

The Improvement of Environmental Protection through Motor Vehicle Noise Abatement

Authors : Z. Jovanovic, Z. Masonicic, S. Dragutinovic, Z. Sakota

Abstract : In this paper, a methodology for noise reduction of motor vehicles in use is presented. The methodology relies on synergic model of noise generation as a function of time. The arbitrary number of motor vehicle noise sources act in concert yielding the generation of the overall noise level of motor vehicle thereafter. The number of noise sources participating in the overall noise level of motor vehicle is subjected to the constraint of the calculation of the acoustic potential of each noise source under consideration. It is the prerequisite condition for the calculation of the acoustic potential of the whole vehicle. The recast form of pertinent set of equations describing the synergic model is laid down and solved by dint of Gauss method. The bunch of results emerged and some of them i.e. those ensuing from model application to MDD FAP Priboj motor vehicle in use are particularly elucidated.

Keywords : noise abatement, MV noise sources, noise source identification, muffler

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020