



भारतीय प्रबन्धन संस्थान तिरुचिरापल्ली  
Indian Institute of Management Tiruchirappalli

**masai**®

# **PROFESSIONAL CERTIFICATE IN FINTECH & ARTIFICIAL INTELLIGENCE FROM IIM TIRUCHIRAPPALLI**

# About IIM Trichy

The Indian Institute of Management Tiruchirappalli (IIM Trichy) is a prominent institution established in 2011, part of the prestigious IIM family. Located in the vibrant city of Tiruchirappalli, Tamil Nadu, it has rapidly grown into a significant name in management education, earning consistent recognition for its academic excellence.

## Key Highlights:

- Consistently ranked among India's leading management institutes
- NIRF 2025: Ranked 16<sup>th</sup> in the Management category
- Business Today–MDRA B-Schools Ranking 2025: Ranked 17<sup>th</sup>
- THE WEEK–Hansa Research Survey 2025: Ranked 13<sup>th</sup>
- Fortune India Best B-Schools 2025: Ranked 21<sup>st</sup>
- International Accreditation: PGPM, PGPM-HR and PGPBM programmes accredited by the Association of MBAs (AMBA)



# What Will You Learn?

The program offers a comprehensive blend of FinTech fundamentals and applied Artificial Intelligence. It covers digital payments, robo-advisory, AI/ML applications in finance, and data-driven decision-making. Designed using real-world case studies, it bridges finance, technology, and innovation for future-ready professionals.

## Toolkit



# Why Choose This Course?

- IIM Trichy Certification:** Earn a prestigious credential from a top-tier IIM with global academic recognition
- FinTech Meets AI:** Get trained in the FinTech foundations and AI
- 90+ Hours of Expert Instruction:** Learn directly from IIM Trichy's distinguished faculty through structured, high-impact modules
- Harvard Business School Case Studies:** Gain exposure to global best practices with selected HBS case studies woven into the curriculum
- Campus Immersion:** Experience the IIM Trichy campus, engage with faculty and network with peers in an intensive in-person session
- Career-Focused Curriculum:** Tailored for working professionals, fresh graduates and entrepreneurs aiming to lead in digital finance roles
- Industry Readiness\* by Masai:** Get interview-focused coaching and AI-powered practice sessions to boost hiring outcomes

*\*50% marks required*

# Course Details

**Course Duration**  
8 Months

**Live Classes**  
3 hours per week

**Certification**  
From IIM Tiruchirappalli

Certificate Eligibility: Minimum 75% live attendance and 40% marks in cumulative evaluations score

# Course Curriculum

## Module 1: Foundations of FinTech in Banking & Finance

**Goal:** To build a strong foundation in FinTech concepts, technologies, and applications, and understand their impact on banking, finance, and the FinTech ecosystem.

### Back to Basics: Banking Meets FinTech

- Overview of banking and financial services
- What is FinTech? Definitions, scope, and domains
- Evolution of FinTech and its disruption of traditional models
- FinTech landscape: global and Indian context

### Money in Motion: Digital Payments & Settlements

- Digital payments ecosystem: wallets, UPI, IMPS, RuPay, BBPS
- Cross-border payments and CBDCs
- Payment security, KYC/AML, and fraud risk
- FinTech–banking synergy in payments

### Lending Revolution: From Banks to Platforms

- FinTech in lending and deposits
- Alternative lending models: P2P lending, BNPL, digital credit
- Digital banks and neobanks: models and challenges
- Open banking and API-driven lending innovation

### Crowd Power & Collaboration

- Crowdfunding: donation, reward, equity, and debt models
- Global and Indian regulatory frameworks
- Collaboration models: bank–FinTech partnerships, embedded finance
- FinTech & banking synergy: competition vs. complementarity

### Module Break: Mini Project / Simulation Presentations

## Module 2: FinTech Innovation in Financial Markets & Regulatory Compliance

**Goal:** To explore how FinTech innovations are transforming financial markets while examining the regulatory and compliance landscape and associated challenges.

### Smart Markets: Trading & Investment Innovation

- Algorithmic and high-frequency trading (HFT)
- WealthTech and investment platforms
- Robo-advisory and AI-driven portfolio management
- Social trading and digital investment platforms (eToro, Zerodha)

Tools Used: Python, Excel

Assignment: Hands-on simulation assignment on wealth management

### New Frontiers: Alternative Assets & Risks

- Innovation in alternative assets (fractional real estate, crypto ETFs)
- Risks in digital investing (behavioral biases, technology failures)

### Compliance by Design: RegTech & Monitoring

- RegTech fundamentals: KYC, AML, fraud detection
- Technology stack for compliance monitoring
- Cross-border regulatory challenges in digital finance

### Balancing Act: Innovation Meets Regulation

- Integrating innovation with regulation
- Ethical AI in financial markets
- Future of compliance: SupTech, sandboxes, and beyond

### Module Break: Mini Project / Simulation Presentations

## Module 3: FinTech Data Preparation & Analysis – Tools

**Goal:** To develop practical skills in preparing, analyzing, and visualizing financial data using industry-standard analytical tools to support FinTech decision-making and innovation.

