Advanced Driver Assistance System (ADAS)

Nitin[1], Bhaskar Sati[2], Ashima Mehta[3]

Students, Department of Computer Science and Engineering[1,2]

Professor, Department of Computer Science and Engineering[3]

Dronacharya College of Engineering, Gurugram, India

Abstract: *The motivations are art, elegance, and ethics. Human error and negligence cause 90% of road accidents, making the human the important part in this process while also being the weakest link. Every year, numerous accidents are reported as a result of excessive speed and poor decision-making. According to a logical concept, every 1% increase in velocity increases the probability of a fatal collision by 4% and the risk of a serious collision by 3%. Modern automobiles are a symbiosis of several electrical subsystems that work together to provide a safe and enjoyable driving experience. One of the technologies used in automotive development is the Advanced Driver Assistant System (ADAS). It is a system that monitors different parameters related to the vehicle and its surroundings in order to detect potentially dangerous circumstances early on. Sensors with sophisticated electronics, known as Sensor Network (SN), are already installed in many cars today to accomplish (ADAS) technology. A well-known ADAS is the Adaptive Speed Control system (ASC), Automatic Brake System (ABS), Warning Collision System (WCS), and Legal Restriction System, which are used to avert high-speed accidents. In addition, there are Lane Keeping Systems (LKS) and Lane Change Systems (LCS).*

Keywords: adaptive cruise control, automotive navigation system, driver sleepiness, electronic stability control, intersection assistant, steering wheel movement

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