

SUMMARY

The diploma project is made on 105 pages and contains 30 drawings, 27 tables.

The purpose of this master's thesis is to develop and conduct research on the electromechanical system of the passenger cable car. As well as research of perturbation levels and levels of oscillatory processes in static and dynamic modes, during start-up, with changes in load and speed of the traction rope.

During the implementation of this diploma project the following main tasks were solved: analysis of ready electric drive systems designed for overhead cableways, formation of requirements for electric drive and control system, reasonable choice of electric drive system, calculation and selection of power circuit elements of electromechanical system, development of mathematical model of overhead cable system roads, modeling of electromechanical system in MATLAB Simulink environment, research of dynamic and static modes of operation of electromechanical system, research of change of power characteristics of electromechanical system at change of loading on a rope and change of speed of its movement.

The calculation and implementation of this thesis project was provided through the use of the following programs: MATLAB R2019b, Microsoft Office Word 2010, Microsoft Office Visio 2010, MathCAD 2015.

SUSPENDED CABLE ROADS, CHAIR LIFT, ELECTRIC DRIVE,
ASYNCHRONOUS MOTOR, FREQUENCY CONVERTER, SPEED
REGULATOR, SPEED SPEED, SPEED CONTROL, MATLAB SIMULINK

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