

# Lean Practitioner Certification for Manufacturing (5 Days)

## Program Participants :

This program is designed for the managers, engineers and professionals working in the manufacturing environment, who want to equip themselves with the knowledge and skills necessary to be effective change Agents and Lean Advocates and Practitioners in their organization.

## Program Overview :

**Lean Program** which is often known simply as "**Lean**", is a generic process management philosophy derived mostly from the **Toyota Production System (TPS)**. It is a powerful method that allows organizations to improve the productivity, efficiency, quality and their time to market for their products or services. Companies today, from a wide range of industries, government agencies and other areas are finding ways to apply the principles of lean as a means of producing goods and delivering services that creates value for the customer with the minimum amount of waste and the highest level of quality. Our case studies and simulation-based, hands-on workshop will present you with essential principles, tools and applications of Lean in any environment - Service and/ or manufacturing. Upon the completion of this program, the participants will be able to :

- Understand the Lean Principles and Tools
- Discuss the Lean Deployment Strategy and Framework
- Conduct Value Stream Maps of the Current State and Develop a Future State
- Identify Wastes and use critical Lean Tools to Eliminate Wastes
- Define the Improved Flow and Process in Simulated Manufacturing & Service Environments.
- Apply the Lean Principles and Tools at their Workplace and Lead Projects.
- Understand why LEAN is a pre-requisite for digitalization to make it fast & cost efficient.
- Improve the Overall Efficiency of the Factory Operations including the Support Areas.

## Program Outline

### Introduction to Lean

- Why "Lean"
- History of lean5 principles of lean
- Lean and Toyota Production System
- Lean and six sigma



### Waste Identification

- Define Customer Value-add and Business-Value add 7 waste
- Identify the causes of 7 wastes
- Muda, Mura & Muri



### Value Stream Mapping

- What is value stream
- The purpose of a Value Stream Map (VSM)
- Develop a Current State Value Stream
- Map of a process
- Analyze a Current State Map for quick wins
- Develop a Future State Map
- How to implement VSM

### Process Analysis, Improvement and Control

- 5 S
  - Why 5S ?
  - What is 5S ?
  - Step by step 5S Implementation
- Standardization:
  - What is a standardized system?
  - Advantages of standardization
  - Degrees of standardization
  - Development of Standard Operating Procedure
- Visual Management
  - Why Visual Management?
  - Benefits of Visual Management
  - Levels and steps of Visual Management
  - Tools of Visual Display and Visual Control
- Poka Yoke
  - Poka Yoke Philosophy
  - Error & Defect
  - Poka Yoke Devices
  - Poka Yoke System
- Standardized Work
  - What is Standardized Work?
  - Difference between Work Standard & Standardized Work
  - Steps of Standardized Work



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## Process Analysis, Improvement and Control

## Training Methodology

- Single Minute Exchange of Dies (SMED)
  - What is SMED?
  - Waste during Change Over (C/O) or Setups
  - Benefits gained from reducing C/O times
  - Procedures for observing & recording internal & external C/O activities
  - Methods for reducing C/O times



- With an appropriate mix of training session, group discussions, group exercises, lean simulations and case studies from manufacturing sectors.
- Typically few sample projects from participant companies are picked to take through all steps during the group exercises

### • Pull System

- What is “Pull”?
- Prerequisites of Pull System
- Order Analysis
- How to choose different Pull systems
- Pull System Rules
- Introduction of Supermarket Model

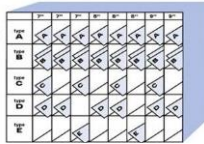


### Trainer Profile

- Lean Masters with experience in applying Lean principles, methods and tools in diverse industry sectors from Manufacturing, Process Industries and their Service functions such as HR, IT, Finance, Administration and supply chain etc.

### • Kanban

- What’s Kanban?
- Kanban Functions
- Kanban Types and Application
- Kanban Calculation
- Supermarket concept



### • Heijunka and Pacemaker

- Why Heijunka?
- Heijunka Elements & Sequence
- Heijunka Box
- Water Spider Route
- Heijunka Application

### • Process flow and work cell design

- What’s Flow?
- Line Balancing
- Traditional layout & Lean layout
- What’s Workcell?
- Prerequisite of Workcell
- 9 steps for Workcell Design
- Process analysis worksheet and Spaghetti chart

### • Kaizen

- What is Kaizen?
- Kaizen Spirit
- Main Kaizen Activity
- Kaizen Blitz Approach
- A3 thinking approach and QC tools

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### Next Step

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For more information please visit

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