

# I.T.S Engineering College, Greater Noida

## Department of Computer Science and Engineering & Allied Branches

### AWS Academy Centre of Excellence (CoE)

*Empowering Future-Ready Professionals in Cloud Computing*

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#### 1. Objective of the Centre

The **AWS Academy Centre of Excellence** at **I.T.S Engineering College** aims to bridge the gap between academic learning and industry-demanded cloud computing skills. The Centre provides **students of Department of CSE and Allied Branches** with hands-on experience in **Amazon Web Services (AWS)** technologies, preparing them for **global certifications, internships, and cloud-based job roles**. Key objectives include:

- Enabling students to design, deploy, and manage applications on the AWS Cloud.
- Fostering innovation through project-based learning and cloud labs.
- Enhancing employability by aligning training with industry standards.
- Encouraging students to achieve AWS certifications for better global recognition.

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#### 2. Courses and Training Offered

The AWS Academy CoE offers structured training programs mapped to AWS's official curriculum:

| Course Name                           | Duration    | Level        | Key Focus Areas   |
|---------------------------------------|-------------|--------------|---|
| <b>AWS Academy Cloud Foundations</b>  | 6–8 Weeks   | Beginner     | Basics of Cloud Computing, AWS Global Infrastructure, Security, Pricing |
| <b>AWS Academy Cloud Architecting</b> | 10–12 Weeks | Intermediate | Designing scalable, cost-efficient, and reliable cloud architectures    |
| <b>AWS Academy Cloud</b>              | 8–10        | Advanced     | Application development, AWS SDKs,                                      |

| Course Name                   | Duration | Level      | Key Focus Areas  |
|-------------------------------|----------|------------|--|
| <b>Developing</b>             | Weeks    |            | APIs, Lambda, and Automation                                   |
| <b>Workshops / Hackathons</b> | Periodic | All Levels | Real-world project design, teamwork, and innovation challenges |

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### 3. Eligibility and Pre-requisites

- **Eligibility:** Open to all B.Tech (CSE/CSE-DS/CSE-AIML) students and faculty members interested in cloud computing.
  - **Pre-requisites:**
    - Basic understanding of Networking, Databases, and Operating Systems.
    - Familiarity with at least one programming language (Python/Java).
    - Keen interest in cloud technologies and application deployment.
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### 4. Course Timelines and Roadmap

The AWS Academy courses are integrated into the academic calendar and are designed to build skills progressively:

| Year / Semester | Focus Area   | Outcome   |
|-----------------|--|---|
| <b>2nd Year</b> | Introduction to Cloud Concepts (AWS Cloud Foundations) | Understand basic cloud principles and AWS ecosystem |

### 5. Certifications Offered

Students completing the AWS Academy courses are eligible for globally recognized AWS certifications:

| Certification                           | Issuing Body              | Tentative Cost (approx.) | Recognition |
|---|---------------------------|--------------------------|-------------|
| <b>AWS Certified Cloud Practitioner</b> | Amazon Web Services (AWS) | ₹7,000–₹8,500            | Global      |

| Certification   | Issuing Body                                    | Tentative Cost (approx.) | Recognition                      |
|---|---|--------------------------|----------------------------------|
| <b>AWS Certified Solutions Architect – Associate</b>        | Amazon Web Services (AWS)                       | ₹11,000–₹12,000          | Global                           |
| <b>AWS Certified Developer – Associate</b>                  | Amazon Web Services (AWS)                       | ₹11,000–₹12,000          | Global                           |
| <b>AWS Cloud Technical Essentials</b>                       | AWS + Coursera                                  | ₹3,000–₹8,000            | High                             |
| <b>AWS Cloud Architect Master’s Program</b>                 | Simplilearn (Authorized AWS Training Partner)   | ₹45,000–₹60,000          | Professional                     |
| <b>AWS Certified Cloud Practitioner (Foundation Course)</b> | ICT Academy (in collaboration with AWS Academy) | ₹3,000–₹5,000            | Institutional                    |
| <b>AWS Cloud Practitioner Essentials</b>                    | Edureka / Udemy                                 | ₹499–₹3,000              | Popular                          |
| <b>AWS Cloud Developer Nanodegree</b>                       | AWS + Udacity                                   | ₹50,000–₹70,000          | Global                           |
| <b>AWS Cloud and DevOps Fundamentals</b>                    | FutureSkills Prime (NASSCOM Initiative)         | ₹5,000–₹10,000           | Government & Industry Recognized |
| <b>AWS Cloud Professional Track</b>                         | A Cloud Guru / Pluralsight                      | ₹10,000–₹20,000          | Industry Standard                |

These certifications validate skills in cloud design, deployment, and management, enhancing career prospects in both Indian and global markets.

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## 6. Lab Activities and Guidelines

### Lab Activities:

- Hands-on exercises on AWS Cloud Console using Academy credentials.
- Mini projects based on real-world case studies (e.g., web hosting, serverless apps, AI integration).
- Participation in hackathons, coding challenges, and innovation projects.

- Guided certification practice sessions and mock assessments.

**Lab Guidelines:**

- Students must register with the AWS Academy LMS before accessing lab sessions.
- Practical sessions will be monitored by certified instructors.
- Each student must maintain a project logbook of exercises performed.
- Cloud credits and access keys provided by AWS should be used responsibly.
- Academic integrity and ethical usage of AWS resources are mandatory.

**Top Employers: Amazon, Google Cloud, Microsoft, IBM, TCS, Accenture, Wipro, Infosys, Tech Mahindra, Zoho and AWS partners.**

**Contact Information:**

**Department:** Computer Science & Engineering

**Location:** AWS Academy Lab, I.T.S Engineering College, Greater Noida