



# The South African Institution of Mechanical Engineering

## Lubricants and oil monitoring workshop

### CPD Validation

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**  
with >15 years experience  
and specialist interest

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

### Overview

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.

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.

Industrial as well as automotive lubricants vary in terms of performance as well as their composition. We will discuss this. For example, some lubricants contain synthetic oils so this workshop will help you understand when it is necessary to use synthetics.

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.

### Contents

- Applying the knowledge gained in the Practical lubrication and lubricants workshop.
- Monitoring equipment without taking samples. Taking samples correctly, selecting tests and understanding and normalizing the results. Sampling frequency. Oil cleanliness monitoring. Sources of oil contamination. Oil degradation. Water in oil. Wear limits. Improving service life by filtration.

### Duration: 1 day

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

Due to a reorganization at SAIMEchE, there are no courses of any kind scheduled at present.

But it can be organized.

If you are interested, you can write to [Petr Vavruch](mailto:Petr Vavruch), or phone him at 021-712 0935.

### Important note

**Only delegates who have attended the 'Practical lubrication and lubricants' workshop may attend. This is because it is essential that delegates fully comprehend the material previously covered.**

### 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.

He worked as a tutor in Mechanical Engineering Faculty of the University of Cape Town and as a moderator at the Stellenbosch University. He lectures for SAIT.

At Mobil, Petr was a Field Engineer (Fuels & Lubricants) 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 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. air compressor oils, synthetics, the universal diesel engine oil, new engine oils, new hydraulic fluids, industrial gear oils, turbine oils, metalworking fluids, open gear oils, rolling oils, refrigeration oils, and marine engine oils.