

**Guest Lecture Report on
"Applications of Radar Systems"**

By

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Under IETE, ISF-NNRG Professional chapter

The guest lecture was conducted by the department of E.C.E on 10th February, 2015. It was organized under the professional chapter of IETE.

In Lecture Session Mr.P. Santosh Kumar discussed about

Fundamentals of radar systems:

radar basics, pulsed radar, detecting and ranging, range ambiguity, receiver components and processing, Doppler radar, Doppler ambiguity, CW radar components.

Radar Sensitivity:

radar equation derivation and applications for point, area and volume targets, radar losses, radio and receiver noise.

Radar Antennas

Directivity, gain, illumination, antenna patterns, aperture antennas, phased arrays

Scattering processes:

radar cross section Rayleigh Mie Geometric Bragg rough surfaces polarization radar cross section, Rayleigh, Mie, Geometric, Bragg, rough surfaces, polarization, propagation

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