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Design of Vehicle Parameters To Decrease Impact Of Accidents

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Abstract : Pedestrians forming the most important casualty of road accidents, European countries have brought in new laws for vehicles to be made safer for pedestrian impacts. The needs of pedestrian safety are different from current requirements such as low speed or insurance impacts. To fulfill both traditional vehicle to vehicle and pedestrian safety requirements, design changes are needed to find a good balance. However, design limitations are imposed in order to conserve the styling and aesthetics of the front end, which define the image and often handling / aerodynamics of the car. Thus, numerous boundary conditions, both mechanical and non-mechanical, should be taken into account during the implementation of pedestrian safety solutions. This study breaks out part of vehicle front profile, which can be explicitly given values. These values have been based on 2-D simulations conducted across four vehicle categories available in the Indian scenario.