

## **Downtime Reduction in Manufacturing :** **Methods to effectively reduce cost in a manufacturing environment**

### **Key focus**

1. Understand the operational downtime in their work areas and how to improve them
2. establish effective communication channel throughout the organization-wide for faster response in downtime
3. Linking downtime with cost
4. Perform a value stream analysis for their process to identify VA,LVA and NVA
5. Integrating quality tools (such as SPC, Mistake Proofing) to control manufacturing downtime
6. Implementing Lean Concepts and JIT in workplace for improve downtime
7. Manage their suppliers for a smooth operations which lead to downtime reduction

### **Who will benefit**

Managers, engineers, line leaders, supervisors, executives who are involve in machine maintenance, production, productivity and quality improvement and supply chain management

### **Methodology**

Case studies, which are built through actual working environments, small group practical exercises, small group discussion, facilitator presentations, skill practices, application planning and walk-through simulations.

**Take The Next Step**

## Day one

### 1. What is manufacturing downtime?

- ▶ Identifying downtime contributors in your work areas
- ▶ What is the cost equivalent to that downtime?
- ▶ Introduction to production variations and the 4 main factors

0900-1030

### *Morning tea break*

1030-1045

### 2. Wastes and variations

- ▶ Value Analysis – How to identify Value-added (VA), Least Value-added (LVA) and Non-Value-added (NVA) in your process
- ▶ Eliminate waste - identify non-value adding activities, then modify, combine or eliminate those tasks

1045-1300

### 3. Integrating Lean concepts in your work areas

- ▶ Kanban system – pull system for JIT
- ▶ Improving Layouts – arranging process in a natural flow order, building in ergonomics in workstation, linking processes to minimize time and distance, moving equipment together to simulate a continuous process flow; putting internal customers and suppliers next to each other

### *Lunch*

1300-1400

### 4. Increasing Predictability and Consistency

- ▶ Use DFA/DFM to design quality in
- ▶ Conduct GR&Rs to ensure reliable measurement systems are in place

1400-1530

### *Afternoon tea break*

1530-1545

- ▶ Employ SPC to help ensure processes are predictable and stable
- ▶ Eliminate and reduce error through Poka

1545-1700

Take The Next Step

**Day two**

**5. Workplace and Visual Organization**

- ▶ Use status display of performance for dashboard or balanced measures and COQ results
- ▶ Total 5S concepts : Standardizing process

0900-1030

*Morning tea break*

1030-1045

- ▶ Visual controls such as sensory alerts indicate of something is out of place

1045-1300

**6. Setup Reduction**

- ▶ Applying SMED concepts
- ▶ Process analysis to identify internal and external tasks – Setup lead-time analysis

*Lunch*

1300-1400

**7. Supplier Partnership**

- ▶ Enhancing and developing supplier-customer relationships
- ▶ Improving quality and delivery in supplier process

1400-1530

*Afternoon tea break*

1530-1545

**8. Total Productive Maintenance**

- ▶ Types of Maintenance – Reactive, Preventive, Predictive, Prevention
- ▶ Understand machine / equipment efficiency – OEE calculation

1545-1700

**Take The Next Step**