

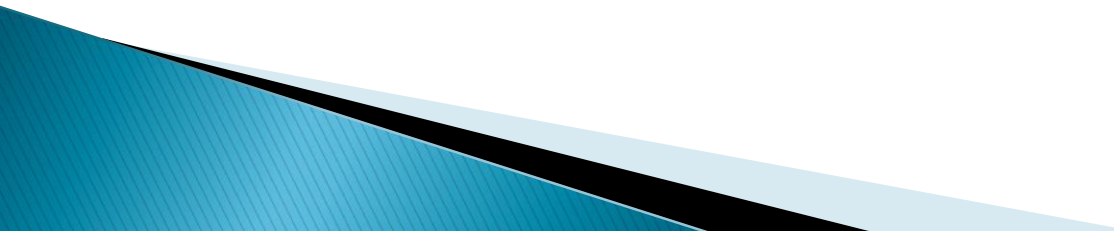
- ▶ **S.T.E.T WOMEN'S COLLEGE MANNARGUDI**
- ▶ **PG AND RESEARCH DEPARTMENT OF COMMERCE**
  - ▶ **II M.COM**
  - ▶ **SUBJECT: PROJECT MANAGEMENT**
    - ▶ **SUBJECT CODE: P16MCE5A**
    - ▶ **STAFF NAME: DR.D.SUPULAKSHMI**

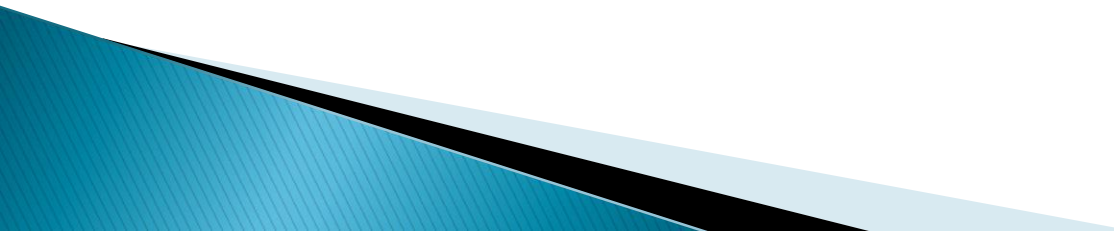
## ▶ UNIT-4

### ▶ PROJECT MANAGEMENT

#### ▶ Definition

- ▶ **Project management** *is the application of processes, methods, skills, knowledge and experience to achieve specific project **objectives** according to the project acceptance criteria within agreed parameters. Project management has **final deliverables** that are constrained to a finite timescale and budget.*

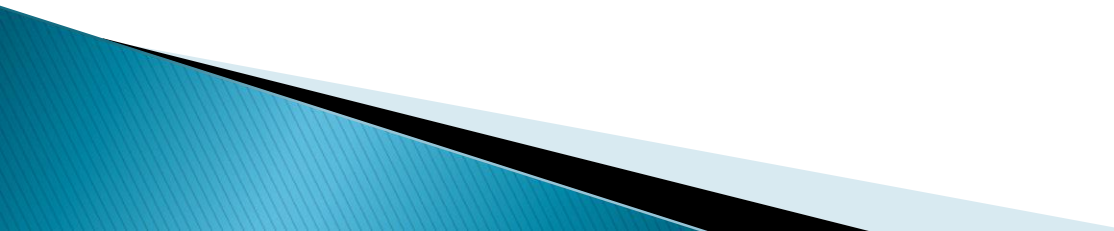
- ▶ **Introduction to Project Planning and Scheduling**
  - ▶ ‘Project Planning and Scheduling’, though separate, are two sides of the same coin in project management. Fundamentally, ‘Project planning’ is all about choosing and designing effective policies and methodologies to attain project objectives. While ‘Project scheduling’ is a procedure of assigning tasks to get them completed by allocating appropriate resources within an estimated budget and time-frame.
- 

- ▶ The basis of project planning is the entire project. Unlikely, project scheduling focuses only on the project-related tasks, the project start/end dates and project dependencies. Thus, a ‘project plan’ is a comprehensive document that contains the project aims, scope, costing, risks, and schedule. And a project schedule includes the estimated dates and sequential project tasks to be executed.
- 

