

# “Lubrication Engineering” by the South African Institute of Tribology

**Covid-19 and lockdown have strangled the economy over the past two to three months, and business now needs to recover and leap back into action by reviving productivity and assisting employees to improve themselves, while still maintaining the epidemic legal requirements.**

**T**ribology comes at a time when there is an urgent need to reduce friction and wear, to reduce energy costs, and to maintain optimum machine condition and productivity. Where tribology is correctly applied, the cost of production can be reduced and the return on investment can be improved.

Training in tribology and lubrication engineering will be needed by the employees who are returning to work, to enable them to make a positive contribution to any business that operates equipment, and training these employees will give them the needed impetus after the long lockdown.

Friction and wear occur at the interface between moving parts in any equipment, and the degree of friction and wear depend on the nature of the surfaces and the presence of any material between the surfaces. Friction and wear therefore can be controlled either by the materials used at the point of rubbing contact, or the presence of a lubricant. These are materials engineering and lubrication engineering respectively.

## On-line courses

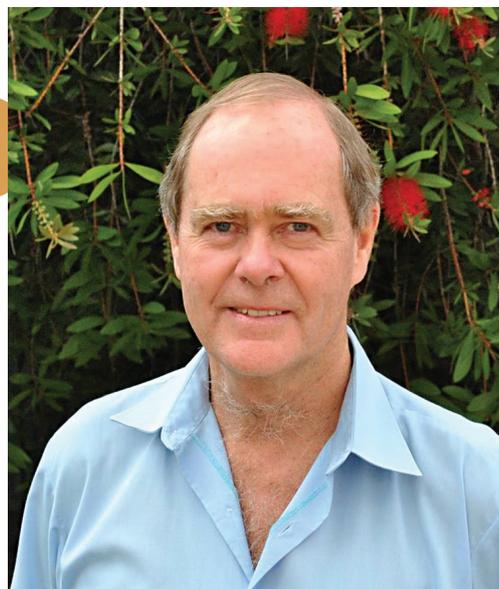
The South African Institute of Tribology (SAIT) have developed courses in both materials engineering and lubrication engineering. These courses are ECSA approved and delegates can earn CPD points for each day of a course.

It is well documented by many experts in this field that a classroom or meeting environment is almost guaranteed to spread the Corona virus, if any of the delegates or participants are carrying the virus.

To maintain lockdown requirements, the SAIT is now offering the five day “Lubrication Engineering” course on line, using the Zoom video conferencing format. Delegates can log in completely safely from a work or home environment, all that will be needed is sufficient data and bandwidth to log in and interact from a normal computer that has a camera and microphone. A private and quiet room is also needed.

The 5 day Lubrication Engineering course offered by the SAIT will earn delegates 4 CPD points, and a certificate if the exam is written and passed.

**Course Objectives:** The course is designed to transfer a thorough understanding of tribology from a lubrication engineering perspective. Some twenty topics take participants through from basic chemistry and the theory of rubbing contact and friction in all industrial applications, to the appli-



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cation of management principles, safety and the environment in tribology.

**Who Should Attend?** The course is aimed at maintenance personnel but will be of benefit to anyone concerned with the operation, maintenance, condition monitoring or management of industrial plant, machinery, transport and other lubricant related disciplines. Marketing personnel can gain valuable knowledge from the course.

**Experience:** Delegates are advised that they should understand what viscosity is, and should have at least twelve months experience in the lubricant and maintenance professions, with a minimum knowledge at trade test level.

**Case Studies:** Delegates are invited to bring their case studies, their problems and their questions to the course for discussion.

**Course Content:** Lubrication Terminology, Production of Lubricant Base Fluids, Basics of Lubrication, Properties of Oil, Additives, Greases, Lubrication Devices, Synthetic Lubricants, Fuels, Internal Combustion Engine Lubrication, Auto Drive Line Lubricants, Plain Bearings, Rolling Bearings, Gears & Gear Oils, Hydraulic Oils, Compressor Oils, Transformer Oils, Cutting Oils, Filtration, Condition Assessment & Failures, Used Oil Analysis, Lubrication Surveys, Storage and Handling of Lubricants and Environment.

Let us know if you are interested and wish to participate in this course.

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