CHAPTER OVERVIEW

7: Time Dependent Electromagnetic Fields.

Chapters 2-5 treated the problem of how to calculate electric and magnetic field distributions given time independent charge and current distributions. This chapter discusses the more general problem of how to calculate electric and magnetic fields given time varying charge and current distributions. It turns out that the solution to this general problem is most easily developed using the scalar and vector potentials discussed in chapters 2 and 4. By way of example, the formalism is applied to the generation of radio waves by currents flowing in an antenna, and to the generation of light waves by oscillating atomic dipole moments.

General Reference: The Feynman Lectures in Physics, Vol.(II), by R.P.Feynman, R.B.Leighton, and M.Sands, Addison Wesley, Reading, Mass., 1964.
