



TOOLS & TECHNIQUES FOR PERFORMANCE IMPROVEMENT IN MANUFACTURING

1 May 11-12, 2026 (Monday-Tuesday) ⌚ 8.45 am – 5.00 pm

📺 Remote Online Training (Zoom)



This training explains the tools and techniques used to improve manufacturing processes. In manufacturing industries, key areas in operation planning, product quality, productivity, speed, and delivery determine the success of an organization. There are micro elements in each of the key areas that must be strategized for effective implementation. Perhaps, it worths to look at the 8 principles drawn by Dr Deming who had developed Total Quality Management (TQM). Selected TQM principles will be demonstrated to explain how it supports the key areas for performance improvement. Performance improvement in overall manufacturing operations is a big task that

requires strong determination by the top management. The infrastructure must be well planned for effective business operations in all key areas.

The 2-day training explains the infrastructure that is suitable and can be considered for most organizations. Much time will be spent explaining selected tools and approaches. Some other big tools and approaches will be overviewed so that participants will know what are available for them. It gives useful insights to understanding operation control and improvement in larger manufacturing scope.

COURSE CONTENTS

PROGRAM OVERVIEW

- Goals of program
- Delivery method
- Making learning more effective

INTRODUCTION TO MANUFACTURING PERFORMANCE IMPROVEMENT

- Importance of performance improvement
- Key results area: Planning, Productivity, Quality, Speed, Delivery, Cost, Innovation
- Overview of continuous improvement frameworks
- Tools and techniques for improvement performance
- Related ISO clauses

TOTAL QUALITY MANAGEMENT (TQM)

- History of TQM
- The 8 principles
- How TQM principles align to key performance improvement initiative

MANAGEMENT PLANNING TOOLS [PLANNING TECHNIQUE]

- About New 7QC tools
- Tools application
- **Workshop:** Application of selected New 7QC Tools

LEAN MANUFACTURING [PRODUCTIVITY MANAGEMENT TECHNIQUE]

- About Lean methodology
- House of Lean components
- The Lean 5 principles
- The Lean performance metrics
- Lead time reduction method
- **Workshop:** Waste elimination

SIX SIGMA METHODOLOGY [QUALITY MANAGEMENT TECHNIQUE]

- About Six Sigma methodology
- DMAIC work phases framework
- Six Sigma tools:
 - Statistical tools
 - Non statistical tools
 - Graphical tools
 - Conceptual tools
- **Workshop:** Measuring process quality status

OPERATIONAL EQUIPMENT EFFICIENCY (OEE) [SPEED MANAGEMENT TECHNIQUE]

- About OEE
- Availability component of OEE
- Performance component of OEE
- Quality component of OEE
- **Workshop:** Optimizing OEE

INVENTORY MANAGEMENT AND PROCESS OPTIMIZATION [STOCK CONTROL TECHNIQUE]

- Just-in-Time (JIT) and Kanban systems
- Optimizing process flows

- Zero FG warehouse
- ASAP warehouse
- **Workshop:** Process balancing

MAINTENANCE AND RELIABILITY STRATEGIES [RELIABLE DELIVERY TECHNIQUE]

- About Total Productive Maintenance (TPM)
- Principles of TPM
- Predictive vs. Preventive Maintenance
- MTBF vs MTTR
- **Workshop:** Optimizing MTBF and MTTR

REGRESSION ANALYSIS (MODELLING TECHNIQUES)

- Correlation analysis
- Simple Linear Regression
- Multiple Regression
- Design of Experiment
- **Workshop:** Simple Linear Regression

DISCUSSION

- Managing problem-solving initiative
- Managing Continuous Improvement (CI) initiative
- Managing Innovation initiative

OBJECTIVES

By the end of the training, participants will be able to: -

- Understand the macro frame of process improvement in manufacturing
- Identify the key performance metrics in manufacturing
- Apply correct tools and techniques to analyse and improve manufacturing processes
- Identify and solve inefficiencies using data-driven methods
- Implement continuous improvement strategies for sustainable growth

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WHO SHOULD ATTEND

This training workshop is recommended for managers, engineers, executives, officers, and any staff who deal with performance improvement in overall manufacturing operations.

