

**Course Overview:**

This course offers intensive insight into bearing life improvement and .The participant will gain knowledge in bearing selection, proper bearing lubrication and troubleshooting skills as well as predictive and preventive maintenance of bearings

**Course Objective:**

The course presents a systematic approach to the basics of mechanical maintenance and troubleshooting.. It first adopts a general approach to the importance of bearings maintenance and its main motives, then it explains what is meant by maintenance types, like preventive maintenance, corrective and adaptive maintenance and the skeletons of maintenance systems.

**Course Outline:****INTRODUCTION TO BEARINGS**

- Bearing design
- Principle of bearing operation
- Bearing classification
- Bearing selection
- Shafts and shafting
- Shaft material and stress
- Vibration and critical speed

- Fits and clearance

**CLASSIFICATION OF BEARINGS**

- Plain bearings
- Antifriction bearings

**PLAIN BEARINGS**

- Principle of operation
- Advantages & disadvantages of plain bearings
- Types of plain bearings
- Characteristic of bearing materials

**ANTIFRICTION BEARINGS**

- Advantages & disadvantages of antifriction bearings
- Types of antifriction bearings
- Characteristic of bearing materials
- Bearing materials

**BEARING SEALS****BEARINGS TROUBLESHOOTING AND MAINTENANCE**

- Bearing inspection
- Bearing repair
- Disassembly and reconditioning
- Bearing removal
- bearing installation
- Bearing failure terminology
- Bearing trouble shootings

**LUBRICATION**

- Principles Of Lubrication
- Oil lubricants

**Training Language:**

EN / AR

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation

-Grease lubricants

ADDITIVES, LUBRICATING ACTION AND BEARING LUBRICATION

### **Who Should Attend:**

1. Electrical, mechanical, and chemical Engineers.
2. Senior technicians who work in the electrical control and power utilities.
3. Technicians who would like to refresh their knowledge.
4. Mechanical and chemical Engineers who are interested in control subjects.