

## J.B.INSTITUTEOFENGINEERING&TECHNOLOGY (UGCAUTONOMOUS)

Accrediated by Naac and NBA, Approved By AICTE & Permanently Affiliated to JNTUH Yenkapally (V), Moinabad (M), P.O.Himayat Nagar, R.R District, Hyderabad – 500 075. PhoneNo:08413–23517,235053,Fax:08413-235753

#### **Department of Computer Science & Engineering**

Dated: 07/07/2025

#### **CIRCULAR**

We feel great pleasure to inform you that Department of Computer Science and Engineering, JBIET is organizing a Faculty Development Program on Cloud Computing in collaboration with EXCELR..

The Faculty Development Program will be conducted for all Computer Science and Engineering and its allied branches from 14-07-2025 to 18-07-2025 in online mode from 3:00 PM to 5:00 PM.

**EVENTCOORDINATOR** 

**HOD-CSE** 

Circulatedto:

- 1. Principal
- 2. Dean Academic
- 3. Staff
- 4. Adminoffice







Faculty Development Program on



# OMPUTING

in Collaboration with Jb institute of engineering and technology (JBIET)

Get Certificate Of Participation for FREE

### 14th - 18th JULY 2025

03:00 PM to 05:00 PM 2 hours per day for 5 days: Mon to Fri



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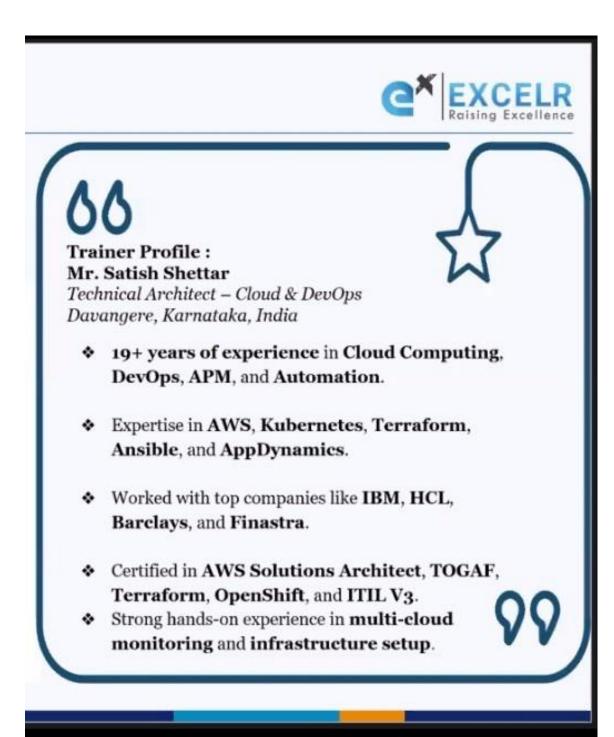




#### **Profile**

Name: Satish shettar

Mr. Satish shettar is a Technical Architect cloud and Devops and having 19 years of experience in Cloud computing ,Devops, APM, and Automation. He worked in top companies like IBM,HCL, Barelays, and Finastra. He is expertise in AWS, Kubernets,Terraform, Ansible and AppDynamics. He certified in AWS Solution Architect.TOGAF, Terraform,Openshift, and ITIL V3 and he has strong hands on experience in multi-cloud monitoring and infrastructure setup.



#### **Inaugural session:**

Inaugural Session Speech by the Head of Department Dr.G.Sreenivasulu on the topic of cloud Computing. In today's fast-paced and interconnected world, cloud computing is not just a buzzword—it's a powerful paradigm that is transforming how we think about data, software, infrastructure, and business operations. From startups to tech giants, from education to healthcare, cloud computing is revolutionizing every sector with its scalability, flexibility, and cost-efficiency.

The purpose of this session is to introduce you to the fundamentals of cloud computing, discuss its real-world applications, and ignite a spirit of innovation among all participants. We hope to equip you with both theoretical insights and practical skills that will serve as a foundation for your future endeavors—be it academic research, industrial training, or entrepreneurial ventures.

