With its Active Steering, a new system controlling the position of the front wheels precisely according to the driver’s commands, BMW aims to set a new standard in agility, comfort and safety.

Design of aerodynamic components such as the front wing, bargeboards behind the wheels, diffuser shaped under body, engine intake, and rear wing, amongst others, has a crucial effect on the performance of F1 cars and can make the difference between success and failure. CFD technology is proving to be one of the fastest and most effective means of understanding and fine-tuning F1 car aerodynamics.

Self-piercing rivets will be a feature of several major new vehicle programmes to be launched in the next few months as automakers strive to reduce weight through more extensive use of ‘new’ materials, like aluminium, magnesium, high-strength steels and composites.

Reducing non-productive times can considerably accelerate the development process. Using an example from LMS, AutoTechnology presents the solution as well as practical experiences.