**51\_Introduction to SAFE**

SAFE is also a very powerful software from CSi for the analysis of RC floors and foundations. It's interface is the same as that of ETABS. You will see Tip of the Day as we have seen in ETABS. There are main menus above, model explorer on left from where you can quickly jump to different sections of your models, then we have shortcuts on left and top and the status bar at bottom left.

It is recommended to go through all the ETABS lectures before starting SAFE.

Let's start a new model from File menu. From here you can choose pre-defined templates or start with blank. Select design code and unit preferences. One thing nice about SAFE 12 as compared to ETABS 9 is the option of consistent units. By selecting Metric units from here, SAFE will automatically change units to match with different inputs. For example in material properties unit weight the unit will be kN/m³ and in modulus of elasticity of the material, the unit will be N/mm² or mega Pascal's. This saves time and errors.

Let's start with a basic single footing model. We have the same concept for view options in SAFE 12 as in ETABS but with few modifications. You will see horizon which is the background graph paper. Also you will notice options for design strips and architectural layers. This architectural layer is a very useful option. It is also available in ETABS 2013 and 15.

Also you can right click on objects to show their properties. It's same what we have been doing in ETABS.

There are options to define sub grade modulus for soil and cracking options for slabs. You can also perform non-linear uplift calculations for foundations.

You can change units any time from this button separately for each type.