

## SUMMERY

This master's dissertation contains: 119 pages; 96 figures; 32 tables; 5 of graphic sheets; 29 references.

In this master's dissertation the research of control systems of electric drives of a bridge crane-manipulator in the conditions of Rivne NPP has been carried out to ensure that they meet the requirements. A system of scalar control of electric drives of a bridge crane-manipulator is provided with its closing position, on the basis of research carried out by mathematical modeling, does not meet the requirements. The mathematical modeling of "Master-Slave", "Mean control" and vector control systems of two engines from individual frequency converters is carried out. It is proved by simulating the expediency of using the vector control system of two engines from individual frequency converters. In the conditions of the Rivne NPP experimental research of electric drive control systems for the movement of the bridge and the carriage was carried out.

This master's thesis was conducted using the following software: *MATLAB R2015b, Microsoft Office Word 2010, Microsoft Office Visio 2016, MathType 6.9, KOMPAS-3D V16, SolidWorks 2015.*

BRIDGE CRANE MANIPULATOR, ELECTRIC DRIVE, SCALE CONTROL, VECTOR CONTROL, ASYNCHRONOUS MOTOR, MASTER-SLAVE, MEAN CONTROL, FREQUENCY TRANSMITTER, ACCURACY OF POSITIONING.

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<i>Зм.</i>	<i>Арк.</i>	<i>№ докум.</i>	<i>Підпис</i>	<i>Дат</i>	Синтез та аналіз систем електроприводу кранових механізмів та алгоритмів узгодження їх рухів для спеціального крана-маніпулятора в умовах Ровенської АЕС	<i>Лім.</i>	<i>Аркуш</i>	<i>Аркушів</i>
<i>Розробив</i>	<i>Березюк Є.Ю.</i>					4	122	
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