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EXPERIMENTAL ANALYSIS OF AUTOMATIC BRAKING SYSTEM WITH AUTOMATIC PNEUMATIC BUMPER

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ABSTRACT

Vehicle technology has increased rapidly in recent years, particularly in relation to braking system and sensing system. In parallel development of braking technologies, sensors have been developed that are capable of detecting physical obstacles, other vehicles or pedestrians around the vehicles. Automation can assure higher reliability of braking as compared to fully manual braking. Since high speed crashes are more likely to be fatal than low speed collisions, automatic braking systems can saves lives and reduce the amount of property damage that occurs during accident. The concept is to improve the damage reduction capacity by adding an extendable and retractable bumper with an automatic braking mechanism. It will be an added safety measure in the current facilities such as Abs, Air Bags, etc. the use of pneumatic system can prove to be useful in automation due to its simplicity so the aim is design and developed a system based on automatic control of vehicles. This system improves response time of vehicles braking to keep safe distance between the vehicles, so we can obtain control over the speed of vehicle in short distance.

Keywords-- Automatic Braking System, Electromechanical System, Infrared Sensor, Pneumatic Bumper.