



The Innovator Programme

By: Digital Academy

THE ROAD FROM Fin²Tech.

The Digital Academy by FinTech Egypt, is launching with the vision of becoming the center of excellence to FinTech, providing certified world-class education and training. The Digital Academy will help position Egypt as home to FinTech talent.

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In Partnership With:

CFTE Centre for Finance,
Technology and
Entrepreneurship



CENTRAL BANK OF EGYPT
Egyptian Banking Institute

The Innovator Programme

- The Digital Academy is introducing its first cohort: **The Innovator Programme** in partnership with **EBI and CFTE**.
- **The Innovator Programme** is a 6-months self-paced online course offered in English through the **Digital Academy** for early adopters in the banking, finance and FinTech industry who are in a position to embrace innovation and drive for the future of the industry. The programme gives a 360 degree view on FinTech and an opportunity to specialize in **AI in Finance, Open Banking or Payments in Digital Finance**. After completing the programme, participants will be able to apply digital skills in day-to-day work. The Programme grants access to a well-structured online material (short videos, live sessions & quizzes).

Programme Structure



Foundations Course

2 Months Duration



Specialisation Course

4 Months Duration



Live Sessions

3 Sessions



Foundations

FinTech 360
PROGRAMME

Kickstart your Fintech journey

The course guides participants through the entire Fintech environment providing participants with a foundational knowledge of modern finance, and how it is being transformed by technology.



Fintech



Gain foresight into the future of Fintech from the technologies used and new business models created through realworld case studies



AI in Finance



Learn the fundamentals of Fintech, AI in Finance, Open Banking, Payments, Regtech and Digital Assets.



Open Banking



Payments



Evaluate the applications of technology in different parts of the financial industry



Regtech



Develop an understanding of the importance of each Fintech sector, and who are the key players within the industry.



Digital Assets

CFTE

Centre for Finance, Technology and Entrepreneurship (CFTE)

Next-gen technological advancements in Finance are disrupting traditional business roles, but they are also opening new gateways to more advanced opportunities. CFTE strives to help new-age professionals reimagine the role of technology through education, so they are equipped to reinvent finance 2.0.

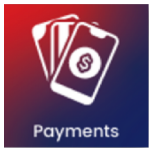
2 Specialisation

(Based on your own interest, choose one from three of our specialisations below)



AI in Finance

- AI market landscape, applications & trends
- AI Technologies: Machine Learning techniques, NLP and recommended engines
- AI use cases in Finance and Enterprises



Payments

- Payments Stack: Industry fundamentals
- The global regulatory landscape of the payments sector
- Payment technologies and product innovations
- Payment strategies & business model innovations



Open Banking

- Business models and implementation of new entrants
- Transformation of incumbents
- Regulations, standards and operational Risks
- Open Banking technology and security

3 Live Sessions with Top Industry Experts

Throughout their learning journey, participants proactively take part in sessions with industry experts picked by EBI, CBE, and CFTE.

Benefits of the Programme

For the innovators



Be part of the group of **innovators** in Egypt and the drivers of the future of the industry



Be exposed to a **global network** of experts and passionate players in the Fintech ecosystem

- **3 live sessions** with **industry experts**
- Invitations to events



Gain a new set of **digital skills** that will make you a valuable asset to your organisation and the industry

For the organisations



Drive change in the industry by upskilling employees and fostering change and innovation from within



Have a cost effective upskilling framework by accessing CFTE's world-class specialisations tailored specifically for financial professionals



