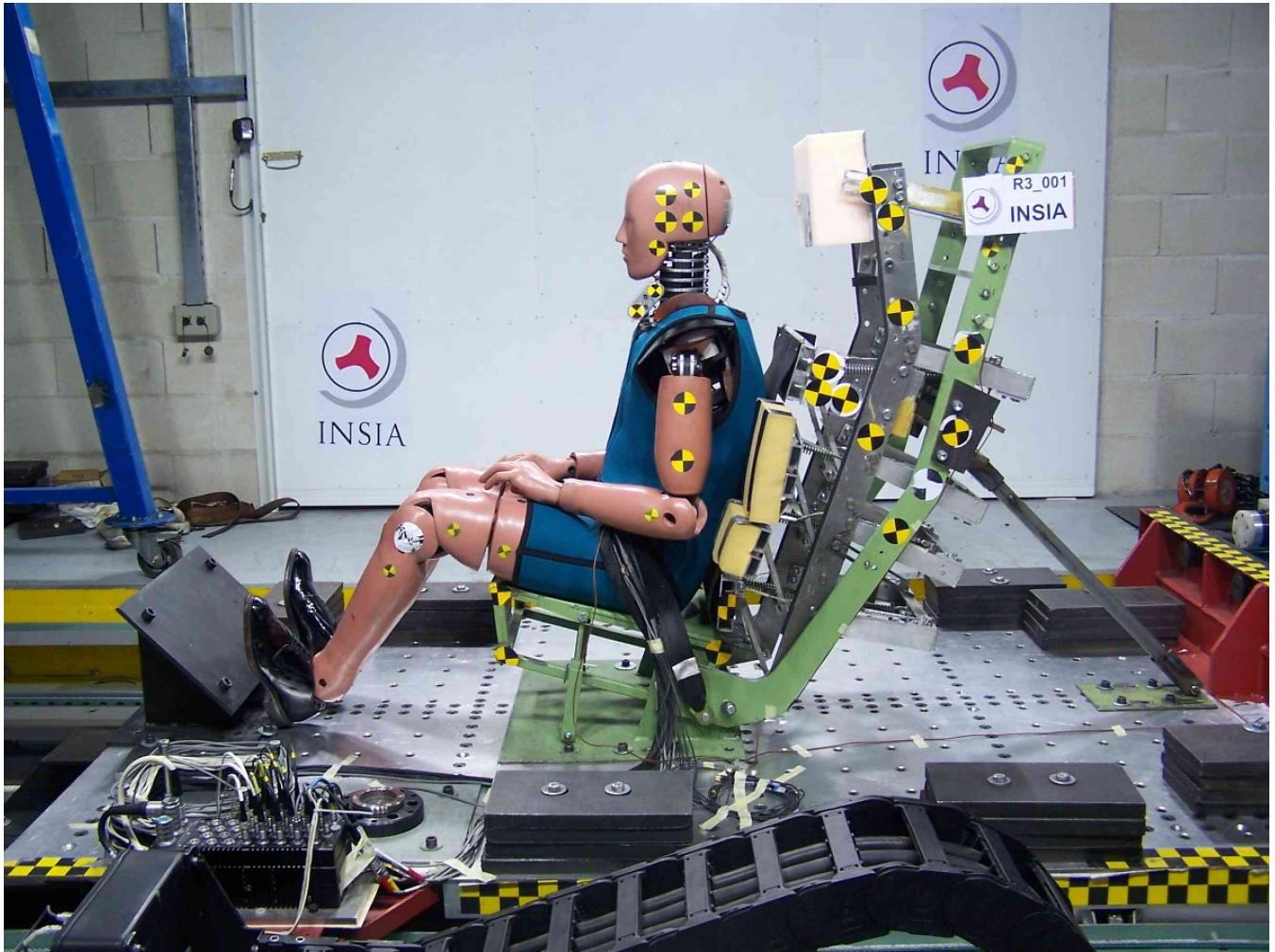


Passive Safety Laboratory tests.

Carrying out dynamic crash tests and instrumented anthropomorphic dummies certification tests.



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Technological Offers type

Technological scientific services

Research and innovation areas

- Climate, Energy and Mobility
- Industry, Materials and Circular Economy
- Science For Engineering and Architecture

ODS



Available from: 2004

Where?

[University Automotive Research Institute \(INSIA\) Vehicle and Transport Safety and Environmental Impact Research Group \(GIVET\)](#)

Infrastructures

[Impact simulator](#)

Files

[Download additional documentation \(pdf\)](#)

Keywords: | [APTA](#) | [ATD](#) | [Crash Test](#) | [GMRT 2100](#) | [Passive safety](#) | [Restraint systems](#) | [Sled tests](#)

INSIA Passive Safety Laboratory tests.

Dynamic crash tests and instrumented anthropomorphic dummies certification tests.

Services offered description:

Carrying out dynamic crash tests in order to assess the safety of the equipment and vehicles used in road and railway transport. These tests are carried out both for research and for the approval of vehicles that must meet the requirements of current regulations. Carrying out dummies certification tests and calibration tests of its instrumentation. The aim of that tests is to verify the preservation of the of the dynamic response of the impact test dummies and the calibration of their sensors.

Requirements covered and applications:

In the impact biomechanical research, crash tests are useful to understand and improve the impact dummies behaviour and the injury criteria development. In addition, they are used to create and develop new restraint systems. These are usually carried out in order to get biomechanical parameters, which will be compared with the results obtained from corpse tests or virtual human body models during impact situations. They are also used to develop Standards for passenger protection.

Road and railway transport vehicles for passengers, must meet some standard safety requirements. It is usual there are multiple crash tests among those requirements. Therefore, manufacturers have to test their vehicles in specialised laboratories with the purpose of commercialise them.

On the other hand, there are some equipments or restraint systems that have to be checked by impact tests as well.

Sector or application area:

Automotive, railway and aeronautical sectors.

Differential capabilities:

Very few laboratories perform this type of testing, due to specialised and expensive equipment is required. In addition, staff with specialised abilities are required both for manipulate the equipment and for process the test results. Head of Laboratory has 25 years expertise and deep knowledge about impact dummies behaviour.

References of expertise:

Research projects: SANCA, HERSACA, ADRIA, FID, APROSYS, APSN, OPERA4FEV.

Dynamic tests for companies: FAINSA, CAF, CLERPREM, TALGO, SIEMENS, BAKER BELLEFIELD, BOMBARDIER, HITACHI, STADLER, IRIZAR:

Standards offered:

Cars: R16, R17, R44, R94, R100, R129.

Bus-Coach & Trucks: R80, R100, ADR68, FMVSS 208.

Railway: GMRT 2100, APTA SS-C&S-016-99, APTA PR-CS-S-018-13.

PRM: ISO10542, AS2942, UNE-1789.

Equipments Description:

Hybrid-III 50th and 95th dummies.

Q Series and Hybrid-III children dummies.

P series and EuroSID dummies.

High speed cameras in colour and B&W.

Lighting HMI systems for crash.

On-board data adquisition systems and firing for airbags and pretensors.

Instrumentation: Accelerometers, Load cells, Potentiometers, IR-TRACCs.

Special and specialised sensors and tools.

Test probes and toolings.

Service Request:

Enlace a ventana que rellena unos campos previos comunes a todos los servicios y que se enviará automáticamente al gestor de contacto indicado.