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## ABSTRACTS

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### EMPIRICAL APPROACHES OF ROAD INFRASTRUCTURE SAFETY MANAGEMENT

(pages 1-4)

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**Keywords:** infrastructure, safety, management, empirical approaches

**Abstract:** The focused effort of European Union in a form of safety improvement as one of the essential quality attributes of a transport system was reflected in several legal norms governing the conditions for each element of this system. Road infrastructure is no exception, where rules and principles of safety shall be applied in the process of its preparation, implementation and within the operation as well. The Directive 2008/96/EC on road infrastructure safety management has defined the basic framework for performance of individual procedures, which was transposed into national legislation and gained detailed outlines through adoption of the Act on road infrastructure safety management and related decrees.

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### PROTECTION OF ROAD INFRASTRUCTURE - DYNAMIC WEIGHING OF VEHICLES

(pages 5-8)

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**Keywords:** weighing in motion, legislation, system requirements

**Abstract:** The reason of the construction of the official measurement of axle loads through dynamic weighing of the trucks and buses on the road is to prevent damage to roads and shortening their lifespan and operational capability due to the crossing of axle loads on trucks' and buses' limits with a gross weight of 3.5 tons. Article provides an analysis of legislation for the establishment of a system for driving vehicles weighing (weighing in motion - WIM) at high speed, the identification of essential requirements and the issue of strict liability in the field. Description is also considering the usage of the part of the technical infrastructure of the existing toll system.

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## **AUTOMATION MONITORING OF RAILWAY TRANSIT BY USING RFID TECHNOLOGY**

(pages 9-12)

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**Keywords:** automatisisation, RFID, railway transport, electronic waybill

**Abstract:** Aim of this paper is presented the possibility of using RFID technology by railway transport monitoring. First part of the article describes a comprehensive system for the application of RFID technology in the environment of Slovak railways. Second part of the paper describes the principle of information system and design of the electronic way-bill. The big problem is related to railway transit, where problem is in the transferring many information, e.g. waybill, technical condition of the wagon, date of the maintenance and repairs, etc. So, there is a possibility of using RFID technology. If we want to introduce RFID technology, it is necessary to create the entire concept of automatic data collection; this can determine the tracking location of wagons and collecting information about the car.

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