

KOENIG SOLUTIONS • COURSE OUTLINE

# Payments: ISO 20022, CBDCs & Real-Time Systems

Learn to navigate global payment systems, ISO 20022 messaging, CBDCs and real-time payment technologies within a regulatory supervision framework.

**8 Days**

DURATION

**51**

TOPICS

**1**

HANDS-ON ACTIVITIES

## COURSE OVERVIEW

To build practical expertise in global payment systems, ISO 20022 messaging, and the evolving FinTech landscape within the Payment System Supervision (PSS) framework.

## WHO THIS COURSE IS FOR

Payment System Supervisors

Compliance Officers

FinTech Professionals

Risk Managers

Payment Operations Staff

Banking Regulators

## LEARNING OBJECTIVES

By the end of this 8-day program, participants will:

- Understand end-to-end payment system design and supervision frameworks (PSS)
- Decode ISO 20022 message structures and their application in real-time payments
- Identify innovations in FinTech and how they reshape global payment systems
- Evaluate cybersecurity and compliance challenges in payment ecosystems
- Gain practical exposure to digital transformation and payment modernization strategies

# 51 Topics

## DAY 1 Foundations of Payment Systems

### TOPICS

- Evolution of Global Payment Systems
- **Types of Payment Systems:** RTGS, NEFT, ACH, SWIFT, Card Networks, Digital Payments
- Key Participants – Banks, PSPs, Payment Gateways, Central Banks, and FinTechs
- Overview of Payment Flows – Clearing, Settlement, and Reconciliation
- Concepts of Gross vs. Net Settlement
- Role of Central Banks and System Operators (RBI, ECB, Fed, etc.)
- **Case Study:** Global Payment System Models (India, EU, UK, USA)

## DAY 2 Regulatory Framework and Payment System Supervision (PSS)

### TOPICS

- Overview of Payment System Supervision (PSS) – Definition, Objectives, and Scope
- Legal and Regulatory Framework for Payment Systems
- Role of the Central Bank and Payment System Regulator (e.g., RBI-PSS Act, BIS Principles)
- Key Regulatory Standards – CPMI-IOSCO Principles for FMIs
- Oversight of Payment Service Providers (PSPs), Wallets, and FinTechs
- Risk Management in Payment Systems – Operational, Settlement, and Liquidity Risks
- **Case Study:** PSS Implementation in India and the EU

## DAY 3 ISO 20022 – Global Messaging Standard

### TOPICS

- Introduction to ISO 20022 Standard – Why It Matters
- Key Concepts – Data Dictionaries, Business Process Modeling, Message Components
- Comparison of ISO 20022 vs SWIFT MT Formats
- Structure of ISO 20022 Messages – XML, MX, and Schema Overview
- Payment Message Types – pacs., pain., camt., and acmt. Series Explained
- Benefits of ISO 20022 Adoption – Interoperability, Data Richness, Compliance
- **Case Study:** SWIFT ISO 20022 Migration (Timeline and Global Readiness)

## DAY 4 ISO 2022 Implementation & Use Cases

### TOPICS

- Global ISO 2022 Implementation Framework
- Data Harmonization and End-to-End Payment Messaging
- Payment Data Enrichment for AML/CFT and Compliance Screening
- Implementation Challenges for Banks and Payment Hubs
- **Case Study:** ISO 2022 in Real-Time Payments (RTP) Systems
- **Practical Workshop:** Interpreting ISO 2022 Payment Messages

## DAY 5 Emerging Payment Technologies & Digital Infrastructure

### TOPICS

- Real-Time Payments (RTP) and Instant Payment Systems
- CBDCs (Central Bank Digital Currencies) – Design and Implications
- Tokenization, Blockchain, and Distributed Ledger Technology in Payments
- Open Banking & APIs in Payments
- Payment Gateways, Aggregators, and Acquirer Models
- **Case Study:** UPI, FedNow, PIX, and SEPA Instant Credit Transfer Systems

## DAY 6 FinTech Innovation and Ecosystem

### TOPICS

- FinTech Business Models – Payments, Lending, InsurTech, RegTech, WealthTech
- Digital Wallets, BNPL (Buy Now Pay Later), and Embedded Finance
- Interoperability and Cross-Border Payment Innovations
- Regulatory Sandboxes and Innovation Hubs for FinTech
- Risk and Compliance in FinTech – AML, KYC, and Data Privacy
- **Case Study:** FinTech Innovation in GCC / India / EU Market

## DAY 7 Risk Management, Cybersecurity, and Compliance in Payment Systems

### TOPICS

- Operational and Transaction Risk in Payment Systems
- Cyber Threats and Fraud Detection in Digital Payments
- Payment Security Frameworks (PCI DSS, ISO 27001, NIST)
- AML/CFT Requirements and FATF Guidelines for PSPs
- Data Privacy and Consumer Protection Laws (GDPR, DPDP Act)
- Incident Response and Payment Continuity Planning
- **Case Study:** Risk Event Analysis – Cross-border Payment Fraud Scenario

## TOPICS

- AI and Machine Learning in Payments & Fraud Detection
- Quantum Computing, Tokenization, and Next-Gen Encryption
- Global Cross-Border Payment Interlinkages – BIS & G20 Roadmap
- Sustainability and Green Payments – ESG in FinTech
- The Future of Payment Ecosystems – Digital Currency Interoperability

## CAPSTONE PROJECT

- Design a Next-Gen FinTech Payment Solution

## WHAT IS INCLUDED

## Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

## ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

## FLEXIBLE DELIVERY

## Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

## Ready to Get Started?

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