

# **<sup>1</sup> DEVELOPMENT OF ALGORITHM FOR REDUCTION OF FUEL CONSUMPTION AT LIGHT DUTY MOTOR VEHICLES**

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## **Abstract**

Light duty vehicles become more popular in goods distribution, especially in urban areas like downtowns or zones where traffic is limited or closed completely. In the same time, use of light duty vehicles is reasonable in case of non-stationary vehicle motions like acceleration and braking due to traffic jams and traffic lights. These situations lead to greater fuel consumption.

In order to solve the mentioned problem, measurements of non-stationary urban driving cycles had made and after analysis, the algorithm was developed. The algorithm was the base for development of software that, based on information from vehicle's CAN BUS, makes possible practical realization of optimal fuel consumption on a light duty vehicle.

**Key words:** vehicle, fuel consumption, eco drive.

## **RAZVOJ ALGORITMA ZA SMANJENJE POTROŠNJE GORIVA KOD LAKIH DOSTAVNIH MOTORNH VOZILA**

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**Rezime:** Laka dostavna vozila postaju sve više zastupljena u distribuciji roba, posebno u urbanim gradskim područjima ili zonama ograničenog saobraćaja ili u potpunosti zabranjenog saobraćaja. U isto vreme, upotreba lakih dostavnih vozila je posebno opravdana u slučaju nestacionarnih uslova kretanja vozila tokom ubrzanja i kočenja, zbog saobraćajnih gužvi i rada svetlosnih sistema za upravljanje saobraćajem (semafori). Navedene situacije dovode do povećanja potrošnje goriva.

S ciljem rešavanja spomenutog problema, izvršeno je snimanje nestacionarnih uslova kretanja vozila (ciklusi), a nakon analize je napravljen algoritam. Ovaj algoritam je bio osnova za razvoj kompjuterskog programa, koji na osnovu informacija dobivenih od CAN BUS mreže vozila, omogućava praktičnu realizaciju optimalne potrošnje goriva kod lakih dostavnih vozila.

**Ključne reči:** vozilo, potrošnja goriva, ECO vožnja.

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