

## SUMMARY

Explanatory note contains 130 pages, 57 figures, 44 tables, bibliography, consisting of 59 items, 6 sheets of the graphic part.

An analytical review of the literary sources of the electromechanical system of an electric vehicle was made, an analysis of existing electric motors and batteries used in the vehicle was made, the architecture of the battery electric vehicle is defined, the basic requirements for vehicles are defined.

The calculation and selection of the engine, which is specially designed for electric vehicles, is made.

A vector torque control system was synthesized for the control of PMSM and studies of this system were performed.

Also, a study of the movement of an electric vehicle in the driving cycle using the AVL CRUISE software.

TRACTION DRIVE, MOTOR CONTROL ALGORITHMS,  
SIMULATION, DYNAMIC PERFORMANCE, ENERGETIC  
PERFORMANCE.

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Chan	Sh.	№ docum.	Sign.	Date	Automated system electric vehicle control based on permanent magnet synchronous motor  SUMMARY	Liter.	Sh.	Scale
Designed	M. Nosykhin						6	130
Checked	O. Tolochko					«Igor Sikorsky KPI», FEA, gr. EP-82mp		
Reader								
R. control	S. Buryan							
Approve	S. Peresada							