

ADVANCED PASSIVE SAFETY DEVICES FOR VEHICLES

P PATENTED TECHNOLOGY



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ABSTRACT

A Spanish University Research Group has developed a new technology (PCT patent pending) with high performance to absorb the mechanical energy generated in a collision of a vehicle. This system can complement to classical safety systems as belts or airbags.

This technology is based on advanced materials and design with high performance, with a minimal volume and weight. The Research Group is looking for industrial partners interested in further development and new applications.

ADVANTAGES AND INNOVATIVE ASPECTS

The most important advantages and innovative aspects are:

The technology can be incorporated to any vehicle or component: heavy and light vehicles, industrial vehicles, cars, trucks, body car, bumpers, passenger box, etc.

Innovator design with a high performance in absorption of mechanical energy.

Advanced materials let a high performance and low weight: composites with an advanced micro/nano structure, fiber/metal materials combination.

New devices with high capacity of mechanical energy absorption could be developed. The energy is absorbed in a gradual manner.

The absorption of standard components could be improved by means of the redesigning their internal structure with this technology.

Quick design of parts and components with high performance and lightweight.

Easy implementation on a large scale production.

The standard safety systems of the vehicle are not affected by the use of this technology.

MARKET APPLICATIONS

Application sectors for these materials are those related to chassis, bumpers, engine supports, passengers' box, crash protection, improvement the performance in a vehicle collision, design of components in electric vehicles and improvement of passive safety (car, truck, bus).

COLLABORATION SOUGHT

The research group is looking for companies interested in acquiring this technology for its commercial exploitation.

- Type of partner sought: enterprise, SME or large company.

- Specific area of activity of the partner: automotion company, component manufacturer, vehicle manufacturer: car, bus, truck, electric vehicle, industrial vehicle.

- Task to be performed: development of new components or redesign of standard components.
