# Summer Training on

# "Server Administration & Cloud Computing"

Centre of Excellence in Advanced Computing Technologies (CEACT), Department of CSE, Chandigarh University, is organizing a summer training on "**Server Administration & Cloud Computing"**.

The reason for conducting the training on Cloud computing is that it is the buzzword in the IT industry. It is going to affect the IT industry in one way or other. Cloud Computing is the delivery of computing services such as servers, storage, databases, networking, software over the Internet. This module will cover how to use and implement different types of clouds. It covers the Infrastructure As A Service (IAAS), Platform As A Service (PAAS), Storage As A Service (SAAS), Software As A Service (SAAS).

***Module 1:***

- Basics of linux OS
- advance user management, permissions
- Logical Volume Management (LVM)
- Software Management using rpm, yum.
- Linux Networking
- FTP Server
- DHCP Server (Dynamic Host Configuration Protocol)
- Apache Web Server
- DNS Server
- Access Control Lists
- understanding Routers & Switches
- Industry level firewall implementation
- using telnet, ssh, putty rdp, GIT

***Module 2:***

- Introduction to Cloud Computing
    - What is the cloud?
    - History of Cloud Computing
    - How Cloud Computing Works

    - Cloud Computing Architecture
    - Types of Cloud
    - Advantages & Disadvantages
    - Applications for Businesses
- Virtualization
    - Virtualization Basics
    - Objectives
    - Benefits of Virtualization
    - Relationship between Virtualization & Cloud Computing
- Hypervisors
    - XEN Server Implementation

- Block and File Storage Implementation
    - ISCSI Intro & Setup
    - NAS (Network attached storage) implementation
    - SAN (Storage Area Network) implementation

- Cloud Computing
    - Infrastructure-as-a-Service (IaaS)
    - Software-as-a-Service (SaaS)
    - Platform-as-a-Service (PaaS)
    - Storage-as-a-service (SaaS)
    - Networking-as-a-Service (NaaS)
- Amazon Cloud Services
    - introduction to amazon web services
    - Amazon EC2
    - Amazon S3
    - Amazon Route 53
    - Elastic Block Store

- Redhat Openshift (PAAS)

- Private Cloud Implementation (Using OpenStack)