
INVESTIGATION OF DC MOTOR CHARACTERISTICS WITH A STAND BASED ON MICROCONTROLLER

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Abstract

The article is devoted to the development of methods for obtaining the external and partial torque characteristics of a DC electric motor with inertial load by inexpensive and simple to use equipment. In this work we describe a stand for testing the electric motor and the test program and consider features of motor control by means of a microcontroller. Moreover, we describe an algorithm for calculating the rotational speed of the motor shaft and offer a method for processing the obtained data.

Keywords

Torque curve, electric motor, electric drive, pulse width modulation, Arduino, MATLAB

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