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THE THEORETICAL- EXPERIMENTAL METHOD FOR IDENTIFICATION OF VIBRATORY PARAMETERS OF MOTOR VEHICLES

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Identification of vibratory parameters of motor vehicles, as well as of dynamic systems in general, represents a very complex problem. Many experimental-theoretical procedures were developed in order to perform it, but there is no generally accepted method.

An attempt to develop and verify a method for identification of vibratory parameters of motor vehicles has been made in this paper. The method is planned in such a way, that identification of unknown parameters is done on the basis of experimental data and vibratory models with known structures but unknown vibratory parameters and by using the methods of nonlinear programming.

Considering the experimental data and the adopted vibratory model, the vibratory parameters of the vehicle were identified by using the developed method and the computer HP 9000/835 SE.

Key words: *Vehicle, Vibratory model, Vibratory parameters, Parametric identification.*

TEORIJSKO-EKSPERIMENTALNA METODA ZA IDENTIFIKACIJU OSCILATORNIH PARAMETARA MOTORNIH VOZILA

Identifikacija oscilatornih parametara motornih vozila, kao i dinamičkih sistema uopšte, predstavlja veoma složen problem. U praksi postoji više razvijenih metoda za rešavanje ovog problema, ali ne i opšte prihvaćeni postupak.

Cilj ovog rada je bio da se razvije i testira metoda za identifikaciju oscilatornih parametara motornih vozila. Ona je zasnovana na korišćenju eksperimentalnih rezultata, modela vozila poznate strukture, a nepoznatih parametara, kao i metode nelinearnog programiranja.

Identifikacija oscilatornih parametara vozila je izvršena na osnovu eksperimentalnih podataka uz korišćenje računara HP 9000/835 SE.

Cljučne reči: *Vozilo, oscilatorni model, oscilatorni parametri, parametri indentifikacije*