Trimble
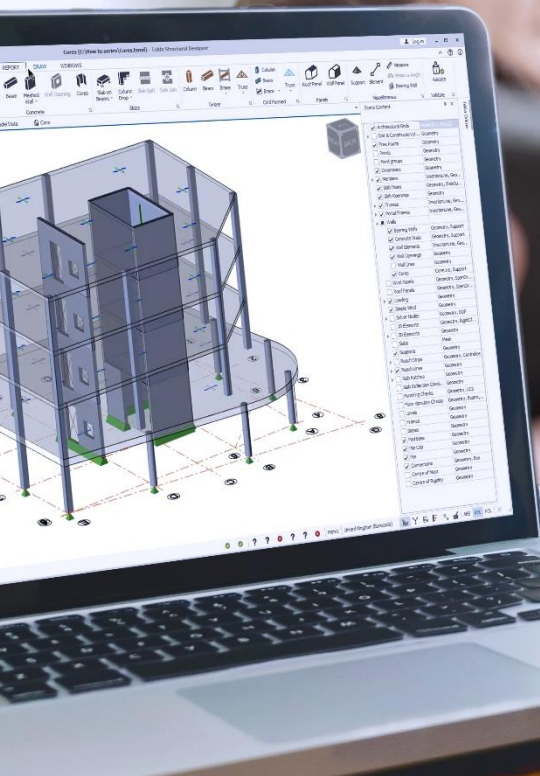
Tekla Structural Designer Fundamental

Public Program
Remote Online Training:
10-13 May 2022
2-5.30pm

In-House Program Available

Trainer:
Liew Yee Cheng

HRD claimable course
program no.
10001153388

This online training course is open for Tekla customers (in South-East Asia) who have already purchased and paid for it. This course will be conducted in English and makes reference to Eurocodes.

This course is suitable for engineers who are new to Tekla Structural Designer and want to learn the fundamentals of the software, from modelling to analysis and design, producing engineering drawings and reports for a whole project.

Course information
This comprehensive course will teach the learner how to model, analyse and design steel and concrete buildings effectively using Tekla Structural Designer.

Referencing the existing knowledge, the learner will gain a full understanding of how to model with physical objects and undertake gravity and lateral designs. In addition, the learner will also grasp many useful shortcuts that Tekla experts use daily.

On completing the course, the learner will have the knowledge and confidence required to model, analyse and design, both in steel and concrete, using Tekla Structural Designer.

► Skill level: Basic

► Pre-requisites: Knowledge of engineering

► Duration: 4 half-days

► Training method: Online

This online course will be delivered using the virtual meeting platform called GoToMeeting, where you'll be able to see, hear and interact with the trainer and other trainees throughout the sessions. You will need to have:

► A PC / Laptop (strongly recommended that you have two screens)

► Mouse and Keyboard

► Headset with mic

► Access to the internet, with a strong & reliable connection (advisable that you are NOT connected to a VPN or Proxy Server during the course)

Agenda

Day 1

Introduction

  - Overview of Tekla Structural Designer

  - Overview of design codes available

The Graphical User Interface

  - The ribbon

  - Screen Layout

  - Customising the Graphical Interface

Navigating the interface

  - How to use the project workspace and properties dialogue

  - Using scene content to manage 2D and 3D views

  - How to manage changes using selection tools and the properties dialogue

Property Sets

  - How to save properties to a named property set?

  - How to recall a previously saved property set?

  - How to manage/replace existing property sets?

