KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Value Added Course on "AWS CLOUD"

March 14, 15 -2022 & April 6,7,8,9 -2022

AWS CLOUD **45 HOURS**

Objectives

- To understand the fundamentals of underlying AWS fundamentals of cloud computing
- To make use of AWS corresponding to different web services offered by Amazon
- To make use of the web service – Elastic Compute Cloud, creating key pairs, launching Instance , pricing models and custom AMI
- To acquire knowledge about the virtual private cloud, net mask, VPC subnet and Gateway
- To acquire knowledge about the storage, hard disk type, block size and EBS

UNIT 1: FUNDAMENTALS OF AWS CLOUD COMPUTING (9)
Introduction to Cloud Computing- Cloud Environment Architecture- Cloud Computing Models

UNIT 2: INTRODUCTION TO AMAZON WEB SERVICES (9)
AWS Console at a glance- AWS Global Infrastructure -AWS Region-Availability -Zone Edge Location

UNIT 3: ELASTIC COMPUTE CLOUD (9)
Know your EC2 region Discuss about SSH Key pair-Launching our first EC2 instance using Launch Wizard- Launching EC2 instance using Launch Template- Create custom AMI-Know what is Private IP and Public IP EC2 instance types & Pricing Models -EC2 Spot instance Reserved instance and host

UNIT 4: VIRTUAL PRIVATE CLOUD (9)
Private network at home-Subnet, CIDR, Netmask at a glance-Relation between a VPC Subnet and an Availabilizy Zone Nat Gateway vs Internet Gateway-Elastic IP vs Static IP Creating a custom VPC

UNIT 5: STORAGE (9)
Different hard disk types-Understand Block size, IOPS and Throughtput Introduction to Elastic Block Store - EBS Snapshots-EBS Volume Types-Attach multiple EBS volumes to an instance Demonstrate LVM with multi EBS volumes

OUTCOMES

At the end of the course, the students will be able to

CO1: Launch different servers like Linux, Windows, Mac and Manage Storages for Servers and Backups

CO2: Design the overall networking environment for servers

CO3: Scaling Servers based on needs using Auto Scaling

CO4: Storing files securely using Object Storage method and Share Storage Disks among Servers via Network

CO5: Data Migrations and Data Transfer