

**VECTOR CONTROL SYSTEMS DEVELOPMENT FOR TRACTION  
ASYNCHRONOUS MOTORS**

BY

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**Abstract.** This work tackles the problem of designing and implementing of a vector control system of the 170 kW asynchronous motor for trolleybus traction. The informational subsystem is attained with CAN net. The power branches of the IGBT inverter were achieved with a compound bus. The electronic equipment contains a microcontroller for processing the input signals, one for the CAN communication and another for asynchronous motor control. The lab tests have proven correctness of the control system's proposed structure.

**Key words:** power inverter; asynchronous motor; vector control; traction; trolleybus.