NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

```
NPTEL Video Course - Management - Manufacturing Systems Management
Subject Co-ordinator - Prof. G. Srinivasan
Co-ordinating Institute - IIT - Madras
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Introduction to Manufacturing Systems Management
Lecture 2 - Different types of Manufacturing Systems
Lecture 3 - Introduction to Cellular Manufacturing
Lecture 4 - Cellular Manufacturing Applications, Production Flow Analysis
Lecture 5 - Production Flow Analysis
Lecture 6 - Cellular Manufacturing - Unidirectional flow, Capacity Planning, Layout
Lecture 7 - Exercise on Production Flow Analysis
Lecture 8 - Rank Order Clustering, Similarity Coefficient based algorithm
Lecture 9 - Similarity Coefficient based clustering algorithm
Lecture 10 - Hierarchical and Non hierarchical clustering algorithms
Lecture 11 - Optimization based algorithms
Lecture 12 - Optimization based algorithms, Assignment based algorithm
Lecture 13 - Assignment model, Algorithm considering sequence of visit of machines
Lecture 14 - Algorithm considering sequence of visit of machines
Lecture 15 - Algorithm considering cell load data, alternate process plans
Lecture 16 - Reducing Intercell moves
Lecture 17 - Part subcontracting, Incremental cell formation
Lecture 18 - Product based cells
Lecture 19 - Branching algorithm for product based cells, Operator and task assignment
Lecture 20 - Operator and task assignment
Lecture 21 - Operator and task assignment continued
Lecture 22 - Static and dynamic Operator allocation, Multiple products and incremental cells
Lecture 23 - Cell scheduling and sequencing
Lecture 24 - Cell scheduling and sequencing continued
Lecture 25 - Single piece transportation
Lecture 26 - Cell Layout, Introduction to Just-in-time manufacturing
Lecture 27 - Cell control and JIT
Lecture 28 - Basic elements of JIT, Kanban systems
Lecture 29 - Role of basic elements, Critical success factors
```

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

Lecture 30 - Models in JIT

Lecture 31 - Models in JIT continued

Lecture 32 - CONWIP, Introduction to synchronous manufacturing

Lecture 33 - Theory of constraints, Product mix problem

Lecture 34 - Statistical Fluctuations, Random events, principles of SM

Lecture 35 - Scheduling in SM

Lecture 36 - Drum Buffer Rope system

Lecture 37 - Flexible Manufacturing System, Part selection problem

Lecture 38 - FMS Loading problem

Lecture 39 - FMS Loading, multiple batches and changeover times

Lecture 40 - FMS Loading and scheduling, Summary of the course contents

www.digimat.in