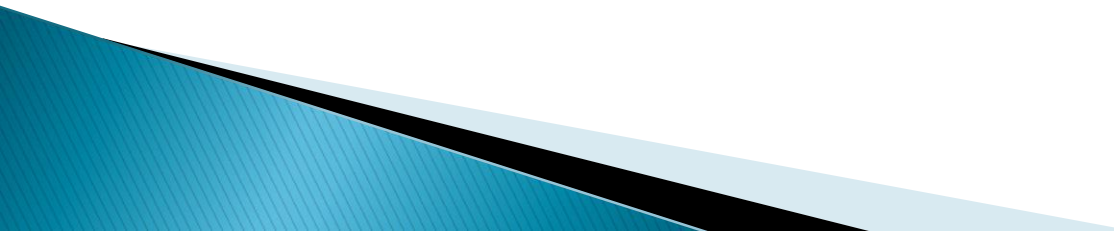
- ▶ **Project Planning**

- ▶ The project planning phase refers to
- ▶ Developing a project to make it ready for investment
- ▶ Determines the jobs/tasks required to attain project objectives

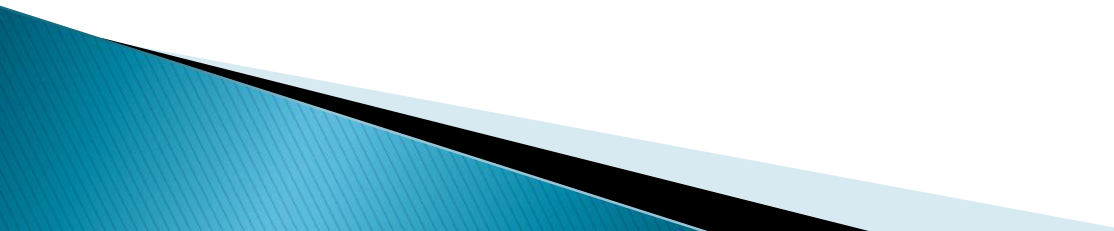
- ▶ **Stages of Project Planning**

- ▶ The project planning stages are enlisted below:
  - ▶ Identifying the key project sponsors and stakeholders, to determine the basis of project scope, budget, and time-frame for project execution.
  - ▶ Upon enlisting the stake-holder requirements, prioritizing/setting project objectives.
  - ▶ Identifying the project deliverables required to attain the project objectives.
  - ▶ Creating the project schedule.
  - ▶ Identifying the project risks, if any, and develop suitable mitigation plans.
  - ▶ Communicating and presenting the project plan to stakeholders.
- 

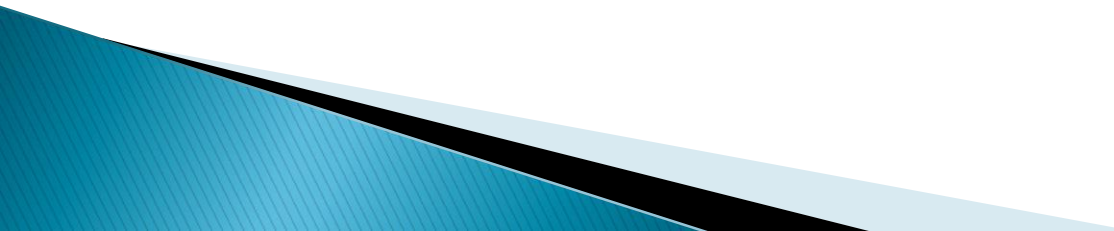
## ▶ **Benefits of Project Planning**

- ▶ **Route-Map:** The project plan offers a road-way that gives direction to the project from start to end.
  - ▶ **Documentation of Customer Requirements:** A well-articulated project plan enables the record of the requirements of the customers in a documented form. This provides a precise direction instead of relying on assumptions, which could be incorrect and may lead to project errors.
  - ▶ **Task Autonomy:** Planning enables one to assign tasks to specific team members and gives autonomy. The team feels a sense of responsibility and ownership of the success or failure of a project. Consequently, it urges them to work better or encourages them to bring inconsistent results.
  - ▶ **Resource Estimation:** Planning is vital as in a way, it enables us to estimate resources, costing and time. It gives a judgment of any delays if several members are working on various projects at a time.
  - ▶ **Mitigation Plan:** The project plan gives a way to forecast risks, if any, and plan for mitigation strategies accordingly.
  - ▶ **Identification of Employee Capabilities:** The planning phase enables to identify employees with certain skill-sets or expertise. And as the tasks get assigned, team members get trained on a lacking skill-sets or either upgraded on the ones they possess.
  - ▶ **Strengths and Short-Comings of Previous Projects:** Project plans also help to analyze and improve or learn from the previous project records and facilitate decision-making.
- 

