

## SUMMARY

The master's dissertation comprises: pages - 122, figures - 36, tables - 28 and graphical part on pages A1.

In this master's thesis the study of the hoisting device of the crane manipulator is carried out, the typical designs of the hoisting device, the methods of management of the hoisting device of the crane manipulator are determined. The selection of equipment for the implementation of system control was performed and the mathematical description of the asynchronous motor with short-circuited rotor in an orthogonal coordinate system oriented by the vector of rotor coupling was made. Synthesis and research of the vector position control system made. Mathematical description of the mechanical part of the hosting device was made taking into account the change of the moment of static resistance due to the action of the ejection force when immersing the load in an aggressive solution and separating the mass of the basket from the telescope. Synthesis and comparative analysis of velocity vector control system and vector position control system with satisfactory device is made.

The results obtained can be applied to the design and development of vector control systems for the position of hoisting devices of the crane manipulator.

ASYNCHRONOUS MOTOR, FREQUENCY CONVERTER, VECTOR CONTROL, VECTOR POSITION CONTROLLER, HOISTING DEVICE, MATHEMATICAL PATH.

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Devel. r	A. Bohuta				Electric drive of the hoisting device of the crane manipulator	L.	Let.	Letters
Checked.	O. Tolochko					7		
N. Contr.					NTUU "KPI"			
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