Automatic Accident Prevention System

Abstract

The aim is to design and develop a control system based an intelligent electronically controlled automotive braking system is called "**AUTOMATIC VEHICLE ACCIDENT PREVENTION SYSTEM**". Vehicle technology has increased rapidly in recent years, particularly in relation to braking system and sensing system. In parallel to the development of braking technologies, sensors have been developed that are capable of detecting physical obstacles, other vehicles or pedestrians around the vehicle. This development prevents accidents of vehicles using Stereo Multipurpose cameras, Automated Emergency Braking Systems and Ultrasonic Sensors. The stereo multi-purpose camera provides spatial intelligence of up to 50 meters in front of the vehicle and there is environment recognition of 500 meters. Cars can automatically brake due to obstacles or any hindrance when the sensor senses the obstacles. The braking circuit function is to brake the car automatically after receiving signal from the sensors. Integrated safety systems are based on three principles. They are: collision avoidance, collision mitigation braking systems and forward collision warning.

Block Diagram: