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Modern Automatic Humanless Guided Vehicle

(Automatic-Car, Automatic-Train And Defence Drone)

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Abstract — *The purpose of presenting this research paper is to study the working of Modern Automatic Vehicle. We use intelligent instruments in every part of our lives. We all know that most of tasks of day to day routine are being done by electronics. In Near Future, automation will perform one of the most complicated tasks that a person does in a day, that of controlling a vehicle. Such vehicles don't need human efforts which will make drive smooth and conformable so that road accident can be avoided. This paper emphasizes on automatic control of vehicle (i.e. Car, SUV, and MUV), Trains (i.e. Metros, Monorail, Bridge Rail) & Defense Systems (i.e. Underwater & Sky Drones.)*

Keywords- *Automatic-Car; Automatic-Train; Defense Drone, GPS, RADAR*

I. INTRODUCTION

Any of the object which travels is known as Vehicle. This Automatic Technology is a research project. By implementing this technology in vehicles enables it to self-run in the highway-roads, under-water and in air without the control of the humans. This technology creates a new revolution in the Automobile, Transport and Defense field. It helps the user to save their valuable time and life which is wasted while war &driving. And it is not necessary for the drivers to be always seated in the driver seat except the places, where the signals and road counters present. Many accidents are occurred due to human error. This can be avoided by using automatic guiding technology. This advance technology is going to make a safe journey. This Automatic guidance technology is developed by the combination of various departments they are Mechanical, Electronics, Information Technology and Computer engineering department.

There are many automatic guided vehicles, among them some can be discussed here they are:-

A. Automatic-Car
B. Automatic-Train
C. Automatic Defense Drone

II. AUTOMATIC-CAR

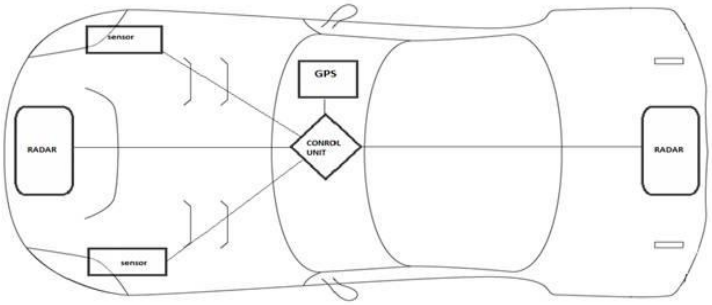

Fig. 1 Components of Automatic Car

Working-The various sensors (Radar) are Mounted various side of vehicle. This gives continuous Detail about surrounding locations. And this is compared with the road and live location using G.P.S

Basic Function of Components and Complete Working

a) Electronic Control Unit (**ECU**) : **Electronic Control Unit** (**ECU**) is embedded system in automotive that controls the electrical system or subsystems in a transport vehicle.

Fig.2ECU

b) The RADAR Sensor-Radar sensors provide Reliable detection of any object which falls under its range. This makes them ideal for collision avoidance and driver assistance.

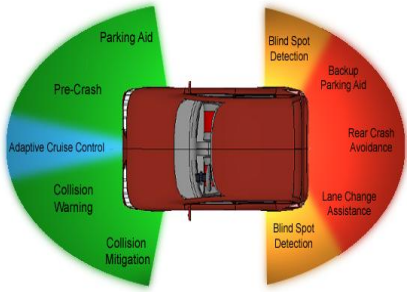

Fig. 3RADAR

c) GPS (Global Positioning System)-

(GPS), originally Navistar GPS, is a satellite-based automatic Navigation system. It is a global navigation satellite system that Provides location information to a GPS receiver Anywhere on the Earth where there is an unobstructed Line of sight to GPS satellites.

