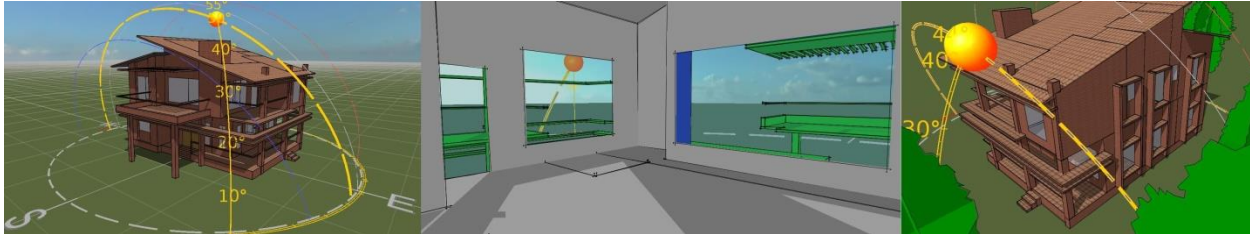


Course code: RDT-A007



IES VE 1 day workshop for college students

(Duration: 1 Day 10am to 5pm)

For Registration contact: **Aniket Chaudhari** Mobile: +91 9820941094 Email id: aniket@reindt.com

This is a 1 day special workshop in IES VE software designed for college students. We will teach you simulation techniques and methods to enable more sustainable design practices using the enhanced features of VE software. This is the certificate workshop program, after successfully completing the workshop attendee will get the certificate from IES

Part 1: Basic introduction to building energy modeling and simulation

- Participants will get clear idea about what is building energy modeling and its purpose in our industry?
- Some more explanation on simulation and tools used for the same

Part 2: VE software Interface and introduction to different modules in software

- Brief introduction to software interface, tools for creating, editing geometry with some important shortcuts for fast modeling.
- Quick introduction to all the different types of modules available within software for different types of analysis.

Part 3: Bioclimatic analysis, Natural resources, passive design, building energy and carbon emission

- Selection of weather file for proposed site, orientation, specific latitude and longitude selection, adjacent building impact and modelling technique, topographical features and contour modelling for sloping site, microclimatic features and its effect on design decision
- How to analyse weather file and extract important information which will help architect and designer in order to optimize design decision and create responsive design to local weather conditions.
- Understanding passive and active design strategies analyse its effect on conceptual design model, available natural resources, energy consumption pattern of the building, total carbon emission of the building etc.
- Better design strategies and justification of design from based on climatic analysis, comfort condition, natural ventilation or mechanical ventilation feasibility analysis and many more

Part 4: ModelIT, SunCast, Solar exposure & FlucsDL

- ModelIT tool, in this module we can see different techniques used to model 3D thermal geometry of the building
- SunCast, in this module we can calculate the position of the sun in the sky, track solar penetration throughout the building interior and calculate shadows of different design elements such as vertical & horizontal fins, pergolas, adjacent buildings etc.
- Solar exposure study for our building geometry can be analyzed for any specific time throughout the year
- FlucsDL, in order to determine daylight levels in any specific room or group of rooms we can use this systematic point-by-point daylight analysis tool.

Part 5: LightPro, FlucsPro, RadianceIES & MacroFlo

- LightPro, in this module we will see how to select luminaires from software existing database and place that in any selected room in our 3D building geometry
- FlucsPro, using this module we can estimate number of luminaires required in a particular room by performing lighting design calculation
- RadianceIES, this is detailed 3D simulation tool designed to predict daylight and the appearance of internal spaces prior to construction
- MacroFlo, using this we can perform natural ventilation study and simulate airflow driven by wind pressure and buoyancy forces using a fast multi-zone thermo-fluid solver

Part 6: Importing geometry from Cad, Sketch-up and Revit in VE

- Complex design form modeling, importing DXF, Sketch-up and Revit model in VE and efficient way to work with these techniques.

Part 7: Understanding VistaPro for result analysis from dynamic simulation

- Introduction to VistaPro, Selecting the result file of demo model and required category
- Viewing graph of room conditions, synopsis of room condition