The Financial Markets the world over have seen a major paradigm shift in how trading is done. Trading done by computer programs known as Algorithmic Trading or Program Trading has existed for decades now, but over the recent years with the emergence of technologies, electronic markets, availability of high frequency data, faster networks, faster machines, better data analytics and more evolved theories, the domain of High Frequency Trading has emerged as a major mechanism as well as an end in itself. These algorithms depend on quantitative techniques for detection of profitable trade opportunities, generating trade signals, generating the trades and trade order execution. At each stage there is extensive use of technologies.

Algorithm Trading, both High-Frequency as well as Low Frequency, using Quantitative Methods is now a very lucrative career. A breed of traders known as the Algo-Traders or Quant-Traders has emerged who have certain skill-sets that are much sought after in the industry.

The CP-AT course, conducted by IIQF in association with Master Trust, a leading Financial Services Firm, and taught by highly qualified and experienced market practitioners is a job-oriented course that aims to produce industry-ready Algo-Traders, who can join trading desks of various financial institutions or setup their own independent algorithmic prop trading desks.
Brief Curriculum
- Introduction to Algorithmic Trading and Quantitative Trading
- Advanced Statistics for Quantitative Trading
- Financial Econometrics for Quantitative Trading
- Trend Following Strategies
- Momentum Strategies
- Mean Reversion Strategies
- Statistical Arbitrage Strategies
- Pairs Trading
- Advanced Options Trading Strategies
- Volatility Trading Strategies
- Market Microstructure
- OB Dynamics
- AT Mechanics
- Strategy Back-testing and Optimization
- AT Infrastructure Requirements
- Algorithm Design and Strategy Implementation
- Execution Algorithms
- Order Management
- Latency Issues
- Error Handling
- Risk Management in Trading

Optional Primer 1:
Financial Products and Markets

Optional Primer 2:
Programming in VBA

Who Should Attend
- Fresh Graduates
- Management Students
- Finance Professionals
- Dealers
- Arbitrageurs
- Prop Traders
- Retail Traders

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Course Details
Duration: 3 Months
Schedule: Saturdays and Sundays
Course Fees:
Classroom programs - INR 90,000/- (All Inclusive)
Online programs – INR 68,000/- (All Inclusive)

Candidates opting for primer modules are required to pay the following additional fees:
Primer 1: INR 5,000/- (All Inclusive)
Primer 2: INR 20,000/- (All Inclusive)

(Group discounts available)

* Course Fee Refund

Master Trust, a leading Financial Services group, offers 50% course fee refund in the form of brokerage credit for students successfully completing the course and trading with Master Capital Services Limited.

Learning Outcomes
- Carry out Statistical Analysis of Data for finding Algorithmic Trading Strategies
- Build, Back-test, Optimize and Implement Quantitative Algorithmic Trading Strategies
- Learn to code your own strategies into algorithms
- Integrate the Algorithmic Trading Strategies with Algorithmic Trading Platforms

Course Eligibility
Graduate degree in science / economics / commerce / engineering / management

Optional Primer 1:
Financial Products and Markets

Optional Primer 2:
Programming in VBA
Faculty

**Snehal Soni**, pursuing Ph.D. Delhi University, MBA (Finance) FMS, Delhi University, PGD Security Analysis and Portfolio Management (Fore School of Management). He was the Head of Proprietary Trading at IKM Investor Services Ltd. where he was responsible for developing proprietary trading models on pricing inefficiencies, Index Basket arbitrage, Volatility mismatches like skew etc., Statistical-based trading models, Dispersion Trading etc., implementation of Automated trading systems. He has nearly 17+ years of experience in Derivatives Research, Hybrid Instruments, Proprietary Trading, Fund Management, Risk Management, System Implementation, Procedure Implementation, Hedging Strategies, Portfolio Management, Investment Management.

**Amrendra Kumar**, M.Sc. (Economics) IGIDR and Statistics for Financial Engineers from University of California, Berkeley (Haas School of Business) is a Partner and Trader in a UK-based Prop Trading Firm. Previously he was Senior Trader and Strategist for International Markets (Fixed Income, Commodities and Energy) at Centaurus Financial Services India where he was responsible for developing quantitative strategies for Trading & Risk Management and mentoring/managing new Traders. As a Fixed Income Trader his experience is in Trading Bond/Treasury futures, STIR futures, Eurodollars, Swaps, Commodities and Energy products in the International Markets across exchanges (CME, CBOT, LIFFE, EUREX, ICE, EURONEXT).

