NSE Academy

Professional Certificate in

FINANCIAL MARKETS

3 Months | Live Online | Weekend Sessions

- ☑ Fundamental Analysis
- ☑ Technical Analysis
- ☑ Advanced Derivatives

& more

Includes

One-year **Affiliate Membership** to

CMT ASSOCIATION

The leading global credentialing body for technical analysts*

*Source

In the continuously changing environment of the global economy, **financial markets serve as both a reflection and a catalyst** — showcasing economic trends while fostering innovation, growth, and value generation. The current financial market ecosystem can benefit from professionals who are proactive, analytical, and having in-depth product knowledge, addressing all aspects from financial market products to execution via algo based trading.

PROFESSIONAL CERTIFICATE IN FINANCIAL MARKETS is a **practice-driven program** that builds industry-aligned skills for Front, Middle and Back Office roles in the financial services industry. Designed and delivered by seasoned industry practitioners, the program blends industry insights with practical applications—empowering you to stand out and lead with confidence.

PROGRAM **STRUCTURE**

2 Introductory Digital Primers
⊙ Self-Learn 📱 One-year Access ⏳ 40 hours

3 Core Courses
📶 Online 📡 Live ⏳ 12 hours each

1 Specialization Course (CHOOSE FROM 2)
📶 Online 📡 Live ⏳ 30 hours

⏳ 3 Months

📅 Weekend Sessions

IDEAL FOR:

☑ Individuals aspiring for opportunities in Front, Middle and Back Office profiles in the financial services industry

☑ Individuals looking for trading, investing, or professional advancement

Also suitable for:

| Tech Professionals

| Pursuant of professional qualifications like
   CA, CFA, CMT, CMA, etc.

| MBA Students

| Academicians
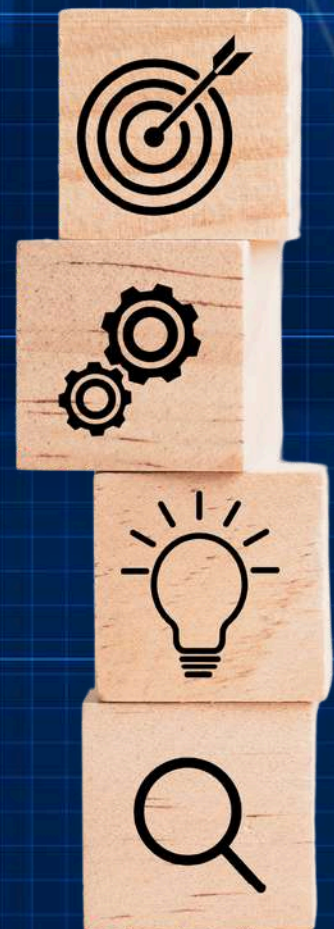
PROGRAM **HIGHLIGHTS**

Hands-on Exposure
using historical data
& online dashboards

Market Practitioners
as program instructors
& mentors

Digital Primers
for strong foundation of
key concepts

Interactive Sessions
in live online mode
on weekends

**Professional Certificate
in Financial Markets**
from NSE Academy,
a wholly owned subsidiary
of the National Stock
Exchange of India Ltd.

**Affiliate Membership
to CMT Association***
for one year and benefits
worth $325 at no additional
cost

*Source

Join the network of
TECHNICAL ANALYSTS
across the world*

Get **One Year**

AFFILIATE MEMBERSHIP TO

and benefits WORTH **$325** * with the

Professional Certificate in Financial Markets

The Chartered Market Technician

CMT Association

is a community of leading
technical analysis practitioners
in the world *

**Network with the elite
Learn from legends**

of the financial industry *

*Source

MEMBERSHIP **BENEFITS**[*]

A community of professional Technical Analysts at your fingertips

Meet other professionals using technical analysis every day for their professional requirement. Rub elbows with portfolio managers, hedge fund managers, investment advisors, RIAs, investment strategists, heads of research, and chief investment officers.

Engage in Webcasts and Live Events archives for continuing education

Get access to hundreds of hours of technical analysis education, exclusive member events, and research publications available nowhere else.

Access to the all-new, Digital Reference Library

Lessons and content created by seasoned practitioners in the financial markets, and CMT members.

Read, Share, Contribute

Access or contribute to CMT publications like the Journal of Technical Analysis, Technically Speaking, trusted third-party publications, and more.

& more

[*Source]

PROGRAM **OBJECTIVES**

Foundation in Financial Market Structures
Understand the architecture and behavioural dynamics of equity, derivative, and other financial market products, laying a practical base for higher learning and strategic action.

