SUMMERY

Diploma project contains: 108 pages; 74 figures; 7 tables; 4 of graphic sheets; 18 references.

In this diploma project were conducted the research of indirect vector control's algorithm of asynchronous generator based on induction motor with squirrel cage. Investigational algorithm of vector control voltage in DC-link ensures asymptotic work of voltage, as confirmed by experimental and mathematical modeling. Investigated the impact of variations of rotor's active resistance on asynchronous generator work. It was proved by mathematical model that variations of rotor's active resistance with speed 150 rad/s system had satisfactory results in comparison with speed 100 rad/s.

Developed experimental setup, where the implemented algorithm of indirect vector control asynchronous generator, which allows to carry on research of new control algorithms by asynchronous generator.

ASYNCHRONOUS GENERATOR, VECTOR CONTROL, DC MOTOR, THE VOLTAGE DC LINK, LINEARIZATION OUTPUT FEEDBACK, SYNTHESIS, RESEARCH