

Intelligent Accidental Detection and Prevention System for Car using Can FD Protocol

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Abstract: *Controller Area Network with Flexible Data Rate (CAN FD) is a vehicle bus standard protocol designed especially for automotive application. By using CAN FD Bus protocol, ECUs (Electronic control units) of vehicles can communicate with each other. It is a high speed, bandwidth efficient network. In order to reduce point to point wiring harness in vehicle automation, CAN FD is suggested as a means for data communication within the vehicle environment. The benefits of CAN FD bus based network over traditional point to point schemes will offer increased flexibility and expandability for future technology insertions units. We have designed five nodes, 4-sensor nodes and 1-Bus monitor nodes. Sensor nodes and Bus monitor nodes are communicating with each other through CAN FD Bus. Bus monitor node collects all messages present on the CAN FD Bus and transmits to the PC by using the UART interface. The CAN FD monitor window is designed using Visual Studio.net which allows the time oriented buffering of CAN FD messages and visualization of the BUS data at the package level.*

Keywords: Intelligent Accidental Detection

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