

About this textbook

The Automotive Chassis is the result of two decades of experience: On the one hand from the experience of teaching courses such as Vehicle Mechanics, Vehicle System Design, Chassis Design to engineering students; on the other hand from the design practice of vehicle and chassis components in a large automotive company.

This work is addressed primarily to students of automotive engineering and secondarily to all technicians and designers working in this field. It is also addressed to all enthusiasts who are looking for a technical guide.

The text is subdivided in two volumes.

The first one deals with the automotive chassis components, such as

- a structure, usually a ladder framework, able to carry all the remaining components of the vehicle;
- the suspensions for the mechanical linkage of wheels with the framework;
- the wheels and their tires;
- the steering system for changing wheel angles according to vehicle path;
- the brake system for reducing speed or stopping the vehicle;
- the transmission for applying engine torque to the driving wheels.

The second volume deals with the automotive chassis as a system, studying how it influences vehicle performance and dealing in detail with mathematical models useful for the design and analysis of the vehicle.

Written for:

Automotive engineering students and engineers in industry, as a handbook and reference book.

Keywords:

- automotive
- chassis
- components
- design