

**PH-111 Basic Physics for Architects**

**Sound:** Wave motion, simple harmonic motion, longitudinal waves; inverse square law of sound, reverberation, seismic waves, transverse waves stationary waves, forced and free vibrations, resonance, and beats.

**Light:** Nature of light, superposition of waves, reflection, refraction, Huygens's principle, interference, interferometer, dispersion, prism, biprism, diffraction, diffraction grating, polarization, illuminance, spectrophotometry, electric light source; conditions for good illumination.

**Modern Physics:** Inadequacy of classical physics. Planck's explanation of black body radiation, photoelectric effect; Compton effect, Bohr theory of hydrogen atom, atomic spectrum, reduced mass, De-Broglie hypothesis, Bragg's Law, electron microscope, atomic nucleus, mass energy relation, binding energy, nuclear forces, nuclear radiation hazards and safety; medical uses of nuclear radiation; fission; energy release; nuclear reactors, breeder reactors, nuclear fusion.