

IFDA Institute is an approved Training Partner of NSDC.



National Skill Development Corporation (NSDC) is a prestigious initiative by the Government of India that prioritizes quality education, industry relevance, and career advancement.

## Diploma in IT Infra and System Management

**BAJAJ FINSERV** NO COST EMI



Improve Your Career Prospects with Ideal Skills



Fulfill Your Career Goals with Focused Training



Develop Expertise through Distinctive Programs



Achieve Career Success through Assured Job Courses



### About Us

IFDA Institute is an ISO 9001:2015 Certified Accounts and IT Training Institute which is affiliated with NSDC - National Skill Development Corporation, Skill India, Digital India, CSC Academy, and NIELIT. Apart from being an authorized Partner of Tally Institute of Learning, IFDA also has collaboration with multiple colleges of Delhi University.



Duration  
12 Months

### Module – 1 Hardware Fundamentals

- Introduction to hardware
- Difference between hardware and software
- Input devices
- Output devices
- Storage devices
- Processing devices
- Motherboard overview
- CPU (Central Processing Unit)
- RAM (Random Access Memory)
- Hard Drive vs SSD
- Power Supply Unit (PSU)
- External storage
- Printers, webcams, gaming devices
- How to assemble basic components
- Ports and connectors
- How CPU, RAM, and storage affect speed
- Importance of cooling and airflow
- Common hardware problems
- Basic diagnostic tools and techniques



**INVEST  
IN YOURSELF  
IT PAYS  
THE BEST  
INTEREST.**

## Module – 2 Desktop Administration and Support

- What is desktop administration?
- Role and responsibilities of a desktop support technician
- Installing Windows
- Initial setup (user accounts, basic settings)
- Hardware Drivers
- Updating operating systems and drivers
- Creating, modifying, and deleting user accounts
- Setting permissions and security
- Understanding admin vs standard users
- Disk management
- Installing common software
- Uninstalling and troubleshooting software
- Software licensing basics
- Setting up a wired/wireless network connection
- Understanding IP address, DNS, Gateway (basic level)
- Sharing files and printers over a network
- Troubleshooting Desktop Issues
- Basic troubleshooting steps and tools
- How to back up important data
- System restore points

## Module – 3 Networking

- Introduction to Networking
- Types of networks (LAN, WAN, MAN, PAN)
- Importance of networking in today's world
- IP Addressing (IPv4 basics)
- Subnetting (basic introduction)
- DNS, DHCP, Gateway, Router explained simply
- Difference between public and private IP addresses
- Network Devices
- Routers, Switches, Hubs, Access Points
- Cables: Ethernet (Cat5e, Cat6)
- Cable punching
- Wireless networking basics (Wi-Fi standards)

- Setting Up a Small Network
- How to connect devices in a LAN
- Basic router setup
- Network Troubleshooting Basics
- Checking IP configuration
- Ping command, Traceroute
- Diagnosing common issues
- Network Security Basics
- Introduction to firewalls
- Safe networking practices
- Basic idea of VPNs

## Module – 4 Email and Outlook Management

- Introduction to Email Systems
- What is an email system and how it works
- Key components of an email system (mail servers, clients, protocols)
- Types of email services (e.g., cloud-based, on-premises, hybrid)
- Overview of common email protocols:
- Microsoft Outlook Overview
- Introduction to Microsoft Outlook and its role in email communication
- Setting up Outlook for the first time (account setup, connecting to mail servers)
- Configuring POP3, IMAP, and Exchange accounts in Outlook
- Understanding mail server settings (incoming/outgoing mail servers, ports)
- Troubleshooting common setup issues (connection problems, incorrect credentials)
- Creating and managing rules for automated email management
- Creating and managing appointments and meetings

- Setting up and managing automatic replies (Out of Office messages)
- Archiving and backing up emails
- Troubleshooting Common Outlook Issues
- Resolving connectivity issues with Outlook
- Repairing Outlook data files (.pst and .ost files)

## Module – 5 Server management

- Introduction to Server Management
- Types of servers (file server, web server, database server, etc.)
- Difference between desktop and server OS
- Importance of server management in IT infrastructure
- RAID (0, 1, 5)
- Windows Server Installation
- Overview of Windows Server editions (focus on latest version)
- System requirements
- Installation process (step-by-step)
- Initial configuration after installation (setting hostname, IP address, updates)

### Introduction Active Directory (AD) Server

- Installing and configuring Active Directory Domain Services (AD DS)
- Creating a domain
- Managing users, groups, and computers in AD
- Organizational Units (OUs) and Group Policy basics
- Introduction DHCP Server (Dynamic Host Configuration Protocol)
- Installing and configuring the DHCP Server role
- Creating and managing scopes
- Reserving IP addresses
- DHCP troubleshooting basics

### Introduction to DNS Server

- DNS and its role in the Internet infrastructure
- Overview of DNS records (A, CNAME, MX, TXT, SRV, etc.)
- DNS resolution process
- Primary and Secondary DNS Server
- Installing and configuring DNS on a Windows Server (e.g., Windows Server 2019/2022)
- Configuring DNS zones (Forward Lookup Zones, Reverse Lookup Zones)

### Terminal Server (Remote Desktop Services - RDS)

- What is a Terminal Server?
- Benefits of Remote Desktop Services (RDS)
- Installing RDS role
- Licensing basics (RDS CALs — introduce concept)
- Publishing RemoteApps
- Connecting users remotely to applications or full desktops

### Introduction to File Servers

- Installing the File Server role
- Creating shared folders
- Setting permissions (NTFS permissions vs Share permissions)
- Mapping network drives

