

# MECHANICAL COURSES

## ROOT CAUSE ANALYSIS (M76A)

**OBJECTIVE:**

Root Cause Analysis (RCA) is an investigative technique for analyzing processes that interrupt core operational functions. The identification of the root cause of problems is the key to preventing similar reoccurrences.

**WHO SHOULD ATTEND?**

This course is recommended for all employees at all levels who are involved in systematic process improvement and problem solving. Typical Course Candidates are Engineers, Operations and Maintenance Staff-Senior Operators, Maintenance Technicians, Supervisors, and Foremen.

**COURSE CONTENT:**

- Root Cause Failure Analysis Basics
- Fault Diagnosis Terms
- Criteria of Power Plant Machinery Satisfactory Condition
- Diagnosis and Troubleshooting Experience
- Computer Aided, Troubleshooting & Diagnosis Expert System
- Gathering Data
- Analyzing Data
- Root Cause Chart
- Fault Tree
- Development Conclusions and Recommendations
- Computer Application in RCA
- Case Study

**Duration: 5 Days**

Date:	Venue:	Cost:
Mar 14 – 18	Dammam	SR7,000
Aug 8 – 12	Abha	SR 8,000
Dec 5 – 9	Dammam	SR7,000

## ROTATING EQUIPMENT TROUBLESHOOTING (M70A)

**OBJECTIVE:**

This course will explain and give information with theoretical and experimental knowledge for rotating equipment fault detection and diagnosis and application of maintenance techniques for rotating equipments shafts alignment and rotor balancing.

**WHO SHOULD ATTEND?**

The course is recommended for Engineers and Technicians.

**COURSE CONTENT:**

- Machinery Maintenance Strategies
- Mathematical Review
- Sources of Vibration Machines
- Vibration Signals, Vibration Measuring Units
- Fault Analysis and Diagnosis
- Fault in Rotating Shaft
- Unbalance, Oil Whirl
- Alignment Equipment and Methods
- Lubrication, Sealing Devices

**Duration: 5 Days**

Date:	Venue:	Cost:
Feb 21 – 25	Dammam	SR7,000
May 31 – Jun 4	Oman	SR 9,000
Oct 24 – 28	Dammam	SR7,000