

# Banking Technology

## Purpose and Scope:

This course is intended to provide the students an insight into the role played by technology in enhancing the effectiveness of the banking sector and also to provide a strong foundation in the various technologies used for delivering Banking & Financial Services. Apart from tracing the evolution of Banking Technology, this course will focus on the current technologies as well as banking technologies of the future. Ultimately, it will enable the student to envision the current and future requirements, architecture of banks and accordingly develop roadmap and strategies. It will help students appreciate the fact that technology cannot be viewed in isolation, which will be a crucial step in integrating the technology and business goals of banks.

**Pre-requisite:** Orientation Course in Banking

## Contents :

### **Module A: Branch Operations and Core Banking**

Evolution of Banking Technology, Branch Automation Impact of Technology on Banking Operations, Centralized Banking-concepts and opportunities, challenges, implementation and management issues.

### **Module B: Delivery Channels**

Products, Services and Delivery Technologies at the branches, ATM-Technology and Operations, Electronic cards- Debit and Credit, Smart cards in banking/e-Money, Internet Banking-Architecture and Implementation, Internet Banking / Mobile banking business management, Phone Banking and Call centers, Electronic Delivery Channels Integration

### **Module C: Back-Office Operations**

Credit Appraisal System, Forex Management/SWIFT, Treasury Management , Asset Liability Management, Risk Management – Operational risk, MIS / DSS / EIS for Banks, Data Centre, Business Continuity and Disaster Recovery , Internal Operations -Mail Messaging System, Corporate Intranet and Workflow, Technology and Human Resources Management

### **Module D: Inter bank Payment Systems**

National Payment System Architecture, Structured Financial Messaging System, Cheque Clearing System and MICR technology, Electronic Clearing Services and Electronic Funds Transfer (EFT / SEFT / NEFT), Real Time Gross Settlement System, Negotiated Dealing Systems and Securities Settlement System

### **Module E: Information System Audit**

Overview of Information Systems Auditing, Operations Management Controls, Boundary Controls, Input Controls, Communication Controls, Processing Controls, Database Controls, Output controls

## **References:**

- Financial Services Information Systems - Jessica Keyes
- Banking Technology - Indian Institute of Bankers Publications
- New Technology of Financial Management – D.N. Chorafas
- Information Systems Audit- Ron Weber PH
- Information System Audit and Assurance –D.P. Dube and V.P. Gulati, TMH, New Delhi, 2004.
- Auditing in a computerized environment TMH - Bhatia Mohan TMH