



# Earthmoving Equipment, Technology And Management For Civil Engineering And Infrastructure Projects

3 CPD Points



Presented By Prof. Zvi Borowitsh

## What are the course objectives?

- Advanced manual and computerized techniques, for the selection of the most efficient and most economical spread of equipment and general layout.
- Equipment Economics & Earthwork Cost Evaluation Analysis
- Planning and managing earthmoving projects

## What is the course content?

Soil and rock properties; basics of geo mechanics; Principles of earthmoving machine design; machine-job applicability and performance; variables affecting production; machine and fleet availability by MTBF, MTTR; rock drilling and blasting principles; rock ripping and dozing; earth loading methods – front end loaders and hydraulic excavators; earth hauling - on and off road trucks, computerized truck dispatch and GPS earthmoving applications; grading and levelling; earth compaction methods; Optimizing system and job layout selection by advanced manual and computerized techniques. Basics of equipment maintenance, Basics of equipment economics, Safety and Health on earthmoving work sites.

Delegates will also study and personally **practice on own computers** with the most updated programs such as **Talpac by RPMGlobal**, FPC etc. for:

- Machine and earthmoving simulation
- Optimizing system selection
- Machine and earthmoving cost analysis

## What is the course structure?

The course is offered over 3 consecutive days.

This course has been accredited for 3 CPD credits with the Engineering Council of South Africa

### Who should attend?

This three-day course, which has been of high demand for many years now, is aimed at Engineers and Technicians at Technical and Managerial levels, who are involved in the various stages of earthmoving in Civil Engineering Projects - **Planning, Execution and Project Management**.

### Course lecturer

Our visiting lecturer is Prof. Zvi Borowitzh, of the University of the Witwatersrand, Johannesburg and the Israel Institute of Technology, specializing in Earth and Rock Excavation, Loading and Haulage Optimization, who has extensive academic experience as well as in managing and consulting for large scale earthmoving projects.

### Course requirements

Please bring along your own laptop and calculator

### Register

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In-house courses available on request.