

NETGroup Academy



Power Quality Design Practices

Understanding power quality concepts, causes/effects, and solutions is key to protecting your business from needless loss.

Course Overview

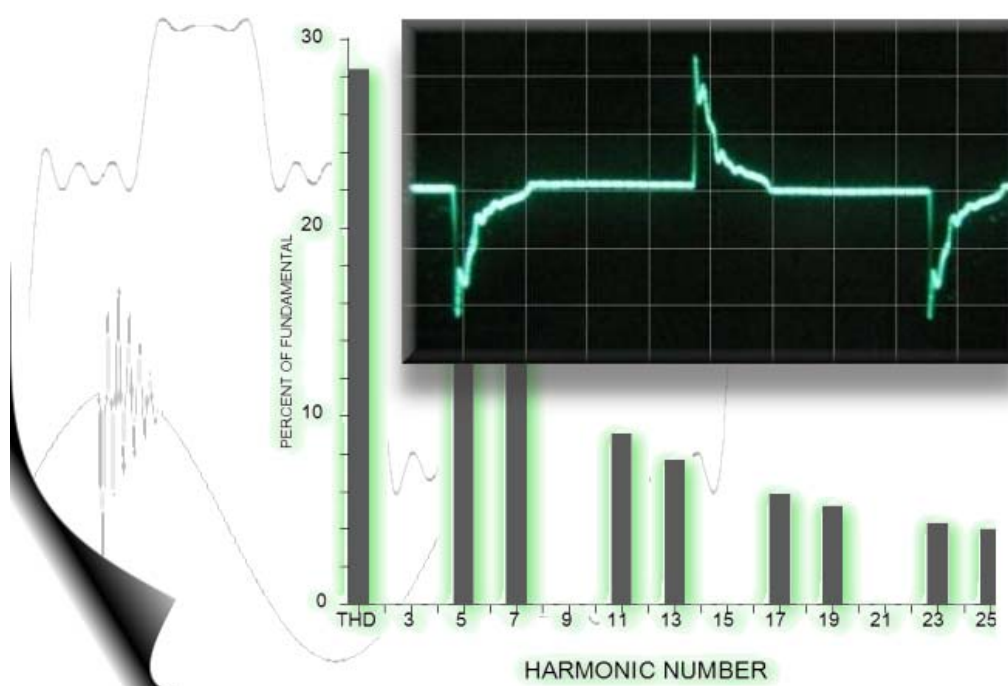
Power quality concepts, causes/effects, and mitigation solutions is key to protecting your business from needless loss.

Power quality is a growing concern to distribution companies, telecommunication companies, process industries, steel mills, refineries and sensitive businesses, leading to interruptions, equipment break downs, excessive loading and energy losses.

This course presents the theoretical and practical aspects which the presenters consider particularly relevant in designing distribution networks. This course provides participants with the background and information needed to investigate and solve power quality problems related to events on the power system and the response of equipment within end user facilities.

Topics

- Utility and Customer Perspective on Industrial Power Quality
- Power Quality Waveform Recognition, causes/effects, and mitigation
- Introduction to NRS 048 (SANS 048),
- Voltage Sags
- Grounding Requirements for Safety and Performance
- Distribution circuit voltage regulation
- Energy optimization
- Power factor correction
- Power quality considerations
- Voltage Regulation
- Dips, Unbalance, Harmonics and Flicker
- Losses and Financial impacts of PQ
- Power System Markets
- Power system economics
- Types of markets
- Energy trading
- Ancillary services
- Regulation issues



Course dates
TBA

Course duration
2 days – 08:30 to 16:00 daily

Course fees
R4 400 (incl. VAT)
per delegate

Course venue
NETGroup Academy
28 Regency Rd
Route 21 Corporate Park
Cnr Boeing & Nelmapius Rd
Irene, Centurion

What's included

- Domain expert facilitators
- Training Guide
- Quality Training Venue
- Lunch and Refreshments
- Ample Parking

Registration deadline
2 weeks prior to the
scheduled course

Contact details

Tel: 012 345 6005 /
0861 NET GRP
Fax: 012 345 6633
email: academy@netgroup.co.za
Private Bag X14
Elardus Park
0047

0861 NET GRP
www.netgroup.co.za

NETGroup Academy



Who should attend

Engineering professionals who have an interest in the physical nature, design, and operation of electrical power systems. Individuals involved in power system regulation will also find the course particularly useful.

Accreditation

This course is being accredited for 2 CPD points.

NETGroup Academy is registered with the ISETT SETA and Consulting Engineers South Africa as an accredited training service provider.



0861 NET GRP
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Outcomes

When you have completed this course, you will:

- understand and be able to describe the fundamental factors, principles, dynamics and standards of power system Quality of Supply issues.
- be able to assist in measurement and assessment of QOS issues
- be able to do identify sources and effects of poor quality
- be able to advise on mitigation measures against causes and effects
- be able to support the planning, specification, technical evaluation, operating and maintenance processes
- be able to assist in the testing, measurement and research into QOS - levels, sources, effects and mitigation measures

About the Venue

The NETGroup Academy's training facility offers two multiple purpose instruction rooms each comfortably accommodating up to 20 students in multiple desk layouts. Depending on the seating configuration, the rooms may accommodate lecture-style instruction or encourage interaction in the form of roundtable discussions and teleconferences.

Teas and lunches are arranged with the on-site cafeteria and ample parking is available for students.



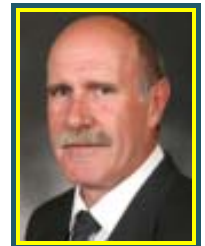
As a training facility for adult professionals, the NETGroup Academy offers a flexible and technologically-advanced learning environment that is safe, healthy, comfortable, aesthetically-pleasing, and accessible. Business stations and wireless access points with **complimentary Internet access** are available to allow students to carry out some business functions or to quickly connect with their organizations if need be during or between their training sessions.

Your Course Facilitators

Olaf von Abo

M.Dip. Electrical H.C.

Chief Design Eng.
NETGroup SA

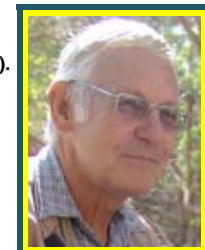


Olaf has some 22 years practical experience in the Protection of High and Medium Voltage Transmission and Distribution networks.

Execution of projects for various utilities and large industrial companies in network and plant commissioning, audits, design, specification, power system analysis, protection coordination studies and project management has earned him wide regard as industry expert.

Hennie Harmse

Pr. Eng. B.Sc. (Elec.),
MSAIEE



Hennie holds in excess of 30 years experience in Power System Protection, Control and Measurement and the Management of Transmission and Distribution Systems. He has been actively involved in Power System training since 1994.