File Saving

  - Saves options

  - Autosave

Model Validation

  - What are validation errors and warnings

  - Common validation errors

Tekla Common Services

  - Tekla Online Profile

  - Online Help (TUA)

Multi Material Modelling

  - Model and global settings

  - Materials properties settings

  - Using the Project Wiki

  - Establishing the structural geometry

  - Dimensioning and meauring tools

  - Using the Project Wiki

Creating Structural Elements

  - Creating concrete columns/beams

  - Creating steel beams

  - Creating model views

Construction Lines and Free Form Truss

  - Defining construction lines

  - Defining free form truss properties

  - Creating steel trusses

Mirror Command

Copy Command

Creating Slabs

  - Concrete/composite slabs

  - Slab openings

Floor Loading

  - How to create and control loadcases

  - Applying panel Load

  - Applying member loads

Creating Roof Structure

  - Creating eaves beams/purlins/roof panels

Roof Loading

  - Applying area loads

Day 2

Load Combinations

  - Generating code based gravity combinations

3D Analysis Results

  - Analysis settings

  - Analysis process

  - Loading summaries

  - Viewing analysis results

  - Filtering results graphically

  - Tabulated results

The Solver View

The Design

  - Design settings

  - Design groups/autodesign/sway & drift checks

  - Gravity design

  - Design status/ratio/tabular data

  - Concrete member design/check

  - Steel member design/check

Lateral Loading

  - Applying EHF's

  - Applying manual wind loading

  - Automated wind loading

  - Generating code based lateral combinations

Output

  - Predefined reports

  - Individual report components

  - Structural element reports

  - Exporting reports

  - Saving pictures/views

  - Generating engineering drawings

Analysis and Design of Concrete Structures

  - Analysis and design settings

  - Analysis and design procedure

  - Reviewing the overall design status

  - Reviewing the analysis results

Interactive Design of RC Columns and Walls

  - Check/design member

  - Interactive design interface

Interactive Design of RC Beams

  - Check/design member

  - Interactive design interface

Day 3

RC Slab Design

- Overall slab design procedure

- Types and applications of patches

- Design the slab panels

- Design the slab patches

- Review and rationalise the panel/patch design

- Flat slab design

- Punching shear checks

RC Members Detail Drawings

- Drawing settings

- Detail drawings of individual elements

- Schedules

- Slab detail drawings

- Drawing management

RC Members Design Reports

- Individual member design reports

- Report content

- Other report options

Design Groups

- How the design groups formed?

- Design procedure for a design group

- Working with design groups

Day 4

Analysis and Design of Steel Structure

- Combination classes

- Gravity only / Autodesign

- Design settings

- Design Steel (Gravity)

- Check design status / loading summary

- Review view checking

Analysis and Design of Steel Structure

- Interrogate and review individual member

- How to chek member / design member / edit member

- Design Steel (Static)

- Using result view to investigate solver warnings

Foundation Design

- Introduction

- Using cutting planes

- Model / Design of pad footing

- Model of strip footing

- Model / Design of pile cap

- Model / Design of piled mat

- Foundation drawing

- Foundation report

Liew Yee Cheng

The trainer has many years of design experience when working with local consultant firms before joining Trimble.

She has very good experience in providing technical support to the end users of Tekla's software and she has conducted many training courses for large Tekla user base.

With her good engineering experience, she also has been actively involved in providing project consultation to engineers.

Trimble.

Tekla Structural Designer Fundamental

Date:
10-13 May 2022
2-5.30pm

Fee:
RM1000/pax
excluding 6% SST

Company name: _____

Company address: _____

Person-in-charge: _____

Phone no.: _____ *Email:* _____

Name of participant(s)	Designation	Email address
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Payment
Payable to:
Trimble Solutions Malaysia Sdn Bhd

Contact

Trimble Solutions Malaysia Sdn Bhd
Suite B-12-5, North Point Offices,
No. 1 Medan Syed Putra Utara,
Mid Valley City, 59200
Kuala Lumpur, Malaysia

Contact person: Wee Eng Yau +60 12-987 8190/
Chiang Xin Yi +60 10-270 8733
Email: Tekla.sales.my@trimble.com
Website: www.tekla.com/sg

Terms and conditions
- Seat is confirmed only upon receipt of full payment prior to the program.

- Training fees will be invoiced from the customer in full in case HRD Corp's grant approval documents are not provided to Trimble before the training, customer fails to declare or sign claims forms in a timely manner and/or HRD Corp withdraws the grant for any reason.

- Trimble Solutions Malaysia Sdn Bhd reserves the right to cancel or postpone the program owing to unforeseen circumstances