SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

(Deemed to be University)

As a part of Sri Sathya Sai Centenary Celebrations,
Department of Management & Commerce & **IQAC** jointly offer a series of online management development programmes in
Finance & Analytics Excellence

COURSE OFFERINGS

Financial Modeling using Excel VBA, R , Palisade & AI Tools

3rd Nov – 15th Nov 2025

Four-in-One Analytics Stack of Power BI, Tableau, Excel & Shiny-R

9th Dec – 22nd Dec 2025

Financial Engineering & Risk Management (R / Python & Palisade Tools)

19th Jan – 2nd Feb 2026

OPEN TO

Finance Professionals
Corporate Finance,
Investment Banking & Manufacturing

Faculty Members
B-Schools, Colleges & Universities

DURATION

Each programme will be conducted online over a **duration of 12 days, from 6:30 p.m. to 9:00 p.m**, excluding Sundays and holidays.

FACULTY

Dr. L. Goverthanan
MS, FCMA. Professor of Practice-Finance

Dr.Subramaniyan Iyer
MBA,FRM. Post Doc at ISB

PRE REQUISITES

- Interested participants should have basic skills in Excel. Familiarity with Power Bi, Tableau,R,Python and Palisade tools is not essential.
- Should have willingness and time to practice (daily during the course period) so as to internalise the skills and become effective and prolific in using the skills learnt.
- Young professionals are encouraged to enroll in all three MDPs, as each program complements the others and together they provide a comprehensive learning experience. However,one may apply to any one,two or all programmes based on requirements.

FEES FOR SINGLE COURSE

A nominal fee of ₹ 5000/- per participant per programme to be remitted to the bank account as per the details below:

FEES FOR ALL 3 COURSES

Those who apply for all three programmes are entitled to a discount of 10%. Hence they need to pay ₹13500 only per participant to be remitted to the bank account as per the details below:

Name of Bank	Canara Bank
SB Account No.	2351101005980
Branch	Puttaparthi
IFSC	CNRB0002351

Important note: The proof of remittance must be uploaded in the Registration form.

REGISTRATION LINK

https://forms.gle/1ne92qDBP25tzTFp7

LAST DATE TO APPLY

25-10-2025

Admission will be on a first-come, first-served basis. Once the limit of approximately 50 participants is reached, registrations will be closed. A WhatsApp group will be created later for convenient communication.

Participants who successfully complete the MDP programme will receive a certificate from SSSIHL. Access to video recordings of the relevant sessions will also be provided.

CONTACT DETAILS

Email
lgoverthanan@sssihl.edu.in

WhatsApp
9841416256 (only messages)

PROGRAMME OBJECTIVES

- The programme is designed to empower industry professionals and educators with the skills to seamlessly integrate technology into their professional and teaching practices.

- By emphasizing practical, hands-on learning, the programme fosters an engaging environment where industry professionals can enhance their contributions to organizational growth, and educators can effectively translate concepts into real-world applications for their students. This MDP focuses on delivering actionable knowledge and tools that bridge the gap between theory and practice, ensuring relevance to both industry and academia.

EXPECTED OUTCOME

- On completion of this course, industry professionals and educators will gain hands-on proficiency in building financial models and designing interactive dashboards using four key technologies: Power BI, Tableau, Shiny Dashboard, and MS Excel. Participants will also develop the ability to apply financial engineering techniques effectively.

- For industry professionals, the course will enable them to independently create financial models and dashboards, translating analytical insights into strategic decisions for their organizations.

- For educators, the program will equip them to effectively impart these skills to students, making complex concepts more accessible while fostering motivation and engagement in the learning process.

- The knowledge and skills acquired will not only shorten the learning curve but also boost confidence in adopting and adapting to emerging technologies in this domain.

To truly serve society, one must be skillfed, efficient, and productive in one's work.

These MDPs are designed to help you acquire valuable knowledge and practical expertise, which you can in turn share with others.

In doing so, you contribute to the progress of our nation while making your own life a purposeful and joyous journey.

