Jarosław Moczarski: Laser Sensors in the Identification of Moving Objects

The article presents a method of observation and identification of rolling stock elements and transported goods. The use of laser range finders in the process of monitoring of moving objects and their subsequent recognition and control of the position is described. The paper includes the results of the research carried out by the Author on the test stand of the Railway Research Institute, concerning the observation of objects of various shapes, sizes, surface textures and optical properties of materials. The results of experiments conducted with the use of a set of laser sensors and algorithms for creating digital models of tested objects with the use of neural networks are presented. The attention is paid to the effectiveness and scope of application of the adopted identification method, and the existing correlations and limitations are indicated.