SUMMARY

The diploma project includes a 90 pages, 6 main parts, 21 figures, 5 tables, 42 of the source literature, 4 appendixies and 3 of A1 size.

The object of study in this project is induction drive in metal processing. The aim of this diploma project is the calculation and development of electric drive of milling head machine tools, such as analysis of modern machine tools, calculation and choice of induction motor, the calculation power of converter direct field-oriented with control system, synthesis of current controllers, the line speed controller and flux controller with sliding mode observer based on the data of the simulation of induction motor to obtain the corresponding transients.

This thesis project is important in today's stage of the engineering industry, as of today, particularly in Ukraine, a large majority of metalprocessing are not automated, and as a result this leads to a decrease in precision metalprocessing and increase time of details processing

Calculation and realization of this diploma project was provided by using the following software: *MATLAB R2009b, Microsoft Office Word 2010, Microsoft Office Visio 2010, MathType 6.9, SIMNON, KOMPAS-3D V16.*

METALPROCESSING, INDUCTION MOTOR, FEED DRIVE, VECTOR CONTROL, LINEAR SPEED CONTROLLER.

					6.050702.3101.030.БР		
Змн.	*Арк.*	*№ докум.*	*Підпис*	*Дата*			
Розробив		Березюк Є.Ю.			Реферат	*Літ.*	*Арк.* 7 / *Акрушів* 90
Керівник		Трандафілов В.М.				НТУУ « КПІ» Каф. АЕМС-ЕП Гр. ЕП-п31	
Рецензент		Коваленко М.А.					
Н/контр.		Теряєв В.І.					
Зав. каф.		Пересада С.М.					