Fig.4 GPS

III. AUTOMATIC-TRAIN

Automatic train are train which are designed to run without driver and its highly automatic feature make journey safe**.**

Working-As seen in above figure it working is also based on G.P.S (Global Positionming System)And various sensors which is linked to railway tracks signal and also with other nearby train .All the data are collected in Remotely located centrilised location , all the operations are performed in pre-planned manner

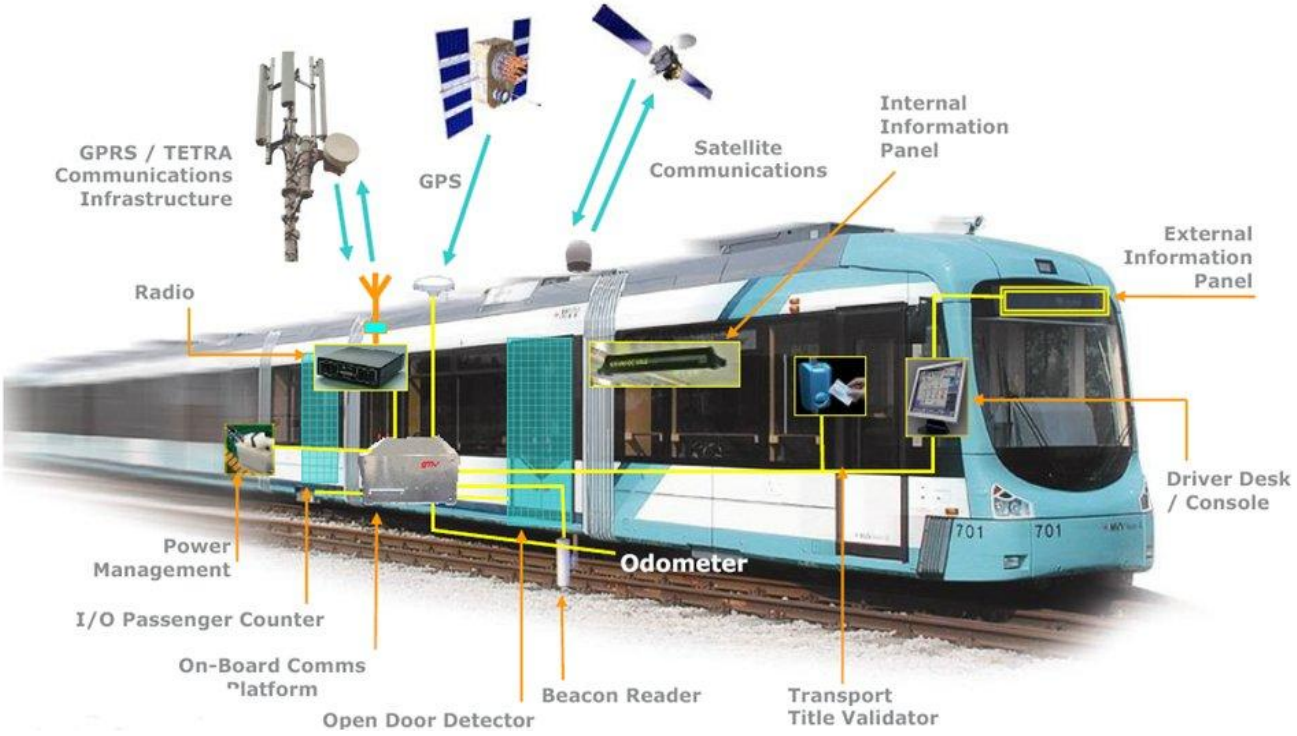

Fig 5 Working Of Automatic-Train

IV. AUTOMATIC DEFENCE AIRCRAFT AND UNDER WATER DRONE

This is defense vehicle mostly used for mass destruction of enemy in war and for Anti-Terrorist activity.

Working-
Although working of these devices is somewhat different, their principle of operation and working are same. They are Operated at secret remote locations.
Its working is similar to that of manned vehicle, But controlled remotely. It has Ground Based Control Sytem from which live signal are transmitted to vehicle in operation Using satellite transmitter.

