Abstract: This article elucidates how DARPA – (Defence Advanced Research Project Agency) have induced a significant innovation in technology for robotic cars.These reviews on advances in different technology can help in creation of more efficient autonomous driving vehicles, which can reduce the amount of accidents and the traffic jams, thus curing all the problems related to clogged roads.Smart traffic light: Autonomous intersection in traffic flow will open up new prospectus for the cities which focuses more on green space and pedestrians Challenges, dangers and opportunities: * Malicious Hacking: Crime or hacking can easily manipulate self – driving cars.So, this can help in building more reliable, efficient and safe face of autonomous transportation Evaluation Of The Field (Past) Technologies: The first GRAND challenge conducted for unmanned robotic cars in 2003 to navigate 142 miles had failed within the first few miles and it proved to be that technology was not prepared.* Software and hardware failure: Vehicles with complex electronic system will often have failure even with a small system failure like interference, software error etc The design and implementation of the complex artificial intelligence software into the autonomous vehicle is complicated as it is the decision making (brain) of the system.It is integrated with hardware sensors, artificial intelligence and google maps to execute the driving functions.However, the inefficiency faced by cars can cost us thousands of lives, in millions of accidents and billions of human hours wasted in busy streets resulting in the wastage of billions of gallons of fuels.Economic and industrial impact: The fuel economy of self-driving cars could be improved by avoiding the need for efficient braking and speeding.Some of the most common features of autonomous vehicles are GPS modules, high-resolution cameras, and LIDAR.The software surface installed in Google's car gives advanced notification of factors .Social, legal and ethical impact: Researchers decided to develop a transportation system to reduce 90% of accidents.According to EUROSTAT, after implementing intelligent systems in autonomous vehicles, the number of deaths deceased.The increasing availability of autonomous vehicles could lead to more demand and car ownerships being reduced.* Platooning risk: Even though autonomous vehicles have potential benefits in reducing congestion.It also discusses the inaccuracies and obstacles faced during the various challenges.He explains Google's car contains a lot of advantages like controlling the speed , directions,stop,and go depending on the situation.Also it has GPS and LiDAR sensor ,GPS help the driver arrived to any location he wants .and LiDAR let him know about the real environmental conditions , etc .Conclusions: Presently, there are many systems with ACC control, autopilot, GPS, lane changing assistant and steering control system.Introduction: The invention of autonomous cars has influenced the automobile industry in the 20th century.ACC with stop and go function : it controls the stop and go movement depending on the situation.Over the time, autonomous vehicles will be common Insha'Allah.Even if only a small portion of the change in the economy is achieved, this technology could still have a significant impact.In addition, implementing autonomous systems could reduce the fuel consumption by 25%.The graph below shows that, compared to the human-controlled vehicles, the cost of autonomous cars is lower.This technology could also help the commercial transportation industry by reducing the need for buses and shuttle cars.Environmental impact: Most of the unmanned cars are completely electric, they significantly requires less amount of energy and gas.To make a combined system with all these, technologies will tend to conceive a full autonomous system.Implementing

autonomous vehicle will not be accepted instantly, but people will understand the benefit of the system in overtimeLane keeping assist (LKA): it controls the car to stay on the lane with a specific speed .Military applications : autonomous vehicles can be used in war for quick decision making .In driving cars and buses, the driver must pay attention and take into account many things, so the use of autonomous vehicles will be a development and a guarantee of safety.Traffic impacts:The combination of human control and automatically driven vehicles will affect traffic and lane changes.This could cause problems reaction and also lead to chaos due to the merging of traffic flow with unmanned vehicles.However, when it comes to the operation of taxis and public transportation, the latter is more expensive.On the other hand,the autonomous vehicles will be designed to follow the law.Since the system is based on complete artificial intelligence, the system will be affected if the present road conditions vary.The robots will not be able make decisions like human during non-ideal conditions.This can be only solved by several testing and researches to get assurance for the final product.In today's life, most of the people use cars as daily transportation.Taxi service : instead of using taxi cars , we can replace it by autonomous vehicle .This could save the US billions of dollars.However, the objective is to win the trust .of the people to let a computer drive the vehicle