

# **<sup>1</sup> DETERMINATION OF TOTAL NOISE LEVEL IN THE MOTOR VEHICLE**

***Jasna Radulović, Dragan Taranović, Gordana Bogdanović, Faculty of Mechanical Engineering from Kragujevac, Kragujevac, Serbia***

UDC: 534.83:629.113  
614.872:629.113

## **Abstract**

One of the main acoustic problems regarding motor vehicles is the identification if individual sources of noise level which the passanger percieves as a global level. Thereby, one should have in mind that the total noise in vehicle represents the logaritmic sum of components, not the algebraic one. If the identification of noise sources is performed, i. e. the noice sources are qualified as coherent or incoherent, it is possible to carry out the analysis of global signal by summing of multiple sources of noise. The influence of individual sources to the total signal can be obtained using analysing of global signal.

**Key words:** Noise level, Coherent signal, Incoherent signal.

# **ODREĐIVANJE UKUPNOG NIVOA BUKE U MOTORNIM VOZILIMA**

UDC: 534.83:629.113  
614.872:629.113

**Rezime:** Jedan od glavnih problema akustike kod automobila je identifikacija pojedinačnih izvora nivoa buke koje putnik registruje kao globalni nivo. Pri tome treba imati u vidu da ukupna buka u vozilu ne predstavlja algebarski već logaritamski zbir komponenata. Ukoliko se izvrši identifikacija izvora buke, tj. njihova kvalifikacija na koherentne i nekoherentne, moguće je izvršiti analizu globalnih signala sabiranjem više izvora buke. Uticaj pojedinačnih izvora na ukupan signal može se odrediti korišćenjem analize globalnih signala.

**Ključne reči:** nivo buke, koherentni signal, nekoherentni signal.

---

<sup>1</sup> Received: December 2010.  
Accepted: December 2010.

Primljen: decembar, 2010.god.  
Prihvaćen: decembar, 2010.god.