### Introduction to IIS (Internet Information Services)

- Installing the IIS role
- Hosting a simple website
- Configuring basic security settings (firewall rules, permissions)

### Introduction to Database Servers

- Installing Microsoft SQL Server (basic level)
- Understanding basic database concepts (tables, queries)
- Connecting applications to a database
- Simple backup and restore operations

## Server Backup and Monitoring Basics

- Importance of backup and recovery
- Introduction to Windows Server Backup
- Basic server performance monitoring (CPU, RAM, Disk, Network)

## Module – 6 Switch Management

- Introduction to Switches
- Difference between hub, switch, and router
- Role of switches in a network
- Types of Switches
- Unmanaged vs Managed Switches
- Layer 2 vs Layer 3 Switches (basic explanation)
- How to connect a switch to a network
- Powering on and connecting devices (plug and play)
- Understanding ports and LEDs
- Switch Configuration Basics
- Accessing a managed switch (Console, SSH, Web GUI)
- Assigning IP addresses to switches
- Port Management
- Configuring port speeds
- Enabling/disabling ports
- Understanding duplex settings (full vs half duplex)
- Introduction to VLAN
- Benefits of VLANs
- Simple VLAN creation
- Switch Troubleshooting
- Checking port status
- Spanning Tree Protocol (STP)
- MAC address filtering
- Link aggregation Port security (PO, NIC teaming)
- Diagnosing connection problems
- Resetting a switch to factory settings

## Module – 7 Firewall Management

- Introduction to Firewalls and its role in network security
- Types of firewalls: hardware vs. software firewalls
- Stateful vs Stateless firewalls
- Firewall Architectures, concepts of zones (internal, external, DMZ)
- Firewall Configuration Basics
- Managing two or more WAN links
- Access rules and policies (allow/deny rules, time-based rules)
- App rules,
- NAT rules
- Content filtering.
- Intrusion Detection and Prevention Systems (IDS/IPS) integration
- Client VPN and site-to-site VPNs
- Best practices for rule creation and rule management
- Basic Firewall Troubleshooting
- Troubleshooting tools (ping, tracert, nslookup, netstat)

## Module – 8 NAS Management

- Introduction to NAS (Network Attached Storage)
- Difference between NAS, SAN (Storage Area Network), and DAS (Direct Attached Storage)
- Use cases for NAS in a network (home, small business, enterprise)
- NAS Hardware and Software Overview
- Key hardware components of a NAS device (CPU, RAM, storage drives)
- Overview of popular NAS vendors (e.g., Synology, QNAP, )
- Setting Up a NAS System
- Basic configuration and initial setup (setting IP address, creating volumes)
- Configuring RAID in a NAS system
- Creating storage volumes and shared folders
- Setting folder permissions (e.g., read-only, read-write)
- User and group management for NAS access



**Module – 10**

- Mapping shared folders to clients (Windows, macOS)
- Configuring remote access to the NAS (VPN, Web Access, File Sync)
- Data Protection and Backup Strategies
- Importance of regular backups
- Setting up automated backups (internal, cloud-based)
- Snapshot and versioning for file recovery
- Configuring backup software with NAS
- Monitoring NAS health and performance (disk health, network usage)
- Using system logs and alerts for troubleshooting
- Replacing failed drives and rebuilding RAID arrays

- Introduction to Microsoft 365 (Office 365)
- Microsoft 365 Editions (Business Basic, Business Standard, E1, E3, E5)
- Understanding Microsoft 365 Admin Center
- Managing Users
- Managing Groups
- Managing Licenses and Subscriptions
- Basic Security and Compliance Management
- Email Management (Exchange Online Basics)
- Microsoft Teams Administration Basics
- SharePoint Online and OneDrive Basics

**Module – 11**

**Module – 9** Server Maintenance,  
Monitoring and Data Backup

- Introduction to Server Maintenance
- Preventive maintenance
- Corrective maintenance
- Predictive maintenance
- Server Maintenance Best Practices
- Hardware maintenance
- Operating system (OS) maintenance
- Monitoring tools
- Importance of data backup:
- Backup types: Full Backup, Incremental Backup, Cloud Backup.
- Backup schedules and retention
- Choosing a backup solution
- Backup storage types

- Introduction to Virtualization
- Key Virtualization Concepts
- Common Virtualization Platforms
- Setting Up a Basic Virtual Environment
- Server Virtualization with Hyper-V
- Resource Management and Optimization
- Virtual Networks
- Backup and Recovery in Virtualization
- Virtualization Security Basics
- Introduction to Cloud Virtualization

# INTERNSHIP TRAINING PROGRAM

To provide students with real-world experience by placing them in various companies where they can apply the skills learned during the course



- Introduction to Internship Training
- Overview of Real-World IT Infrastructure
- Helpdesk and IT Support Activities
- Hardware Maintenance and Troubleshooting
- Server Management Tasks
- Networking Tasks
- Security and Compliance Tasks
- Office 365 and Email Administration
- Documentation and Reporting
- Evaluation and Final Presentation

## CAREER OPPORTUNITIES

- IT Support Engineer
- Desktop Support Engineer
- Technical Support Executive
- Network Support Engineer
- Network Administrator (Junior Level)
- NOC (Network Operations Center) Engineer
- System Administrator
- Windows Server Administrator
- Server Support Engineer
- IT Operations Executive



With years of experience IFDA paved the path to a successful career.



## Registered Office

H-18 2nd Floor Kalkaji Main Road  
New Delhi - 110019

## Head Office

G-33 1st Floor Kalkaji Main Road  
New Delhi - 110019

## Branches

2nd Floor Chandermal Complex, Near Badarpur Metro Station, New Delhi - 110044  
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