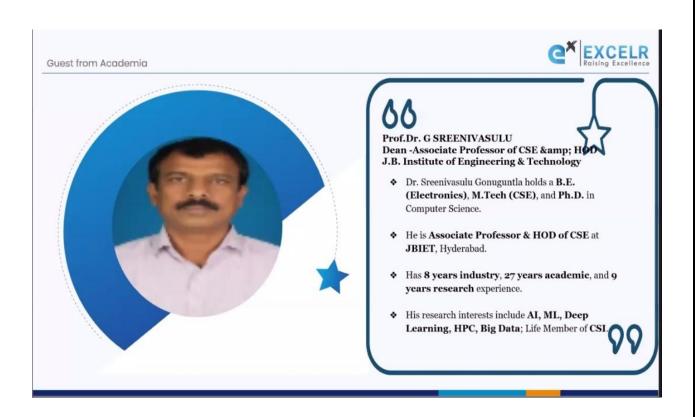


Fig -1 HOD-Dr. G.Sreenivasulu is addressing the session on 14<sup>th</sup> July 2024

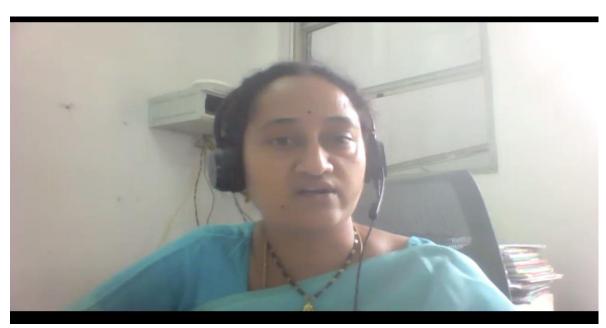


Fig-2 Addressing delegates from various Engineering colleges in online mode



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## DEPARTMENTOFCOMPUTERSCIENCEAND ENGINEERING DETAILED REPORT ON A FIVE-DAY FACULTY DEVELOPMENT PROGRAM ON

#### **CLOUD COMPUTING**

From 14th to 18nd July 2025

#### **Aim and Objective:**

The primary objective of cloud computing is to deliver scalable and flexible IT services over the internet while reducing the cost and complexity associated with traditional computing methods. Cloud computing aims to provide on-demand access to computing resources such as servers, storage, databases, networking, software, and analytics with minimal management effort or service provider interaction.

**Date of Event** :From 14<sup>th</sup> to 18<sup>nd</sup> November 2024

**Venue** :Online mode

Faculty Coordinators: 1.Mr. N.Thirumalarao 2. Mrs S.Gayathridevi 3.Mr. D.Himagiri

Resource Person :Mr. Satish shettar

#### Introduction

The Department of CSE organized a one-week Faculty Development Program (FDP) on **Cloud Computing** to enhance the knowledge and teaching skills of faculty members in the area of cloud technologies. This program aimed to familiarize participants with the fundamentals, emerging trends, platforms, and applications of cloud computing in both academic and industry settings.

#### **Objectives of the FDP**

- To provide insights into the architecture and models of cloud computing.
- To equip faculty with the knowledge of various cloud service models (IaaS, PaaS, SaaS).
- To explore practical implementations using cloud platforms such as AWS, Microsoft Azure, and Google Cloud.
- To discuss the latest trends such as serverless computing, containerization, and cloud security.
- To bridge the gap between academic curriculum and industry requirements.

#### Day1:

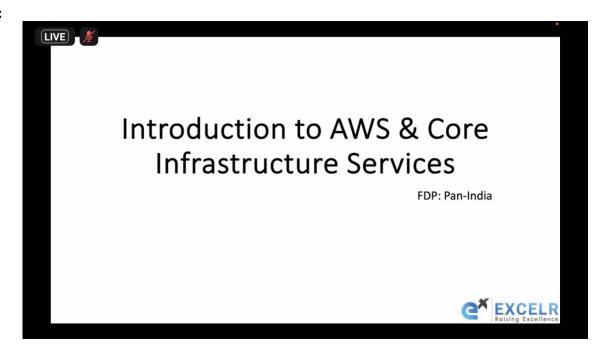


Fig-3: Mr. Satish shettar taking session on Introduction to AWS and Core Infrastructure services on 14<sup>th</sup> july 2025

Amazon Web Services (AWS) is a comprehensive and widely adopted cloud platform offered by Amazon. Launched in 2006, AWS provides on-demand cloud computing services and APIs to individuals, businesses, and governments on a metered pay-as-you-go basis. It helps users avoid the cost and complexity of owning and maintaining physical servers by offering scalable, reliable, and secure cloud solutions.

AWS is used for a wide range of applications including web hosting, data storage, machine learning, IoT, big data processing, mobile application development, and enterprise IT modernization.

