“Representation of Radar by using GUI”

1. Relevance:

While analyzing the project we thought about the importance and significance of this model. GUI based Radar Technology has become extremely important in today’s world. The GUI based radar technology helps to guide the fighters which are on ship, on the aircraft and in territories. This GUI based technology also helps us in electronics, clothing and to show how we can count the products in the big stores. The project aims to create a GUI software implementation of radar display which accepts the display data received from the control and plots it on the display using 2d visualization.

2. Literature Review:

In 1886, Heinrich Hertz demonstrated the Radar system practically and the era of radio communication, radar was born.

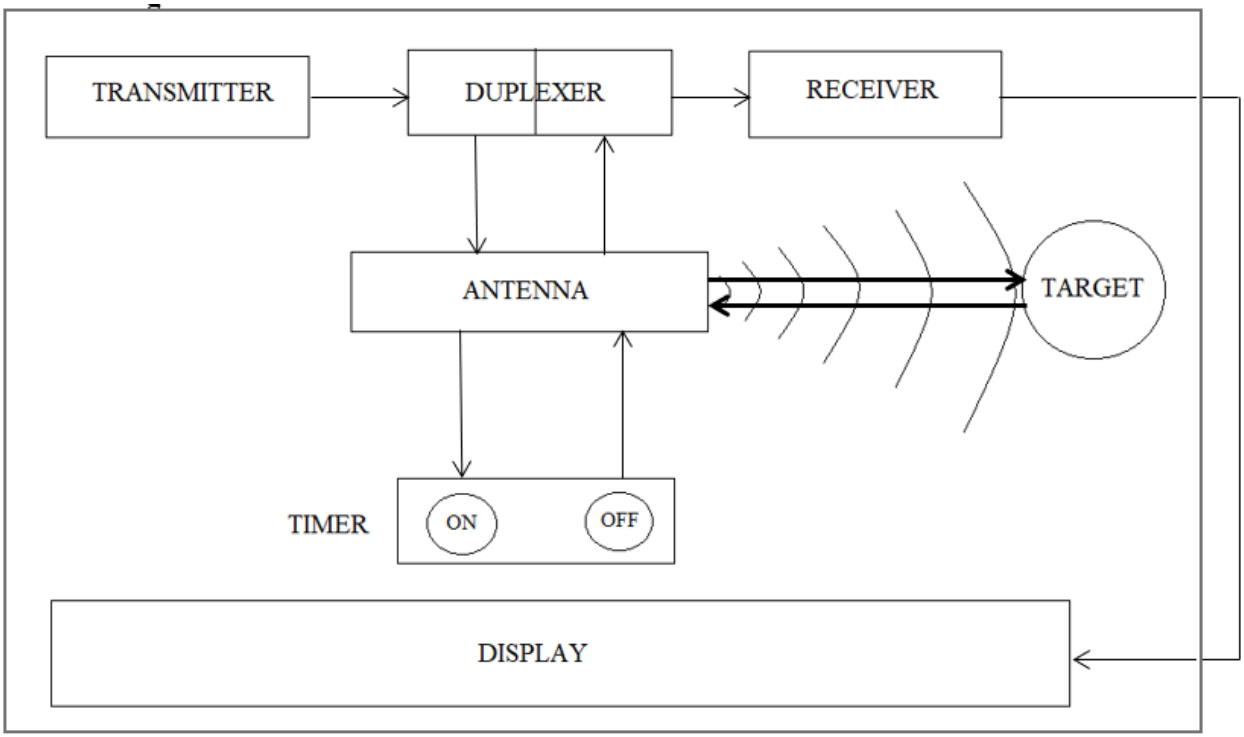
The Graphical User Interface developed in late 1970’s by the Xerox Palo Alto research laboratory and developed commercially in Apple’s IOS and Microsoft windows operating systems.

For demonstration of radar by using GUI we got an idea about this project. So that we referred the above information of above concepts from the internet.

3. Problem identification:

In today’s world as the advancement in technology is increasing the misuse of it is growing. For example, consider unauthorized entry of vehicle in another nation or launching missiles attack secretly which might pose a great treat to people in that nation. So all these problems can be reduced with the help of radar and people should know the importance of radar and how its work.

4. Block Diagram:



5. Experimental Setup: (If Any)

A Desktop/Laptop with-

- Intel core i3 or above microprocessor
- 2GB and above RAM
- 160 GB and above hard disk
- C compiler

6. Objective & Scope of Project:

Objective of this project is to show the actual working of radar system by using graphical user interface that capable of monitoring a prohibited area. This visual model shows how ultrasonic sensing technology senses the target, how to measure the distance of target.

7. Scope of project:

The scope of this project is up to development and enhancement in GUI which is used to demonstrating this project.

8. Proposed work:

1. Formation of group
2. Searching of topic.
3. Collect relevant data for the miniproject.
4. Created a program to accomplish the task of software in which we can give an input and by running the program we get a required Output. (i.e. - By using GUI).

