



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

PROJECT PLANNING LABORATORY								
VII SEMESTER: CE								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
ACEC45	Core	L	T	P	C	CIA	SEE	Total
		0	0	3	1.5	30	70	100
Contact Classes: Nil	Tutorial Classes: Nil	Practical Classes: 36			Total Classes: 36			
Prerequisite: No prerequisites required								
I. COURSE OVERVIEW:								
<p>This course deals with the application of scientific and technical knowledge to the processes used to construct infrastructure projects. This instructional program is highly interdisciplinary and aims at developing strong abilities to conduct construction engineering and management work involving basic concepts and principles, technical analysis, planning, design, and management, and the development of knowledge that positively impacts the construction industry. The program provides the student with skills in planning, designing, and implementing construction processes and systems. The course provides both a broad awareness of construction concepts and an understanding of scientific and technical knowledge to address construction problems.</p>								
II. COURSE OBJECTIVES:								
The Students will try to learn:								
<ol style="list-style-type: none"> I. The concepts of the construction techniques, equipment, project feasibility and project planning through site visits. II. The Basic tools knowledge software in MS project and advances in construction. III. The work flow of construction activities and cash flow analysis. IV. The allocation of resources, planning, scheduling of the construction and tendering process. 								
III. COURSE SYLLABUS:								
Week- 1: SITE VISIT-I								
Site visit to study the construction techniques and use of major construction equipment associated with the ongoing work. Report on the site visit to be submitted.								
Week- 2: MS PROJECT BASICS								
To learn Basics knowledge on MS Project Software.								
Week- 3: NEW ADVANCES IN CONSTRUCTION								
Collection of techno- commercial information on the new construction materials, methods and construction equipment available in the market.								
Week- 4: WORK FLOW OF CONSTRUCTION ACTIVITIES								
Performing and reporting of time and motion study work measurement of any one construction activity								
Week- 5: QUANTITY ESTIMATION AND PURCHASE								
Field exercise on estimation of quantities and bulk purchases								
Week- 6: PRECEDENCE NETWORK								
Preparation, crashing and updating of precedence network for a major construction work.								
Week- 7: CASH FLOW ANALYSIS								
Exercise on cash flow analysis								

Week- 8: MODEL PREPARATION

Preparation of models and charts related to various construction techniques, equipment, organizational structures of existing companies. This is a group activity to generate interest and explore creativity.

Week- 9: RESOURCES ALLOCATION USING MS PROJECT

Exercise on Industrial Building Project resources allocation in MS Project

Week- 10: PROJECT PLANNING AND SCHEDULLING

Exercise on Hospital Building Project planning and scheduling in MS Project

Week- 11: TENDERING

Collection and study of tender notices, tender documents of contract document associated with civil engineering works.

Week- 12: VALUATION

Valuation of land and building using various methods. A report to be submitted on the same.

IV. TEXT BOOKS:

1. K.S.Menon, "Purchasing and Inventory Control", Wheeler Publication, 1996.
2. Peurifoy, "Construction Planning, Equipment and Method", Tata McGraw-Hill, 2010.

V. REFERENCE BOOKS

1. Dr. MaheshVarma, "Construction Equipment Planning and Applications", Metropolitan Book Co., 1975.
2. Bohlander and Shnell, "Managing Human Resources", Paperback, 2012.
3. BiswajeetPattanayak, "Human Resource Management", PHI Learning, 3rd Edition, 2010.

V. WEB REFERENCES:

<http://www.iare.ac.in>