

CE/BOS/ CE 631/0513

**K L UNIVERSITY
INDUSTRIAL STRUCTURES (11 – CE 631)**

SYLLABUS

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PLANNING AND FUNCTIONAL REQUIREMENTS

Classification of Industries and Industrial structures - planning for Layout Requirements regarding Lighting, Ventilation and Fire Safety – Protection against noise and vibration - Guidelines of Factories Act.

INDUSTRIAL BUILDINGS

Roofs for Industrial Buildings - Steel and RCC - Gantry Girders - Design of Corbels and Nibs – Machine foundations.

POWER PLANT STRUCTURES

Types of power plants – Design of Turbo generator foundation – containment structures.

POWER TRANSMISSION STRUCTURES

Transmission Line Towers - Substation Structures - Tower Foundations - Testing Towers.

AUXILLIARY STRUCTURES

Chimneys and Cooling Towers – Bunkers and Silos – Pipe supporting structures.

Text Books:

1. Manohar S.N, “Tall Chimneys - Design and Construction”, Tata McGraw Hill, 1985
2. Santha kumar A.R. and Murthy S.S., “Transmission Line Structures”, Tata McGraw Hill, 1992.
3. Srinivasulu P and Vaidyanathan.C, “Handbook of Machine Foundations”, Tata McGraw Hill, 1976.
4. Jurgen Axel Adam, Katharria Hausmann, Frank Juttner, Klauss Daniel, “Industrial Buildings: A Design Manual”, Birkhauser Publishers, 2004.
5. Proceedings of Advanced course on “Industrial Structures”, Structural Engineering Research Centre, Chennai, 1982.