## ▶ **Project Scheduling**

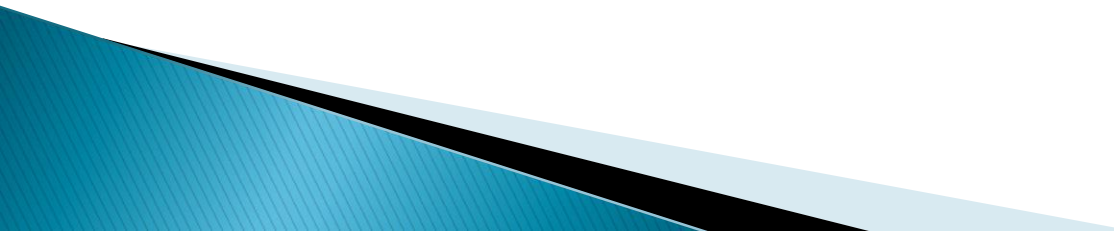
- ▶ The project scheduling phase refers to:
  - ▶ Estimation of human resource and material requisite at every stage of the project; and approximate calculative time to complete each of these tasks.
  - ▶ Indicates the start and end date of each project task and logical connectivity among various project tasks/activities.
- 

## ▶ **Stages of Project Scheduling**

- ▶ The project scheduling stages are outlined below
  - ▶ Based on the project scope, design and develop the TBS (Task-Breakdown Structure).
  - ▶ Identify the project-related tasks.
  - ▶ Identify human resources and material requisite
  - ▶ Evaluate the approximate time required for each and every task
  - ▶ Allocation of resources
  - ▶ Analyze the detailed schedule
  - ▶ Monitor and govern the schedule
- 



## ▶ **Benefits of Project Scheduling**

- ▶ **1.Lead Time:** The project schedule gives an outline of the tasks that are to be completed on a priority basis or simultaneously with other tasks. This keeps the team members notified **Reduces** about it and prevents any delays or postponing of tasks, thus reducing the lead time.
  - ▶ **2.Cost Reductions:** It enables to monitor of the resources by preventing the overlapping of tasks. It also leads to the effective utilization of resources and returns the unconsumed resources in time, thus cutting costs.
- 

- ▶ **3.Facilitates Productivity:** Upon evaluating logical connectivity between the tasks, resources that are not optimally utilized can be assigned on extra tasks, thus enhancing productivity.
- ▶ **4.Foresee problems in Advance:** A precise project schedule enables one to foresee any problems in advance pertaining to either, under or over-utilization, of resources and ensures optimum consumption of the same.
- ▶ **5.Sets a Goal:** A project schedule allows us to set goals, short-term or long-term, providing a direction and vision while executing the project. It also makes everyone in a team aware of the guidelines and methods to attain these goals. Without a schedule, the project would be vaguely defined. Thus, making it cumbersome to manage and organize the tasks so as to run it successfully.
- ▶ **6.Current Progress Updates and Alerts:** The project schedule is a sketch that gives way to the project. A project might go through certain challenges, however, if there is no route map, how would a project move in the right direction? In such a case, a project schedule helps in assessing how off-track a project has been and possible ways to bring it in the correct direction.



