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DESIGN OF STEEL STRUCTURES COURSE

WHO IS THIS COURSE FOR?

- Structural Engineers
- Mechanical engineers with experience in structural designs
- Civil Engineers with experience in structural designs
- Final Year students in structural Engineering

HOW LONG IS THE COURSE?

The course is delivered into 2 parts:

1. Indoor training

This indoor training consists of the first step of the course. It will be taking 1 month. Within this time schedule, the recap on steel structure design theories will be delivered along with the software application for good understanding of how steel designs are done in construction industry.

2. Project study

After the aforementioned period of 1 month, the course participants will be given a realistic project study for the enhancement of what was taught during indoor training. The project will have to be completed and delivered within 1 month. The delivery consists of presenting the completed project to the external board. During this period of project study, the course participant is not required to attend the class sessions; they only come for presentation of the progress once a week.

WHO TEACHES THIS COURSE?

The trainer of this course must be a design software and practicing professional, certified by MIDAS. Find the assigned trainer(s) to this course by clicking this link https://nzizatraining.ac.rw/trainers/

COURSE OBJECTIVE:

The main objective of this course is to deliver professional skills through a practical design of a real project.

The course will involve different practical exercises and assignments but the final goal is to deliver a technical design study of previously designed and implemented project of storage building (warehouse).

We will use Midas nGen for structural 3D Modelling, analysis, design and production of construction drawings. The entire workflow will base on the latest standard of Great Britain (BS5950-1).

WHAT WILL BE THE OUTCOME?

Ultimate skills and confidence to create more resilient and constructible steel structural designs that are accurately coordinated, and connected to BIM. Accompanied by understanding the automated and optimized workflow process from modeling to report generation using Midas nGen software. After the successful completion and the delivery of final project, the attendees will be awarded a certificate of proficiency by MIDAS.

TRAINING COURSE CONTENT

NOTE: It can be updated anytime to match market needs,

Lesson 1: Getting started: Get the software, instructor's guide and understanding Steel structural engineering sector.

Lesson 2: Grid based Modelling of Steel Structure (Warehouse): Getting Started, Define Properties, Grid Set, Beams & Columns, Braces, Auto Edit & Generate Offsets.

Lesson 3: Loading & Boundary Condition: Load Set, Floor Loads, Wind Loads, Seismic Loads, and Boundary Conditions.

Lesson 4: Setting up Analysis Cases & Interpreting Results: Analysis Cases, and Analysis Results.

Lesson 5: Defining Rebar & Design: Load Combinations, Member Design Parameters, Design Groups, Ultimate Limit States (ULS) and Serviceability Limit States (SLS).

Lesson 6: Detailed Design Report & Drawings: Generate Report, Generate Drawings and Review Drawings.

Lesson 7: Get a final project study.