TRANS-AFRICA PROJECTS

Power Generation | Transmission | Distribution

Substation Engineering

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

About the Course

COURSE DESCRIPTION

The course provides an in-depth overview of all the relevant aspects of substation development, viz. planning, electrical, civil and structural design, environment, bay layouts, earthing, substation equipment, insulation co-ordination, protection and telecommunications, new technologies, international trends and construction. The purpose of this comprehensive course is firstly to give all delegates the opportunity to gain a clear understanding and overall appreciation of electrical substations, and secondly get exposure to the practical aspects of design technology.

WHO SHOULD ATTEND?

- Engineers, technologists, technicians and managers working in the substation design and construction areas.
- Utility staff in system planning, substation design, construction and research areas.
- Staff of manufacturers, consultants and learning institutions.

LEARNING OBJECTIVES

Upon completion of this course, delegates will have an overall understanding of substation technology and will have learnt modern substation 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 analysis & planning
- General guidelines for design of A.C. substations
- Site selection and environment
- Circuit bay and bushbar arrangements
- Insulation, clearances & insulation co-ordination
- Substation earthing
- Lighting protection
- EMC in substations
- Protection schemes
- Telecommunication
- Foundations and steel structures
- Control buildings
- Operational and building lighting, air conditioning and ventilation
- Circuit breakers
- Isolators
- Transformers & reactors
- Gas insulated substations
- Surge arresters
- Capacitors – shunt and series
- Static var. compensation
- New technologies and international trends in substation design
- Bus design & materials
- Construction technology
- Substation site visit

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:

- Johannesburg, Midrand (Map will be supplied upon registration)

REGISTRATION FEE SCHEDULE

Individual registration

R 20 500 (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. Enrolment 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.