

SUMMARY

The Master's thesis is made on 113 pages and contains 40 figures, 17 tables, 68 references.

In the Master's thesis is dedicated to the synthesis of field attenuation algorithms of vector-controlled induction motors taking into account the magnetization curve of the motor is carried out. The developed algorithm provides the improved indicators of quality and working off of the set moment of loading at speeds above nominal. The study of dynamic characteristics of synthesized algorithms is carried out. The study of algorithms was performed by mathematical modeling in the MatLAB environment.

The Start-up project was performed for market promotion purposes.

A startup project has been developed to introduce the results of the research to the market.

The obtained results can be used in AC drives with moderate requirements for the quality of torque and speed control, such as electric vehicles, pumps, fans, etc.

VECTOR CONTROL IN FIELD WEAKENING MODE, ASYNCHRONOUS MOTOR, MAGNETIC SYSTEM SATURATION, CONTROL ALGORITHM, OBSERVER, START-UP, ELECTRIC VEHICLE, VOLTAGE LIMITS

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