Abstract

Modern vehicles are in fact computer networks on wheels. Up to 60 electronic control units are connected using various networking technologies such as CAN (Controller Area Network) or MOST (optical fibres for multimedia content). Many of the control units use state of the art microcontrollers and have complex analog and digital interfacing circuitry. Software is playing an ever increasing role in the definition of vehicle control functions. The speech is giving an overview on modern vehicle electronic architecture and its inherent hardware and software challenges. The growth fields of automotive electronics will be highlighted and examples of next generation applications will be given.

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