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**EXECUTIVE CERTIFICATION IN
FINTECH & ARTIFICIAL INTELLIGENCE
FROM BITS SCHOOL OF MANAGEMENT**

| About BITSoM

BITSoM (BITS School of Management), an integral part of the esteemed BITS Pilani legacy, stands as a beacon of excellence in business education. Located in the Mumbai Metropolitan Region, BITSoM offers a transformative learning experience driven by world class faculty who bring expertise from top global institutions. With a foundation in entrepreneurial spirit and academic rigour, BITSoM nurtures future leaders equipped to excel in an ever-changing global business landscape.

Why Choose This Course?

- **BITSoM Executive Certification:** Earn a prestigious credential from BITSoM, a new-age business school shaping future-ready leaders with global recognition.
- **FinTech Meets AI:** Master the most disruptive forces in finance—from digital payments and blockchain to applied AI and automation.
- **Learn from BITSoM Faculty & Industry Experts:** Gain insights directly from distinguished faculty and leading practitioners driving change in global financial services.
- **Industry-Relevant, Future-Ready Curriculum:** Designed for professionals, graduates, and entrepreneurs, focused on digital fluency, applied finance, and leadership readiness.
- **BITSoM Industry Network Advantage:** Leverage BITSoM's strong corporate and alumni connections for exposure to cutting-edge industry practices.
- **Industry Readiness*:** Get interview-focused coaching and AI-powered practice sessions to boost hiring outcomes.

**CGPA above 5 required*



| What Will You Learn?

- Gain a deep understanding of digital finance, blockchain, AI, and intelligent automation shaping the future of money.
- Develop the ability to make data-driven, strategic financial decisions with cutting-edge tools.
- Build the confidence to lead in FinTech-first roles and transform business growth.

Toolkit

jumio®

stripe

 PLAID

 python™

 + a b | e a u®

 **UPI**
UNIFIED PAYMENTS INTERFACE

& more

| Course Details

Course Duration
6 Months

Time Commitment
7-8 hours per week

Certification
From BITS School of Management

Condition for Certification

The certificate will be awarded only upon the completion of the final examination that is conducted offline.

**NOTE: Non Resident Indians & International students are allowed to attend the exam online, under special provision enabled with vigilant proctoring.*

| Course Curriculum

Module 1:

Digital Finance Blueprint: Core Concepts and Disruption

Focus: Mastering the core language and structure of traditional finance.

Duration: 3 Weeks

Key Topics:

- Core finance concepts: Risk vs Return, Discounting, and Compounding principles
- Overview of financial statements and fundamental analysis
- Introduction to financial markets: Key instruments (equity, debt, derivatives) and market functions
- Defining FinTech, its evolution, and primary domains (Payments, Lending, Wealth)

Module 2:

FinTech Data Accelerator: Toolkit Mastery (Excel, Python, SQL, Viz)

Focus: Establishing the foundational data and programming skills required for all subsequent modules.

Duration: 7 Weeks

Key Topics:

- Financial Modeling with Excel (1 Week): Time Value of Money, basic financial functions, and data manipulation
- Python Programming Basics (2 Weeks): Introduction to Python, data types, control flow, functions, and key libraries (NumPy, Pandas)
- Introduction to SQL and Data Access (2 Weeks): Database concepts, basic querying (SELECT, WHERE, JOIN), and data extraction logic
- Data Visualization with Tableau (2 Weeks): Principles of visual communication, dashboard design, and effective data storytelling

Practical Tools: Excel, Google Sheets, Python, Basic SQL, Tableau

Module 3:

The API Economy: Payments, Lending, and Open Banking

Focus: Mastering the core operational systems that define modern digital finance.

