Course Overview

Kanban is an essential tool of Lean manufacturing. The Kanban system is a way of synchronizing the material and information flow of disconnected processes to enable Just in Time production. Kanbans are used to control shop floor material movement and production execution through the pull system. This course covers how to design and implement an employee-driven visual material replenishment system that links with your information system. Emphasis is also placed on lot size reduction and effective capacity utilization.

Who should participate?

- Managers / Executives Production Planning and control,
- Managers / Engineers Manufacturing operations,
- Managers materials management / purchasing,
- Managers executives inventory control,
- Value stream managers
- Lean / process improvement specialists etc…

Key Learning:

At the successful completion of this course, the participant will be able to

- The differences between traditional ‘push’ systems and ‘pull’ systems
- explain the types of Kanban and their uses,
- describe the steps in circulating Kanban,
- calculate Kanban quantities, and
- use the 6 prerequisites of Kanban to evaluate the readiness of their organization to implement a Kanban system.
- understand how to design and set up a complete pull system within a value stream.

Course Duration: One day

Timings: 0930 hrs. to 1730 hrs.

Venue: New Delhi
Course Content

Kanban System Overview
- Lean Manufacturing Review
  - Value Streams
  - Flow
  - Pull Systems
    - Push systems
    - Repetitive & non-repetitive pull
    - Replenishment Pull
    - Sequential Pull
  - Changeovers & Lot sizes
- Kanban definition
- When to use Kanban
- Kanban - The 6 Prerequisites
- Kanban Circulation
- Sizing and locating supermarkets within Value Stream
- Water Spider routes and frequencies
- Using a Heijunka Box for load leveling
- Lot size, Quick Changeover & Kanban

Understanding the Four Functions of Kanban
- Autonomous nervous system
- Shop floor control: limiting overproduction
- Visual Management
- Continuous improvement

Types of Kanbans
- Non-card pull tools
  - Visuals
  - Carts
  - Two-bin systems
- Kanban card design & function Production Kanban
  - Signal Kanban
  - In-process
- Withdrawal Kanban
  - Inter-process
  - Supplier
- Other Kanban applications

Kanban Calculation
- Kanban card quantities
- Reorder points
- Exercise

Implementing Kanban
- The 6 Prerequisites
- Discussion: Change Management for Kanban System Implementation
- Kanban interface with MRP/ERP systems
- Exercise: Shop floor control with Kanban
- Heijunka & Kanban

Heijunka & Kanban
- Why Heijunka?
- Exercise: Kanban calculation without Heijunka
- Leveling the load with Heijunka
  - Averaging the volume
  - Averaging the mix
- Using the Heijunka box

Factory Logistics & Material Replenishment
- Replenishment routes
- Timed routes, Takt Time & Pitch
- Milk runs
- Fixed quantity, variable timing delivery
- Water Spider roles & responsibilities