AWS offers a broad set of global cloud-based products, and among the most essential are its core infrastructure services, which can be categorized as follows:

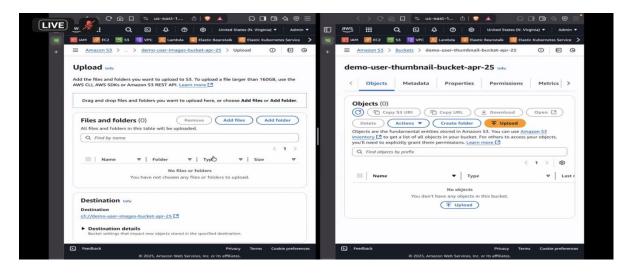
Amazon EC2, Storage (Amazon S3 and EBS), Database services, Monitoring and Management.

#### Day2:

#### Amazon s3

Amazon S3 (Simple Storage Service) is a scalable object storage service provided by Amazon Web Services (AWS). It is designed to store and retrieve any amount of data, at any time, from anywhere on the web.

- Backup and restore
- Website hosting
- Data lakes and big data analytics



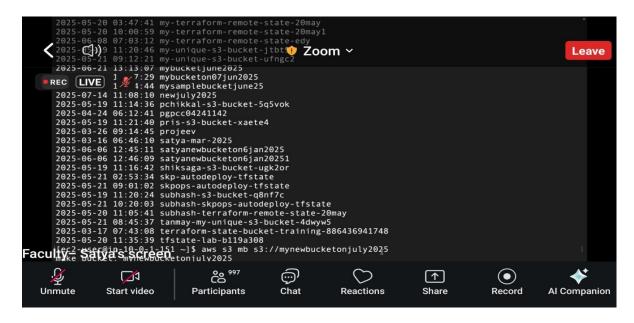


Fig-4: Mr. Satish shettar taking practical session on Amazon s3 on 15th July 2025

#### Day3:



#### Amazon RDS - Backup, Read Replicas & Multi-AZ

- Automated Backups: Daily snapshots and transaction logs
- Read Replicas: Scale read-heavy apps, offload reporting
- Multi-AZ: High availability with standby replica
- Encryption in transit and at rest supported
- Enterprise Use Case:

Healthcare platform uses <u>Multi-AZ RDS</u> for high availability and Read Replicas for reporting dashboards.

Example:

Faculty runs classroom analytics queries on RDS Read Replica without affecting main database.



LIVE 🎉

## Amazon <u>EFS</u> – Managed Network File System

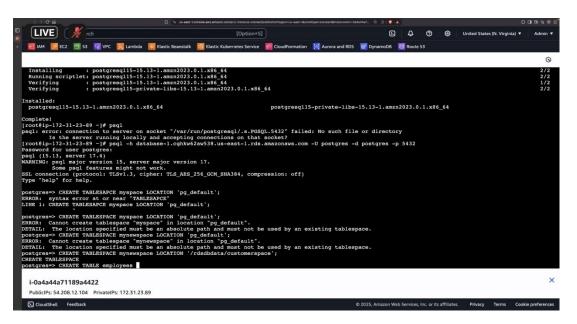
- Fully managed NFS-based file system
- · Can be mounted on multiple EC2 instances simultaneously
- · Grows and shrinks automatically
- · Ideal for shared, scalable workloads
- Enterprise Use Case:

Engineering firm stores simulation files accessed by multiple analysis servers.

Example:

Share lab files between different student EC2 instances during collaborative coding exercises.





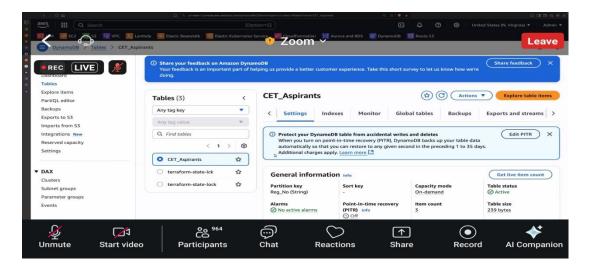


Fig-5: Mr. Satish shettar taking practical session on Amazon RDS, Backups on 16<sup>th</sup> July 2025

