



12 STEPS SCHEDULE PLANNED MAINTENANCE

1 January 12-13, 2026 (Monday-Tuesday)
8.45 am – 5.00 pm **FMM Institute, Perak**

The 12 Steps of Scheduled Planned Maintenance training is designed to provide maintenance teams, operators, and managers with a structured approach to proactively maintaining equipment, minimizing breakdowns, and improving overall equipment effectiveness (OEE). This program emphasizes Total Productive Maintenance (TPM) principles, focusing on restoring, preventing, and sustaining equipment performance through standardization, skill development, and continuous improvement. By the end of the training, participants will have a clear understanding of the 12-step roadmap to establish, implement, and sustain a successful planned maintenance system that reduces downtime, lowers maintenance costs, and increases equipment reliability.

COURSE CONTENTS

MODULE 1 – INTRODUCTION TO PLANNED MAINTENANCE

- Purpose of Planned Maintenance in TPM
- Relationship with other TPM pillars (Autonomous Maintenance, Quality Maintenance, etc.)
- Benefits: Reduced Downtime, Higher OEE, Cost Savings
- Understanding the 12 Steps

MODULE 2 – EQUIPMENT ASSESSMENT

- Identifying Critical Equipment
- Evaluating Current Equipment Health OEE
- Using Breakdown History, MTBF & MTTR

MODULE 3 – RESTORING EQUIPMENT TO BASIC CONDITIONS

- Cleaning, Inspection, Lubrication
- Eliminating Minor Stoppages And Abnormalities
- Operator Involvement

MODULE 4 – ESTABLISHING EQUIPMENT HISTORY

- Collecting And Documenting Breakdown Data
- Creating Equipment Files And Logs
- Using CMMS For Historical Data

MODULE 5 – MEASURING DETERIORATION

- Understanding Natural Vs. Forced Deterioration
- Inspection Techniques (Visual, Vibration, Thermography, Oil Analysis)
- Sensor And Iot Application

MODULE 6 – MAINTENANCE PREVENTION DESIGN

- Designing Out Failures During New Equipment Purchase
- Considering Maintainability And Reliability In Procurement
- Standardization Of Machine Components

MODULE 7 – SCHEDULING INSPECTIONS

- Establishing PM intervals and triggers
- Daily, weekly, monthly, yearly tasks
- Using checklists and CMMS reminders

MODULE 8 – DEVELOPING MAINTENANCE STANDARDS

- Creating SOPs for inspections and repairs
- Standardizing tools, methods, and documentation
- Ensuring consistency across teams

MODULE 9 – TRAINING & SKILL DEVELOPMENT

- Technician Training And Certification
- Cross-functional Team Training
- Operator Awareness & Autonomous Maintenance

MODULE 10 – SPARE PARTS MANAGEMENT

- Critical Spares Identification
- Inventory Management Strategies (min-max levels, just-in-time)
- CMMS Integration For Spare Parts Tracking

MODULE 11 – PM EXECUTION

- Work order generation & tracking
- Technician/operator execution roles
- Safety in maintenance activities

MODULE 12 – CONTINUOUS IMPROVEMENT

- Using KPI metrics (OEE, PM compliance, MTBF, MTTR)
- Root Cause Analysis (RCA) of failures
- Feedback loops for PM schedule adjustment

MODULE 13 – SUSTAINING PLANNED MAINTENANCE

- Building a preventive culture
- Management commitment and leadership role
- Periodic audits & standardization review

TRAINER

MR RAJANDRAN A/L KRISHNASAMY holds a Diploma in Mechanical Engineering from Federal Institute of Engineering, KL and a Certificate in Electronics from Seremban Electronics. He started his career with Motorola Semiconductor in the area of Equipment Maintenance Function and grew steadily to become an Equipment Engineer. He later joined QDOS Microcircuits as a Production Section Head and subsequently joined a Japanese MNC as a Training Department Section Head and then as Engineering Section Head and Safety Officer hitherto.

MR RAJANDRAN is a certified trainer registered with PSMB and has conducted numerous programmes such as Total Productive Maintenance, Basic Mechanical Maintenance, Occupational Safety & Health Management System and Supervisory Management. In the past, he has conducted training courses for Samsung, Northern Telecom, Globetronics Technology, ISO Technology and SMC Globetronics Technology. In addition, he has also won the Gold Medal as a Total Productive Maintenance Coordinator for Equipment in the Final Test Department in a Total Customer Satisfaction Competition held in Chicago, USA.

OBJECTIVES

Key Objectives this course will equip the participants to:

- Identify and Assess Equipment Criticality
- Restore Equipment to Basic Conditions
- Establish Equipment History and Data Analysis
- Measure and Predict Deterioration.
- Apply Maintenance Prevention Principles.
- Develop and Implement PM Standards.
- Plan and Schedule Inspections.
- Train and Upskill Maintenance Teams.
- Manage Spare Parts Effectively
- Execute PM Tasks Efficiently and Safely
- Ensure Continuous Improvement and Sustainability

WHO SHOULD ATTEND

- Maintenance - Managers, Engineers, Supervisors, Technicians
- Operations - Managers, Engineers, Supervisors & Line functions Personnel

TRAINING METHODOLOGY

Lectures, case studies, practical hands-on exercise, question and answer

COURSE DETAILS

Date **January 12-13, 2026 (Monday-Tuesday)**
Time **8.45am - 5.00pm**
Venue **FMM Institute Perak**
No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak
Medium of Instruction **English**
CPD **14 hours**
Fees ☐ **Members RM1,134.00/pax**
☐ **Non-Members RM1,296.00/pax**
(Fees inclusive of Service Tax at 8%, Course Materials, Refreshment, Lunch and Certificate of Attendance)

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

~ Registration Form ~

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Closing Date:
JANUARY 5, 2026

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

Enquiries – please contact Ms Vaani / Pn Eda / Ms Harvindar ☎ (05) 548 8660 📠 (05) 548 8221 ✉ fmm_institute_perak@fmm.org.my