Strengthen Technical Analysis Knowledge
Equip yourself with advanced technical analysis skills and CMT Association Affiliate Membership to access a global professional network and hundreds of hours of learning resources while receiving a pathway to the CMT® designation.*

Strategize Using Derivatives and Risk Instruments
Receive capability in Futures & Options strategies, Greeks, hedging techniques, volatility tools, and arbitrage frameworks to mitigate risk and optimize returns.

Transition into Quantitative and Algo-Based Trading
Leverage Python and algo based systems to test, execute and refine strategies enhancing precision and scalability in market operations.

Make Informed Investment Decisions
Make decisions using data analytics, chart patterns, backtesting models, and macro/microeconomic indicators.

*Source

PROGRAM **JOURNEY**

Introductory Digital Primers   ▶ Online | Self-Learn

- ☑ Introduction to Financial Markets and Analytics   ⌛ 30 hours
- ☑ Behavioral Finance   ⌛ 10 hours

Core Courses   ((•)) Live | Online

- ☑ **FUNDAMENTAL ANALYSIS**   ⌛ 12 hours
  - Workshop#**1:** Company analysis using historical data
  - Workshop#**2:** Economic indicator impact assessment

- ☑ **TECHNICAL ANALYSIS**   ⌛ 12 hours
  - Workshop#**1:** Chart pattern & candlestick identification challenge
  - Workshop#**2:** Backtesting swing trading strategy

- ☑ **ADVANCED TECHNICAL ANALYSIS**   ⌛ 12 hours
  - Workshop#**1:** Filter company information to analyze performance
  - Workshop#**2:** Building a Price Action strategy

Specialization Courses - **Choose ONE**   ((•)) Live | Online

- ☑ **ADVANCED DERIVATIVES**   ⌛ 30 hours
  - Workshop#**1:** Analyzing option chain & payoff
  - Workshop#**2:** Building multi-leg option strategy & risk management

- ☑ **ALGO TRADING USING PYTHON**   ⌛ 30 hours
  - Workshop#**1:** Financial data acquisition & EDA in Python
  - Workshop#**2:** Building & backtesting an Algo-based strategy

Flexible entry options available **|** Attend both the specialization courses for an additional fee

INTRODUCTION TO FINANCIAL MARKETS & ANALYTICS

▶ Self-learn   📶 Online   ⏳ 30 Hours

This course helps participants gain practical insights into investment strategies, risk management, trading mechanisms, and data-driven robo-advisory innovations. This blend equips learners with diverse skills essential for navigating complex financial markets. The course prepares participants to leverage analytics in informed financial decision-making, with a focus on emerging trends and ethical standards.

COURSE OUTLINE

Financial Management **|** Technical and Renko Analysis **|** Derivatives & Types of Contracts **|** Currencies & Commodities **|** Robo Advisory in Derivatives

BEHAVIORAL FINANCE

▶ Self-learn   📶 Online   ⏳ 10 Hours

This course provides an overview of the psychology that drives capital markets, as well as the biases and information processing errors that one must be conscious of in making financial decisions. Awareness of these heuristics can avert any erroneous decision at an individual level, and at a corporate level.

COURSE OUTLINE

Introduction to Financial Planning **|** Fundamentals of Behavioural Finance **|** Difference from Traditional Finance **|** Types of Investor Biases **|** Mitigation of Risk due to Behavioural Biases **|** Effect of Endowment Effect in decision-making **|** Can AI take better financial decisions? **|** Can AI help in taking rational investment decisions **|** Will AI/ML-based investments/trading dominate the future? **|** Will AI/ML replace the investment thesis for investors in a start-up?

Core Course

A: **FUNDAMENTAL ANALYSIS**

📶 Live   📶 Online   ⏳ 12 Hours

Understand how macroeconomic trends, industry dynamics, and company fundamentals influence asset prices. This course equips you with analytical frameworks to assess value, performance, and long-term investment potential.

COURSE OUTLINE

- Basics of Capital Markets
- Capital Market Terminologies
- Order Management System
- Basics of Equity Fundamentals & Research
- Industry & Economic Analysis
- Three Statement Analysis
- Financial Research Analysis
- Identifying Valuation Parameters
- Evaluating Sector & Industry Structure: Top Down vs Bottom Up
- Understanding Competitive Advantage & How it affects Companies

Learning Outcomes:

- Decode three-statement financials and perform ratio analysis
- Conduct top-down and bottom-up industry evaluations
- Understand valuation metrics and business competitiveness
- Use economic indicators to forecast market trends

Core Course

B: TECHNICAL ANALYSIS

📶 Live 📶 Online ⏳ 12 Hours

Learn how to analyse market movements using chart patterns, indicators, and price action strategies. This course helps you develop a foundation for short-term and medium-term trading through disciplined technical approaches.

