A. SOFTWARE PACKAGE
- AUTOCAD
- REVIT (Architecture)
- MICROSOFT PROJECT
- PRIMAVERA
- VRAY
- 3DS MAX
- PHOTOSHOP

B. TYPE OF GIVEN PROJECT
- Residential Villas
- Residential Interior
- Commercial Interiors
- Office Interiors

C. INTRODUCTION TO 2D PLANNING
- What is Architectural planning?
- What is structural planning? What are their attributes?
- What is 2D MEP plans and how to formulate them?
- What are GFC Drawings and how to create them?
- How to draw 2D Elevation and Sectional view?
- What is Air and Light Ventilation in 2D planning?
- How is Planning related to Vaastu?
- What is Vaastu & how does Vaastu technology works?
- What is the Significance of Vaastu?

D. AUTOCAD: 2D INTERFACE
- INTRODUCTION TO AutoCAD
  - AutoCAD Screen Components
  - Invoking Commands in AutoCAD
  - AutoCAD Dialog Boxes
  - Setting of Drawing Units and Dimension style units.
  - Drawing Lines in AutoCAD
  - Prompt Coordinate Systems
  - Object Selection Methods
  - Setting Units Type and Precision
  - SETTING the Limits OF A DRAWING

- DRAWING COMMANDS
  - What are the various Drawing Commands used by the working professionals?
  - What is Engineering CAD?
  - How, when and where to use which command to have the best output and minimum possible time.
  - What are the most suitable commands for 2D Architectural planning, Structural planning and MEP planning?

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- Learn how to draw Lines, Circles; two points, three points and tangent-tangent-Radius circle, Arcs and its types, Rectangles, Ellipses, Polygon, Polylines, Multiline Infinite Lines etc. effectively.
- Writing a Single Line Text
- How to use Hatching command and its respective purpose.

➢ MODIFYING COMMANDS
- What are the various modifying commands; such as - Copy, Move, Stretch, Trim, Extend, Erase, Rotate, Fillet/Chamfer command, Array; Path, Polar & Rectangular command, Offset, Mirror, Block, Scale, Explode etc. Also, how and where to use these commands to prepare the best Plans, GFC, Shop Drawings?
- VPORT command and its significance?
- Layout and its use.

➢ WORKING WITH DRAWING AIDS
- Understanding the Concept and use of LAYERS
- Working with Layers
- Object Properties
- What are Xref and 3Dface command and is it useful to industries?

➢ CREATING TEXT AND TABLES
- Annotative Objects.
- Annotation Scale.
- Multiple Annotation Scales.
- Controlling the Display of Annotative objects.
- Creating Text.
- Entering Special Characters.
- Creating Multiline Text.
- Editing Text.
- Inserting Table in the Drawing.
- Creating a New Table Style.
➢ Model Space Viewports, Paper Space Viewports & Layouts.
➢ Plotting Drawings.
➢ Hatching Drawings.
➢ Working with Blocks.

➢ AutoCAD 3D BASICS INTERFACE:
- 3D basic commands.
- Isometric concept and Drawings.
- Isometric commands.

E. 3D: REVIT ARCHITECTURE

➢ FEATURES WITH SPECIFICATION:

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a) ARCHITECTURAL DESIGN:
- Conceptual design tools.
- Architectural modelling.
- 3D design visualization.
- Multi-storey stairs.
- Cloud rendering & Walkthrough.
- Massing & siting.
- Design phases and design options.
- Family creation.
- In-place component modelling.

F. PROJECT MANAGEMENT SOFTWARE-BAR CHART, ESTIMATION & COSTING USING DIFFERENT TECHNOLOGIES.

➢ MICROSOFT PROJECT & PRIMAVERA
- Work Breakdown Structure (WBS) and its rules.
- Scheduling a project plan.
- Configuring project management software.
- Managing project resources.
- Establishing project baselines for performance.
- Planning & controlling the project.
- Use of BIM & excel in estimation & costing.
- Rate analysis, DSR its application for tendering.
- Estimation thumb rules & through BBS.
- Estimated and projected costing.
- Investment vs. Rate of return Ratio (IRR).
- Profitability vs. Investment Charts.
- Critical Path Methods and Project Evaluation & Review Technique.
- Comparison between CPM and PERT.

G. Overview of 3DS Max

3DS Max allow users to focus on the creative rather than the technical side of their projects. In order to do this, however, you must first learn the technical aspects of 3DS Max itself.

Whatever your profession, the 3DS Max Jumpstart course will give you the tools you need to work confidently with basic modelling, material creation, animation, and scene generation. After just five days, you'll be a confident 3DS Max user, able to concentrate on what really matters while 3DS does the hard work for you.

