

## SUMMARY

Thesis contains: pages – 138, drawings – 92, tables – 7, appendixes - 7.

The thesis goal is research of effectiveness of dead-time compensation methods in voltage source inverters for induction motor drives.

Dead-time effect aftermaths were observed and compensation strategies for mitigation of the effect were derived. Valid inverter model considering dead-time caused disturbance was developed and implemented in simulation program of adjustable speed drive based on V/f and field-oriented control of induction motor. Dead time compensation methods effectiveness was studied by means of simulations.

Software for control of voltage source inverter utilizing space vector PWM technique with dead-time compensation algorithms was developed.

DEAD TIME, VOLTAGE SOURCE INVERTER, DEAD TIME EFFECT  
COMPENSATION, INDIRECT VECTOR CONTROL, INDUCTION MOTOR,  
MICROCONTROLLER.

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Supervised		Serhii Kovbasa				6	157	
Reviewed		Yurii Haidenko				NTUU “KPI”		
Reg. Control		Serhii Buryan				Dep. AEMS-ED		
Approved.		Sergiy Peresada				Gr. EP-81mn		