COURSE OUTLINE

- Key Assumptions of Technical Analysis
- Dow Theory | Identifying Broarder Market Trends using Dow
- Japanese Candlesticks
- Single, Two & Multiple Candlestick Patterns
- Trend Indicators – EMA/ SMA/ WMA
- Oscillators- Relative Strength Index
- Bollinger Bands
- How to make a Trading Strategy - Complete Thought Process
- Price Actions Strategies
- Swing Trading Strategies
- Money Management Rules & Behavioural Management

Learning Outcomes:

- Understand Dow Theory and Japanese Candlestick Patterns
- Use Momentum and Trend Indicators like RSI and Moving Averages
- Apply Bollinger Bands and Heiken Ashi for Trend Recognition
- Design Price-Action-based and Swing Trading Strategies

BUY SELL

Core Course

C: **ADVANCED TECHNICAL ANALYSIS**

📡 Live   📶 Online   ⏳ 12 Hours

An Advanced Technical Analysis course provides participants with the knowledge and practical skills to evaluate financial markets, identify trading opportunities, and make informed investment decisions. This program will empower learners to design, optimize, and implement trading strategies across diverse market conditions.

COURSE OUTLINE

- Trading Strategy using Dow Theory - Application
- Advanced Understanding of Technical Indicators - MACD, Stochastic
- Heiken Ashi Patterns
- Momentum Indicators **|** Trend Indicators **|** Volatility Indicators **|** Volume Indicators
- Decoding Fibonacci Ratios: Retracement and Extensions
- Advance Discussions on Chart Patterns
- Western Classical *(double top & bottom, triangles, pennants, head and shoulder, cup & handle)*
- Applications of Japanese Candlesticks *(single, double and triple candles)*
- Demand & Supply Zones **|** Drawing Correct Trend Lines
- Technical Trading Strategies **|** Price Action **|** Indicator-based Trading Strategies
- Making Basic Screeners **|** Making Advanced Screeners
- Elliots Wave Theory - An Introduction

Learning Outcomes:

- Learn western and Japanese chart patterns
- Draw and interpret Fibonacci Retracements and Extensions
- Identify & drawing Demand / Supply Zones
- Build Price-Action strategies using Pin Bars, Inside Bars, and Fakey Patterns

S1: **ADVANCED DERIVATIVES**

PART 1: FUTURES, OPTIONS, HEDGING & SWAPS

(o) Live 🛜 Online ⧗ 15 Hours

Learn the mechanics of Futures and Options, interpret Greeks, and analyse volatility surfaces for strategic positioning. This course bridges conceptual understanding with practical applications and hedging practices.

COURSE OUTLINE

- **Basic Concepts** - Futures | Need and Importance of Futures | Characteristics of Futures | Future Payoffs

- **Introductions to Options** - Basics | Types of Options | Payoff Charts

- **Derivatives Analysis -** Futures | Open Interest | Detailed Analysis of Open Interest | Trend Identification using Open Interest

- **Derivatives Application -** Cash & Carry Arbitrage | Option Strategies Basics | Vanilla Option Strategies | Time Value & Intrinsic Value of Options | Moneyness of Options

- **Additional Concepts -** Introduction to Black-Scholes Model | IV Analysis | IV Percentile | Volatility Smile *(a single option's implied volatility may also follow the volatility smile as it moves more ITM or OTM)* | Volatility Surface | Volatility Skew | Volatility Skew Percentile | Introduction to Swaps

Learning Outcomes:

- Analyze Option Chains, OI Data, and Payoff Structures
- Understand and Apply Option Greeks
- Use Strategies like Straddles, Condors, and Butterflies
- Visualize and Interpret Volatility Metrics and Surfaces

S1: **ADVANCED DERIVATIVES**

PART 2: TECHNICAL INDICATORS, F&O & RISK MANAGEMENT

(•) Live   🛜 Online   ⧗ 15 Hours

Integrate technical tools with derivative instruments to develop multi-layered market strategies. This course focuses on avoiding common trading traps, enhancing risk control, and using F&O data for decision-making.

