Analysis and Design of Transmission Towers Using the TOWER Software - A Hands-On Class

June 20 - 23, 2023
8:30 AM to 4:30 PM Tues.- Thur.
8:30 AM to 12:00 PM Friday

at
Power Line Systems
5400 King James Way
Suite 300
Madison, WI 53719
TOWER is the most widely used lattice tower analysis and design program in the world. Its ability to link directly with PLS-CADD, the industry standard in overhead line design and drafting software, makes it the tool of choice for tower designers and overhead line designers.

This course will teach attendees how to use TOWER to model steel lattice structures, whether for construction of new lattice tower lines, analysis of existing towers or upgrading of existing towers. The course examples will utilize real life structure fabrication drawings and cover implementing provisions of the ASCE 10-15 design standard.

**Topics Covered**

- General Lattice Tower Modeling Concepts
- Reading Fabrication and Erection Drawings
- Building a TOWER Model
  - Joints, Members, Connections & Insulators
- Wind and Wire Loads
- ASCE 10-15 Design Strength Checks
  - Compression, Tension, Shear, Bearing and Rupture
- Analysis and Convergence Issues
- Design Functions
- Understanding and Interpreting Results
- Body and Leg Extension Design and Management using Family Manager
- Structure and Member Optimization
- Common Modeling Errors and Pitfalls
- Using TOWER models efficiently in PLS-CADD

**Who Should Attend?**

This course is open to all engineers and technicians whose companies currently use TOWER and/or PLS-CADD or are considering purchasing it. The attendee should have a basic understanding of structural design concepts. Previous experience with TOWER is not required but is recommended.

**Cost**

The class costs $2200 per person.

**More Information**

A registration form is on the back of this brochure. Seats are limited to the first 25 registrants. We must receive payment and your registration form in order to reserve your seat.

Please see our web site at [https://www.powerlinesystems.com/classes](https://www.powerlinesystems.com/classes) for other classes.
**Details**

The class will be held from 8:30 AM to 4:30 PM Tuesday through Thursday and from 8:30 AM to 12:00 PM on Friday (training room opens 15 minutes before class start each day). The course will be conducted at Power Line Systems headquarters in Madison, Wisconsin (see map below). Lunch will be provided Tuesday through Thursday. Attendees are responsible for all other costs incurred including lodging. Please see https://www.powline.com/visiting.html for a detailed map of Power Line Systems location and listings of area hotels.

**Instructor**

The course will be conducted by Tim Cashman, P.E. of Power Line Systems. He has more than 30 years of experience in transmission line design ranging from voltages of 69kV through 500kV as well as extensive experience using the PLS software suite. Tim is an active member of the ASCE 10 Design of Latticed Steel Transmission Structures committee and is extremely knowledgeable in the use of TOWER and its real world application.

**Computers and Software Provided**

This is a ‘hands-on’ class where attendees will be learning by actually using PLS-CADD. A computer and the latest PLS-CADD software will be provided by Power Line Systems for each attendee for the duration of the class.

*Any audio or video recording of the class is strictly prohibited.*
TOWER Seminar Registration Form
June 20 - 23, 2023 in Madison, Wisconsin, USA

Each attendee must submit a completed form to register – please print.
Please fax completed forms to (608) 238-9241

Attendee Information

Name (First/Last) ____________________________ Phone ____________________________
Company ________________________________ Fax ____________________________
Address ________________________________ E-Mail ________________________________
City ________________________________ State ________ Zip __________

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 25 people.

Check No. ____________________________

I authorize Power Line Systems to charge my __MasterCard __Visa for the amount of $2200. Note that Power Line Systems can only accept MasterCard or VISA credit cards. All attendees will be supplied with a computer, the TOWER software, and a training license of the software to use during the class.

Cardholder Name___________________________ Signature__________________________
Card No.______________________________ Expiration Date________________________
CVC No.________

Credit Card Billing Address ________________
(if different than above) ________________
City ________________________________ State ________ Zip __________

Cancellation Policy

Confirmed registrants who do not participate or who cancel after June 2, 2023, will forfeit their entire registration fee. Power Line Systems reserves the right to cancel the training session and will refund the entire class registration fee in the unlikely event this happens.