



TRANS-AFRICA PROJECTS

Power Generation | Transmission | Distribution

Planning, Design and Construction of Overhead Lines

5 DAY COURSE (5 CPD Credits) | Presented by leading TAP and ESKOM professionals



About the Course

COURSE DESCRIPTION AND LEARNING OBJECTIVES

The course provides an in-depth overview of all the relevant aspects of overhead line development, viz. Planning, Design, and Construction. The purpose of such a comprehensive course is to give all delegates the opportunity firstly to gain a clear understanding of overhead line development in its entirety and complexity, and secondly to get exposure to the practical aspects of design technology, using the most effective design tools (packages). The tutorial program is combined with visits to some of the most important testing stations and laboratories in the field of line technology (Corona Cage, National Electric Testing Facility - NETFA, and Tower Test Station).

WHO SHOULD ATTEND?

- ▶ Engineers, technologists, technicians and managers working in the overhead line design, construction, operation and maintenance areas.
- ▶ Utility staff working in system planning, operations or research areas.
- ▶ Staff of manufacturers, consultants and learning institutions.

LEARNING OBJECTIVES

Upon completion of this course, delegates will have an overall appreciation of overhead line technology and will have learnt modern line design practices to the highest internationally recognised level. Delegates will also be in a position to identify the possible avenues of further development in their specific area.

COURSE MATERIAL

Delegates will receive a set of electronic notes and writing material. Videos illustrating examples and experiences of the topics discussed will be shown where necessary. Practical work examples will be explained and discussed.

COURSE CONTENT

- ▶ Power system planning
- ▶ Power system planning – Case study
- ▶ Power transfer capability
- ▶ Environmental impact & Case study
- ▶ Land survey
- ▶ Electrical design
- ▶ Earthing and case study
- ▶ Insulation co-ordination
- ▶ Electromagnetic fields and case study
- ▶ Insulation design
- ▶ Corona and case study
- ▶ NETFA visit
- ▶ Ground wire
- ▶ Lightning protection
- ▶ Line components – Tower design
- ▶ Line components – Foundation design
- ▶ Mechanical design and hardware, case Study
- ▶ Mechanical oscillation
- ▶ Conductor optimisation & case study
- ▶ Communication over power lines
- ▶ Line construction
- ▶ Insulation selection
- ▶ Line design tools – Introduction
- ▶ Structural design approach
- ▶ TOWERS, case study
- ▶ Structural design – POLES, case study
- ▶ Tower spotting – PLS cadd
- ▶ Tower spotting, case study
- ▶ Tower test requirements
- ▶ Tower test station tour
- ▶ Line design quiz



REGISTRATION INFORMATION

Delegates are responsible for their own travel and accommodation arrangements. The names of nearby accommodation will be provided if requested.

Registration material will be available at 07:30 on the first day of the course. The formal programme will commence at 08:00 and end at approximately 17:00 every day.

Location:

- ▶ Eskom Academy of Learning, Dale Road P/Bag X13, Midrand, 1685
(Map will be supplied upon registration)

REGISTRATION FEE SCHEDULE

Individual registration

R 19 800 (excluding VAT)

Eskom employees receive a 10% discount

10% Group discount (five or more delegates from the same company)

Note: Registration will be accepted on a first come, first served basis. Enrollment is limited to a minimum of 10 delegates and maximum of 20 delegates, and advanced registration is required. The registration fee covers the five day course, course materials, and refreshments during all course breaks. The registration and payment/purchase order deadline is 20 business days prior to the course start date. To register, please complete the attached form and return it to: training@taprojects.co.za

* Attendance will only be confirmed once the registration form and payment/purchase order has been received.



Terms & Conditions

The responsible person booking or authorising the attendance of the training event will be liable to adhere to these Terms and Conditions.

Payment Terms

Payment needs to be made within 20 working days from date of invoice or prior to the training start date, whichever is sooner.

The delegate is responsible to ensure Trans-Africa Projects (Pty) Ltd is notified via the booking form if a Purchase Order or Vendor Application is required before payment can be authorised by the delegate's principal.

Rescheduling of booking

Rescheduling of a booking will be allowed if there is an available seat at the next scheduled training course. Rescheduling of a booking will be allowed once only. The delegate is still liable for payment of the original invoice associated with the original booking. There will be no credit notes issued for rescheduling of the training course, unless caused by TAP.

The request to reschedule a booking needs to be provided in writing to training@taprojects.co.za within 10 working days prior to the start date of the training course. Failing to do so will automatically be treated as a cancellation.

The delegate will be registered for the next available course.

Cancellation of booking

Notification of cancellation of attendance must be made in writing to training@taprojects.co.za

Cancellation requests received less than 10 working days prior to the start date of the training course will forfeit the full cost of the training course.

Cancellation requests received between 10 to 15 days prior to the start date of the training course will incur a cancellation fee of 50% of the full cost of the training course.

Substitution of booking

Delegates will be allowed one substitution for the training course. TAP must be notified in writing at least 7 days prior to the training starting date.

Non-attendance of booked training intervention

No refund for non-attendance.

General

TAP reserves the right to cancel the course, change the course location. In the event that the course must be cancelled, the delegate will be informed 7 days prior to the commencement of the training course and receive a full refund.

By sending your booking form to TAP, you agree to the above terms and conditions.