e-ITEC Specialized Programme on Cloud Computing (2 Weeks)

Basics of Networking

Computer Network Fundamentals
- Introduction to Network
- OSI Model
- TCP/IP Model
- Network Topology
- UTP Cabling

IPv4
- IPv4 Addressing
- Subnetting
- VLSM

IPv6
- Introduction to IPv6
- IPv6 Addressing

Introduction Network Devices
- Router
- Switch
- WAP

Basics of Linux

Overview
- Linux ideas & Principles

Command Line File system Browsing
Editing Files, Getting Help, File Hierarchy Concepts, Important Directories & Browsing the file system

Users, Groups, and Permissions
Concepts of user & group accounts, Linux file security, permission Precedence, permission types, changing file ownership, changing Permission, redirecting output to a file, Combining Output & Errors

The Linux File system
Tools for Extracting Text, Viewing file contents, extracting text by Keyword from files, extracting text by column from files

Cloud Computing

Cloud Computing
- Introduction to Cloud Computing
- History of Cloud
- How Cloud works
- Advantages and Disadvantages of Cloud Computing
- Cloud Computing Application

Types of Cloud
- Public Cloud
- Private Cloud
- Hybrid Cloud
- Community Cloud

Cloud Service Model
- IaaS
- PaaS
- SaaS

Virtualization
- Data Virtualization
- Hardware Virtualization
- Software Virtualization
- Storage Virtualization
- OS Virtualization
- Hands-on on KVM Installation

Private Cloud Platform
- Introduction to Openstack
- Private Cloud setup with devstack
- Demonstration on Openstack Components

Containerization
- From Virtualization to Containerization
- Advantages of a Container in Cloud Computing
- Hands-on on Docker

Cloud Networking
- Introduction to SDN
- Hands-on on Linux Bridge

Public Cloud Service Provider
- Public Cloud Service Provider Company
- AWS vs Azure vs GCP
- Hands-on on AWS

Public Cloud Tools for Cloud Collaboration Solution
- Benefits of Cloud Collaboration Tools
- Hands-on on Google Drive, Word docs and spread sheets