Autodesk 3DS Max
- Interface & workflow
- Project folder configuration
- Viewports & navigation tools
- Keyboard shortcuts
- Reference coordinate system and snaps
- Default work space with enhance menus

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Creating a model
- Parametric geometries and shapes
- High and low poly modeling
- Modeling 3d objects from 2d shapes
- Parametric modeling, polygon modeling
- Combine multiple modeling concepts to create photo-real models
- Learn to build anything you can imagine
- Scaling your model
- Groups

Material Techniques
- Learn a material's workflow
- Difference between material and map
- How to use material templates (standard or mental ray)
- How to create photorealistic materials
- How to apply a material and control its projection with an uvw map modifier
- Open, save, create & merge materials libraries

Cameras & Views
- Create & modify cameras
- Create camera from view
- Target and free cameras
- Viewport background
- Isolation mode
- Layers
- Layer properties
- Object properties
- Differences between "by layer" and "by object"

Lighting your scene
- Standard and photometric lights- advantages & disadvantages
- Distributions types photometric lights
- Self-illuminated materials
- Interior lighting techniques
- Daylight system
- Shadow types
- Studio light setup (for product rendering)

Animation
- How to animate objects & materials
- Tips & tricks
- Walk through animation
- Select & link objects
- Schematic view
- Principles of inverse kinematics
- Auto key and set key
- Track view (curve editor and dope sheet)
- Populate your scene with people (populate tool)

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Rendering your Model

- Mental ray renderer
- Final gather
- Exposure control
- Rendering animations with mental ray
- Rendering and animation preview.
- Grab viewport
- Panorama exporter
- Print size assistant

H. Overview of VRAY

V-Ray has changed the face of computer graphics. One of the most important ways in which it has done so is through its use of lighting, photon mapping, and associated techniques. In the 3ds Max V-Ray course, you'll learn all about these techniques and how to apply them within the V-Ray renderer. It's a skill that will give your graphics a whole new level of realism, giving you the freedom and ability to make whatever you can imagine real.

Introduction to interface

Lighting techniques

- Standard Lights versus V-Ray Lights
- Setup and Techniques
- Sunlight and Dome lights
- Photometric Lights
- IES Lights
- Setup and Rendering Techniques

Modelling techniques for 3D

- Standard Modelling
- Groups
- Components
- Lathes and Extrusions
- Technical Accuracy
- Polygons and Modelling Impact
- Introduction to Materials*
- Using Bitmaps
- Standard Materials
- Architectural Materials
- V-Ray-Materials
- Bump and Normal Maps
- Reflections
- Override Materials

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Rendering
- Pixel Output
- Resolutions, dpi and Frame sizes
- Shadows for stills
- Quality Settings
- Global Illumination
- Bounces and Lighting
- Antialiasing
- Ambient Occlusion

I.   Overview of ADOBE PHOTOSHOP

Digital Imaging Foundation
- Image quality and resolution
- Bitmap and vector graphics
- Image and canvas size
- Color spaces and bit depth
- Design theory principles
- Files formats and media

Interface
- Controlling the workspace
- Screen layout and window arrangements
- Navigation and zoom shortcuts
- Guides, grid and ruler

Selections
- Creating selections using the selection tools
- Refining selections
- Transform, scale and distort selections
- Saving and loading selections

Painting and Retouching
- Saving and sharing colour pallets and swatches
- Creating and controlling Gradients
- Effective use of Brush tools
- Understanding Retouching tools
- Refining selections
- Change models using the Liquify window
- Adding Lighting effects
- Using Blur and sharpen to add depth
- Understanding LAB colours
- Replace colour and colour range
- Perspective adjustments
- Black and white conversion
- Photo filters
- Content aware tools

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Color Correction
- Levels and curves
- Hue and saturation
- Shadow and highlights
- ICC profiles explained
- Assigning color profiles
- Proof setup options

Compositing
- Creating and grouping Layers
- Cropping images
- Transform and distort layers
- Add filters from the Filter gallery
- Effective use of Adjustment layers
- Creating Layer masks
- Working with text
- Applying and controlling Layer effects
- Blending and transparency settings
- Masking techniques
- Save and reuse Graphic Styles
- Define layers or import images as Smart objects
- Add and combine Filters
- Define and use Layer comps

Vectors in Photoshop
- Advanced Typography options
- Using the Pen tool to create and modify shapes
- Drawing Shapes from the shapes library

Preparing for different media
- Slicing images and exporting for use on the web
- Printing from Photoshop

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