

MONDAY 13.09.2021 - FRIDAY 17.09.2021

8:30 AM - 12:30 PM

(CENTRAL EUROPEAN SUMMER TIME CEST: UTC+2)

## **ONLINE COURSE**

# DESIGN OF OVERHEAD POWERLINES USING PLS-CADD



PLS-CADD is the industry standard in overhead power line design and drafting software. This course will teach how to use PLS-CADD on a transmission or distribution project from start to finish, including importing survey data, criteria development, structure design, conductor sagging and Plan & Profile drawing development and plotting.

### **Topics Covered**

- Overview of the PLS Suite of Software
- Survey Data and Terrain modeling
- Engineering
  - o Design criteria
  - Component libraries
  - Clearance calculations
  - Manual spotting and stringing
  - Automatic spotting
  - Structure calculations
- PLS-POLE and TOWER basics
- PLS-POLE/TOWER integration with PLS-CADD
- Concentrated loads e.g. aircraft warning spheres
- PLS-CADD drafting tools
- Creation of construction documentation

#### Who should attend?

This course is intended for all line design engineers who currently use or are planning to use PLS-CADD software. The attendees should have a basic understanding of power line design and the process and concepts involved. The course is focused on the **use of PLS-CADD** and no prior knowledge of PLS-CADD is required. The course does not cover the fundamentals of line design; however, a separate course is available.

#### Cost

The class costs € 1600 + VAT per person. (One thousand six hundred euros + VAT)

#### **More Information**

A registration form is attached to this document. Seats are limited to the first 30 registrants. We must receive your registration form and payment to reserve your seat.

#### PLS-CADD COURSE REGISTRATION FORM

SEPTEMBER 13-17, 2021

Each attendee must submit a completed form to register – please print

Email completed forms to pls-support@efla.no

Attendee Information		
Name (First/Last):		
Phone + dialing code:		
Company:		
Address	E-Mail	
Country	City	
Postal Code:		
Company VAT Number: _		

#### **Payment Information**

Full payment is required prior to the class and must be received in order to reserve a seat. Seats are reserved on a first-paid first-reserved basis and are limited to 30 people.

Payment can be made directly to the EFLA account. Please send proof of payment and we will confirm receipt of your payment and space on the course. The attendee name must be used as reference for the payment. If one batch payment is being done by a company for several attendees, contact EFLA for a reference number to be used for the batch payment. You will be issued an invoice upon registration.

#### **Cancellation Policy**

Confirmed registrants who do not participate or who cancel after August 31, 2021, will forfeit their entire registration fee. EFLA reserves the right to cancel the training session and will refund the entire class registration fee in the unlikely event this happens.

#### **Instructors**

#### **Viven Naidoo**

Mr Naidoo is an Electrical engineer with an MBA from Henley Business School and has over 23 years' experience in the design or uprating of Distribution and Transmission Lines from 22 kV up to 765 kV. He has worked on the design of transmission lines in many countries including South Africa, Canada, Namibia, Botswana, Indonesia, Norway, Mozambique, Greenland, Sri-Lanka and the DRC. Mr Naidoo is an active CIGRE member for 10 years and was previously the engineering design leader for a large transmission integration project valued at USD 480 million, which consisted of several



765 kV and 400 kV lines, totaling 2200 km. He has been involved in many line failure investigations, vibration damping studies and emergency restoration planning projects. Mr Naidoo has conducted several PLS-CADD training exercises in South Africa, Norway, Sri-Lanka and the Netherlands. He has been utilizing PLS suite of software for more than 20 years.

#### **Gilles Sabatier-Olne**

Mr Sabatier-Olne is a structural engineer with 20 years of professional experience in engineering work, whereof 16 years related to engineering and design of transmission facilities for electric power. His main expertise and experience are in the fields of structural analysis and design of towers and engineering of lines in different countries (Norway, France, Iceland), specifically upgrade and reinforcement of existing power lines. Mr Sabatier-Olne has taken part in study and design of new tower types, among them one based on aluminum material and has also been involved in assisting Statnett



(Norwegian TSO) to set up a new tower design procedure based on PLS-CADD/TOWER software. Mr Sabatier-Olne oversees the maintenance and update according to latest standards of some of Statnett tower design software tools related to TOWER. He has conducted training sessions regarding the use of the PLS-CADD and TOWER for various Norwegian companies.

#### **Details**

- The course will be conducted in English.
- The course will take the form of a lecture focusing on core concepts of PLS-CADD, PLS-POLE and TOWER. It will be a lecture and assignment style format where students can learn the software by using it to complete hands-on project assignments. Student can either complete the exercises during the lectures or daily after each lecture.
- The class will be held from 8:30 AM to 12:30+ PM (Central European Summer time CEST: UTC+2) Monday through Friday via a Zoom web conference meeting.
- Each day will consist of a short recap followed by a 4-hour lecture covering the various topics as well as detailed example walkthroughs using actual project data. After each lecture on Monday through Thursday, the class will be given an assignment related to the lecture topic.

Students can at their own pace complete the assignment and submit their results to EFLA review and comment. A 1-hour video conference call from 4:00 PM to 5:00 PM (Central European Summer time CEST: UTC+2) to offer face-to-face assistance and answer any questions in an open forum manner. Friday will comprise solely of a lecture. It is suggested that delegates reserve their afternoons for working on the assignments.

 Upon completion of the course students will receive a certificate of attendance issued by EFLA Consulting Engineers.

#### Requirements

- Create a Zoom account and supply the account name/email address to EFLA.
- A web camera must be installed and used to access the Zoom meeting.
- Ability to access a Google Drive link to download example files and course material.

#### **Software & Training Material Provided**

This is a 'hands-on' class where attendees will be learning by using PLS-CADD. Each attendee is expected to have the latest version of PLS-CADD with optimum spotting, PLS-POLE/Wood/Steel. If an attendee does not have the software available, please contact EFLA so we can make a temporary version available for the period of the course.

\*Any audio or video recording of the class is strictly prohibited.