

| Schedule for Winter Training Program 1 (WTP 1) | |
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| Day | Contents |
| Day 1 | <p><u>Introduction:</u> About civil engineering; role of structural engineering; structure; analysis, shear force, bending moment, deflection, displacement, stress; design philosophies; theoretical approach to design of structures. Behavior of various structural component: Beam, Column, Slab, Walls, Foundation, Arch, Truss etc.</p> |
| Day 2 | <p><u>Staad.Pro:</u> Introduction to CAD Program/Staad.Pro, Structure Geometry & Coordinate System: Model generation, method of creating the model, structure wizard, model editing tools (like add beam, insert node, cut section, add plate view mode etc.), coordinate systems.</p> |
| Day 3 | <p><u>Staad.Pro:</u> Specification and Property: Member property, support specification, material specification, material property, group specification.</p> |
| Day 4 | <p><u>Staad.Pro:</u> Loads and Load Combinations: Type of loads, calculation of live load, dead load, wind load, seismic load according to relevant IS code, how to implement them in structure, generate load combinations.</p> |
| Day 5 | <p><u>Staad.Pro:</u> Analysis: Analysis the structure, viewing the output (shear forces, support reactions, bending moment, stress distribution, animated shape etc.) Design: General guideline for design, R.C.C. design as per IS 456. (Beams, columns and slabs), steel design as per IS 800, staircase design, slab design.</p> |
| Day 6 | <p><u>Staad.Pro:</u> Report Setup and Detailed Engineering Drawing: Viewing the output files of design, print specifications, preparing structural drawings, Detailed working drawings.</p> |
| Day 7 | <p><u>AutoCAD:</u> Planning in AutoCAD, Drawing Commands in AutoCAD, All Editing Commands in AutoCAD, general arrangement drawing of real life ongoing project at TeXeL Consulting Engineers</p> |
| Day 8 | <p><u>AutoCAD:</u> Creating elevations, isometric views using 3D drawing commands, 3D editing commands., structural detailed drawing for RCC and Steel design projects.</p> |
| Day 9 | <p><u>Microsoft Excel:</u> Introduction to MS Excel in civil engineering calculation, Basic and advance programming commands. MS Excel program for concrete mix design as per IS 10262: 2009.</p> |
| Day 10 | <p><u>Microsoft Excel:</u> MS Excel program for design of one-way slab and two-way slab, MS Excel program for design of Isolated and combined footing, MS Excel program for counter fort retaining wall.</p> |

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| Day 11 | Case Study on Structural system for tall buildings: Introduction to tall building, structural systems: frame structures, shear wall structure, bracings, tubular structure, hybrid structure, lateral loads on tall building, Case study on existing tall building |
| Day 12 | Design of steel structure project (ongoing or completed real project): Steel Vs Concrete, Comparison of behavior, Design of steel structure using limit state & working stress method, Design of solar plant steel structure design. |
| Day 13 | Site Visit: Introduction: understanding of site; site conditions; construction equipment; construction materials; challenges for civil engineers; best practices. General aspects: labor management; safety aspect; role and responsibilities of various people at site; description of levelling, alignment, shuttering, formwork, joggling, clear cover, concrete placing. |
| Day 14 | Site Visit: Understanding of drawing: drawing readings; bar bending schedule; bill of quantity; construction procedure; Quality control: quality control in construction. |
| Day 15 | Project Report: Final Training Report submission and discussion, Questionnaire sessions, power point presentations, feedbacks, certificate distribution. |

Batch Details:

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| December 06 th , 2017 – December 20 th , 2017 | - | Batch 1 st |
| December 11 th , 2017 – December 25 th , 2017 | - | Batch 2 nd |
| December 16 th , 2017 – December 30 th , 2017 | - | Batch 3 rd |

General Instructions:

- Any student can join more than one program at a time.
- Schedule for other program (WTP2 & WTP3) is given in separate documents.
- Company will also arrange accommodation for those who required, however charges for same will be paid by applicant.
- Registration fee, course fee and accommodation expenses is given at website.
- For above schedule a 2 hours regular teaching class will be delivered every day. Apart from that students may practice at company as much as they wish.

Training Centers:

CivilShala, TeXeL Group, P No: 20, Rishi Colony, Near Gandhi Nagar Railway Station (Gate No: 2), Tonk Road, Jaipur-302015.

Further Information Required:

Raghav

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