OpenSTAAD for Productive Structural Designs

OpenSTAAD is an API which exposes functionality of STAAD.Pro allowing users to interact with the application using a wide variety of programming languages such C#, VB.NET, Python etc.

Hi,

My name Srinivas. I am a structural engineer with over 15years of experience and welcome to my course 'OpenSTAAD for Productive Structural Designs'.

Often a structural engineer encounter one or more of the following situations:

a. The structure he/she is dealing with is more repetitive in nature except a few varying parameters.
   For example, a pipe rack where the spacings, number of bays and elevations may vary but the pattern remains same.
   Another example is a thickener in a mining industry where the geometry and loading pattern remains same except that the size keeps changing.
b. The structure geometry itself is complex making it more time consuming or even occasionally impossible to create manually.
c. Like the geometry, sometimes some loading patterns are so complicated that they cannot accomplished using the STAAD's in-built load application methods.
   For example, the application of seismic pressures resulting from the impulsive and convective actions on a liquid containing structures is hard to accomplish manually.

OpenSTAAD provides a greater flexibility in solving all these kinds of difficulties. If you have encountered any of the situations explained earlier or if you interested to level up your skills to overcome these difficulties, you are at the right place.

In this introduction video, we will understand about the tools required for us to get started with using OpenSTAAD. We also will review briefly about the merits and demerits of these tools.

Then we will lay the foundation or the infrastructure that will be used through out this course to facilitate the interaction between a programming application and STAAD.Pro.

Tools:

1.