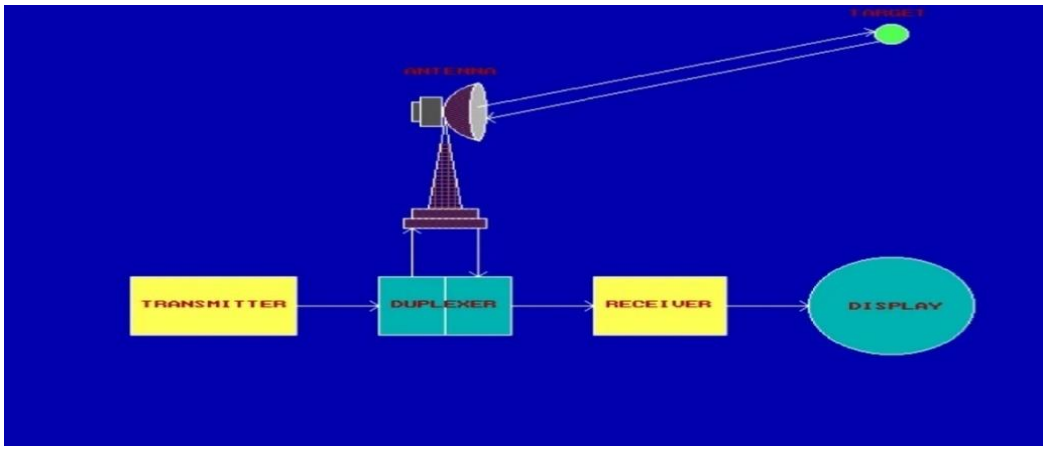
9. Motivation for work:

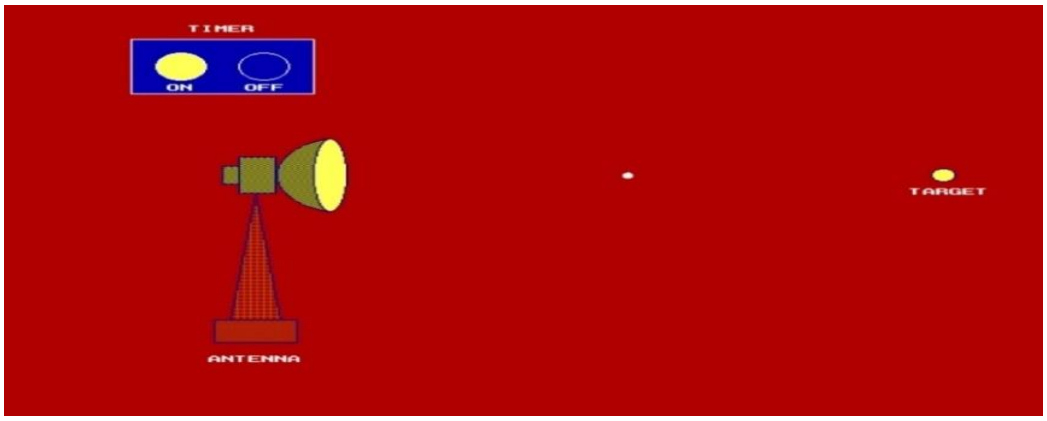
To represent graphically weather this visual model detects the objects and the targets come into its range properly or not.

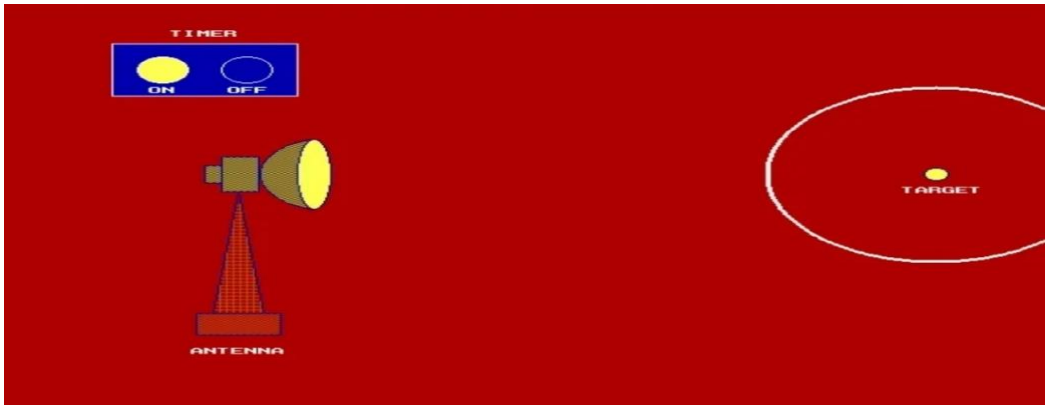
10. Expected Outcome:

By using C language and GUI (i.e.-graphical user interface) we run the program and we get the output (i.e. - working representation of Radar system visualization.)

OUTPUT DEMO:


TARGET
ANTENNA
TRANSMITTER
DUPLEXER
RECEIVER
DISPLAY


TIMER
ON
OFF
TARGET
ANTENNA


TIMER
ON
OFF
TARGET
ANTENNA


Antenna
LOW STRENGTH ECHO
Radiation Pattern
HIGH STRENGTH ECHO
LOW STRENGTH ECHO

11. Expected Date of Completion : 31 July 2021

12. References:

1. https://bestengineeringprojects.com/computer-projects/c-based-project

2. https://www.slideshare.net/vishnuchiluka/ultrasonic-radar.