
ABSTRACTS

PEDESTRIAN SAFETY AT CROSSINGS

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Keywords: crossings, pedestrian's safety, road marking

Abstract: The article deals with the evaluation of selected pedestrian crossings in terms of their functional parameters. Road safety is still a highly debated issue in all countries with a developed automobile transportation. Risk are the group of participants, with a team that drivers and passengers in motor vehicles are more or less protected by the vehicle itself, cyclists and motorcyclists are partially protected for example, helmet. But pedestrians are not protected at all. Thus pedestrian is the most vulnerable road users. In Slovakia, die each year from an average of 200 pedestrians. The most frequent causes of pedestrian accidents are the entrance to the roadway approaching the motor vehicle from the sidewalk and miscalculation when passing communication.

MATHEMATICAL MODELLING WITHIN THE ROAD SAFETY MANAGEMENT

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Keywords: modelling, road, safety, management

Abstract: The precondition for effective management of road safety on the part of the road administrators is a thorough and correct identification of sites with increased frequency of accidents on individual sections of the road network. The adequacy of identification results from the application of such specific methodologies, which will allow to reveal sites with a high rate of local risk factors with the potential to cause collisions in road traffic and thus appropriately allocate adequate funds to remove them. Besides the empirical statistical records, one of reliable methods for the identification of potential black spots is also the mathematical modelling of adverse events on individual road entities and their subsequent estimation in terms of probability of occurrence in the future. The application of the method described in the article allows, following the discovery of a causal link between the frequency of accidents and their consequences and possible risk factors concerning the nature of traffic, to identify potential black spots without the necessity of reporting high accident rate in the past.

OPTIMIZATION OF THE PRODUCTION PROCESS OF THE PLASTIC INJECTION MOLDING ENGINEERING WITH THE TECHNOLOGY OF REVERSE ENGINEERING APPLICATION

(pages 9-12)

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Keywords: reverse engineering, plastic injection molding, scan, NURBS

Abstract: The publication focuses on the issue from the field of reverse engineering. The theoretical introduction contains basic information from the reverse engineering and describes the process of reversing as such. It consists of the procedure of component production, its calibration and setting the device used for reversing, scanning of the given object, scanned data connection, creation of 3D model of scanned data and evaluation of divergence of the modelled sizes in comparison with the real sizes of the component. The basic anticipated benefit from the implementation of reverse engineering application is obtaining 3D data from real components and their further using in creating the molds for plastic injection.
