

GLD2012 Software Training Loopfields & Piping Design Web Workshop Series

Online - Instructor Led Edition

A Three Unit Workshop Series:

Unit 1: GLD 2012 Loopfield System Design

Unit 2: Piping Optimization with GLD 2012

Unit 3: Exercise Lab w/ Student Data and Review



[Register for this class](#)

Course Length: 3 Weeks; ~3 Hours per session
Class Hour Options: 09:30 to 12:30 CST (GMT -6:00) (European schedule)
12:00 to 15:00 CST (GMT -6:00) (North America Schedule)

Complete Workshop Series: \$695
Additional Students (same company): \$395

GTI classes are also available for private instruction. To place a request, fill out our [Class Request form](#).

Summary

The objective of this series is to provide the geothermal designer with working knowledge of how to use the GLD2012 Software Suite to design and optimize systems. Learn how to configure the design of the loopfield and piping and correctly match the heat pump with the building and loopfield to develop a complete system. Utilizing the industry leading Ground Loop Design (GLD) 2012 Software Suite, this series will provide an understanding into how to use GLD2012 from start to finish in the preparation of realistic designs for different situations, including a full session dedicated to example designs from the instructor as well as looking at some actual system designs from the course participants. Two-way interaction with a GLD Software expert provides the geothermal professional with the knowledge needed to effectively use the GLD 2012 Software Suite to design and optimize a GSHP system.

In today's energy world, a geothermal system is a leading "green" solution that offers a lifetime of potential savings of precious resources and money for the end user. GLD2012 is an extremely powerful design tool in the hands of a geothermal professional and is a critical part of developing an effective design. For the geothermal professional, using GLD2012 will provide a significant competitive advantage, including system performance that works by design and not by accident. Training in the use of this sophisticated tool and understanding the design process is an investment into your business, your customers and your industry.

Who Should Attend

This class is intended for professional designers and engineers that need to use the GLD 2012 Design Suite effectively to develop an optimized system design along with other system tools. The target audience includes engineers, architects, installers and other experienced geothermal professionals. It is also suitable for those who have been self-taught and would like to learn and develop a much better understanding of the software and how it provides flexible simulations to arrive at sound system designs.

Objectives

Upon completion of this class, the student will be able to use their knowledge of the GLD Software Suite to more confidently design appropriate loopfields and piping solutions. Student and instructor interaction will allow participants to recognize and utilize best practices and share experiences with other professionals. After completion of all three of the workshop units, the geothermal professional can additionally use the GLD2012 financial tools to quickly develop

accurate lifecycle cost modeling that demonstrates the ROI benefits of a particular geothermal design when compared to conventional and much less efficient mechanical systems.

Prerequisites

It is recommended that the student have a working knowledge of:

1. The Microsoft® Windows® OS Family
2. Access to broadband internet and VOIP or telephone
3. Familiarity with HVAC terminology
4. A general understanding of geothermal ground source heat pump systems.

Each Student Receives

- Trial Version of GLD2012 Software
- GTI Certificate of completion

Topics Covered*

The course is broken down into sections that facilitate a practical approach to applying the software to real world designs. Please refer to each individual workshop outline for a more complete outline of the topics covered.

Workshop Week 1: GLD 2012 Loopfield System Design

- Part 1: Groundloop Design Overview; Design Principles; Geothermal Intuition
- Part 2: Loads, Loads Modules and Heat Pumps
- Part 3: Heat Exchanger Design – Vertical; Horizontal
- Part 4 Life Cycle Costing

Workshop Week 2: Piping Design and Optimization with GLD 2012

- Part 1: Piping system basics
- Part 2: The Importance of a Well Designed Piping System
- Part 3: Using the Computational Fluid Dynamics (CFD) Module

Workshop Week 3: Simulation Exercise Lab with Examples and Student Data

- Part 1: Review of Homework Exercises
- Part 2: Review – GLD and the major design Modules
- Part 3: Exercises: Vertical; Horizontal Loopfields; CFD Piping – Class Discussion of Exercise System Designs and Simulations

In order to provide a more in-depth learning opportunity, example problems are provided for completion between classes. These exercises are discussed and participants have the opportunity to learn from each other's results. By allowing time between classes, the students have the opportunity to retain more knowledge regarding the extensive subject material that is presented for each session.

* Note: The course topics are a guideline and class topics may be modified by the instructor based upon the class flow.

*Course length and cost are based on a minimum number of attendees. GTI reserves the right to cancel or reschedule classes as needed.

[Register for this class](#)

Revisions:

- 12/10/2011 Updated for GLD2012 Software features
- 1/31/2011 Removed option for single unit
Added rate for additional students from the same company
- 1/20/2011 Modifications to the outline and inclusion of provisions for exercises between classes
- 11/09/2010 New software training course