BULETINUL INSTITUTULUI POLITEHNIC IAȘI TOMUL LIV (LVIII), FASC. 4, 2008 ELECTROTEHNICĂ, ENERGETICĂ, ELECTRONICĂ

CAN CONTROL SYSTEM FOR AN ELECTRIC VEHICLE

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Abstract. This article focuses on the development and implementation of the CAN (Controller Area Network) control system for the electric vehicle, a Toyota MR2 car application. The CAN control system is developed to integrate and control most 12Vdc auxiliary loads and power supplies within the MR2. The main objectives are to demonstrate the operation, assess the overall performance, and identify particular benefits which might accrue when using the CAN control system. CAN has been successfully applied to gasoline automotive applications before, but rarely to electric vehicles. Electric vehicles have their own power requirements, where the whole vehicle runs on the power supplied from the batteries. The voltage is derived from a high voltage bus to drive low voltage applications, thus the CAN control system needs to conform to specific requirements.

Keywords: controller area network, electric vehicle, control.