Course No.	CE 194001
Course Title	Construction Equipment, Methods and Technology
Credits	L T P Cr 3 0 0 3
Prerequisites	-

# **Course Contents:**

# **Construction Equipment**

Equipment for excavation, drilling, tunneling, material movement, material laying and heavy lifting

# **Building Construction**

Building Components: Roof, Floor, Walls, Joints in masonry, Foundations, Lintels and arches, Basement, Services such as water and sewerage systems, Stairs, Doors, Windows and Ventilation, Temporary works, Other finishing items

### Construction of other structures and infrastructure facilities

Water tank, Retaining wall, Industrial structures, Bridges, Chimney, Pavement, Construction dewatering and underwater construction, Construction and maintenance of drainage works, Excavation supports, formwork for construction

# **Methods and Technologies in Construction**

Pre-cast concrete, Prestressed concrete construction, Modular construction, Structural and foundation retrofitting

#### Reference / Text Books

- 1. Roy Chudley, Roger Greeno, Simon Topliss and Mike Hurst, Construction Technology, Pearson Publishers
- 2. Tony Bryan, Construction Technology: Analysis and Choice, Blackwell Publishing
- 3. William P. Spence and Eva Kultermann; Construction Materials, Methods and Techniques: Building for a Sustainable Future, Cengage Learning
- 4. S. C. Sharma, Construction Equipment and Management, Khanna Publishers
- 5. Robert Peurifoy, Chifford J. Schexnayder and Aviad Shapira; Construction Planning, Equipment and Methods, McGraw Hill Education
- 6. G. C. Sahu and Jena Joypal, Building Materials and Construction, MC Graw Hill Publication
- 7. Relevant Standards / Codes
- 8. Recent technical literature on related topics

### Any other Remarks: