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# ROAD ACCIDENT ANALYSIS IN THE NIZHNY NOVGOROD REGION (RUSSIA) AND ESTIMATION OF SAFETY IMPROVING FACILITIES

Bagichev Sergey*, Dr. Molev Yury, Biktashev Sergey, Bogdan Andrey, Kostin Sergey
Nizhny Novgorod State Technical University named after R.E. Alekseev, Russia

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During recent years motor transportation growth is observed in the whole world. Rates of motion, vehicle capacity and traffic concentration increase constantly. In this case there is a lot of road accidents all over the world. According to statistics about 1500000 - 2000000 accidents happen every year in Russia. In such accidents over 30000 people died and over 200000 people get injuries. General damage that is given to national economy is assessed at 50 billion rubles. In connection with this, the problem of road accident prevention gets sharp. Using of intelligent systems is one of the possible ways out of the problem. But for the well-grounded justification of intelligent systems necessity the detailed road accident analysis should be done.

The main purpose of this research was the analysis of road accidents that happened in Nizhny Novgorod Region (NNR) over the period of 2007- 2009. The detailed analysis was made concerning crash accident data of two districts of Nizhny Novgorod region and three districts of Nizhny Novgorod city. Road accident statistical data of NNR was compared with the data of similar studies, realized in Hungary.

The particular attention was paid to the accidents with participation of commercial vehicles. The amount of accidents that happened in NNR is about 3% from all accidents registered in Russian Federation. The results of investigation showed, that amount of accidents with participation of commercial vehicles is about 35% from total amount.

The results of road accident analysis shows the most widespread accident reasons in NNR: drivers fault through not to keeping following distance (19%); drivers fault through violate line changing prohibiting vehicle keeping straight on (17%); drivers fault at low speed maneuver (17%); drivers fault through lack of proper side distance - uncareful driving (13%).

Comparison analysis of the road accidents reasons among NNR and Hungary shows the similar character of distribution. It allows to suppose that expected effect of using of transport intelligent systems in Russia (specifically, in NNR) could be as positive as it used to be in European countries (specifically, in Hungary).

On the ground of analysis results it is possible to make a conclusion that using of road holding and dynamic stabilization systems, control of lateral space systems, kipping driving line systems and other intelligent systems could help to decrease the amount of road accident in Russian Federation.