PLS-CADD Seminar

Design of Overhead Transmission and Distribution Lines using PLS-CADD.

Northern Star Power Line Consultancy

Dates and Location

Training is scheduled for the 24th - 28th June 2024. It is to be held in Knaresborough, North Yorkshire, United Kingdom. At the NM Group Offices Training Centre..

The training will take the form of a classroom style lecture and practical training exercises.

The training will be conducted in English. Class timings 1PM Monday to 12PM Friday.

About PLS-CADD

PLS-CADD is the industry standard in Overhead Line Design and Draughting Software. This course will teach the attendee how to use PLS CADD on a Transmission or Distribution Project from start to finish. Importing Survey Data, Criteria Development, Structure Design, Conductor Stringing and Sagging, Plan and Profile Drawing Development.

After the course the Attendee will...

Have an understanding of all aspects of PLS CADD, and be able to create Power Line Projects from multiple sources. They will have a thorough understanding of Criteria Development, how to create Structures both within PLS CADD, but also within PLS-Pole and PLS Tower. They will be able to understand and utilise conductor data, to string and sag conductors using Design and As Erected techniques, and to understand the effect of creep on sagging. They will understand the differences between RS and FEA, Clipped and Unclipped Insulators, M1, M2 and M4 Structures, L1, L2, L3 and L4 analysis. They will be able to model electrical features such as Circuits and produce reporting of Line Constants.

Topics Covered

Executive Overview

PLS Programs - quick overview, File - Open; Back Up; Restore. PLS - CADD, PLS - Lite, Ultra-Lite, PLS Pole, PLS Tower. Units and Settings, View Menu, Windows Menu.

Survey Data / Terrain Modelling

Feature Codes, Survey Data, Defining an alignment, TIN Creation, TIN Display, Interpolated Points, Terrain Width, Side Profiles. Attaching drawings, shapefiles and imagery. Exercise using live LiDAR Project, to include: importing survey data, load feature codes, create TIN, define alignment, attach basemap and imagery, create TIN and display, Create Interpolated Points, Clean up profiles (Terrain Width / Side Profiles).

Engineering Functions in PLS CADD, PLS Lite and Ultralite

Sag - Tension behaviour in Ultralite, Modeling Spans in PLS Lite, Set Up, Check Clearances (Phase to Phase, Crossing and Underbuild). Design criteria, Weather conditions, Code specific criteria, Wire criteria, Structural design criteria, Clearance criteria.

Structure functions. Add structures, Remove structures, Custom structure numbers, Modifying structures, Multiple structure functions, Create M1 structures, Edit M1 structures.

Cable Functions. Stringing, Managing Cable properties, Graphical Sagging, Cable data. Thermal rating check, Structure check, Multiple line design project options. Create a basic project from the very beginning.

Structures, Cables in PLS CADD.

Develop criteria, Model stick structures, Spot structures, String cables, sagging (manual and graphical).

M4 Structures - PLS Pole

Components, Geometry, Loads, Analysis, Live Project, Export to PLS Lite, Batch save.

M4 Structures - PLS Tower

Primary Joints, Secondary Joints, Components, Geometry, Loading, Analysis, Live Project, Export to PLS Lite.

New Line Optimisation

Prohibited and Additional Cost Zones, Available structure list, Optimisation.

PLS CADD Course - Knaresborough June 24th - 28th 2024

Reports, Documentation and Customisation.

Engineering reports; structures, conductors. Survey point clearances, Ground surface clearances, Galloping clearances, Structure clearances, Wire clearances. Thermal ratings. Construction Reports, Program Customisations.

Plan and Profile Drawings

Page size and layout, scales and drawing formats, text and layer controls, P&P border, North arrow, attach logo, Lines and annotation. Index Map and Title sheet, inset view functions, Live project.

Circuits, phases and jumpers.

Define circuits and phases, label circuits and phases, create jumpers and circuit connectivity.

Materials management and Advanced Engineering functions.

Add parts, add assemblies, Obtain BOM, SAPS, Electrical Functions, Danger Trees, Leg and Guy extension reports, Site Specific Structure functions.

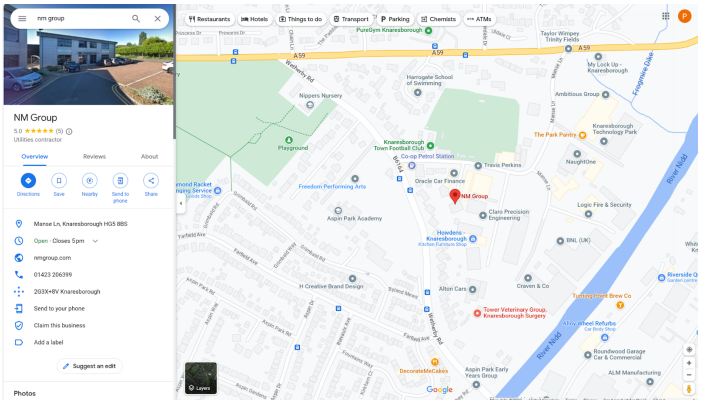
About the trainer.

Paul Richardson has worked in the Power Industry for 40 years and in Transmission and Distribution for 30 years. He is a long time proponent of the use of PLS CADD software for the analysis of existing, design of new or upgrading power networks. He has worked extensively across Europe, the United States, Australia, NZ, India and the Middle East. He has been an accredited provider of PLS CADD Training Services for 5 years. Paul is a Chartered Civil Engineer and has worked for many of the leading Utilities worldwide.

About the Location

The class will be held at the NM Group Offices in the beautiful town of Knaresborough. If flying into Leeds Bradford Airport a Taxi may be the best option although buses are also available, if flying into Manchester there are trains to Knaresborough and taxis / hire cars are also good options.

[NM Group - Google Maps]



Who should attend?

The attendees should have basic understanding of Overhead Line Design concepts as the class focuses on the use of the software and not line design fundamentals.

Cost

The class costs 2200 Euro for the five days. Should attendees not have the latest suite of Power Line Systems Software we strongly recommend hire of the software at 300 Eur per person.

Attendees will be expected to bring their own PC suitable of running the software. The software will be provided one week ahead and will need to be installed onto the attendees PC's.

For further information or to book this class e-mail Paul.Richardson@northern-star-plc.com

Or click on

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