ABSTRACT

The Bachelors Thesis contains 65 pages, 17 figures, graphical part on 3 pages and 1 appendix.

The objective of the Bachelors Thesis is synthesis of the indirect field control algorithm of the wound rotor induction motor, which works as a generator for stand alone load. In this Bachelors Thesis control algorithm of the wound rotor induction motor was synthesized and its parameters were calculated. A mathematical model for the researching of stator and rotor active resistance influence on a system performance was designed. The structural and functional schemes of indirect field oriented control of a wound rotor induction motor were developed. The results of mathematical modeling are obtained and the corresponding conclusions were made.

WOUND ROTOR INDUCTION MOTOR, AUTONOMOUS GENERATOR, GENERATION SYSTEM, ACTIVE RESISTANCE VARIATION, FIELD ORIENTED CONTROL, ELECTROMECHANICAL SYSTEM