

The automation is must needed in all systems which increases the overall system performance. A modern vehicle has many electronic control units (ECU) for various subsystems. Different such subsystems are airbags, anti-lock braking system, air conditioner control, windows, audio sound systems, mirror adjustment etc. Some of these subsystems form independent dependent subsystems. Communications between dependent sub systems are more essential.

The key idea is to alert the driver when the driver is unconscious while driving or unaware about driving. They are often caused by driver errors such as taking a curve too fast, driving too fast, fatigue, inexperience, or improperly distributing the vehicle's load. So to overcome from this problem we are using some IR based sensors to implement in real time applications. In order to overcome from these problems, the intra-vehicle network technology has been created. Sub-systems require the exchange of particular performance and position information within defined communication latency. Therefore the requirement for each ECU is to communicate via some kind of network technology such as CAN (Controller Area Network) bus or wire. In the proposed work CAN bus protocol is extensively used for vehicle automation. This system helps in achieving effective communication between transmitter and receiver modules using CAN protocol with multiple sensors to monitor the various parameters and visualise them to the vehicle driver through a LCD display. The CAN modules interfaced with the sensors for this system are temperature sensor capable of detecting engine heat, ultrasonic sensor for detecting the distance between obstacles. CAN protocol (bus) are used for data transmission. A CPU is needed to manage the CAN protocol. For implementation of this digital circuitry need a different component the main part for controlling all information to check working for this purpose use a processor for the sensing purpose use a temperature sensor, obstacle detection sensor and power supply are main parts.