

## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Electrical Engineering - NOC:Analysis and Design Principles of Microwave Antennas

Subject Co-ordinator - Dr. Amitabha Bhattacharya

Co-ordinating Institute - IIT - Kharagpur

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Concept of Scalar and Vector Potentials
- Lecture 2 - Radiation From a Current Element (Hertzian Dipole)
- Lecture 3 - Specific Properties of the Radiated Fields from a Current Element
- Lecture 4 - General Properties of Radiated Fields from an Antenna
- Lecture 5 - Farfield and Radiation Pattern of an Antenna
- Lecture 6 - Directivity and Gain of an Antenna
- Lecture 7 - Idea of Efficiency, Beamwidth, Polarisation and Bandwidth
- Lecture 8 - Polarization of Antenna
- Lecture 9 - Impedance of Antenna
- Lecture 10 - Effective Aperture of an Antenna
- Lecture 11 - Friss Transmission Equation and Antenna Temperature
- Lecture 12 - Dipole And Monopole Antena
- Lecture 13 - Dipole And Monopole Antena (Continued...)
- Lecture 14 - BALUN
- Lecture 15 - Loop Antenna
- Lecture 16 - Folded Dipole Antenna
- Lecture 17 - Introduction to Antenna Array
- Lecture 18 - Antenna Array Theory
- Lecture 19 - Broadside Uniform Linear Array
- Lecture 20 - Endfire Linear Uniform Array
- Lecture 21 - Parasitic Array and Log Periodic Antenna
- Lecture 22 - Analysis Procedures of Aperture Antennas
- Lecture 23 - Analysis Procedures of Aperture Antenna (Continued...)
- Lecture 24 - Horn Antenna
- Lecture 25 - Horn Antenna (Continued...)
- Lecture 26 - Reflector Antennas
- Lecture 27 - Paraboloid Reflector Antenna (Continued...)
- Lecture 28 - Paraboloid Reflector Antenna (Continued...)
- Lecture 29 - Dual Reflector Antenna

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- Lecture 30 - Generalised Analysis of Antenna
- Lecture 31 - Solution of Wave Equation for Electric and Magnetic Current Densities
- Lecture 32 - Farfield Evaluation of Spherical Wave Radiation by Generalised Antenna
- Lecture 33 - Slot Antenna
- Lecture 34 - Open Ended Waveguide Antenna and Microstrip Antenna
- Lecture 35 - Numerical Evaluation of Wire Antenna Currents
- Lecture 36 - Solution of Intregal Equation by Moment Method
- Lecture 37 - Array Pattern Synthesis
- Lecture 38 - Array Pattern Synthesis (Continued...)
- Lecture 39 - Ultra Wideband Antennas
- Lecture 40 - Antenna Measurements