

Course/Topic: RS/ Radar receivers

Course Outcome:

Activity Chosen: Seminar

Faculty: V.Balaji

Seminar : The transmit and receive antennas are at different locations as viewed from the target (e.g., ground transmitter and airborne receiver).

- Monostatic: The transmitter and receiver are colocated as viewed from the target (i.e., the same antenna is used to transmit and receive).
- Quasi-monostatic: The transmit and receive antennas are slightly separated but still appear to be at the same location as viewed from the target (e.g., separate transmit and receive antennas on the same aircraft)..

Details of the Implementation:

Normal radar functions: 1. range (from pulse delay) 2. velocity (from Doppler frequency shift) 3. angular direction (from antenna pointing) • Signature analysis and inverse scattering: 4. target size (from magnitude of return) 5. target shape and components (return as a function of direction) 6. moving parts (modulation of the return) 7. material composition • The complexity (cost & size) of the radar increases with the extent of the functions that the radar performs.