Duration: 3 Weeks

Key Topics:

- Payment infrastructure: UPI, digital wallets, instant payment rails, and payment gateways
- Lending innovation: Peer to Peer lending (P2P), Buy Now Pay Later (BNPL) models, and modern credit scoring logic
- Open Banking and API driven finance: Data sharing frameworks and platform innovation

Practical Tools: Postman for API testing concepts

Module 4:

Machine Learning Fundamentals: The Analytical Engine

Focus: Building the theoretical and statistical foundation for Artificial Intelligence

Duration: 3 Weeks

Key Topics:

- Data preparation in finance: Structured vs unstructured data, cleaning, and feature engineering
- Descriptive statistics and probability for financial data
- Machine learning fundamentals: Supervised Learning (Classification, Regression) and core model assumptions
- Model evaluation: Key performance metrics including Accuracy, ROC AUC, Precision, and Recall

Practical Tools: Utilizing Python skills for theoretical application

Module 5:

Intelligent Applications: AI for Risk, Fraud, and Growth

Focus: Applying Machine Learning models to high value financial verticals

Duration: 4 Weeks

Key Topics:

- Risk and Fraud: Advanced credit scoring and real time anomaly detection for fraud monitoring
- InsurTech: AI applications in insurance (underwriting, claims automation, and risk assessment)
- Client Engagement: AI in customer service (chatbots, virtual assistants) and personalization or recommendation engines
- Financial Risk Overview: How AI addresses credit risk, liquidity risk, and market risk
- Large Language Models and Agentic AI: The new frontier

Practical Tools: Python (advanced Scikit learn), Introduction to basic NLP libraries for labs

Module 6:

The Future Stack: DLT, Governance, and Strategic Trends

Focus: Addressing governance, security, decentralized technology and next generation strategic trends

Duration: 4 Weeks

Key Topics:

- Digital Ledger Technology (DLT): Blockchain fundamentals, cryptographic hashing, smart contracts, and an overview of DeFi or digital assets
- Regulatory Technology (RegTech): KYC or AML automation, compliance reporting, and data governance
- Cybersecurity: Identifying common FinTech threats and defensive measures
- Future Strategy: Analysis of Central Bank Digital Currencies (CBDCs), Sustainable Finance (ESG), and the strategic role of Generative AI in financial workflows

Practical Tools: Online blockchain sandbox, PowerPoint or Miro for business strategy

Module 7:

FinTech Product Studio: Integrated Capstone Project

Focus: Applying integrated knowledge to a complex real world industry challenge

Duration: 2 Weeks

Key Topics:

- Problem definition and project scoping
- Data analysis and model implementation
- Development of strategic recommendation and business plan
- Professional presentation and defense

Practical Tools: Holistic use of Python, Excel, SQL, Tableau, and presentation software

| Industry Experts



Prof. Sudip Gupta

Professor of Finance, Johns Hopkins Carey Business School

Prof. Sudip Gupta is a globally recognised finance scholar and educator whose work bridges Artificial Intelligence, Machine Learning, and Finance. Currently a professor of finance at Johns Hopkins Carey Business School, he has pioneered research in algorithmic bias, ESG ratings, alternative credit scoring using AI, generative AI in finance, treasury auctions, and nowcasting with alternative data. His research has been published in leading academic journals such as the Journal of Money, Credit and Banking, the Quarterly Journal of Finance (Best Paper Award), and Management Science.

An award-winning teacher and researcher, Dr Gupta has taught at premier institutions worldwide, including Fordham University (as director of the top-ranked MSQF programme), Indiana University's Kelley School of Business, the Indian School of Business (ISB), NYU Stern, and the University of Maryland's Smith School of Business. At Fordham, he integrated big data and machine learning into the finance curriculum, shaping one of the most advanced programmes in the field.

He holds a Ph.D. and M.S. in economics from the University of Wisconsin–Madison and has been recognised with multiple honours, including the Best Paper Award (Quarterly Journal of Finance, 2022), the Dean's Award for Impact (Johns Hopkins Carey Business School, 2023), and finalist recognition for the Trustee Teaching Award (Kelley School of Business).

Beyond academia, Dr Gupta actively shapes industry and policy. He has served as an adviser to the Competition Commission of India, a member of the State of Karnataka's Big Data Task Force, and as a consultant for leading multinational corporations and global litigation firms. He is also a faculty fellow at the Centre for Responsible AI and affiliated with the Centre for Digital Health and AI.

Dr Gupta is a data hackathon champion, reflecting his passion for applying advanced analytics and AI to solve real world problems in finance, healthcare, and beyond.

| 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.

| 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
Programme Fee (Non-Refundable)	₹56,000	₹7,172 x 9 months
Total	₹60,000*	₹68,548*

*GST at 18% extra, as applicable