COURSE OUTLINE

- **Derivatives -** Quick Recap of Futures | Options | Swaps

- **Option Greeks -** Delta | Theta | Gamma | Vega | Rho

- **Option Chain Analysis -** Analysing Support & Resistance of Indices | Analysing Institutional Money Flow | Understanding NIFTY | Visualizing Option Exposure & Greeks

- **Option Strategies -** Bull Call Spread | Bear Call Spread | Bull Put Spread | Bear Put Spread | Long & Short Call Butterfly | Iron Condor | Straddles & Stangles | Application of Option Strategies

- **Option Hedging -** Protective Put | Covered Call | Portfolio Hedging

- **Option Scalping -** Introduction | Option Buying vs Option Selling

- **Using OI as a Strike Filter -** How to select Option Strikes

- **Open Interest -** Reading OI and Price Percentile | IVs and India VIX | IV Rank and Percentile | GAP UP / GAP DOWN Risk

- **Volatility -** Implied Volatility | Realized Volatility | Historical Volatility | GARCH Volatility Estimates

Learning Outcomes:

- Use OI Data for Strike Filtering and Trap Identification

- Interpret Volume and Price Divergence using Technical Indicators

- Analyze India VIX and Implied Volatility for Setups

- Apply GAP Risk Management and Option Ratio Strategies

S2: **ALGO TRADING USING PYTHON**

📶 Live 📶 Online ⏳ 30 Hours

Leverage the power of Python to design, code, and backtest algo trading models using historical financial data. This course blends programming, strategy development, and automation of trading & investing.

COURSE OUTLINE

- **Introduction to Python -** Jupyter Notebook | Python Environment on Windows | Programming Basics | Operators | Conditional, String Operations, Array, Loops, Functions and File I/O | Data Collections

- **Main Data Analysis Libraries -** NumPy | Pandas | Yahoo Finance | Import/Export Financial Data | Exploratory Analysis | Volatility Analysis | Technical Indicators | Customized Charts | Pattern Analysis

- **Introduction to Algorithmic Trading -** Introduction | Benefits

- **Capital Market Strategies -** Pair Trading | Sentimental Analysis | News, Time & Volume-based Strategies | Trend-following Strategies

- **Strategy Development & Back-testing -** Common Pitfalls | Parameter Optimization / Overfitting | Transaction Cost Analysis | Performance Measurement Statistics

- **Order Types -** Market Order | Limit Order | Bracket Order | Peg Order

- **AlgoTrading:** System Architecture | Market Data | API Set-up | Connectivity | Operational Considerations | Order & Risk Management

- **Risk Management:** Optimal Capital Allocation | Stages in Risk Management | Risk Management in HFT & AlgoTrading

Learning Outcomes:

- Write Python scripts for financial data processing and EDA
- Create and backtest trading strategies using technical indicators
- Implement order types and broker APIs
- Apply algorithmic risk and money management principles.

