



Mastering EMV & CARD PAYMENT SYSTEMS

Duration

The Content Length of the Online Course is **continuous 8 hours** excluding the certification exam. This duration equals the length of a 2 days on-site course.

Price

The price is **199€** per person, including **free 1 month support** and Course Certificate.

MASTERING EMV & CPS

Kiip!in online course aims to explain general structure and details of a Card Payment System. We put together each component of the system for you. The course focuses on business and technical content on EMV implementation. It will be a fundamental guide you before you step into Card Payment World.



Who Needs to Take This Training

- ▶ New or Prospect employees of Card Payment System, EMV Card and Terminal Manufacturers.
- ▶ System designers in Card Payment Systems and Processors.
- ▶ Bank employees who are responsible for implementing or managing EMV and Card Payment System operations.
- ▶ Business Development, IT and Operational Department staff. of Financial Institutions.

Main Objectives

When you complete the course you will:

Know the main components of a Card Payment System.

How they function and interact with each other.

What an EMV Card is.

How an EMV transaction is processed (starting from interaction between card and terminal to the host system operations)

How it should be implemented and migrated.

You will be able to select the correct product and service, depending on your needs.

TOPICS COVERED

- 1 Introduction to Card Payment Systems
- 2 Participants of Card Payment Systems
- 3 Business Units of Card Payment Systems
- 4 What is EMV?
- 5 EMV Cryptography & Key Management
- 6 EMV Card Issuance
- 7 EMV Data Elements
- 8 EMV Transaction Flow
- 9 Certification and Testing
- 10 EMV Migration Points

OUTLINE OF TOPICS

Section 1: Introduction to Card Payment Systems

- What is Payment System?

- Authorization, Clearing, Settlement

- History of Card Payment Systems

- Schemes Methods & Devices

- Future of Card Payment Systems

Section 2: Participants of Card Payment Systems

- Payment Schemes and Networks (Products, Services, Network Infrastructure)

- Issuers and Acquirers

- Cardholders & Merchants

- Cards & Terminals

- Personalization Bureaus & Vendors

- HSMs & Processing Centers

Section 3: Business Units of CPS

- Clearing & Settlement System

- Fraud Detection System

- Campaign and Loyalty System

- Card Management System

- Member Merchant System

- Terminal Management System

- Authorization And Switching

OUTLINE OF TOPICS

Section 4: What is EMV?

- Basic EMV Terminology & Abbreviations
- History of EMV
- WHY EMV? Advantages & Disadvantages
- EMV & Payment Standards & Rules
- EMV Chip Infrastructure, Applications & Definitions
- Chip Card Forms
- Terminal Types & Capabilities
- Terminal Limits for EMV Transactions

Section 5: Cryptography & Key Management

- Online Card Verification Methods
- Hardware Security Module Usage
- Cryptographic Algorithms
- Binary Units, Hex Conversion & Padding
- Symmetric & Asymmetric Encryption
- Symmetric Triple DES (ECB, CBC) Cryptography
- Asymmetric RSA Cryptography
- Offline Data Authentication (SDA, DDA, CDA)
- SDA - Static Data Authentication
- DDA - Dynamic Data Authentication
- CDA - Combined Dynamic Data Authentication
- PIN Encryption Methods
- Key Management & Key Ceremony

OUTLINE OF TOPICS

Section 6: EMV Card Issuance

- Producing a Chip Card

- Approved Chip Card Product

- Key Management Process

- Authorization Preferences

- Data Preparation & Personalization

- Delivery & Post Issuance

Section 7: EMV Data Elements

- TLV Format Description

- Terminal Fields and Explanations

- Card Fields and Explanations

Section 8: EMV Transaction Flow

- EMV Transactions - Contact Interface

- EMV Transactions - Contactless Interface

- Transaction Commands

- Terminal - Card Interaction

- EMV Transaction Flow

- Transaction Flow Overview

- Step by Step Flow Explanation

OUTLINE OF TOPICS

Section 9: Certification & Testing

- Certification
- Certification Requirements
- Certification Types - Network Testing
- Certification Types - Card
- Card Testing Steps
- Certification Types - Terminal
- Terminal Testing Steps
- Components & Interfaces
- Certifications per Payment Scheme

Section 10: EMV Migration Points

- Decision Points - Issuer Perspective
- Issuer Perspective - Chip Related Decisions
- Issuer Perspective - Host Related Decisions
- Decision Points - Acquirer's Perspective
- Acquirer's Perspective - Terminal Related Decisions
- Acquirer's Perspective - Host Related Decisions
- Migration Impact Points

Post Training: Training Certification Exam

- 100 Multiple Choice Questions



CONTACT INFORMATION

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