Identify pioneers who are capable of making a difference in your organisation

Learn from the best minds



Stephan Murer
Ex Global CTO



Philip Watson
Head of Investment Lab
& Chief Innovation Officer



Dr. Ayesha Khanna
CEO



Dr. Winnie Cheng
Chief Data Scientist



Jon-Tzen Ng
Chief Strategy &
Innovation Officer



Jean-Philippe Desbiolles VP for AI, Data & Cognitive Financial Services	David Hardoon Chief Data Officer	Ran Hindi CEO	Shonali Krishnaswamy Chief Technological Officer	David Andre CEO	Dr. Cao Yang Director	Jason Mars CEO	Frank Chen Software Engineer	Erkin Adylov CEO
Ramneek Gupta Co-Head of Venture Investing	Catherine Havasi CEO and Co-Founder	Siew Kai Choy Head of Data & Analytics	Diane Nolan Managing Director Financial Services	Shameek Kundu Chief Data Officer	Thibault Antoine Head of R&D	Martin Markiewicz CEO	Mathew Davey Managing director	Gurjeet Singh CEO

External Accreditations



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Course Details

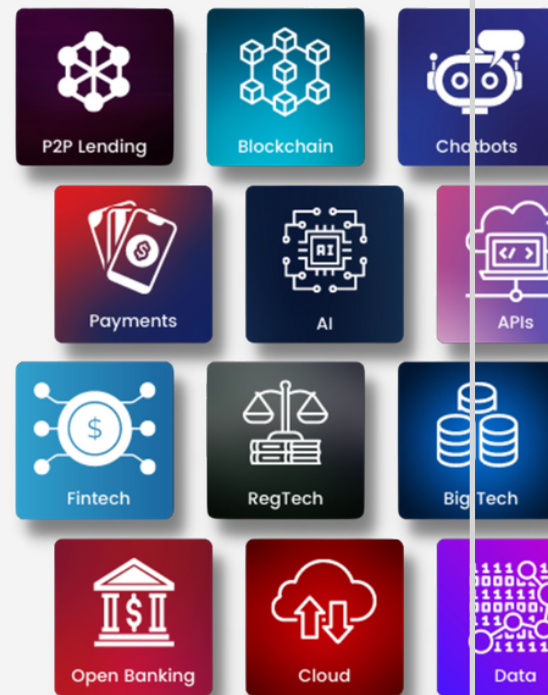
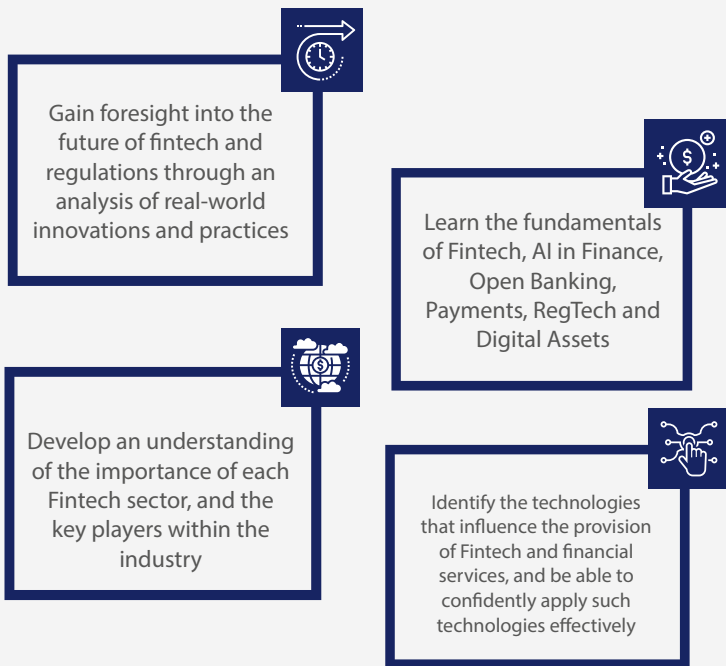
1 Foundations Course

FinTech 360 PROGRAMME

The course guides participants through the entire Fintech environment providing students with a foundational knowledge of modern finance, and how it is being transformed by technology.

