

# Project and Production Management - Video course

## **PROJECT MANAGEMENT (16 lectures)**

### **AN OVERVIEW (1 lecture)**

1. Project Management: An Overview

### **PROJECT SELECTION (4 lectures)**

2. Project Identification and Screening

3. Project Appraisal: Part I

4. Project Appraisal: Part II

5. Project Selection

### **PROJECT PLANNING (8 lectures)**

Development of Project Network (2 lectures)

6. Project Representation

7. Consistency and Redundancy in Project Networks

### **Project Scheduling (3 lectures)**

8. Basic Scheduling with A-O-A Networks

9. Basic Scheduling with A-O-N Networks

10. Project Scheduling with Probabilistic Activity Times

### **Time / Cost Tradeoffs in Projects (1 lecture)**

11. Linear Time-Cost Tradeoffs in Projects: A Heuristic Approach

### **Resource Considerations in Projects (2 lectures)**

12. Resource Profiles and leveling

13. Limited Resource Allocation

### **PROJECT IMPLEMENTATION (2 lectures)**

14. Project Monitoring and Control with PERT / Cost

15. Team Building and Leadership in Projects PROJECT COMPLETION (1 lecture)

16. Project Completion, Review and Future Directions

## **PRODUCTION MANAGEMENT (24 lectures)**

### **INTRODUCTORY (2 lectures)**

1. Introduction to Production Systems and a Generalized Model of Production

2. Life cycle of a Production System and Major managerial Decisions

### **FINANCIAL EVALUATION OF PRODUCTION RELATED DECISIONS (4 lectures)**

3. Performance Measures of a Production System

4. Financial Evaluation of Capital Decisions (2 lectures)

5. Decision Trees and evaluation of risk

### **DESIGNING PRODUCTS & SERVICES (3 lectures)**

6. Introducing New Products and Services (2 lectures)

7. Product Mix Decisions

### **FACILITY LOCATION AND LAYOUT (6 lectures)**

8. Plant Location (2 Lectures)

9. Process Layouts

10. Product Layouts and Assembly Line Balancing

11. Cellular Layouts

12. Layouts for Advanced Manufacturing Systems

### **PRODUCTION PLANNING OVER MEDIUM TERM HORIZON (5 lectures)**

13. Demand Forecasting (3 lectures)

14. Aggregate Production Planning (2 lectures)

### **OPERATIONAL DECISIONS OVER THE SHORT TERM (4 lectures)**

15. Inventory related Decisions (2 lectures)

16. Material Requirements Planning`

17. Scheduling of Job Shops



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## Mechanical Engineering

### **Coordinators:**

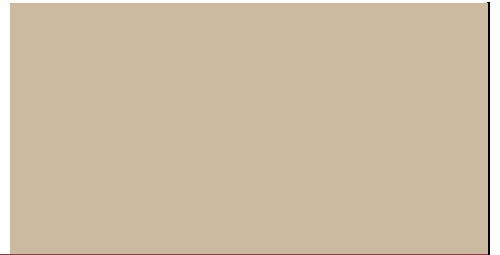
**Prof. Arun Kanda**

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Total Number of **Video Lectures** = 40

The **Web Based support Material** will be based on the above modular design including

- Examples
- Clarification of Concepts
- Problems with and without solutions
- Quizzes with answers etc.



A joint venture by IISc and IITs, funded by MHRD, Govt of India

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