11th International Science and Technical Conference Automotive Safety, AUTOMOTIVE SAFETY 2018, 2018, pages 1-9

Safety related problems of transport system and their solutions

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Abstract

© 2018 IEEE. The article provides an analysis of the global trends in the field of city transport systems' safety. It is shown that the decrease in the safety of traffic is one of the consequences of the growth of motorization. The efficiency of measures to prevent traffic accidents is analyzed from the viewpoint of their role in the process to ensure safety and sustainability of the urban transportation system. Currently, the efforts to increase the proportion of trips made by foot or by non-motorized transport are made. That is why the problem of ensuring safety of the most vulnerable road users is relevant. One of methods to prevent traffic accidents is to identify potentially dangerous road users, whose behavior may lead to serious consequences. Technical equipment, as well as active control from the side of the services, that ensure road safety, are used to identify violators. Official statistics of the State Inspectorate for Traffic Security is used as initial information. According to the Haddon matrix, there should be 3 stages to decrease the number, as well as the severity of traffic accidents. From our point of view, the most important stage is the phase 'before the traffic accident'. The statistics of traffic accidents with victims, as well as the factors that cause such accidents, are analyzed. Simulation has shown, that rational management can reduce the likelihood and the severity of road traffic accidents. Ways to improve efficiency of the above mentioned traffic accidents' prevention measures are proposed.

http://dx.doi.org/10.1109/AUTOSAFE.2018.8373333

Keywords

accident prevention, accidents, Haddon matrix, road traffic safety, sustainable mobility

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