

## **ME-702 Elective –II ME-702 (B) – Project Management**

**Unit 1 Concepts of project management::** Meaning, definition and characteristics of a project, technical and socio-cultural dimensions; project life cycle phases, project planning and graphic presentation; work breakdown structure, manageable tasks; size of network; blow down NW; identity and logic dummy activity; Fulkerson rule for numbering NW; time-scaled NW

**Unit-2 NW analysis:** PERT network; mean time and variances; probability to complete PERT project in specified time; CPM network; Event Occurrence Time (EOT); activity start/ finish times; forward and reverse path calculations, concept and calculation of floats; resource allocation and critical-chain; overview of MS-project-2000.

**Unit-3 Project duration and control:** Importance and options to accelerate project completion; timecost tradeoff; fixed variable and total costs; use of floats and cost optimization; project performance measures; project monitoring info and reports; project control process; Gant chart and control chart; cost-schedule S-graph; planned cost of work schedule (PV), budgeted/ earned cost of work completed (EV) and actual cost of work completed (AC); schedule and cost variances (SV, CV) forecasting final project costs.

**Unit-4 Project organization, culture and leadership:** projects within functional organization; dedicated project/ task-force teams; staff, matrix and network organization; choosing appropriate project organization; Organization culture; ten characteristics; cultural dimensions supportive to projects; social network and management by wandering around (MBWA); different traits of a manager and leader; managing project teams; five stage team development model; shared vision; conflicts; rewards; rejuvenating project teams; project stakeholders; concept of project partnering.

**Unit-5 Strategic planning and project appraisal:** Capital allocation key criteria; Porters competitive strategy model; BCG matrix; Strategic Position Action Evaluation (SPACE); time value of money; cash flows; payback period; IRR; cost of capital; NPV; social cost benefit analysis; UNIDO approach; project risks and financing.

### **References:**

1. Prasana Chandra: Projects: planning Implementation control; TMH.
2. Gray Clifford F And Larson EW; Project The managerial Process; TMH
3. Panneerselvam and Serthil kumar; Project management, PHI
4. Burke ; Project Management-Planning and control technics; Wiley India
5. Kamaraju R; Essentials of Project Management; PHI Learning
6. Jack R. Meredith, Project Management: a managerial approach, Wiley.
7. Choudhary ;Project Management; TMH
8. Srinath LS; PERT And CPM Principles and Appl; East West Press
9. Richman L; Project Management: Step By Step; PHI Learning
10. United Nations Industrial Development Organisation, Guide to practical project appraisal - social benefit cost analysis in developing countries, oxford & ibh