

EVENT

Name of the Event: Technical Visit and talk on Passive Radar Antenna

College Name: EPCET

Department: ECE

Date & Time: 15TH Dec.2021 10.00AM

Name of the Resource Speaker(Full name with designation) : Dr. O C Vishnu
Scientist F, LRDE,
Bengaluru

Principal Name: Dr.T K Sateesh

Event: Proceedings in detail

1.1.Introduction about the event

Passive coherent location radar technology is being developed by LRDE(DRDO). This technology exploits existing FM radio transmissions to detect and aerial targets. As part of this development activity, one of the receive stations has been installed on the roof top of Department of Electronics and communication Engineering , East Point College of Engineering and Technology, Bengaluru. It consists of an Antenna , digital receiver and signal processor.

The premises has been provided by East Point College of Engineering and technology as part of DRDO-ACADEMIA synergy.

2. How the event started: During the inauguration, the other dignitaries present along with the Chief Guest Shri. O C Vishnu, Scientist F, LRDE, DRDO Dr. S R Shankapal, Executive Director, EPGI, Dr. T K Sateesh, Principal, EPCET, Dr. G S Yogesh, HOD and Faculties from Dept. of ECE, EPCET.

3. Highlights of the topic:



PCL radars are a variation of bistatic radars, which are radars in which the transmitter and receiver are not colocated.

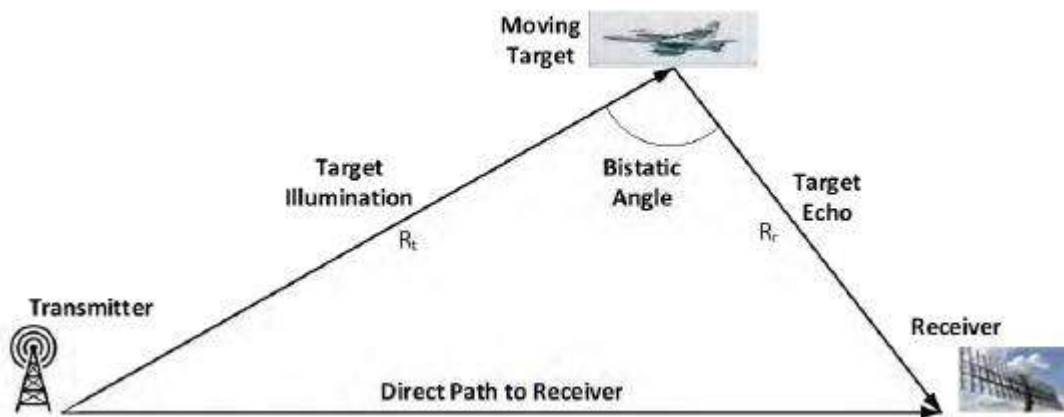
This is in contrast to the more common monostatic radars having a transmitter that is colocated with or near the receiver.

The unique feature of PCL radars is their use of signals of opportunity.

Signals of opportunity can be radio or TV broadcasts, including both analog and digital TV, mobile telephone networks, local area networks, and even satellite transmissions.

The most common transmitters used in existing PCL systems are FM radio stations.

They are available worldwide, and the signal bandwidth (50–100 kHz) and power (typically, 100–250 kW) are adequate. Digital TV signals are also commonly used in areas where they are available.



4. What did students learn

Students have gained the knowledge about PCLR working principles

5. Students response/feedback: Good

6. Vote of thanks: Dr.Yogesh G S Professor & Head, ECE

Objective of the Event: The objective of establishing PCLR Lab is to collect and analyse passive sensor data and development of algorithm for pre-processing of received data for distributed passive systems. The data to be analysed on day to day basis with passive sensors and to study on wave form suitability for passive sensor.

Highlights about the topic: advised students to pursue research to gain knowledge and earn a degree and not consider it as a certificate that will fetch jobs

2. **Usefulness/ Applications:** Useful for both faculties and students to learn about the passive radar applications.

GALLERY

