

# [Automation and tragic fact is that, 94% of](https://assignbuster.com/automation-and-tragic-fact-is-that-94-of/)

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Automation is the use of atechnology or machine to complete a duty or function that was previouslycarried out by a human. In vehicle, automation involves use of camera, radarand various sensors to accumulate information about a vehicle’s surroundings. This collected data is processed by computer programs to perform parts or allthe driving task on a continuous basis. 1 The continuous development ofautomotive technology aims to deliver even higher safety advantage, and one-dayAutomated Driving Systems (ADS) can handle all the functions of driving when wedon’t wish or can’t do it our-self. ADS innovations help vehicle to see, thinkand act. 2 In today’s motor vehicles, driverassistance technologies are already helping in saving lives and preventinginjuries.

One of the critical and tragic fact is that, 94% of serious crashes occurreddue to human error. As per other statistics in 2016, more than 37, 461 peopledied in motor vehicle-related crashes in the U. S. Automated vehicles have thepotential to remove human error from the crash equation, which will helpprotect and save life of drivers and passengers, as well as bicyclists and pedestrians. Since 1975, the U. S. population is growing steadily.

The road traffic deathsrate per 100, 000 people, in 2016, is reduced to half of what it was 40 yearsago. 3 This is being achieved via implementing the five eras of safety: Safety/Convenience Features, Advanced Safety Features, Advanced DriverAssistance Features, Partially Automated Safety Features and Fully AutomatedSafety Features among which last two plays a vital role in accomplishing’Vision Zero Accidents’ in coming decades. 24Along with such lifesavingbenefits of autonomous vehicle, there are still many major flaws. Google car involvedin minor crashes shows the hazards of sharing the road with human drivers. Afatal crash between a Tesla Model S (in “ Autopilot” mode) and a tractor-trailerin May 2016 highlighted questions about the limits of the technology.

5 Also, if other technology fails, taking an example of traffic signals that the cars dependson, there’s no accounting for human traffic signals that is in case of anaccident where a traffic is directed by police officer, the cars will not understandhuman signals. Even, autonomous vehicles are not yet ready to operate at a highlevel of safety in all weather conditions. Furthermore, a self-driving cardoesn’t eliminate the possibility of a car accidents. In fact, there’s no legalprecedent for how to handle such case.

On top of all, Electronics systems incars presently have no or limited security measures. Use of autonomous vehiclewill still demand driver’s education. Purpose of self-driving cars will not beserved unless they are widely adopted. 6Though there are many concerns related toautonomous vehicles, but the potential benefits of autonomous vehicle areimmense. Thousands of lives could be saved by preventing crashes caused bydriver-related factors. Within few decades, Fully Automated Vehicle (Level 5vehicle) can perform the entire driving task without driver’s input, under allconditions that a person could perform.

Looking at the technology advance pacein implementation of autonomous vehicles, the ‘ Vision Zero Accidents’ is notfar away.