús	Pajares Blázquez (FCC Servicios Ciudadanos)
12:00-12:15 h	Measurement of nano-particulate pollution in the metropolitan Madrid area	Philip	Siegmund
12:15-12:30 h	Development of an energy management embedded controller for a range-extended hybrid vehicle using model-based design and HILs	Daniel	Resino Zamora
12:30-12:45 h	Hybrid Energy Storage Systems for Electric Vehicles: Influence of typology and hybridization percentage on efficiency	Jorge	Nájera Álvarez
12:45-13:00 h	Influence of power generation over range regarding in-series hybrid electric range extended vehicles	David	Marcos Espín
13:00-13:15 h	DC link voltage influence in EV and HV powertrain losses	Miguel Angel	Yeguas Vega
13:15-13:30 h	Passenger Exposure to Magnetic Fields in Electric Vehicles	Pablo	Moreno-Torres Concha
14:30-15:00 h	El gas natural en los vehículos de transporte: autobuses de la EMT de Madrid	Julian	Del Olmo Perandones (EMT Madrid)
15:00-15:15 h	Feasibility of a solar transport system	Andres	Arija
15:15-15:30 h	Analysis of energy requirements and GHG emissions in well-to-wheel butanol from whey	Laura	Martín Torrijos
15:30-15:45 h	Life Cycle Assessment of an aftertreatment system for Diésel engine based on hydrogen	M. Nuria	Flores Holgado
15:45-16:00 h	Solar hydrogen from electrolysis assisted by organic waste	Esther M.	Martín de los Santos
16:00-16:15 h	Power density variation in Proton Exchange Membrane (PEM) fuel cells with corrugated bipolar plates	Nuria	Lorente