



### UNIVERSITY INSTITUTE FOR AUTOMOBILE RESEARCH (INSIA)

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### Organizations collaborating with INSIA

Asociación de Empresarios del Metal de Madrid (AECIM) Asociación Española de Fabricantes de Automóviles v Camiones (ANFAC) Asociación Española de Fabricantes de Equipos y Componentes para la Automoción (SERNAUTO) Asociación nacional fabricantes carrocerías autobuses ASCABUS Consejo Superior de Investigaciones Científicas CSIC Fundación de Ferrocarriles Fundación Instituto Tecnológico para la Seguridad en el Automóvil (FITSA) Instituto Nacional de Técnica Aeroespacial (INTA) Avuntamiento de Madrid Comunidad de Madrid Dirección General de Tráfico Dirección General del Transporte Terrestre. (Ministerio de Fomento) Subdirección General de Calidad y Seguridad Industrial del Ministerio de Industria, Turismo y Comercio Bast (Federal Highway Research Institute) CITEAN, FTSS First Technology Safety Systems

INRETS, TNO, TRL Instituto Politécnico Nacional (México) NIAR (Wichita State University). USA TUG Graz University of Technology Universidad Antonio de Nebrija de Madrid Universidad Carlos III de Madrid Universidad de Chalmers Universidad Nacional de Salta (Argentina) ALSA BEULAS, FAREBUS, FERQUI BOSCH, VALEO SISTEMAS ELECTRICOS, S.A. BRIDGESTONE HISPANIA S.A. CASTELLÓN, S.A. CASTROSUA, IRIZAR, SUNSUNDEGUI, CAETANO FCC, CEMUSA EMT IVECO, MERCEDES, PSA ORBEA REHATRANS, S.A., VALVERAUTO



UNIVERSIDAD POLITÉCNICA DE MADRID

POLITÉCNICA

### **R&D&i Institutes**

# UNIVERSITY INSTITUTE FOR AUTOMOBILE RESEARCH (INSIA)



The University Institute for Automobile Research (INSIA) is a Research Institute of the Universidad Politécnica de Madrid (UPM) created by Royal Decree 1383/1993, assigned to the Higher Technical School of Industrial Engineering and integrated into the UPM Scientific and Technological Park.

This Institute is made up of highly qualified researchers, both academic researchers and under contract researchers, with more than 20 years of experience in R&D&i projects related to the automotive industry, vehicle and traffic security, and more recently, to the transportation environmental impact.

INSIA has carried out relevant studies on accidentology, transport, passive safety in buses, coaches and industrial vehicles, biomechanics applied to occupant and pedestrian protection in accidents, intelligent systems and vehicle engineering. It is also authorized as official laboratory to carry out official approval tests of vehicles and components according to several regulations and directives (buses and coaches, stability, tyres, seats, restraint systems) and important reforms.



# UNIVERSITY INSTITUTE FOR AUTOMOBILE RESEARCH RESEARCH LINES



Safety in collective transport of people. Vehicles and mobility & protection systems for people with reduced mobility.

Traffic accident research. Analysis of causes and consequences.



1=550 [km/h] 2552 [km/h] 3=00 [km/h]

Advanced driver assistance systems (ADAS).



Freight transport safety: vehicle and load.



Impact biomechanics applied to the improvement of vehicle passive safety.





Evaluation and prediction of road transport impacts on safety and environment. Development and application of models.



Alternative propulsion systems and automobile vehicle environmental impact.

## TRAINING SERVICES







#### Master in automobile engineering

By means of its 17 editions in Spain and 2 carried out in Argentina (Buenos Aires) in collaboration with the University of Belgrade, our master has managed to succeed in providing training services for the automotive field, supported by the excellent acceptance by the more than 400 students who have completed it.



### FORMULA SAE PROJECT

One of the aims pursued with this project is to supplement the automobile engineering training in students, as well as to contribute to the development of specific skills necessary for such a competitive and complex sector as the automotive one.