## ▶ **Unit-5**

### ▶ **Project Execution Plan (PEP)**

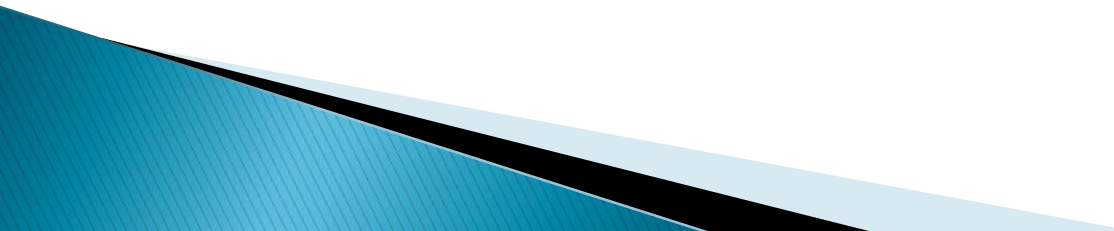
- ▶ A Project Execution Plan is much more than a chart showing timescales. It is a document describing how, when and by whom a specific target or set of targets is to be achieved. These targets will include the project's products, timescales, costs, quality and benefits. It will do this by showing the major products, activities and resources required for the project.

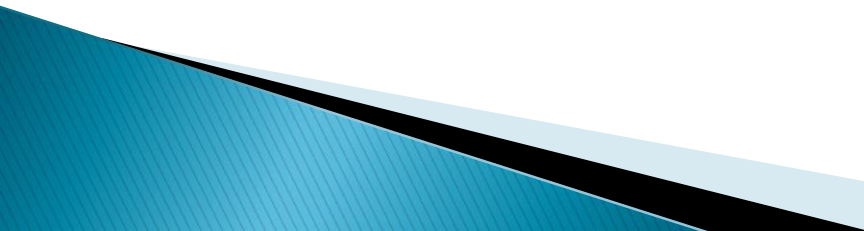
- ▶ **PERT and CPM**
- ▶ PERT and CPM are techniques of project management useful in the basic managerial functions of planning, scheduling and control. PERT stands for “Programme Evaluation & Review Technique” and CPM are the abbreviation for “Critical Path Method”. These days the projects undertaken by business houses are very large and take a number of years before commercial production can start.
- ▶ **The following steps are required for using CPM and PERT for planning and scheduling:**
- ▶ (i) Each project consists of several independent jobs or activities. All these jobs or activities must be separately listed. It is important to identify and distinguish the various activities required for the completion of the project and list them separately.

- ▶ (ii) Once the list of various activities is ready the order of precedence for these jobs has to be determined. We must see which jobs have to be completed before others can be started. Obviously, certain jobs will have to be done first.
- ▶ (iii) The next step is to draw a picture or a graph which portrays each of these jobs and shows the predecessor and successor relations among them. It shows which job comes first and which next. It also shows the time required for completion of various jobs. This is known as the project graph or the arrow diagram.

▶ **Advantages of PERT**

▶ **The following advantages are derived from the PERT**

- ▶ 1. It compels managers to plan their projects critically and analyse all factors affecting the progress of the plan. The process of the network analysis requires that the project planning be conducted on considerable detail from the start to the finish.
  - ▶ 2. It provides the management a tool for forecasting the impact of schedule changes and be prepared to correct such situations. The likely trouble spots are located early enough so as to apply some preventive measures or corrective actions.
  - ▶ 3. a lot of data can be presented in a highly ordered fashion. The task relationships are graphically represented for easier evaluation and individuals in different locations can easily determine their role in the total task requirements.
  - ▶ 4. The PERT time is based upon 3-way estimate and hence is the most objective time in the light of uncertainties and results in greater degree of accuracy in time forecasting.
- 

- ▶ 5. It results in improved communication; the network provides a common ground for various parties such as designers, contractors, project managers etc. and they must all understand each other's role and contributions.
  - ▶ The network will highlight areas that require attention of higher priority so that concentration can be applied to the key jobs without ignoring the lower priority tasks. This gives the management an opportunity to shift attention to any critical task so that the entire project is completed in time.
- 

▶ **Limitations of PERT**

▶ **Some of the limitations and problems that arise are:**

- ▶ 1. Uncertainly about the estimate of time and resources. These must be assumed and the results can only be as good as the assumptions.
- ▶ 2. The costs may be higher than the conventional methods of planning and control. Because of the nature of net working and net work analysis, it needs a high degree of planning skill and greater amount of details which would increase the cost in time and manpower resources,
- ▶ 3. It is not suitable for relatively simple and repetitive processes such as assembly line work which are fixed-sequence jobs.
- ▶ Hence PERT is not very effective in manufacturing operations, since it deals in the time domain only and does not deal with the quality information which is necessary in manufacturing processes.