TOPICS FOR FINANCIAL MODELING

- Creating custom user-defined functions that are not in MS-Excel as built-in but often required such as functions for computing Income tax (new) regime, DCF functions with varying interest and cash flow streams, discounted payback period, PV/FV of growing Annuity/cashflows, function for computing convexity, etc.
- Making user-defined functions portable for use in any file.
- Recording Macros and creating viz. EMI calculator / PV calculator with a schedule. Implementing reusable widgets for automated calculations.
- Creating custom Ribbon Menus for user-defined functions and easy navigation.
- Break-Even Point (BEP) Model Simulation using widgets
- Optimization Models using Excel Solver and automating them for various input values.
- Sensitivity and scenario analysis using VBA, Palisade Tools
- Fetching stock data live and computing portfolio return and variance using R for at least 10 stocks at a time.
- Constructing Markowitz efficient frontier for the above stocks & Animation in R.
- Integrating R Functions with Excel seamlessly without alterations
- Building Financial Dashboard for Ratio analysis
- Corporate Valuation Models
- Monte-carlo Simulation for Financial Risk Analysis using @Risk
- Automation using AI tools in R

TOPICS FOR 4-IN-1 ANALYTICS STACK OF POWER-BI , TABLEAU,SHINY DASHBOARD(R) AND MS EXCEL.

- **Power BI** - Data wrangling, ETL operations, Data Warehouse (incl.schema), Modeling and Cubing, DAX functions and operators, Measures, calculated columns & Tables, filters and slicers, Visualisation, multi-page reports and BI Dashboards.

- **Tableau** – Data combining, shaping and cleaning (ETL using TableuPrep), Visualisation, reports and Dashboards

- **Shiny Dashboard** – Data wrangling using dplyr and tidyverse packages, ggplot2 package, various charts and animation, creation of Interactive Dashboards using shiny package.

- **MS Excel** – Power Query, Power Pivot, Modeling and relationships, DAX formula, calculated columns, MAPs, measures, filters and slicers and interactive Dashboards

- Integration between Power BI and R to enhance Power BI Dashboard.

TOPICS FOR FINANCIAL ENGINEERING AND RISK MANAGEMENT

Mutual Funds Evaluation Techniques

1. Quantitative Analysis

Performance Metrics:

- Absolute & rolling returns

Risk-adjusted returns: Sharpe ratio, Sortino ratio, Treynor ratio, Information ratio

Risk Metrics:

- Standard deviation, beta, downside deviation
- Maximum drawdown, Value-at-Risk (VaR), Conditional VaR

Benchmarking:

- Comparison vs sectoral, index benchmarks
- Relative performance charts

Tools:

- Excel, VBA, R, Python, Power BI

2. Fixed Income Securities Evaluation Techniques– Interest Rate Sensitivity

- Duration (Macaulay, Modified),Convexity analysis
- Credit Risk,Liquidity Risk: Bid-ask spreads, market depth
- Scenario analysis: Interest rate shock, spread widening
- Portfolio-level optimization: Minimize duration gap, immunization strategies
- Tools: Excel + Solver, VBA, R, Python for bond pricing and portfolio optimization

3. Financial Derivatives

A. Option Analysis

- Pricing Models:
- Black-Scholes (European options)
- Risk Metrics (Greeks): Delta, Gamma, Theta, Vega, Rho
- Strategy Evaluation: Spreads, straddles, strangles, collars

B. Futures & Forwards

- Valuation using spot, forward prices, cost-of-carry models
- Hedging applications: Portfolio/fund hedging using futures

C. Swaps

- Tools: Excel + VBA, R, Python, Palisade @RISK reporting

4. Integrated Techniques for All Asset Classes

A. Risk & Portfolio Optimization

- Mean-variance optimization
- Monte Carlo simulation for portfolio returns & VaR
- Scenario & stress testing across assets

B. Decision Analysis

- Multi-criteria decision-making (MCDM) for fund selection
- PrecisionTree for decision trees and real options

