

OPEN ELECTIVE-II	L	T	P	INTERNAL MARKS	EXTERNAL MARKS	TOTAL MARKS	CREDITS
	4	0	0	40	60	100	3
CLOUD COMPUTING (Other than ECE)							

COURSE OBJECTIVES:

- To gain knowledge about virtualization and Virtual Machines
- To familiarize Cloud Computing and its services

COURSE OUTCOMES:

After successful completion of this course, the students will be able to:

CO1: Interpret various types of Virtualization.

CO2: Outline the Cloud Application Architectures and Infrastructure Models.

CO3: Analyze the Data center to cloud.

CO4: Analyze various services of Cloud Computing.

CO5: Analyze the Security and Disaster Management in Cloud.

SYLLABUS:

UNIT-I

Introduction to virtualization and virtual machine: types of virtualization: Server visualization, Application/ desktop visualization, client virtualization, storage virtualization, Network visualization service / application infrastructure virtualization, virtual machines & virtualization middleware, Software as a Service (SaaS), SOA , On-Demand Computing.

UNIT-II

Cloud computing: Introduction, What it is and What it isn't, from Collaborations to Cloud, Cloud application architectures, Value of cloud computing, Cloud Infrastructure models, Scaling a Cloud Infrastructure, Capacity Planning, Cloud Scale.

UNIT-III

Data Center to Cloud: Move into the Cloud, Know Your Software Licenses, The Shift to a Cloud Cost Model, Service Levels for Cloud Applications

UNIT-IV

Security: Disaster Recovery, Web Application Design, Machine Image Design, Privacy Design, Database Management, Data Security, Network Security, Host Security, Compromise Response.

UNIT-V

Defining Clouds for the Enterprise: Storage-as-a-Service, Database-as-a-Service,

Information-as-a-Service, Process-as-a-Service, Application-as-a-Service,
Platform-as-a-Service, Integration-as-a-Service, Security-as-a-Service,
Management/Governance-as-a-Service, Testing-as-a-Service Infrastructure-as-a-Service

UNIT–VI

Disaster Recovery: Disaster Recovery Planning, Disasters in the Cloud, Disaster Management, Types of Clouds, Cloud centres in detail.

TEXT BOOKS:

1. Cloud Computing – Web Based Applications That Change the way you Work and Collaborate Online – Michael Miller, Pearson Education.
2. Cloud Application Architectures, 1st Edition by George Reese O'Reilly Media.

REFERENCE BOOKS:

1. Cloud Computing and SOA Convergence in Your Enterprise: A Step-by-Step Guide David S. Linthicum Addison-Wesley Professional.
2. Distributed & Cloud Computing From Parallel Processing to the Internet of Things by Kai Hwang. Geoffrey C. Fox. Jack J. Dongarra

ONLINE REFERENCES:

1. <http://nptel.ac.in/courses/106106129/21>
2. <https://freevideolectures.com/course/3649/cloud-computing>
3. https://www.youtube.com/watch?v=Eg4AAGCE7X4&list=PL2UlrhJ_JwyA5IIOCdEWlNArFke4jgtlg