



Google driverless car 0

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car





What could have prevented the accident?

PAY ATTENTION!

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car





Most common cause of Car Accident

16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car









Make up

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car







Eat

In-car Entertainment System



16AU415 - ATVS

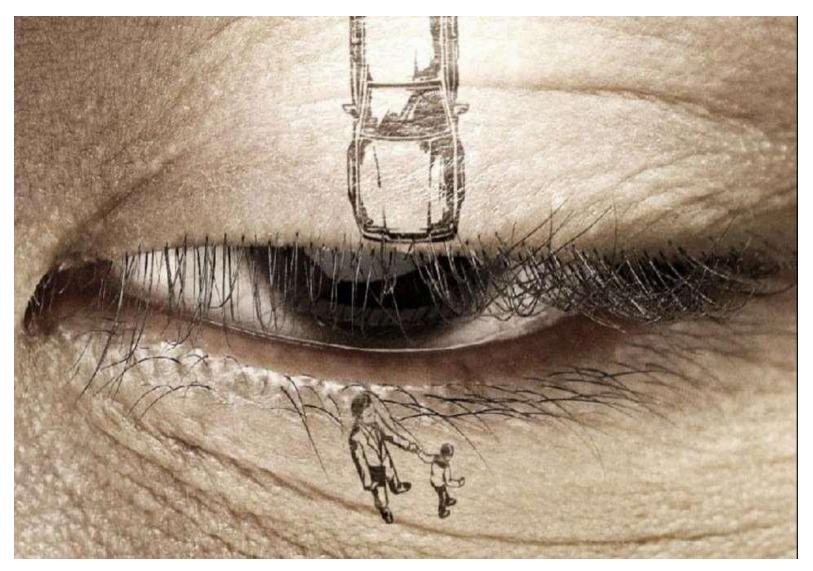
Unit – 1 Introduction

Case Study – Google car



Sleepy Driver





16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car



Introduction: Google Driverless Car is like any other car, but

- It can steer itself while looking out for obstacles
- It can accelerate itself to the correct speed limit
- It can stop and go itself based on any traffic conditions



It can take its passengers anywhere it wants to go safely, legally, and comfortably.

16AU415 - ATVS

Unit - 1 Introduction

Case Study - Google car





What is Driverless Car?

It is a vehicle that can drive itself from one point to another without assistance from a driver

In other words, with an autopilot system

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car





self-driving car

16AU415 - ATVS

Unit - 1 Introduction

4

Google

Case Study - Google car

HYBRID.



Idea & Concepts





- The Google Self-Driving Car is a project by Google that involves developing technology for autonomous cars.
- The software powering Google's cars is called Google Chauffeur.
- The project is currently being led by Google engineer Sebastian Thrun, former director of the Stanford Artificial Intelligence Laboratory and co-inventor of Google Street View.

Google Self-Driving Car



16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car





FEATURES & FUNCTIONS

Basically how it works.

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car





How the GPS aser scanner Google is developing self-driving technology that combines data collected by sensors **Google Car** installed on a car with existing mapping software to speed up, brake and steer to a Front-facing Position destination. The company expects the system will be ready for consumers within five years. camera Works sensor Display No parking allowed Kill switch Front-facing System cannot yet park Self-drive mode camera the car on its own turns off If Helps detect anyone moves road signs, the steering traffic cones Computer wheel, pedals, Analyzes data collected and the color of or pushes a Within the law by the sensors and combines traffic lights big red button Self-drive mode with GPS and Google Maps between the is programed to to locate the car's position, front seats. obey traffic laws, plot trajectory and contol including the the vehicle. Radar recommended space between vehicles. A detailed view 64 laser beams spinning rapidly generate a 360-degree view of the surrounding environment, including pedestrians and other objects. An object in motion The car's reaction to objects depends largely on the object's Tricky when wet size and pattern of movement. Sensors currently are unable to Off the grid detect lane markings when Cannot self-drive on snow or rain is present. a road or area not yet mapped. Christopher Kaeser/The Wall Street Journal Source: Google

16AU415 - ATVS

Unit – 1 Introduction

Case Study - Google car





Advantages

16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car





Driverless Car drive at Optimal Speed

16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car



1. Reduction of Car Accidents

- Automated collision avoidance systems
- Drive at **optimal speed**
- Less fatalities
- Avoid human errors
- No sleepy, grumpy, texting humans



• Increased reliability and faster reaction time compared to human drivers

... due to an autonomous system's

16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car





2. Fuel-efficient

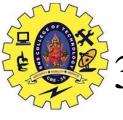
Due to optimal speed



16AU415 - ATVS

Unit - 1 Introduction

Case Study – Google car



3. Convenient



- Sit in the car, let the car drive you to the destination
- Fully utilize the advancement of technologies

4. Better traffic flow



There would be a better management of traffic flow as they will all be monitored over a controlled system



16AU415 - ATVS

Unit – 1 Introduction

Case Study – Google car

