SUMMARY

The Master's dissertation consists of an introduction, eight sections, general conclusions, a list of used sources and appendices. The total volume of the dissertation is 132 pages, including 114 pages of the main text, 54 figures, 36 tables, the list of the used sources (31 names), a graphic part on 7 sheets of A1.

The aim of the master's dissertation is to develop of solar panel rotating system due to installation control system and a human-machine interface.

In the work was carried out the analyses of the existing systems of rotation of solar panels and their types, considered the types of solar power plants according to the power scheme, analysed the feasibility of using the system of rotation of solar panels, calculated the optimal angle of deviation of solar modules from sunlight..

The power calculation and selection of type of electric drive were made, the main elements of the system are selected, such as: frequency converter, software-logic controller, human-machine interface. System control of turn is developed, lag of position of the sun by means of the sensor and the interface of interaction of the person with system is realized.

SOLAR PANEL, TURNING SYSTEM, SOLAR ENERGY, ELECTRIC DRIVE, ELECTRIC MOTOR, RENEWABLE ENERGY SOURCES.