Creation of Control Recovery Systems for Coupe Body Cars To Increase the Probability of Regaining Control at High Speeds

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Speed is a factor considered at the time of an accident, as only a 1% increase in speed increases the probability of fatal accidents by 4%. Can the creation of a Non-Electronic Aerodynamic Control Recovery System and an Active Safety Electronic System in coupe cars increase the likelihood of regaining control at high speeds? If when creating the systems, "flaps" are integrated into coupe body cars and these produce pressure and wind resistance, then this technology will reduce the speed of the car quickly and prevent the tires from rising from the ground increasing the probability of regaining control at high speeds. An RC was used, which was modified by placing 3 "flaps" and electronics (in the case of the second system). To test it 3 subjects performed a maneuver. For this, the car was placed accelerating and passing through the left of a cone, then turning sharply to the right and then another sharp turn to the left. It was repeated 5 times and 5 times in reverse with each car and with each subject using the wind in 2 different directions. The Electronic Experimental Auto was the most effective surpassing by 0.75m (46.44%) and 1.53sec (48.80%) on average to Auto Control. The Non-Electronic Experimental Auto regained control 0.39m (21.73%) and 0.04sec (1.03%) before Auto Control. The hypothesis was accepted since the Experimental Cars regained control in less time and distance than Auto Control.

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