NSE
Academy

Certificate of Completion

This is to certify that

<<Participant Name>>

has successfully completed

Professional Certificate in Financial Market

conducted jointly by NSE Academy Limited

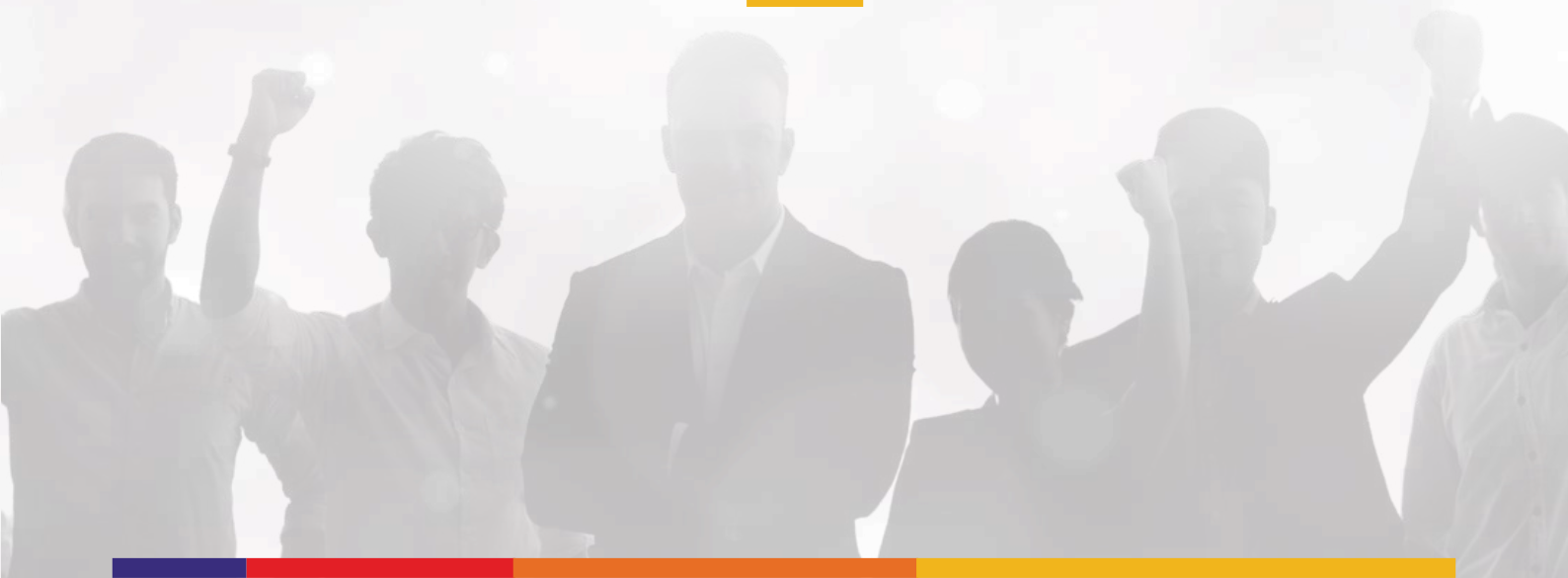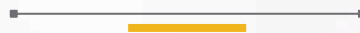July 2025 - September 2025
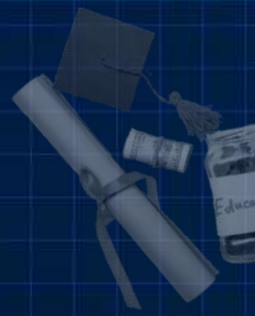
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Certificate Number :

Date: DD-MM-YYYY

Place:

Abhilash Misra
Chief Executive Officer
NSE Academy Limited

Sample **Certificate of Completion** to be awarded to the Participants upon successful completion of the program

PROGRAM **FEE**

₹ **75,000 /-** plus GST
per participant

- **EMI options** available
- **Flexible entry options** available - contact our Program Counselor
- The fee includes access to two digital primers and live sessions. Participants can attend both the specialization courses for an additional fee.
- Access to the **session recordings** for six months
- For **'Algo Trading using Python'** specialization course, prior programming knowledge is helpful but not mandatory

For more information

👤 **Prashant Shetye**   📞 **+91 85912 97096**   ✉️ **gen_pdp@nse.co.in**

ABOUT **NSE ACADEMY**

NSE Academy Limited is a wholly owned subsidiary of the National Stock Exchange of India Ltd. NSE Academy Limited enables the next generation of BFSI and FinTech professionals with industry-aligned skills – through capacity building programs and certification courses, powered by an online examination and certification system. The courses are well-researched and carefully crafted with inputs from the industry professional. NSE Academy Limited works closely with reputed universities and institutions across India in building a competent workforce for the future of BFSI and FinTech. NSE Academy Limited also promotes financial literacy as an essential life skill among youngsters – a contribution towards financial inclusion and wellbeing.

DISCLAIMERS

- It is clarified that NSE Academy does not, in any manner whatsoever, assure, warrant, guarantee, or promise any job/ placement/ advancement to any Participant.
- Under no circumstances, NSE Academy, and its partners shall be held responsible/ liable for failure on the part of the Participants to pass / successfully clear the interview process or the requirements to successfully secure a job.
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- All the courses are administered by the NSE Academy Ltd. and its partners. The participants need to complete certificate criteria independently to be eligible for the respective certificates. The course content/ outline mentioned herein is indicative and may be modified by NSE Academy or its partners in the best interest of the participants.
- Participants will be granted access to course on the digital platforms of NSE Academy and its partner.
- Registration Fees paid by the candidate shall not be refunded under any circumstances after the classes have commenced.
- In case the registered candidate wishes to cancel the registration for the program, he/she is required to inform NSE Academy via a written request or an Email within 2 working days prior to the commencement of the program. If the refund request is approved, the candidate will be refunded 90% of the total course fees paid for the respective program.
- The course is for educational purpose only. It is further clarified that NSE Academy does not, in any manner whatsoever, assure, warrant, guarantee, or promise any Profits/Gains from the market. Market risk is always applicable.
- NSE Academy reserves the right to modify or reschedule class dates and timings at its sole discretion in the event of unforeseen circumstances or exigencies.