C. Data Handling & Reporting

- SQL / Python / R for retrieving and cleaning market data
- Power BI / Tableau dashboards for visual comparison & reporting

RESOURCE PERSON: DR. L. GOVERTHANAN

Dr. L. Goverthanan, Professor of Practice-Finance at SSSIHL in the Department of Management and Commerce, holds a Fellowship with ICAI. His academic journey includes a B.Sc in Statistics from St. Joseph's College, Trichy, an MS in Management Systems from BITS, Pilani, and a PhD in Management from Birla Institute of Technology, Mesra, Ranchi. With nearly four decades of industry experience in Finance and Financial Analytics, Dr. Goverthanan has made significant contributions to various sectors.

He served as the Financial Controller at M/S Ashok Leyland, a $5 billion automobile company, where he gained exposure to a wide range of financial and operational strategies crucial to the company's growth trajectory. His responsibilities encompassed financial evaluation and budgeting, business analytics for top management, SAP implementation as a steering committee member, and leadership roles in business process reengineering and strategic cost management besides accounting. Additionally, he managed retiral fund investments, payroll, and executive training and development in finance and operations.

In his current role, he teaches a range of courses to MBA students, including Data Science with R, Big Data Analytics for Business, Corporate Financial Strategy, Financial Modeling using R & VBA ,Advanced Financial Analytics, IAPM, Financial Derivatives, and Advanced Operations Research applications.

RESOURCE PERSON: DR. SUBRAMANIAN IYER

Dr. Subramanian Iyer holds an MBA and Ph.D. in finance and FRM® (GARP). His PhD dissertation was on "Stylized Facts & Second Generation Models for Risk, Return and Portfolio Allocation: A Study on the Indian Equity Market" (awarded 2008). He distinguished himself academically by securing gold medals in B.Com. (Hons.) and MBA. Dr. Iyer teaches papers in Finance and Data Science in the MBA program at SSSIHL. He furthered his academic pursuits with a Postdoctoral Fellowship at the Indian School of Business, Hyderabad.

His current areas of teaching also include Finance , investing, advanced MS Excel, data visualization, dashboarding and storytelling with Tableau. Some of his work has involved applying the tools in machine learning to improve financial decision making. He is a champion of Free Open Source Software and handles software labs in Python and R in which he has authored a package. He has supervised 2 PhD dissertations in Behavioral Finance and over 100 MBA dissertations. Currently he is holding the position of Deputy Controller of Examinations at SSSIHL.

Sri Sathya Sai Institute of Higher Learning (Deemed to be University), Prasanthi Nilayam, Andhra Pradesh, India, is a visible manifestation of our Founder Chancellor Bhagawan Sri Sathya Sai Baba's vision of "Education for Human Transformation" providing quality education, free for all students irrespective of income, religion, or region through open admissions policy.

Sri Sathya Sai Values-based Integral Education

Sri Sathya Sai System of Integral Education system is a modern, rational, and scientific education system rooted in Indian ethos. It takes the best of both ancient and contemporary learning techniques. These dimensions are Intellectual, Physical, Cultural, Spiritual, and Service. The key activities for each of these dimensions form the basis of the time spent by students at SSSIHL.

A Modern Gurukula

Founded in 1981 to inculcate ethical and moral values in students along with regular secular education, this transformation has been the guiding principle right from the inception of SSSIHL. The institute provides students with a holistic framework of interpersonal development, combined with academic and research excellence. Its residential character trains the student's mind, body, and spirit in an environment similar to the ancient Indian 'Gurukula' system of education, in the most modern context.

The Institute hosts students from across the country for its undergraduate, postgraduate, professional, and research programmes across its four campuses – The Women's campus at Anantapur, Andhra Pradesh, and three men's campuses Prasanthi Nilayam Campus, Puttaparthi, Andhra Pradesh; the Brindavan Campus, Kadugodi, Bangalore, Karnataka, and the Nandigiri Campus, Karnataka.

Visit us at: sssihl.edu.in

SERVICE TO HUMANITY IS SERVICE TO GOD - SRI SATHYA SAI BABA