TRAINER

ENCIK AZMAN BIN HUSSAIN received his Bachelor of Science in Electrical Engineering from the University of South Alabama, USA. He had his Six Sigma Black Belt from Sony Corporation, Japan; and his Green Belt from Air Academy, USA. He is now a certified Lean Sigma trainer for Rolls Royce – a giant company that produces aero-plane and marine engines. He also works with General Physics – training and consulting company based in the United States on project basis; where he serves Rolls Royce.

ENCIK AZMAN, a certified trainer register with PSMB, has solid manufacturing experience with Sony and Hicom Diecastings. He had held many challenging posts in manufacturing environment ranging from a Manager of an innovation unit, the Head of a subcon technical improvement team, the Head of Engineering Dept, and Chief Operation Officer. His prowess in innovative problem-solving has saved millions of dollars for his organization every year and made him one of the talented engineer in the organization. Some of Azman's work had been used in Sony Six Sigma training manual used through-out the world. His biggest contribution perhaps was his innovation in PCB pattern design, soldering process, and mounting process. These innovations were responsible for the million dollars saving and had left unchallenged for many years. He had won numerous awards during his service with Sony. Being a training consultant as well as a Lean Sigma practitioner, En Azman has developed training courses on Green Belt, DOE, SPC, MSA, FMEA, and Structured 5S to name a few. He has been teaching and coaching these topics since 2003 in public as well as in house.

COURSE DETAILS

Date **May 11-12, 2026 (Monday-Tuesday)**

Time **8.45am - 5.00pm**

Platform **Remote Online Training (Zoom)**

Medium of Instruction **English**

CPD **14 hours**

Fees **Members RM1,080.00/pax**

Non-Members RM1,188.00/pax

(Fees inclusive of Service Tax at 8%, Downloadable Course Materials and Certificate of Attendance)

- Download and install ZOOM app on your laptop/desktop before the programme
- Good Internet / Wi-Fi connectivity
- Access Links will be provided upon confirmation of the programme

ADMINISTRATIVE DETAILS

HRD CORP CLAIMABLE COURSE DETAILS

- Training Provider: **FMM Institute Perak** ■ MyCoID : **475427W_PERAK**
- HRD Corp Programme No: **Provided upon confirmation**

DISCLAIMER

The FMM Institute reserves the right to change the facilitator, date and to vary / cancel the course should unavoidable circumstances arise. All efforts will be taken to inform participants of the changes.

REGISTRATION

- Upon **Faxing/Mailing** the completed **Registration Form** to FMM Institute, you are **deemed** to have read and **accepted** the terms and conditions. The **course** would also be **deemed** as **confirmed** unless informed otherwise.
- Will be based on First-Come-First served basis.

PAYMENT

- **Cheques** made in favour of "FMM Institute" should be forwarded to FMM Institute Perak.
- For **HRD Corp Claimable Course**, an **Attendance of 100%** is a **must**, in any case, **employers will be billed in full**.
- FMM Institute SST Registration No. **W10-1901-32000105**
- FMM Institute TIN No. **C10626805080**

CANCELLATION

Must be in Writing with Reasons ■ 7 days before the course – No payment charged ■ 3 – 6 days before the course - 50% payment charged ■ < 3 days before the course – Full payment charged ■ Participants who did not turn-up will be charged full payment ■ Replacements can be accepted at no additional cost.

Closing Date: MAY 4, 2026

~ Registration Form ~

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FMM Institute

No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak

Fax: 05-5488221

Dear Sir / Madam, please register the following participant(s) for the above programme.

1.	Name	Designation	
	NRIC	HP No	
2.	Name	Email	
	NRIC	Designation	
3.	Name	HP No	
	NRIC	Email	

(Please attach a separate list if space is insufficient)

We hereby confirmed that *(Please tick (✓) in appropriate box):-*

- We **will be claiming from HRD Corp** and full payment would made to FMM Institute in the event that no disbursement from HRD Corp under any circumstances
- We will **NOT BE CLAIMING from HRD Corp**. Enclosed cheque/bank draft No _____ for RM _____ being payment for _____ participant(s) made in favour of the "FMM Institute".

Submitted by:

Name:	Designation:		
Company:	Tel:	Fax:	
Address:			
Email:	FMM Membership No		