



# The South African Institution of Mechanical Engineering

## Machinery Failure Analysis and Prevention Workshop

**Duration – 3 Days : Time -08h30 – 16h30 (Registration at 08h00)**

**CPD Validation Number : SAIMEchE-1104-12/20**

**This workshop will earn delegates 3 credits in Category 1**

**This workshop is suitable for SAIMEchE Groups 1, 2 & 3a**

**If booked as an In-house event, this workshop may be tailored to run from 2 to 5 days.**

**This workshop is developed and presented by [Mr. Denzil Bazley](#),  
B.Sc. (Mech.Eng.), Pr.Eng., MSAIMEchE, GCC**

### SAIMEchE Group Classification

0 = Non-technical,  
e.g., HR, Finance

1 = Candidate  
(including GCC) with <  
5 years experience

2 = Professional  
(including GCC) with <  
15 years experience

3a =Professional and  
Appointment with > 15  
years experience with  
specialist interest

3b = Senior  
Management with >  
15 years experience

### OVERVIEW

The workshop will:

- Examining the key approaches to Preventive and Predictive Maintenance
- Identifying the most frequent failure modes in rotating equipment and understanding how parts fail
- Prediction and prevention of such failures
- Using a systematic approach to conduct Root Cause Failure Analysis (RCFA) on failures, to prevent repetition
- Developing an understanding of continuous reliability improvement
- Developing an approach to optimise lubrication of rotating equipment

### CONTENT OF WORKSHOP

- Understanding Maintenance
- Preventive Maintenance
- Predictive Maintenance
- Failure processes and modes
- Typical bearing, seal, gear and other component failures
- Lubrication
- Root Cause Failure Analysis (RCFA)
- Reliability Centred Maintenance and Continuous Improvement
- Performance Measurement and KPI's

### WORKSHOP OUTCOME AND BENEFITS

- Participants will understand maintenance strategies, how machinery failures occur and what measures can be taken to prevent common failures.
- An improvement in maintenance standards and rotating equipment reliability can be expected as well as the practical ability to carry out root cause analyses.

### WHO SHOULD ATTEND

- From apprenticed artisans and technicians to graduate engineers
- Maintenance staff of all disciplines (mechanical, instrument and electrical), including supervisors

### [DELEGATES' COMMENTS](#)