

# Concrete Structure Design Diploma (SAP , SAFE , ETABS , Revit Structure & project ) دبلومة تصميم المنشآت الخرسانية

## Overview

هذه الدبلومة تقوم بالربط بين الدراسة و الحياة العملية للمهندس الانشائي عن طريق دراسة مفاهيم واساسيات التصميم الانشائي ويتم فيها دراسته كل البرامج المستخدمة في التصميم دراسته وافيه وكذلك تنفيذ مشروعين كاملين باستخدام هذه البرامج مشروع فيلا ومشروع مبنى على الارتفاع (High Rise Building) وكذا اخراج التقارير الخاصه بالمشروع باستخدام برنامج isa column واللوح الانشائي باستخدام برنامج الريفيت الانشائي وتكنولوجيا BIM

- **SAP2000:** This program include analysis and design (Beams – Frames – Trusses – Slabs – Tanks – Foundation)
- **ETABS:** This program include analysis the High Rises Buildings and design (Cores & Shear Walls) and Seismic checks (Drift Story – Displacements – Torsional Moment – Overturning Moments)
- **SAFE:** This program include analysis and design (Slabs – Foundation – Beams).
- **Revit Structure :** Revit is the most famous- BIM (Building Information Modeling) application, Revit Structure designed for Structure Engineers meet their requirements and ideas, and it is new platform and new technology that is different than AutoCAD Building Structures Design and drawings background

## SAP2000

Introduction to SAP2000  
Introduction to Frames  
Analysis of Frames  
Introduction to Slabs  
Analysis of Solid Slabs  
Analysis of Flat Slabs  
Creating 3D Model  
Analysis of Steel Trusses  
Analysis of Helical Stairs  
Analysis of Raft Foundation  
Analysis of Raft Foundation  
Import from AutoCAD to Sap

## ETABS

Creating 2D Model

Creating 3D Model

Import from AutoCAD to Etabs

3D model for high rise building

Calculation of Wind and Earthquake

Load Combinations

check Warnings and Errors

Check Drift and Overturning

Design and Check for Columns

Design and Check for Walls

Analysis of Beams

## SAFE

Introduction to SAFE 12

Importing from AutoCAD to Safe

Creating 2D Model

Check Flat Slab Long Term Deflection

Check Flat Slab for Punching Shear

Check Flat Slab for Flexure

Importing from Etabs to Safe

Check Stresses For Raft Foundation

Check Punching for Raft Foundation

Check and Design Combined Footing

Nighbour Footing with Strap beam

Check and Design Raft on Piles

## برنامج الريفيت الانشائي Autodesk Revit Structure

### Overview:

Revit is the most famous BIM (Building Information Modeling) application, Revit Structure designed for Structure Engineers meet their requirements and ideas, and it is new platform and new technology that is different than AutoCAD:

-Building Structures Design and drawings background

Session	Session Contents
1	<ul style="list-style-type: none"> <li>• Introduction to Autodesk AEC (Architecture, Engineering and Construction) solutions.</li> <li>• Overview of BIM (Building Information Modeling) Technology.</li> <li>• Introduction to Revit Structure.</li> <li>• Overview of Revit Families types</li> </ul>
2	<ul style="list-style-type: none"> <li>• Working With Views</li> <li>• Planes Elevation and Section</li> <li>• Working With 3D views</li> </ul>
3	<ul style="list-style-type: none"> <li>• Working With Levels</li> <li>• Working With Grids</li> </ul>
4	<ul style="list-style-type: none"> <li>• Creating Structural Columns</li> <li>• Creating Structural Walls</li> </ul>
5	<ul style="list-style-type: none"> <li>• Creating Beams</li> <li>• Creating Structural Framing</li> <li>• Working With Beam Systems</li> </ul>
6	<ul style="list-style-type: none"> <li>• Working With Floors</li> <li>• Working With Foundations</li> </ul>
7	<ul style="list-style-type: none"> <li>• Creating Stairs Ramps</li> </ul>
8	<ul style="list-style-type: none"> <li>• Working With Annotations and Schedules</li> <li>• Creating Dimensions</li> <li>• Creating Tags (text)</li> <li>• Creating Schedules</li> </ul>
9	<ul style="list-style-type: none"> <li>• Working Reinforcement and Rebaring.</li> </ul>
10	<ul style="list-style-type: none"> <li>• Working With Sheet</li> <li>• Creating Sheets</li> <li>• Printing</li> </ul>
11	<ul style="list-style-type: none"> <li>• Cad &amp; Revit management</li> <li>• Workshop</li> </ul>
12	<ul style="list-style-type: none"> <li>• Exercise &amp; closing</li> </ul>



Authorized Training Center

للتدريب

المتحدة

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