



विद्या परं दैवतम्

IIM

भारतीय प्रबंध संस्थान विशाखपट्टणम
Indian Institute of Management Visakhapatnam

Executive Certificate Program in Financial Data Analytics & Corporate Finance Program Roadmap

Module	Topics	Resource Person(s)	Tentative Dates
Module 1: Corporate Finance Fundamentals	- Overview of Corporate Finance, Financial Statements Analysis	Prof. Prince Doliya & Prof. M. Shameem Jawed	Done
	- Time Value of Money, Valuation Fundamentals		
	- Capital Budgeting: Principles, Tools & Techniques, Cash Flow Estimation		
Module 2: R Programming Essentials for Financial Data Analytics	- Introduction to R for Finance: Installing R and RStudio, Understanding the R Ecosystem	Prof. M. Shameem Jawed & Prof. Praveena M	Done
	- R Basics: Data Types, Vectors, Matrices, Data Frames, Financial Data Manipulation and Analysis in R		
	- Data Visualization Techniques Using R and ggplot2		
Module 3: Applied Financial Analytics: Cross-sectional Models	- Handling Time Series Data in R (e.g., TS, ZOO, XTS, POSIXct)		
	- Statistical Foundations for Analytics	Prof. Shivshanker Singh Patel	Done
	- Regression Analysis		
	- Multiple Regression Analysis		
Module 4: Time Series Analysis and Forecasting with R	- Logistic Regression Models & Applications		
	- Dummy Variable Regression Applications in Finance		
	- Time Series Analysis: Concepts and Applications	Prof. Shivshanker Singh Patel & Prof. M. Shameem Jawed	Jan-19, Jan-25, Feb-02
	- Asset Price Forecasting using ARIMA Models		
Module 5: Investment Analysis and Financial Markets	- Volatility Modelling: Basic GARCH Models		
	- Applications of VAR on Multiple Time Series		
	- Stock & Bond Valuations	Prof. M. Shameem Jawed	Feb-08
	- CAPM & Portfolio Management, and Cost of Capital Concepts		Feb-09

	- Financial Derivatives & Applications	Prof. Kaveri Krishnan	Feb-16
Module 6: Applied Corporate Finance	- Capital Structure and Payout Policies	Prof. M. Shameem Jawed	Feb-22
	- Case Study: Real-World Financial Decision-Making		Feb-23
Module 7: Machine Learning and AI in Finance	- Introduction to Machine Learning Concepts in Finance	Prof. Shivshanker Singh Patel	Mar-02
	- Data Modeling for Financial Data		Mar-09
	- Decision Trees, Random Forests (Hands-on Credit Scoring in R)		
	- AI's Impact on Finance: Advanced Analytics and Future Trends		
Module 8: Trading Strategies and Sentiment Analysis Using R	- Technical Analysis and Trading Strategies in R	Prof. M. Shameem Jawed	Mar-16
	- Formulating and Testing Trading Strategies in R		Mar-22
	- Sentiment Analysis: Analyzing Earnings Call Transcripts for Decisions		Mar-23
	- Behavioral Finance: Avoiding Investment Biases & Heuristics		
Module 9: Essentials of Emerging Financial Technologies	- Introduction to Blockchain Technology	Prof. Vijay B. Marisetty	Mar-29
	- Cryptocurrencies: Bitcoin, Ethereum, and Others		
	- FinTech Innovations: Payment Systems, Digital Banking, Regulatory Aspects		
	- Case Studies: Blockchain and FinTech in Financial Industry		
Module 10: Advanced Data Visualization with Power BI	- Overview of Power BI: Importing and Preparing Financial Data	Prof. Abhishek Srivastava	Apr-20
	- Advanced Financial Visualizations & Utilizing DAX		Apr-26
	- Effective Dashboard Design & Integrating R Scripts in Power BI		
	- Implementing Real-Time Data Updates and Best Practices		

Campus Immersion

<i>Activity</i>	Resource Person(s)	Dates
Discussions on Capstone Project	Prof. M. Shameem Jawed & Prof. Shivshanker Singh Patel	Apr-12 & Apr-13