

TCIS, Hyderabad

Course: Classical Electrodynamics- I

Start Date:

Coordinates:

Instructor: Prof. Subhasish Dutta Gupta

Syllabus:

- Single charged particles in E and B fields
- Electrostatic fields, potentials, energy and forces
- Analytical and numerical ways of solving electrostatic potential problems
- Idealized and real charge distributions and their potentials
- Current distributions and magnetic fields
- Magnetic materials
- Maxwell's equations, EM waves and their propagation in free space and in media.
- EM waves in confined spaces

References Books:

1. David J. Griffiths : Introduction to Electrodynamics (Prentice Hall) – 2 Nos
2. J.D. Jackson : Classical Electrodynamics (John Wiley) – 2 nos
3. R.P. Feynman, R.B. Leighton, M.Sands : Lectures on Physics (Addison – Wesley)
– 2 nos

Evaluation Method:

Assessment: 40% assignments + 60% Final exam