

# NETGroup Academy



## Electrical Load Forecasting & PowerGLF

### Course Overview

Demand forecasting is the first and most critical step in the Transmission and Distribution planning process. The forecasts produced need to be accurate and defensible as it forms the basis for determining future capital spending. This three day course covers the fundamentals, process and methodology required to complete a spatial load forecast as well as in depth training using the PowerGLF application to produce demand forecasts. Forecasts provide the information needed to determine the locations, timing, and sizes of future transmission lines, substations, and distribution facilities.

Day one familiarizes the attendee with fundamental concepts planners are required to grasp before attempting to produce a forecast as well as the way in which the forecast supports and fits into the overall Transmission and Distribution planning function. The various forecast methods used in the industry are discussed and the advantages and disadvantages of each highlighted. Recommendations on how to analyze and evaluate planning areas and identify the most appropriate forecast approach are covered using specific case studies.

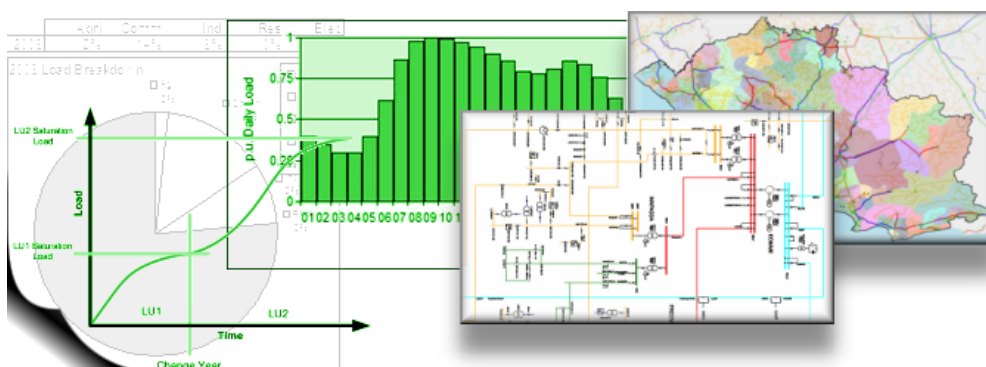
On day two the focus is shifted to the PowerGLF application where attendees are given the opportunity to complete load forecasts using the different methods available. Practical experience is obtained using actual utility load analysis and forecasting problems in order to highlight key points and give participants experience with detailed analytical spatial forecasting.

Day three centers on showing the delegates how small area load forecasts can be summated to aggregated levels taking load diversity into account and making load information available to power system analysis tools such as Reticmaster and PowerFactory. Methods to simulate future load transfer between substations as part of the forecast are covered using actual examples.

All theory, concepts and examples are documented in the training manual provided to attendees.

### Topics

- Forecast Fundamentals
- Forecast Process
- Zoning
- PowerGLF Overview
- Load Profiles
- Growth Curves
- Load Classification
- Load Objects
- Load Summation



Course dates  
TBA

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

Course fees  
R6 600 (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 and CD
- 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](mailto:academy@netgroup.co.za)

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Elardus Park  
0047

0861 NET GRP  
[www.netgroup.co.za](http://www.netgroup.co.za)

# NETGroup Academy



## Who should attend

- Network Planning Managers
- Generation Planners
- Transmission Planners
- Sub-Transmission Planners
- Distribution Planners
- Reticulation Planners
- Master Planning Specialists
- Load Forecasting Specialists
- Network Development Planners

## Take home tools

- 300 page training Guide & CD
- Load data manipulation toolkit

## Accreditation

This course is accredited for 3 CPD points.

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



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## Outcomes

When you have completed this course, you will:

- Understand and describe the fundamentals, process, and methodology required to complete a load forecast
- Have gained practical experience in performing load forecasting using regional and utility specific data.
- Understand the features of, and how to use the PowerGLF application which includes the following modules:
  - Daily Load Profile Library, used to define per unit daily profiles.
  - Growth Curve Library, used to define specific growth curves used in the study.
  - Sub Class Library, used to define a library of land use classifications with associated forecast parameters.
  - Load Object Manager, used to define specific load objects for which individual load forecasts are done.
  - Load Network Summation, used to specify how load objects summate within the network.
- Export of load data for power system analysis network simulations.

## 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.

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 Facilitator

### Jaco Roesch

B.Eng. Electrical

Senior Consultant  
NETGroup SA



Jaco is a senior consultant with NETGroup's Utility Management Consultancy division and holds in excess of 10 years experience in the electricity transmission and distribution industry with emphasis on electrical load forecasting, tariff analysis, financial modeling and is an expert on information systems pertaining to the electricity distribution industry.

Jaco is a leading authority on spatial load forecasts in the African context and has been the forecast specialist on load forecast appointments used in network master planning and financial modelling projects for Centlec, Breede Valley, City Power, Mbombela, Ekurhuleni, various Eskom Regions, Swaziland and Tanzania.