

2-day course on

ROOT CAUSE FAILURE ANALYSIS FOR MAINTENANCE

24 - 25 NOVEMBER 2008

• JW Marriott Hotel • Kuala Lumpur

FOCUSING ON

- Understand What Causes Failure
- 7 Steps To Analyze Failure
- Root Cause Failure Analysis Tools
- Using RCM's "Decision Diagram" Methodology
- Mechanical & Electrical Component Failures
- Steps to Prevent Pneumatic Failures
- Draft Proactive Maintenance Strategy
- Use of Proactive Tools To Overcome Failures

WHY YOU CAN MISS THIS

A **failure** is resolved immediately after a replacement is made. All the inconvenience and difficulties are forgotten the moment the equipment starts operating again. The “defective part” has no significance and lands in the rubbish bin. This goes on until the same failure returns or a related failure appears and the cycle continues.

This is a waste of time, effort and resources. We are posed with critical questions such as

- **Is our maintenance still reactive?**
- **Have we eliminated the problem of reoccurrence?**
- **What have we learnt from past failures?**
- **How do we proactively ensure that such reoccurrence is reduced or stopped?**

This program looks into these questions as well as gives an insight on failure causes and ways to overcome them through proven industrial tools and techniques.

KEY BENEFITS OF ATTENDING THIS COURSE

- Being better able to perform your own root cause analysis for breakdowns
- Understanding the forces behind each failure
- Learning the relationship between effect, symptom, cause and root cause
- Being better able to develop proactive measures to prevent breakdowns
- Knowing how to perform failure scene investigations
- Working on a parallel strategy both on reactive and proactive maintenance

Day 1

Monday, **24 November 2008**

9:00 **AUTONOMY OF FAILURES**

- What Is Equipment Failure
- Why Equipment Fail
- Types of Equipment Failures
- Life Cycle Characteristics

10.30 Morning Coffee

10:45 **ROOT CAUSE ANALYSIS**

- Why Root Cause Analysis
- Importance of Data
- Symptom vs. Cause
- How To Analyze
- Seven Step Root Cause Analysis

1:00 Lunch

2:00 **ROOT CAUSE FAILURE ANALYSIS TOOLS**

- Fault Tree Analysis
- Factorial Analysis
- Cause And Effect Diagram
- Why, Why, Analysis

3.30 Afternoon Tea

3:45 **UNDERSTANDING MECHANICAL FAILURES**

- Understanding The Basic

- Types of Mechanical Failures
- Prevention Mechanical Failures

5:00 End of Day 1

Day 2

Tuesday, 25 November 2008

9:00 **UNDERSTANDING ELECTRICAL COMPONENT FAILURES**

- Causes Of Electrical Component Failures
- Failure Analysis Map
- The “Hidden Factor”
- Improving Failure Frequency

10.30 Morning Coffee

10:45 **UNDERSTANDING PNEUMATIC FAILURE**

- Understanding Basic Operation.
- Common Components Of Pneumatics
- Causes of Pneumatic Malfunction
- Steps To Prevent Pneumatic Failures

1:00 Lunch

2:00 **PROACT FAILURES**

- ‘Proact’ Strategy
- Bench Mark Indices

- “Poka Yoke” Your Failure
- FMEA “ Decision Diagram Methodology”
- Predictive Maintenance Concepts

3.30 Afternoon Tea

3.45 **PROACT FAILURES (Continued)**

5:00 End of Course

THIS PROGRAM WILL BENEFIT

- Engineers
- Maintenance Managers
- Equipment Maintenance Managers
- Building Maintenance Managers
- Facility Managers
- Facility Engineers
- Maintenance Supervisors & Superintendents
- Equipment Personnel
- Maintenance Coordinators

METHODOLOGY

Interactive lectures, explanations, case studies & learning discussions, group sessions, Q & A

Program topics, speakers and schedules published herein are confirmed as at printing time. Please refer to the event's timetable page at www.cmtevents.com for the most up-to-date information.

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Fees: The full Registration Fee includes cost of all sessions, luncheon, coffee/tea & documentation.

	1 Person	Group fee for 3 or more* (from the same company)
Regular Fee	RM2295	RM1995 (MIN SAVINGS OF RM900)

* Terms and conditions apply.

Cancellations, Refunds & Transfers: A full refund will be promptly made for all written cancellations 3 weeks before the meeting. Thereafter, cancellations are not refundable. A substitute may be made at any time.

Cheques : Crossed & payable to
 "Centre for Management Technology Sdn Bhd"

Photocopy Registration Form to Preserve Brochure Copy. November 2008

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TO REGISTER

Online : www.cmtevents.com
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 Fax : (603) 2162 6393
 Tel : (603) 2162 7322
 Post to : Lot 7.03, 7th Floor, North Block, The Ampwalk,
 218 Jalan Ampang, 50450 Kuala Lumpur

CERTIFICATE OF COMPLETION

A Certificate of Completion will be awarded upon successful completion of each course. This serves as evidence of your personal and professional commitment to you career.

COURSE TIMING

Registration: 8.30 am, Course Begins: 9.00 am,
 Morning Coffee: 10.30 am, Lunch: 1.00 pm to 2.00 pm,
 Tea Break: 3:30 pm, Course Ends: 5.00 pm

TELEGRAPHIC TRANSFER

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FACILITATOR

Mr. P. Balachandran brings to this program more than 17 years of solid industrial experience in the manufacturing sector as well as 12 years in maintenance manufacturing training and consultancy.

His experience includes that of Equipment Engineer, Section Head of Production, Production Manager and Training & Education Manager with well know corporations such as Motorola, Thomson Audio Electronics and Samsung Electron Devices.

Mr. Bala then became involved in management consultancy and trained full time in specific areas of manufacturing and maintenance training. His natural leadership style coupled with his vast

industrial experience makes him a valuable partner and resource in developing the workforce of the manufacturing sector and in troubleshooting.

Mr. Bala has trained more than 3000 professionals and some of the companies that have benefited from his expertise include Komag Malaysia, Minolta, Silitek, Sony Malaysia, Robert Bosch, TDK Malaysia, Swedish Motor Assembly, Western Digital, Dell Computers, Texas Instruments, TNB, Genting Sanyen, PROTON, Teck See Plastics, Hicom, Philips Semiconductor, Airod, B Braun, Carsem, Dynacraft, Seagate Industires, Mattel, Perodua, Johnson & Johnson and Malaysian Airlines System.