

Illumination Engineering - Video course

Radiation, colour, eye & vision; different entities of illuminating systems; Light sources: daylight, incandescent, electric discharge, fluorescent, arc lamps and lasers; Luminaries, wiring, switching & control circuits;

Laws of illumination; illumination from point, line and surface sources. Photometry and spectrophotometry; photocells. Environment and glare. General illumination design.

Interior lighting – industrial, residential, office departmental stores, indoor stadium, theater and hospitals. Exterior lighting- flood, street, aviation and transport lighting, lighting for displays and signaling- neon signs, LED-LCD displays beacons and lighting for surveillance.

Utility services for large building/office complex & layout of different meters and protection units. Different type of loads and their individual protections. Selection of cable/wire sizes; potential sources of fire hazards and precautions. Emergency supply – stand by & UPS. A specific design problem on this aspect

- 1) Radiation & colour (2 Lectures)
- 2) eye & vision (2 Lectures)
- 3) different entities of illuminating systems (2 Lectures.
- 4) Light sources: daylight, incandescent, electric discharge, fluorescent, arc lamps and lasers – 4 Lectures
- 5) Luminaries, wiring, switching & control circuits – 3 Lectures
- 6) Laws of illumination; illumination from point, line and surface sources – 2 Lectures
- 7) Photometry and spectrophotometry; photocells – 2 Lectures
- 8) Environment and glare – 2 Lectures.
- 9) General illumination design – 2 Lectures.
- 10) Interior lighting – industrial, residential, office departmental stores, indoor stadium, theater and hospitals – 4 Lectures.
- 11) Exterior lighting- flood, street, aviation and transport lighting, lighting for displays and signaling- neon signs, LED-LCD displays beacons and lighting for surveillance 4 Lectures.
- 12) Utility services for large building/office complex & layout of different meters and protection units – 3 Lectures.
- 13) Different type of loads and their individual protections – 2 Lecture.
- 14) Selection of cable/wire sizes; potential sources of fire hazards and precautions. Emergency supply – stand by & UPS - 4Lectures.
- 15) A specific design problem on this aspect - 2 Lectures.



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