

One day Seminar on “Applications of Radar”

12th MARCH, 2018

ANAND

INTRODUCTION:

IAS-PES Joint Chapter, IEEE GCET SB hosted a PowerPoint Presentation Competition on Applications of Radar on 12th March, 2018 for 4th year EC students. They were judged by Dr. Falgun Thakkar and Prof. Mayank Ardeshana.

The event was scheduled from 10:30 AM to 1:00 PM

The competition was voluntarily supported by IEEE student branch.

11 groups, of two students each had given their presentation.



The presentation started at 10:30 AM. The 1st group's topic of presentation was Weather Radar. They discussed about the weather radar, which is used to locate precipitation, calculate its motion, and estimate its type. Modern weather radars are mostly pulse-Doppler radars, capable of detecting the motion of rain droplets in addition to the intensity of the precipitation. They also covered how it works, how to use it and its limitations.



The 2nd group gave the presentation on GPS (Global Positioning System). They informed that GPS system was launched in the United States in 1973 to overcome the limitations of previous navigation systems, integrating ideas from several predecessors, including a number of classified engineering design studies from the 1960s. They discussed its components, GPS satellite vehicle and about the working of the GPS system, its performance and its applications.



The 3rd group gave the presentation on Bistatic Radar. They discussed about the need of Bistatic radar, its block diagram, its applications, advantages and disadvantages. The 4th group gave the presentation on ATC (Air Traffic Control). They discussed about the need of ATC, ATC tower, air surveillance radar and IFF (Identification Friend or Foe) system



The 5th group discussed about the applications of radar in military, remote sensing, ATC, aircraft safety and navigation, ship safety and spaceships. The 6th group gave the presentation on airport radar system. They discussed about the basic operation of radar, airport surveillance radar systems, IFF system, precision approach radar and digital airport surveillance radar. The 7th group gave the presentation on SONAR and tracking. They discussed about the meaning of SONAR, its types, SONAR signal processing, its working, factors affecting its performance and its applications.



The 8th group also gave the presentation on SONAR. They particularly discussed about the history of SONAR, its working, its applications and limitations. The 9th group gave the presentation on ship safety system. They discussed about the use of radar in ships for collision prevention and navigation. The 10th group gave the presentation on ASR (Airport Surveillance Radar). They discussed about the meaning of ASR, its goal, working, ATC system. The last group gave the presentation on pulse Doppler radar. They discussed about its block diagram, its working and its applications. The presentation competition concluded at 01:00 PM.

