

SUMMARY

The diploma project comprises 73 pages, 18 figures, 5 tables and the graphical part on 3 pages A1.

The objective of this project is the modernization of the bridge crane electrical equipment through the practical realization of the electromechanical system based on modern converters. The project describes the bridge cranes and the requirements for the electric drive, based on which, as a control algorithm, the frequency method is chosen. The solution of practical realization of the electric drive based on the system of frequency converter - asynchronous motor is offered. Control scheme is developed and parameters of dynamic model are calculated, as well as is performed modeling of typical working modes.

The obtained results can be used in the design and development of new crane electromechanical systems, as well as in the modernization of existing equipment.

The graphical part includes: the appearance of the control object, the schematic circuit diagram of stand power unit, graphs of transients obtained by mathematical simulation testing.

BRIDGE CRANE, INDUCTION MOTOR, FREQUENCY CONVERTER,
FREQUENCY CONTROL

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	Letter	№ of doc.	Sign.	Date	Modernization of the bridge crane electrical equipment Summary	L.	Page	Pages
Devel.	N.Pogromskaya					7	73	
Checked	D. Prystupa							
N. Contr.	B. Priymak					NTUU «KPI» named after Igor Sikorsky, FEA		
Approved.	S Peresada							