

عنوان مقاله:

Modeling and Simulation of an Auto-Body Structure Considering Crashworthiness Assessment Approach Submitted to a Barrier for Energy Absorption Enhancement

محل انتشار:

نخستین همایش منطقه ای مهندسی مکانیک (سال: 1389)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Javad Marzbanrad - Associate Professor, School of Automotive Engineering, Iran University of Science and Technology

Ashkan Saeedi Pour - M.Sc Student, School of Automotive Engineering, Iran University of Science and Technology

Mostafa Pahlavani - M.Sc Student, School of Automotive Engineering, Iran University of Science and Technology

خلاصه مقاله:

In this paper, important crash parameters are mentioned in the first step. Then considering the importance of longitudinal members in frontal collision, energy absorption of five profiles namely square, rectangular, circular, hexagonal and octagonal with impact angle of 0, 15 and 30 degree are discussed. Next we will investigate the location, type and optimum dimension of a triggering in energy absorbent columns. Finally an exciting vehicle in both full crash and 40% offset tests is studied and consequently, as will be explained, a longitudinal column will be chosen and the older one will be replaced with it and the results will be dissected. SOLIDWORKS, ANSYS and LS-DYNA software are used in modeling phase, meshing and analyzing respectively.

کلمات کلیدی:

Crashworthiness, Longitudinal Members, Energy Absorption, Deceleration

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/111027>