Modules

- Fintech Foundation:** An introduction to Fintech, its emergence, innovations and key players in the fintech industry.
- AI in Finance:** Take a closer look at AI technologies, AI application in finance, AI trends in finance, and the role of people in facilitating AI.
- Open Banking:** Venture into the world of Open banking by studying its definition, its technologies, the platform business model, its regulation and standards, and finally its applications.
- Payments:** Learn the history of payments, industrial fundamentals, global regulations, new payment innovations and technologies, and payment strategies.
- RegTech:** Explore the fundamentals, opportunities and trends in RegTech, what is RegTech compliance, and the demand & supply of Regtech technologies and services.
- Digital Assets:** Take a look at the rise of digital assets, blockchain fundamentals, cryptocurrencies, deFi, and NFT minting.



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2 Specialisation

Option 1. AI in Finance

Course 1- Foundations of Artificial Intelligence: Applications and Trends

What is AI? The first chapter of the course defines and describes the impact of AI inside and outside of Finance. Going through examples, analysing the causes, demystifying some concepts and sharing a framework for finance innovation, Dr Ayesha Khanna will give you the big picture of the AI revolution, and what is driving it. Huy Nguyen Trieu will provide an update on the overall trends and growth trajectory of AI.

Module 1 Introduction to Artificial Intelligence

- 1.1 What is AI?
- 1.2 History & Adoption of AI
- 1.3 Talent & AI
- 1.4 AI Initiatives
- 1.5 Summary

Module 2 Use Cases of AI Outside of Finance

- 2.1 The Six Pillars of AI
- 2.2 Automation & Personalisation
- 2.3 Optimising & Detecting Anomalies
- 2.4 Forecasting & Innovating with AI
- 2.5 Our Role in an AI World
- 2.6 Summary

Module 3 Use Cases of AI in Finance

- 3.1 Automation
- 3.2 Personalisation
- 3.3 Optimisation & Anomaly Detection
- 3.4 Forecasting
- 3.5 Innovation
- 3.6 Summary

Module 4 Industry Drivers of AI in Finance

- 4.1 Startups
- 4.2 Investors
- 4.3 Financial Institutions
- 4.4 Technology Companies & Regulators
- 4.5 Summary

Module 5 AI Trends and Future Developments

- 5.1 AI and the Acceleration of Digitalisation
- 5.2 New Technologies and Applications
- 5.3 AI and the Great Reset
- 5.4 AI's Role in Inclusive, Responsible and Sustainable Finance
- 5.5 Future Challenges and Concerns
- 5.6 Accelerated Transformation Trends



Learning Outcomes

- ✓ Understand the main underlying technologies of AI development
- ✓ Grasp many key applications of AI to create value in financial institutions and the role of people in facilitating AI
- ✓ Understand how to make strategic and ethical AI integrations in your organisation
- ✓ Enhance your skillsets in finance and technology with the most up-to-date and insightful industry knowledge on AI



Philip Watson
Chief Innovation Officer, Citi
Private Bank



Jon-Tzeng Ng
Chief Strategy & Innovation
Officer, Ping An Technology



Winnie Cheng
Director AI Lab,
PwC



Huy Nguyen Trieu
Co-founder, CFTE



Ayesha Khanna
CEO, ADDO.AI

Course 2- AI Technologies: Machine Learning Techniques, NLP and Recommendation Engines

This course will give you an overview of AI Technologies. Initially, the taxonomies of AI, machine learning and deep learning will be discussed. We will explore the numerous steps needed to design and build an AI system, including data preparation and the modelling process. Then two key applications will be investigated in detail: Natural Language Processing and Recommendation Engines.

Module 1 AI, Machine Learning and Deep Learning

- 1.1 Introduction to AI, Machine Learning and Deep Learning
- 1.2 Model Training
- 1.3 Examples in Finance

Module 2 Building AI: Data, Models & Training

- 2.1 Building an AI System
- 2.2 Preparing Data
- 2.3 The Modelling Process
- 2.4 Training Algorithms
- 2.5 Tools for AI

Module 3 Natural Language Processing

- 3.1 An Overview of NLP
- 3.2 How NLP Works
- 3.3 Applications of LP in Finance

Module 4 Recommendation Engines

- 4.1 An Overview of Recommendation Engines
- 4.2 How Recommendation Engines Work
- 4.3 Approaches to Recommendation Engines
- 4.4 Applications of Recommendation Engines in Finance

Course 3- Implementing AI in an Enterprise: Technology Skillsets and Regulation

This course will discuss the implementation of AI in an enterprise. Initially, a strategic framework for AI implementation will be outlined with a particular focus on how technologies can be accessed by financial institutions. Following this, the numerous infrastructure requirements to implement AI will be discussed. A deep dive on two key areas will then be investigated: The role of people in an AI enabled world, and ethical considerations of AI implementation.

