

A new method to improve passenger vehicle safety using intelligent functions in active suspension system

ABSTRACT

In this research a new electronic based mechanism for vehicle suspension system is designed. The aims are to improve passengers' safety and comfort. The proposed system is developed for proactive rapid reaction of suspension system which can readjust the height of chassis while confronting with wrong conditions of driving such as unflatted road, rainy or snowy road profile. The results show that the proposed mechanism can successfully increase the stability of the car by readjusting the height of the the chassis and center of the gravity of vehicle while turning.

Keyword: Active suspension system; Vehicle height readjusting; Simulation; Stabilizer