#### **Day-4:Cloud Watch logs and Dashboards**

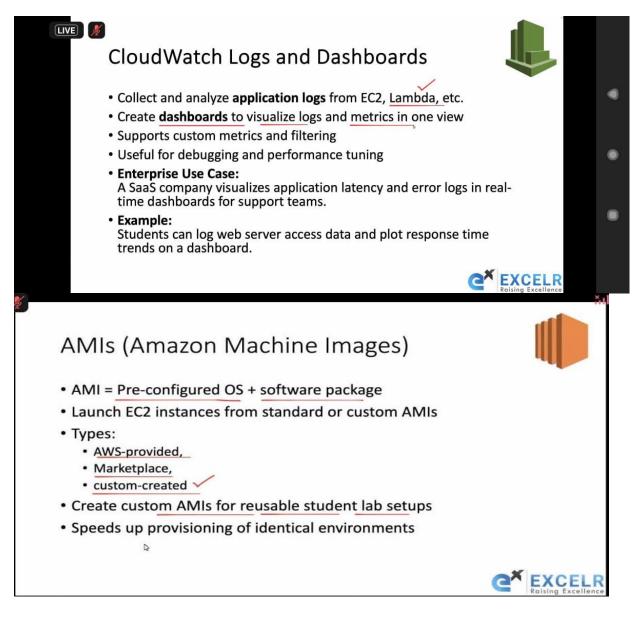


Fig -6 Mr. satish setter is taking session on 17<sup>th</sup> july 2025

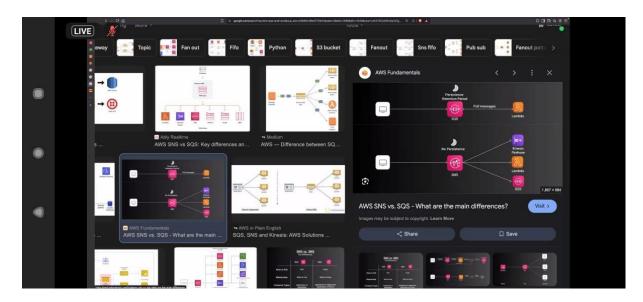


Fig -7 Mr. satish setter is taking practical session on 17th july 2025

#### **Day-5: Introduction to AWS AI/ML Services**

### mroduction to AWS AI/ML Services

- AWS offers pre-trained AI services and custom ML model support
- Accessible via APIs no ML expertise required for basic use
- Common categories: Image/Video, Text, Speech, Forecasting
- Easily integrates with other AWS services (e.g., S3, Lambda)
- Enterprise Use Case:

A customer service company uses AWS AI services for speech-to-te call analysis and sentiment detection.

Example:

Students build a basic ML-powered web app using AWS Rekognitic for image labeling.





## Amazon Rekognition – Image and Video Analysis

- · Recognizes objects, people, text, and scenes in images and videos
- Supports facial analysis, comparison, and moderation
- Integrates with S3, Lambda for event-driven processing
- · Real-time and batch analysis supported
- Enterprise Use Case:
   Law enforcement agencies use Rekognition to scan surveillance footage for known faces.
- Example:
   Upload a photo to S3 → Trigger Rekognition → Display detected labels (e.g., "Car", "Tree", "Person").



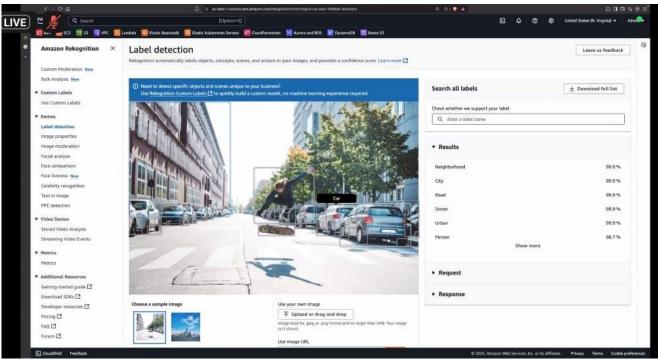


Fig -8 Mr. satish setter is taking practical session on 18th july 2025

#### **OUT COMES:**

- 1. Understanding of Cloud Computing Concepts
  - Learners gain foundational knowledge of cloud computing and its benefits, including scalability, reliability, and cost-effectiveness.
- 2. Familiarity with AWS Global Infrastructure
  - Students understand the AWS global architecture including Regions, Availability Zones (AZs), and Edge Locations.
- **3.** Knowledge of Core AWS Services
  - Ability to describe and use key services such as:
    - Amazon EC2 (Elastic Compute Cloud)
    - Amazon S3 (Simple Storage Service)
    - Amazon RDS (Relational Database Service)
    - AWS IAM (Identity and Access Management)
- 4. Hands-on Skills with AWS Console
  - Learners become capable of launching, configuring, and managing AWS services through the AWS Management Console and CLI (Command Line Interface).
- **5.** Security and Identity Best Practices
- **6.** Resource Deployment and Monitoring
- **7.** Ability to Design Simple Cloud Architectures

#### Attendance

