

Real Estate Modeling

Duration 40 - 50 Hours

Topics covered under this program are:

1. Basics of MS Excel

- Introduction to MS Excel
- Data Mining and Data Filtration
- Various Statistical Functions
- PIVOT Table
- Excel functions suitable for Financial Modeling purpose

2. Creating Financial Model Template:

- Understanding and Creating A Financial Model Template
- Learning referencing (usage of \$) Framework in Excel | Learning Custom formatting in Excel
- Implementing simple business modeling case in Excel
- Simple exercise/models in excel
- Understanding Key Concepts of Real Estate Modeling
- Common modelling errors (and techniques to identify the same)
- Model design, layout and structure – key steps
- Required sheets (including Capex, Opex, Revenues, Input sheets other financial sheets)
- Risk and sensitivity analysis

3. MACROS

- Accessing VB editor, Developer tab
- Creating and deleting modules
- Recording your first macro - Copy pasting values
- Formatting chart with macros
- Creating flexible CAPM model using Form Controls and Active X controls
- Writing your first macro - Adding a new worksheet and populating content
- Debugging and stepping into the VBA Code of your first macro
- Correcting circular reference in IDC using VBA/ macros
- **Assignment 1:** Creating a macro to find out which company(s) (out of 20) are eligible for funding
- **Assignment 2:** Breaking circular loops using macros from the cash flow model

4. Real Estate Modeling - Project Finance

Case: Creating a Project model for development of toll road under build, own, operate and transfer model

- Creating flexible activity timeline chart - Gantt chart
 - Using AND function to identify the timelines
 - Using Webdings to create special characters
 - Conditional formatting to highlight the timeline
- Establishing Design parameter
 - Calculating monthly traffic handling capacity
- Forecasting toll charges and monthly traffic
 - Creating monthly timeline using date function(s)
 - Calculating toll rate using min/ max functions
 - Estimating traffic under 3 different scenarios: Pessimistic, Most likely and Optimistic
 - Adding two more scenarios: Custom and Simulated
- Auditing the Project details
- Using Macros (Form controls) to create flexible scenarios
 - Creating flexibility for 5 different scenarios
 - Using OFFSET function to get the output against selected scenario
- Creating flexible Project momentum
 - Using Date functions to create monthly, quarterly (CEILING) and yearly timelines
 - Importing data of relevant scenario using TRANSPOSE function
 - Importing traffic and toll charges using HLOOKUP
 - Cleaning the output using IFERROR
 - Creating a name manager to use a factor frequently
 - Projecting Power and Insurance expenses
 - Modeling CAPEX, Government grant, Exit Value
- Calculating NPV, IRR and Payback period
 - Creating flexible model to calculate cost of equity (CAPM) using Form controls
 - Calculating XNPV, XIRR, payback period using COUNTIF
- Creating Yearly statements
 - Converting monthly statements to yearly statements using SUMIF
 - Calculating NPV and IRR, Discuss problems with NPV and IRR functions
- Linking output with Project chart using hyperlinks
- Performing Sensitivity analysis of 9 variables on 3 outputs
 - Using Scenario manager to perform sensitivity analysis
 - Facing and correcting issues with Scenario Manager
- Creating bar diagram of annual traffic chart
- Drawing Project financial Dashboard

- Creating chart using primary and secondary axis
- Creating flexible chart for toll revenues, operating expenses, profits and profit margin – Macros
- Creating waterfall chart for build-up of Traffic
- Creating cash flow chart - combination of bar and line chart
- Creating custom scenario to mix-match scenarios during construction, after construction and/ or revenues - Macros
 - Inserting a user-form to get the input for simulation
 - Inserting the combo box, text box, spin button, Ok/ cancel button, message box
 - Generating random numbers to tackle growth
 - Creating Monte Carlo Simulation for traffic/ growth
 - Creating status bar with REPT function
 - Calculating frequency using FREQUENCY function

Assignment 1: Calculating IDC value of ongoing construction of a mall

Assignment 2: Calculating operating income from given revenue and costs of a retail project

Assignment 3: Calculating discounted cash flows from given cash inflows of a real estate project

Contact Us: **TOLL FREE – 1800 200 5835**