Module 1 Integration of AI at a Strategic Level

- 1.1 System vs Competitive Innovation
- 1.2 A Strategic Framework for AI
- 1.3 Accessing Technologies in Enterprise

Module 2 Infrastructure for AI

- 2.1 Innovation Capabilities
- 2.2 Data
- 2.3 Technical Infrastructure

Module 3 The Role of People

- 3.1 AI & The Workforce
- 3.2 AI Skillsets in the Workforce
- 3.3 Talent Opportunities & Challenges

Module 4 Ethics and Risks

- 4.1 Model Validation
- 4.2 Cooperation Between Humans and Machines
- 4.3 Risks and Solutions

Course 4- Applications of AI in Finance: Use Cases from the Industry

This course will highlight some of the key applications of AI in finance. This course will be longer than the other courses in the specialisation, each of the six modules will focus on a single application area and will provide detailed insight into how each application creates value in financial services as well as highlighting the industry participants who are leading implementation.

Module 1 Wealth and Asset Management

- 1.1 AI in Wealth and Asset Management
- 1.2 The Benefits of AI in Wealth & Asset Management
- 1.3 Market Research & Data Analytics
- 1.4 Investment Strategy & Trading
- 1.5 Robo-advisors

Module 2: Insurance

- 2.1 Insurance Fundamentals
- 2.2 The Insurance Value Chain
- 2.3 Product Development & Behavioural Pricing
- 2.4 Customer Experience & Personalisation
- 2.5 Claims Management & Fraud Detection

Module 3: Customer Services

- 3.1 Customer Service Fundamentals
- 3.2 Benefits of AI in Customer Services
- 3.3 Examples of AI in Customer Services

Module 4: Robotic Process Automation

- 4.1 PA Fundamentals
- 4.2 Uses Cases of RPA
- 4.3 PA Evolution & Limitations

Module 5: Credit Scoring

- 5.1 Credit Scoring Fundamentals
- 5.2 Alternative Credit Scoring
- 5.3 Opportunities and Challenges

Module 6: Compliance and Fraud Detection

- 6.1 Compliance Fundamentals
- 6.2 Understanding Compliance
- 6.3 Designing & Implementing Processes
- 6.4 Compliance Reporting

Option 2. Payments

Course 1- The Historical, Economic and Social Importance of Payments

Learn about the payment instruments used by our society over the years and how banks and central banks evolved to what they are today. Discover the trends driving payments today such as financial inclusion, and explore advancements that will shape the future of payments.

- Ch 1: A short history of money and payments: from the gift economy to digital
- Ch 2: Means of payments today: an analysis of the money supply
- Ch 3: Payments and settlements in the modern monetary system
- Ch 4: Payments in modern societies
- Ch 5: The future of money and payments

Course 2- Payment's Industry Fundamentals / The Stack

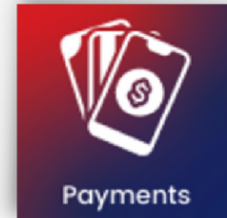
Gain an insight into the payment infrastructure, including key payment players, payment standards and schemes, and the payment economics of today. The experts share their first-hand learnings in this space, hailing from organisations such as SWIFT, Clearbank, Central Bank of Hungary and many more.