### Data Analysis using Excel

- Data cleaning, transformation, and validation techniques
- Using formulas, pivot tables, and lookups for financial data analysis
- Financial modeling and scenario simulation

### Data Analysis using SQL

- Structuring and querying datasets with SQL
- Data joins, aggregations, and subqueries for analytics
- Extracting insights from transactional data
- Integrating SQL outputs with Excel or BI tools

### Data Analysis using Power BI

- Building interactive dashboards for financial reporting
- Connecting data sources and applying transformations
- Visualizing key metrics and trends in FinTech operations
- Storytelling with data through dynamic reports

### Data Analysis using Python

- Python for finance: a quick ramp-up
- Data wrangling and analysis with Pandas
- Numerical computing with NumPy
- Visualizations for financial insights

## Module 4: Artificial Intelligence – Applications of ML

**Goal:** To introduce foundational concepts of artificial intelligence and machine learning, develop familiarity with key techniques, and map their relevance to financial services, banking, markets, and FinTech innovation.

### AI & ML Foundations

- What is AI? What is machine learning? Core definitions, scope, and differences
- Types of ML: supervised, unsupervised, reinforcement learning
- AI/ML applications in finance

### Machine Learning for Credit Risk & Fraud Detection

- Credit-scoring models
  - Logistic regression and decision trees
  - Anomaly detection using supervised ML techniques
- Classification process and metrics
  - Train–test split and cross-validation
  - Evaluation metrics: accuracy, precision, recall, F1-score
  - Confusion matrix and ROC–AUC in credit-risk analysis
- Anomaly detection in finance
  - Fraudulent-transaction detection with supervised models
  - Handling imbalanced datasets
  - Cost-sensitive learning

Tools Used: Python

### Machine Learning for Customer Insights

- Churn prediction in FinTech and banking
  - Introduction to ensemble machine-learning techniques
  - Predicting customer churn using historical behavior

Tools Used: Python

## Module 4: Artificial Intelligence – Applications of ML

### Machine Learning for Customer Insights

- Customer segmentation
  - Clustering basics (k-means and hierarchical clustering)
  - Using clustering to identify customer groups
- Identifying insights using text analytics

Tools Used: Python

### Introduction to GenAI

- Large language models
- GenAI landscape
- Simple workflow orchestration demo

### Module Break: Mini Project / Simulation Presentations

## Module 5: Capstone Project Presentations

# Programme Directors



**Prof. Shalini Velappan**

Assistant Professor, IIM Tiruchirappalli

Shalini Velappan is an Assistant Professor in Finance and Accounting Area at IIM Trichy. Her research and teaching interests include asset pricing, risk management, and financial technology. She has about 8 years of industry experience developing end-to-end analytical solutions across international markets in the banking and automobile domains. She has received several fellowships & awards, such as DAAD, Germany, JRF & SRF from UGC, India, and the President award, Global Diversity Equity & Inclusion award, and Asia Pacific award from Ford Motor Company, amongst many others.



**Prof. Venkataraghavan K**

Associate Professor, IIM Tiruchirappalli

Dr. Venkataraghavan Krishnaswamy is an Associate Professor in the Information Systems and Analytics Area. He holds a PhD from the Department of Management Studies, Indian Institute of Technology Madras. His research explores the business value of information technology, emerging technologies and their applications, and enterprise information systems. With eight years of industry experience, he previously worked as a Principal Data Scientist at a telecom analytics start-up and as an ERP Package Solution Consultant at IBM and NTT India.

# Admission Process



## Submit Application

Complete application form to showcase your motivation and goals.



## Complete Counselling

Only shortlisted candidates go through the counselling process.



## Start Learning

Learn from India's top educators and stand out from the crowd.

Applicant should have basic understanding with spreadsheets, exposure to Mathematics and Statistics, and a positive attitude towards programming tools like Python.

**Eligibility:** A graduation degree in any stream is required, and applicants from all academic backgrounds are welcome.

## Fees Structure

Application Fee (Non-Refundable)	₹100	
	Option 1	Option 2
	Upfront	EMI (Through our NBFC partners)
Secure Seat Fee (Non-Refundable)	₹4,000	₹4,000
Installment 1 (Non-Refundable)	₹40,000*	₹15,589 x 9 months
Installment 2 (Non-Refundable)	₹82,000*	
Total	₹126,000*	₹144,301*

\*GST at 18% extra, as applicable

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