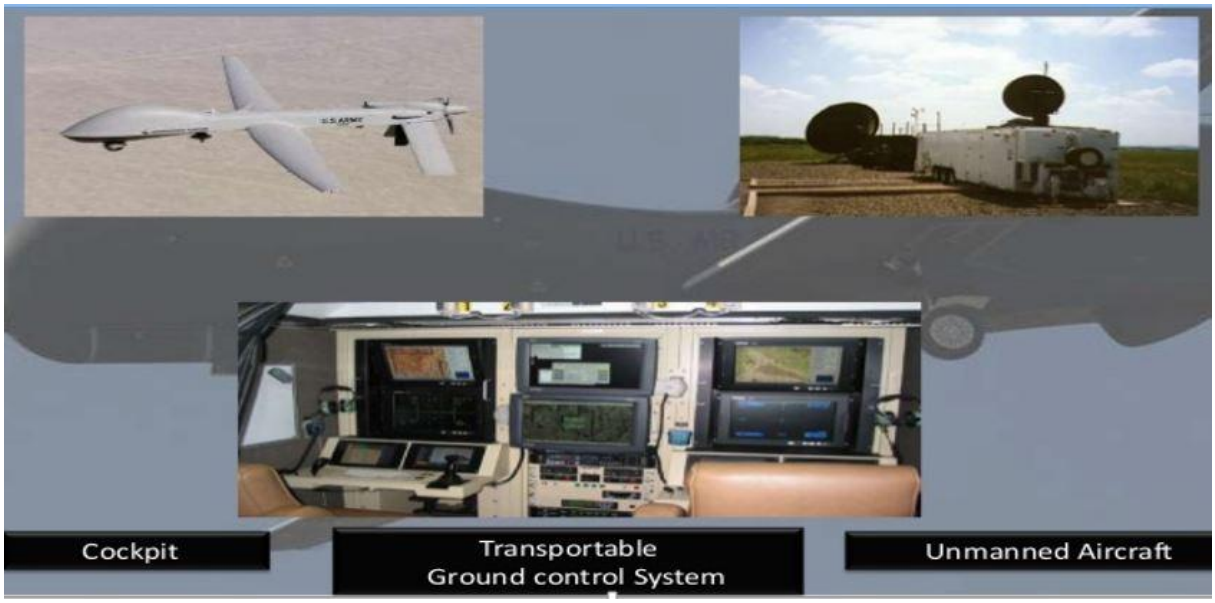

Fig 6 working of unmanned areal vehicle

a)Air-DRONE (Dynamic Remotely Operated Navigation Equipment) – It is a defense equipment uses to remotely kill enemy and use in Anti-Terrorist activity and also to guide borders.

Fig 7 Air Drone

b) Underwater –DRONE - This similar to air drone, only the Difference is that, this drone is used for under water Operation.

Fig 7 Underwater Drone

c) Bombers/Gliders – This is self-destruction device used for mass destruction .This type of vehicle is Nuclear Capable .Generally made for war.

Fig 8 Auto-Glider

V. ADVANTAGES AND DIS-ADVANTAGES

ADVANTAGES-

1] It uses pre-programmed automatic function hence human errors are avoided.

2] In automobiles it makes drive smooth and conformable.

3] Road accidents are avoided.

4] Operations are remotely trackable and controllable.

5] They are smart and efficient.

6] Drones are useful for causing mass destruction of enemy without causing any causality to operator.

7] Classified and Anti-Terrorist operations are performed from Secret Remote locations.

DISADVANTAGES-

1] About 50 Lakh people globally predicated to become jobless If Automatic-Cars are introduced.

2] High initial cost is required.

3] In case of error caused by single individual train, the complete system stops.

4] It can be used against humanity, to kill innocent people.

5] System can be hacked and miss-used.

6] Only specific countries have license from U.N (UNITED NATIONS) to use this type of automatic weapons.

VI. CONCLUSION

The driverless car technology helps to minimize loss of control by improving vehicle's stability as these are designed to minimize error by using computerized control, which reduces driving error, miss -signaling. This technology will have ever increasing demand in near future.

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