S. No.	9
PROGRAM	**RCC Design Using Spreadsheet Applications**
CATEGORY	**Struct Design**
DURATION	**2 Days**

OBJECTIVE

Whether it is a small house in a town or a tall building in a city, a structural engineer is deeply concerned that his structural design must be safe, serviceable and economical as well. Even in this age of end-to-end structural analysis and design packages, designers want to have better insight into the results so that the package does not work like a "*Black Box*". Sometimes there is a need to redesign some members to incorporate latest revisions or to suit site specific needs or for better economy. Likewise, while approving a design, a statutory authority or reviewer may wish to check it by independent means. Independent design applications developed using computer spreadsheets can provide great insight, flexibility and control while designing a new structure or checking an existing design!

The program will provide hands on training to design various structural members using readymade MS-Excel applications developed by Technoesis. The applications are based on IS 456 and are user friendly, interactive and produce elegantly formatted outputs which can be directly submitted to clients and approving authorities.

The applications can be used not just for designing structures or reviewing existing designs but also for finding the capacity of structural members for given design parameters.

PROGRAM CONTENT

The Program will cover the following design applications which are based on IS 456:2000:
- ❖ Analysis of Continuous Beams
- ❖ Analysis of Substitute Frames
- ❖ Design of Rectangular Beams
- ❖ Design of Flanged Beams (T Beam & L Beam)
- ❖ Design of Two-Way Slab Panels with Provision for Torsion at Corners
- ❖ Design of Simply Supported Two-Way Slabs
- ❖ Design of Columns Under Uniaxial and Biaxial Bending including slenderness effects
- ❖ Design of Sloped and Flat Footings

BENEFITS

- ❖ **Hands on training and interactive presentations**
- ❖ **Numerical examples covering different sets of data & multiple trials**
- ❖ **Well formatted outputs which can be directly submitted for approval**
- ❖ **Applications can be used for new design or checking existing design or structural capacity**