**Anand Sabale**, FRM, M.Tech. IIT Kanpur, BE (Shivaji University). He is Partner at SPN Risk Solutions LLP, where he is involved in Statistical Arbitrage Trading in India Markets and advising broker’s prop desk for Stat-Arb trading. He has over six years of experience in risk management consulting, performance analytics and algorithmic trading. He is involved in risk management consulting and performance analytics for hedge funds and fund of hedge funds. Previously he had worked with Capital Metrics and Risk Solutions where he was involved in developing quantitative trading strategies and performance analytics for hedge funds.

**Harjeet Singh**, CAIA, FRM, PRM, CFA, M.S. (Financial Mathematics) Stanford University, USA and MBA (Finance & Economics) XLRI School of Business. Currently working as Associate, Global Markets & Risk Management Group with one of the largest MNC Securities firm. Previously he had worked as Algorithmic Trader with a Prop Algo Trading firm, prior to that he worked as Dealer, Global Markets – Treasury with a large MNC Bank.

**Anibhav Singla**, FRM, MBA (IIM Lucknow). Currently working as Treasury Manager (Forex & Derivatives desk) ICICI Bank, where he is responsible for advising clients on various hedging mechanisms such as forwards, options and swaps (IRS & CCS) for foreign currency and interest rate risk management. Previously he had worked as Derivative Trader (Commodity & Currency) with Futures First Ltd. where he was responsible for analyzing crude oil market and led a team of traders with focus towards WTI grade trading.

**Kalyan Roy**, Ph.D. candidate in Statistics (Indiana University, Bloomington, U.S.A.), Master of Statistics (Indian Statistical Institute, Kolkata), Bachelor of Statistics (Indian Statistical Institute, Kolkata). He is Research Scientist in Financial Market Microstructure, Transaction Cost Analysis and Algorithmic Trading with one of India’s largest Broking House. Previously he was the Head of Quantitative Analytics at Capital Metrics & Risk Solutions. Prior to that he worked as a Quantitative Analyst with Deep Value Technology, an innovative firm specializing in high-performance algorithmic trading strategy vehicles where he was involved in studying stochastic models of equity market microstructure, developing ultra-high frequency trading algorithms, statistical modeling, estimation of volatility based on ultra-high frequency data, building factor models for the S&P500 stocks, statistical modeling of market and limit order arrival times and cancellation times and ultra-high frequency equity price time series.
About IIQF

Indian Institute of Quantitative Finance (IIQF) is established as a center of learning in the field of Quantitative Finance and Financial Engineering. Founded by leading finance professionals and entrepreneurs with extensive global experience and expertise in specialized Quantitative Finance and Risk Management domains and educational background from the best of global institutions. It is the first institute of its kind in India that exclusively focuses on this extremely specialized field. IIQF conducts specialized courses and corporate training programs on advanced quantitative finance, risk management, financial modelling, simulations and econometrics for corporates and individuals. There are specialized courses tailored to the specific needs of investment banking and other finance verticals.


It has conducted corporate training programs for banks like Bank of New York Mellon, CitiBank, Societe Generale, ING Vysya etc. In partnership with Thomson Reuters it conducts the most comprehensive course in Financial Engineering in India.

About Master Trust

Master Trust (www.mastertrust.co.in) is one of the leading financial services group in India catering to retail as well as HNI client base across different products including *equity trading, *derivatives trading, #commodity trading, *currency derivatives trading, ^insurance, collateralized loans, portfolio management, *financial planning and *investment banking, directly and through its subsidiaries. Master Trust currently has over 100,000 clients spread across more than 700 points of presence (network of own branches and franchisees) across 22 states in India and a daily client trading volume of close to Rs.35 billion on all exchanges in India put together.

Master Trust has a strong belief in nurturing investment culture, attitude and inculcating a very strong approach towards value investing forms the central part of any sound investment philosophy. With an impeccable track record in client servicing of over two decades, Master Trust has now grown to 650+ strong employee organization. At Master Trust, the endeavor is to constantly meet every financial need of our esteemed clients.

(* through Master Capital Services Limited, # through Master Commodity Services Limited, ^through Master Insurance Brokers Limited)