- Ch 1: The Payment Business Domains of today
- Ch 2: The Actors and Industry Structure
- Ch 3: The Different Payment Methods/Schemes
- Ch 4: Standards and Infrastructure
- Ch 5: Payment Operations
- Ch 6: Key Revenue and Expense Drivers in the Payment Industry

Course 3- Regulatory, Compliance, Risk, Security and Privacy Aspects

This course introduces learners to the regulatory environment and regulatory bodies in different parts of the globe including the EU, US and Asia-Pacific. Industry experts will discuss the current and future payment trends as well as the actions being taken by regulators to support innovations in payments.

- Ch 1: Payments Regulation: Understanding the who, what and why of payments Regulation in the European Union
- Ch 2: Payment Regulation: Understanding the who, what and why of payments Regulation in the United States
- Ch 3: Payments Regulation: Understanding the who, what and why of payments Regulation in Asia-Pacific
- Ch 4: Financial Crime Compliance
- Ch 5: Data Privacy and Cybersecurity
- Ch 6: The Emerging Payments' Regulatory Landscape



Learning Outcomes

- ✓ Understand money for what it truly is today and how it will change in the future
- ✓ Learn how payments impact financial stability and monetary policy
- ✓ Explore how global cybersecurity regulations continue to evolve
- ✓ Understand what the modern full payments stack looks like
- ✓ Recognise what central bank digital currency proposals exist around the world and what are the regulatory views on cryptocurrency



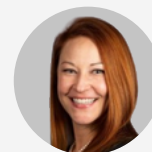
Jean-Michel Godeffroy
Former Director General, ECB



Michael O'Loughlin
Founder, Oloughlin.io



Ritesh Jain
Former COO,
HSBC



Kim Ford
Senior VP,
Government
Relations, Fiserv



Fred Bar
Secretary
General, EACHA

Course 4- New Technologies and Product Innovations

Explore a vast array of payment innovations in modern digital finance impacting the payments stack and how collaboration is crucial for banks to survive and thrive in the new normal. We also look at how new solutions can significantly reduce the risks of financial crime, explore the Internet of Things (IoT), and conclude with a discussion of some hot topics in payments today such as DLT and CBDCs.

- Ch 1: Technology: What does a modern payments tech stack look like?
- Ch 2: Technology-driven innovation in action. Key areas and actors
- Ch 3: Leveraging Data and AI to improve customer experience and Combat Fraud
- Ch 4: The next frontier in Payments - Internet of Things (IoT) and Invisible Payments
- Ch 5: Potential Impact of DLT and CDC on payments

Course 5- Payment Product strategies & Business Model Innovations

You will look at the business models of the payment industry and their evolution. With increased competition, multiple parties in the ecosystem race to faster and cheaper payments service. Explore what's the role of the players and ultimately who and how will they make money to survive and thrive.

- Ch 1: The Payments Business: who makes money in payments
- Ch 2: Business Model enhancing advantage and value creation through innovation in payments
- Ch 3: Data Monetisation and Identity Management Service
- Ch 4: Open Finance reshaping the Banking and Payments Industry

Course 6- Leveraging Payments ecosystem & Driving digital transformation in payments

How can an individual or organisation take steps to digitally transform themselves in the new digital payments ecosystem? With payment methods transforming and traditional banking relations changing, senior executives need to set direction to ensure their financial tooling remains fully supportive of the core business. Participants will understand the importance of digital transformation in the payments industry, from the ISO20022 revolution to Open Banking and IoT.

- Ch 1: What needs to be transformed - the rationale for a digital transformation programme
- Ch 2: How to kick-off and run a Payments DT/innovation programme
- Ch 3: Taking Inspiration & leveraging the Digital Payments ecosystem to transform your e-business
- Ch 4: Taking inspiration & leveraging the Digital Payments ecosystem to transform your corporate finance functions

Option 3. Open Banking

Course 1- An Industry Overview of Open Banking

Learn the background and fundamental knowledge of a new stage of finance: platform ecosystems. Regulators and businesses, old and new, must work together to unlock the full potential of this consumer-centric movement. Lectures will cover the ABCs of Open Banking - how you should position yourself and your organisation.

