



# The South African Institution of Mechanical Engineering

## Lubricants and Oil Monitoring Workshop

CPD Validation Number available at request:

This workshop will earn delegates 1 credit in Category 1

This workshop is suitable for SAIMEchE Groups 0, 1, 2 & 3a

### 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  
and with specialist interest

**3b = Senior Management**  
with  
>15 years experience

### Overview

The life of every machine depends on the effectiveness of lubrication and therefore the selection of proper lubricants, their correct application and monitoring are essential parts of operating the machinery. People responsible for production need the basic knowledge of lubricants to make decisions that could be crucial for the company. A wrong lubricant, or a lubricant wrongly applied, can stop the plant.

This highly interactive workshop is designed for:

- (a) decision makers and plant personnel who could be involved in selecting lubricant suppliers or lubricants, or will discuss lubricants with the suppliers, or who could be faced with lubricant-related problems;
- (b) supervisors and their managers responsible for maintenance of vehicles and industrial machinery (e.g. compressors, grease and oil lubricated bearings, gearboxes, hydraulic systems or machine tools);
- (c) people who need to implement oil sampling and understand the results.

A recent report claims that billions of Euros are lost each year because of unnecessary repair work which has to be carried out on processing equipment that has not been correctly lubricated. Mechanical wear could be due to lubricant degradation.

There are several different types of lubricants that are used in industry although their basic purpose is the same - to ensure that moving parts operate smoothly while wear and friction are reduced. Industrial as well as automotive lubricants vary in terms of performance as well as their composition. For example, some lubricants contain synthetic oils. This workshop helps you understand when it is necessary to use synthetics.

### Contents

- \* **Applying the knowledge gained in the Practical Lubrication & Lubricants workshop.**
- \* **Monitoring lubricants in service:** Monitoring the equipment without taking samples. Taking samples correctly, selecting tests and understanding and normalizing the results. Sampling frequency. Oil cleanliness monitoring. Sources of oil contamination. Water in oil. Improving service life by filtration.

### Duration: 1 day

**08h30 - 16h30** (Registration at 08h00)

**Bookings and contact details:  
Carey Evans - National Events Dept.**

**Tel: 031-764 7136 Fax: 086 671 6855**

**Email: [carey@saimeche.org.za](mailto:carey@saimeche.org.za)**

### Workshop Developer

**Petr Vavruch**, Pr Eng, Ing.(Prague), spent most of his working life with Mobil Oil and Engen. He is a member of SAIMEchE and ICMEESA.

He is now retired, has written a textbook for FET colleges and edited a number of 'Technology' textbooks for high schools.

At Mobil, Petr was a Field Engineer (Fuels & Lubricants), Admin. Manager of Mobil Diesel Club and a Planning Engineer for automotive engine oils and other lubricants.

During the last 10 years at Engen, he was in charge of specifications of base oils and specifications and formulations of industrial and marine lubricating oils - also helping to solve production and field problems with these lubricants.

Petr participated in or was in charge of number of projects, e.g. new air compressor oils, synthetic lubricants, the universal diesel engine oil, new engine oils, metalworking fluids, hydraulic fluids, industrial gear oils, open gear oils, turbine oils, marine engine oils and refrigeration oils.

### Note

**Only people who have attended the Practical Lubrication & Lubricants workshop may attend.**