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Master Degree Studies **Transport Engineering** study programme Master's Thesis

Title **The experimental research of location of the car mass centre and its influence on the car dynamics**
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Thesis language:
Lithuanian

Annotation

In this final paper work performed an experimental vehicle's center of mass positioning in several different methods, estimates of the empty and loaded car. Estimates calculation of the position center of mass, taking into account the height and angle of lift, the investigation method chosen, the change in weight and other factors. Also theoretical vehicle static and dynamic stability calculations estimates. Creates a vehicle dynamic programming model of stability, depending on the situation in the center of mass. Car's center of mass influence for the dynamics clarified during an experimental vehicle dynamic stability study and analysis.

The comprehensive paper work consists of 9 parts: introduction, six descriptive parts, conclusion, references. Total amount: 70 pages plain text, 55 illustrations, 13 tables, 23 bibliographies. Attachments have been enclosed to the work: vehicle dynamic stability simulation graphical sketches.

Keywords

Car, mass center, weighing, methods, static stability, dynamic stability, simulation, rollover, experimental investigation.