Course 2- Business Models and Implementation of New Entrants

You will look at the different profiles and roles of new entrants in the finance industry as Third-Party Providers in the Open Banking ecosystem. Learn 5 recognised commercial opportunities enabled by the new technological architectures and the associated risks through a multitude of real use cases around the world.

Course 3- Business Models and Transformation of Incumbents

Understand why now is the right time for an incumbent financial institution to develop and execute a strategic plan for Open Banking. Examine possible business models that incumbent players could implement to monetise APIs, among other technologies. Discuss the success factors for incumbent banks to take advantage of open banking capabilities and trends, and how Open Banking can be the key enabler for the digital transformation of large financial institutions.

Course 4- Regulations, Standards and Operational Risks

Gain an overview of Open Banking regulations and how they can vary across different jurisdictions. Learn the differences between the Mandatory, Facilitative, and Market-driven approaches adopted to implement Open Banking through a detailed analysis of case studies from around the globe. Then look at the different types of data standards in-place and future possibilities in the field while outlining the risks and benefits of Open Banking.

Course 5- Technology and Security

This course gives a high-level explanation on Open Banking technologies, such as API technology and what kind of services are enabled by its implementation. Deep dive into topics of security, identity management, and access control in this new era of platform ecosystems. Finally, learn the software development process in services and the ways to navigate potential operational challenges.



Learning Outcomes

- ✓ Explore the business model that made Amazon a global superpower: the platform ecosystem
- ✓ Understand the roles of third-party providers within the Open Banking ecosystem
- ✓ Analyse the API business model in the Open Banking and Embedded Finance revolution
- ✓ Understand the roles of third-party providers within the Open Banking ecosystem



Paul Rohan
Head of Business Strategy,
Solution Consultant, Google
Cloud



Stephan Murer
Former Global Chief
Technology Officer at UBS



Secil Watson
Executive Vice
President, Wells
Fargo



Carlos Figueredo
CEO and
Founder, Open
Vector



Anna Maj
intech & Payments
Expert

3 Live Sessions



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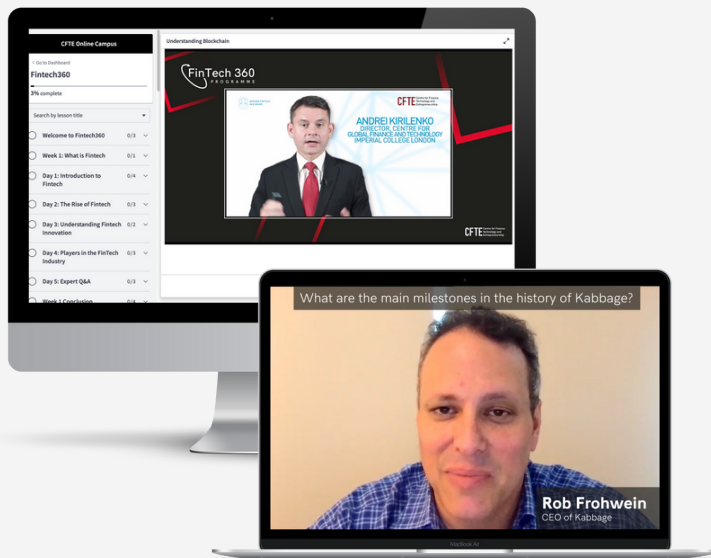
The Innovator Programme features 3 interactive sessions where participants will get to apply their learnings through a multitude of case studies, collaborative activities and more.



Engage your curiosity

Be part of the conversations that are driving change with top Fintech leaders and like-minded peers. Expand and enhance your global network with the innovative minds in Fintech.

**Apply Today
Lead Tomorrow Here**



**Self-paced
Online Programme**

Duration:
6 months program with
approximately 3 hours per
week

Who Should Attend

Banking and Finance Professionals who are:

- Technologists
- Digital Transformation Professionals
- Innovation Professionals
- Product Managers
- Digital Strategists

FinTech Entrepreneurs

Fees: £650

For further inquiries send an email to:

FinTech_DigitalAcademy@ebi.gov.eg



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