


# SYLLABUS FOR PRACTICAL RCC STRUCTURAL DESIGN APPLICATION COURSE

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Dear Civil & Structural Engineers


Those who want to learn practical RCC Structural manual design course in ms xl sheets in "VIDEO" class mode in your convenient free time, pls message to below mail I'd or WhatsApp number.

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Video file access, Design xl sheets, PDF codes, PDF manuals, software files, course notes will be provided



# Overall Contents Of Practical RCC Structural Design Application Course (RCC) Syllabus:-

- ▶ Structural design basics & concepts Theory in practical way .
- ▶ Practical Loading Calculation f(Gravity &Lateral) or RCC & STEEL Structures.
- ▶ Manual Design of RCC Superstructure (Slab,Beam,Column) in XL.
- ▶ Manual Design of RCC Sub-structure (Shallow & Deep Foundations)in XL.
- ▶ Etabs software design of RCC G+9 building.
- ▶ RCDC software automated detail drawings generation.
- ▶ SAFE software combined and MAT footing design.

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## **GENERAL PART:-**

- Conceptual Application of Structures in Residential, Commercial and Industrial fields.
- Introduction of Basics of Structures & Technical terms
- IS codes for various analysis, design and detailing & Small Frame Analysis Load transfer concept in in XL sheet.
- Gravity Load manual calculations (DL,LL,FF,EQPL) in XL sheet.
- Wind & Seismic load manual calculations in XL sheet.

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## **RCC DESIGN PART:-**

- One Way Slab manual Design in XL sheet.
- Two Way Slab manual Design in XL sheet.
- Beam manual Design (Singly and Doubly reinforced beams) in XL sheet.
- Column manual design (Axial Gravity, Uniaxial, Biaxial Bending types) in XL sheet.
- Staadpro OR Etabs analysis and design software introduction, input through Various tab, modelling.

(Contd..)

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## **RCC DESIGN PART:- (Contd..)**

- Staadpro OR Etabs analysis and design of slabs, beams and columns.
- Staadpro OR Etabs result extraction and minor manual exceptional checks that are not covered in software.
- Ductile & Non-ductile frame design.
- Footing manual Design in XL sheet.
- Footing design in RCDC software
- Pile cap manual conceptual design in XL sheet.
- Pile reinforcement manual Design in XL sheet.



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- Pile cap design in RCDC software.
- Combined & Mat Foundation design SAFE software. (This is special inclusion for timely fee-paying persons only)

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## **PROJECT WORK:-**

RCC:-

- Design of G+9 building

Project submission, Review and Q&A.