



# CENTRAL TOOL ROOM & TRAINING CENTRE BHUBANESWAR

## Course Content Details (ADCHNM)

### MODULE-1(3 WEEKS)

#### ELECTRONICS AND POWER SUPPLY

- BASIC ELECTRONICS
- SWITCH MODE POWER SUPPLY
- TROUBLE SHOOTING OF SMPS

### MODULE-2(6 WEEKS)

#### PC ENVIRONMENT (ARCHITECTURE AND COMPONENT)

- MICROPROCESSOR
- MEMORY
- MOTHERBOARD
- HARD DISK DRIVE(HDD)
- COMPACT DISK DRIVE (CDD/DVD/BRD)
- KEYBOARD & MOUSE
- BIOS SETUP
- BIOS SETUP AND DEVICE DETECTION
- ASSEMBLY OF PC
- TROUBLESHOOTING OF PC
- PRINTER(DMP,LASER,INKJET)
- MONITOR, LCD
- LAPTOP
- HARDWARE MAINTENANCE

### MODULE-3(3 WEEKS)

#### SOFTWARE INSTALLATION, UPGRADATION AND MAINTENANCE

- INTRODUCTION TO WINDOWS OPERATING SYSTEM
- INSTALLATION OF OPERATING SYSTEM
- CUSTOMIZATION OF OS (Win-XP, Win-7, Win-8)
- INSTALLATION OF APPLICATION SOFTWARE
- SOFTWARE MAINTENANCE
- RECOVERY & BACKUP PROCEDURES
- WORKING KNOWLEDGE OF APPLICATION SOFTWARE

## **MODULE-4(4 WEEKS)**

### **NETWORK ESSENTIALS, SETUP AND MANAGEMENT**

- INTRODUCTION TO COMPUTER NETWORK
- LAN TOPOLOGIES
- LAN CABLING TECHINUES
- IP ADDRESSES &SUBNETING
- SETTING OF LOCAL AREA NETWOK(LAN)
- PEER TO PEER NETWORK
- CLIENT SERVER ARCHITECTURE(2003 SERVER)
- CLIENT SERVER SECURITY(2003 SERVER)
- N COMPUTING
- Wi-Fi

## **MODULE-5(4 WEEKS)**

### **NETWORK MANAGEMENT & SERVER CONFIGURATION (2012 SERVER)**

- CLIENT SERVER SECURITY (2012 SERVER)
- SECURITY PLANNING AND ADMINISTRATIVE DELEGATIO
- USER AND GROUP POLICY MANAGEMENT
- DOMAIN AND DNS CONFIGURATION
- CONFIGURING AND MANAGING THE DHCP SEVER ROLE
- FILE SERVER RESOURCE MANAGEMENT
- WINDOWS DEPLOYMENT SERVICES
- SETTINGS FOR INTERNET CONNECTION
- INSTALLING, CONFIGURING AND TROUBLESHOOTING WIRELESS NETWORKS

## **MODULE-6(4 WEEKS)**

### **LINUX MANAGEMENT &NETWORK CONFIGURATION (RHEL)**

- LINUX (OPEN SOURCE SOFTWARE)
- GET STARTED WITH THE GNOME GRAPHICAL DESKTOP
- PACKAGE INSTALLATION MANAGEMENT
- ESTABLISHING NETWORK CONNECTIVITY
- LINUX FILE PERMISSIONS
- ADMINISTRATOR RESPONSIBILITIES
- UPGRADING(SERVICE PACKS AND KERNEL)
- LINUX SERVER CONFIGURATION
- DOMAIN AND DNS CONFIGURATION
- DHCP SERVER
- APACHE WEB SERVER
- FTP AND SAMBA SERVER CONFIGURATION
- TROUBLESHOOTINGOF LINUX

**MODULE-1      ELECTRONICS AND POWER SUPPLY**

- Basic Electronics & Power Supply
- Trouble Shooting of SMPS

**MODULE-2      PC ARCHITECTURE**

- PC Architecture, Assembly Of PC
- Laptop & Troubleshooting
- Printer(DMP, LASER, INKJET)
- Hardware Maintenance

**MODULE-3      SOFTWARE INSTALLATION, UPGRADATION AND MAINTENANCE**

- Software Installation, Upgrades and Maintenance
- Application Software & Backup

**MODULE-4      NETWORK ESSENTIALS, SETUP AND MANAGEMENT**

- Network Essentials, Setup and Management
- LAN Cabling Techniques & Subnetting
- P2P Network & Client Server Architecture (2003 Server)
- N Computing & Wi-Fi

**MODULE-5      NETWORK MANAGEMENT & SERVER CONFIGURATION (2012 SERVER)**

- Network Management & Server Configuration (2012 Server)
- Client Server Security, Administrative Delegation
- User and Group Policy Management, Domain, DNS & DHCP configuration
- FSRM, WDS, IIS, Settings for Internet Connection
- Installing, Configuring and Troubleshooting Wireless Networks

**MODULE-6      LINUX MANAGEMENT & NETWORK CONFIGURATION (RHEL)**

- Linux Management & Network Configuration (RHEL)
- Package Installation Management
- Establishing Network Connectivity & LINUX file Permissions
- Administrator Responsibilities & LINUX Server Configuration
- Domain, DNS Configuration & DHCP Server, Apache Web Server
- FTP and SAMBA Server Configuration & Troubleshooting of LINUX