

## DEVELOPMENT OF THE WHEEL FORCE TRANSDUCERS FOR THE VEHICLES MECHATRONICS SYSTEMS

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*The modern vehicles are more and more equipped with the mechatronics systems which lead to the development of new and improved of the existing transducers of force, torque, acceleration as well as of other physical values relevant for the work of the vehicles systems. Having in mind the specific requests as to the on vehicle application, these transducers should meet the special demands regarding technical performances and prices.*

*The paper deals with an original wheel forces transducer at the vehicle developed by the IMR Institute. The transducer design provides: independent measurement of the forces - reaction of the road surface at each wheel of the vehicle. Its design enables its adjustment to the existing suspension systems i.e. it can be implemented at the existing links of the suspension systems and stub axles and the price of its mounting on the vehicle is quite acceptable.*

*Key words: vehicle, measurement, mechatronics.*

### RAZVOJ MEHANTRONIČKOG DAVAČA SILE NA TOČKU VOZILA

*Tendencija sve veće opremljenosti savremenih vozila različitim mehatroničkim sistemima uslovljava razvoj novih i usavršavanja postojećih pretvarača, sila, momenta, ubrzanja i drugih fizičkih veličina, relevantnih za regulisanje rada sistema na vozilu. S obzirom na specifične zahteve primene ovih pretvarača na vozilu, oni treba da ispunje posebne zahteve u pogledu tehničkih performansi i cena.*

*U ovom radu razmatra se jedan originalni davač sila na točku vozila koji je razvijen u okviru Instituta IMR-a. Konstrukcija davača obezbeđuje: nezavisno merenje sila - reakcija tla na svakom od točkova vozila. Konstruktivno je prilagodjen postojećim sistemima oslanjanja tj. može se implementirati u postojeće veze sistema oslanjanja i nosača točka, a po ceni je prihvatljiv za ugradnju u vozila.*

*Ključne reči: vozilo, merenje, mehatronika.*