

Branch Name:	Information and Communication Technology
Semester/Year:	Semester I / First Year
Subject Title:	Cloud Computing Practical
Subject Code:	2ET2080104P (Elective-I)
Pre-requisite:	Fundamental of Distributed Computing

Course Objective:

The main objective of this course is: To make the students familiar with the fundamentals and essentials components of Cloud Computing. The course aims to make the students use and adopt Cloud services and tools in their real life scenarios. The course intends to enable students exploring GoogleApps, Microsoft Azure and Amazon Web Services and other businesses cloud applications.

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								
					Theory (Marks)				Practical (Marks)				Total (Marks)
	L	T	P	Total	SEE		CCE		SEE		CCE		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Course Outcome:

Upon successful completion of this course the student would be able to:

- To explain and characterize different cloud computing models.
- To identify security concerns in cloud computing.
- To analyze the trade-offs inherent in Cloud Computing.
- To identify appropriate design choices when solving real-world cloud computing problems. To make recommendations on cloud computing solutions for an enterprise

List of Experiments:

1. Explore various open source Cloud computing architecture (at least two), install them and compare various features available in them.

2. Installation of Simulation tool (E.g. CloudSim, AWS) and show how to create a datacenter with multiple host and run cloudlets on it.
3. Study and analyze scheduling algorithms (Cloudsim).
4. (i) Sketch the architecture and (ii) have hands on experience on one or more on the following:
 - a. Eucalyptus
 - b. Microsoft Azure
 - c. AWS Create
5. One may create and configure datacenter, host, VM. One may assign and schedule jobs on them.