

ABSTRACT

Bachelor's degree project on the topic "Automated control system for overloading vehicles in motion". The project consists of an introduction, two chapters, conclusions, a list of references and appendices. The project consists of 63 pages, 4 tables, 27 figures, a list of references consisting of 29 titles, and 4 appendices.

The purpose of the thesis project is to develop an automated system for measuring the weight of cars in motion. In the design and development part of the project, the existing types of systems and some implemented designs used in world practice for weighing vehicles in motion are analyzed. The expediency and relevance of designing a platform-type system with transducers representing separate structural elements are substantiated. The characteristics of two types of weighing strain gauge transducers with a shear elastic element and a tensile-compression elastic element are considered.

In the second part, we calculated the manufacturability of the transducer design to assess the feasibility of manufacturing a shear-type transducer. The scheme of the assembly warehouse and the technological scheme of the transducer assembly were developed.

Keywords: weighing transducer, strain gauge, weight measurement, weighing of vehicles in motion.