

THE HUMAN OPERATOR

The driver receives information of the environment in a specific order. The reads a display, a picture of the environment composed of visual, acoustical and dynamic elements. Out of these information the driver is sending the inputs to the vehicle which one composed from movement or torque of the steering wheel, the pressure to the accelerator or brake-pedal.

These inputs to the vehicle control speed and side - movement of the vehicle.

In this paper is described the behaviour of driver by following a given course as a given line.

The vehicle and driver are substituted with relativ simple mathematical models.

These models are applied in some actual situation, on the curved path, with different distance of visibility.

The time behaviour of the driver is given. A disturbance for different models of car and driver are described.

During the experiments in real live the drivers need several tests to optimize their behavior. The same procedure is nessecary in calculating.

Key words: Driver - operator, iso - lane - changing, Driver - vehicle - control loop.

ČOVEK OPERATOR

Vozač prima informacije od okruženja na specifičan način. On opaža "Display" - sliku okruženja koja se sastoji od vizuelnih, akustičnih i dinamičkih elemenata.

Pored ovih informacija vozač šalje ulazne signale vozilu koji se sastoje od pomeranja ili momenta točka upravljača, pritiska na papučicu akceleratora i kočnice. Te upravljačke veličine kontrolišu brzinu i bočno pomeranje vozila. U ovom radu autor opisuje ponašanje vozača u prcesu praćenja datog kursa u obliku zadate linije. Vozilo i vozač zamenjeni su jednostavnim modelima, koji su primenjeni u realnim situacijama, na krivudavom putu sa različitim rastojanjima vidljivosti puta, kao parametrima. U radu je dato vremensko ponašanje vozača.

Opisani su poremećaji za različite modele vozila i vozača.

U realnim situacijama, za optimizaciju ponašanja vozača potrebno je više eksperimentalnih testova. Ista procedura (iterativna), je potrebna za odgovarajuće matematičko modeliranje ponašanja vozača.

Ključne reči: Vozač - operator, ISO - promena kolovozne trake, povratna sprega vozač-vozilo.

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