Design Studio LAB

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DEPARTMENT OF CIVIL ENGINEERING

Design Studio Lab

With proven technology, one can confidently take on any design, construction, or operations project by using the design software. These are updated software with well understanding teaching is provided in the laboratory.

The services offered by the laboratory are:

Academic: Train undergraduate students as a part of their curriculum, Undergraduate and Doctoral project work.

Software available in the laboratory:

BIM

- Bentley Tools
- Unity
- Rhinoceros
- Revit
- ACCA BIM tools
- AR
- VR
- ARC-GIS

Analysis, Design, and Detailing

- Bentley Tools (STAAD Pro and RCDC)
- ETABS
- Seismostruct
- Seismosoft
- Plaxis 2D

Finite Element Analysis

- DIANA
- ABAQUS
- ANSYS
- COMSOL
- LS-Dyna

Coding

- MATLAB
- python, R

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ABOUT THE SOFTWARES

STAAD Pro

STAAD is a popular structural analysis application known for analysis, diverse applications, time-saving capabilities. STAAD helps structural engineers perform 3D structural analysis and design for both steel and concrete structures.

ETABS

While primarily focused on building structures, ETABS can also be used for the analysis and design of bridges. It offers specialized tools and features for modeling bridge components, such as girders, bearings, and abutments, as well as capabilities for analyzing bridge loads and performing code-based design checks.

Revit

Revit is the foundation of a larger process called Building Information Modeling (BIM). The BIM process revolves around a virtual, information-rich 3D model. This model represents all the major building elements and contains information such as manufacturer, model, cost, phase, and much more.

MATLAB

MATLAB stands for Matrix Laboratory. It is a high-performance language that is used for technical computing.

Details of the softwares:

Name of the Software	Description
AutoCAD	Software: AutoCAD Year: 2022
Visual Studio Code	Software: Visual Studio Code Year: 2022

RCDC	Software: RCDC Year: 2023
STAAD Building Planner	Software: STAAD Building Planner
Open Bridge Designer CE	Software: Open Bridge Designer CE Year: 2022
COMSOL Multiphysics 5.2a	Software: COMSOL Multiphysics 5.2a
ETABS 20	Software: ETABS 20
STAAD Pro	Software: STAAD Pro Year: 2024