

Radio wave Engineering lecture schedule

Textbook: Time-Harmonic Electromagnetic Fields (Chapter 1 and 2) by Roger F. Harrington, a Classical Reissue John Wiley & Sons, INC.

- Week 1 Introduction to radio waves.
- Week 2 Maxwell equation, vectors and differential equations.
- Week 3 Continuation of week 2.
- Week 4 Method to eliminate time functions involved in Maxwell equation
- Week 5 Constitutive relationship, velocity of radio waves, and the dielectric loss angles
- Week 6 The wave equation.
- Week 7 Derivation of a plane wave.
- Week 8 Continuation of Week 7.
- Week 9 Various characteristics of plane waves.
- Week 10 Standing waves.
- Week 11 Polarization, and circularly polarized waves.
- Week 12 Basic concept of reflection.
- Week 13 Derivation of Brewster angle.
- Week 14 Relationship between TV ghost signals and radio wave propagation.
- Week 15 Finals.