

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF  
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN  
Session-2023-2024

Discipline: CSE Engg. Semester: 6<sup>th</sup>


Subject: Cloud computing

Name of the Teaching Faculty: P. K. SATAPATHY

Subject: CC No. of Days/per week class allotted : 04

Semester From Date : 16-01-2024 To Date : 26-04-2024 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
(Topic-1)	1st	Historical dev. and vision of cloud computing
	2nd	Reference model and characteristics of CC
	3rd	CC environment and Service requirements
	4th	Dynamic Infrastructure and applications
(Topic-2)	1st	cloud adoption
	2nd	cloud computing Architecture
	3rd	Reference Model
	4th	Types of clouds
(Topic-3)	1st	cloud Interoperability
	2nd	standards
	3rd	Interoperability use cases
	4th	Role of standards

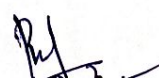
  
Signature of the Faculty

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Week	Class Day	Theory /Practical Topics
4th	1st	Comparison of clouds
topic-3	2nd	Scalability and fault tolerance.
	3rd	cloud solutions
	4th	cloud ecosystem
5th	1st	cloud Business process mgmt.
	2nd	Portability and Interoperability
	3rd	cloud service mgmt and offerings
	4th	Testing under control
6th	1st	cloud service controls and VDI
topic-4	2nd	Virtualised Architecture
	3rd	Data centre, Resilience, agility
	4th	Cisco DCNA

  
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Week	Class Day	Theory /Practical Topics
7th	1st	Storage
	2nd	Provisioning
	3rd	Asset mgmt and concept of map reduce
	4th	Cloud governance and cloud balancing regarding load
8th	1st	High availability and disaster recovery
topic-5	2nd	Virtualization and N/W virtualization
	3rd	Desktop and application virtualization
	4th	Desktop as a service
9th	1st	local desktop virtualization
	2nd	Virtualization benefits and server virtualization
	3rd	block and file level storage virtualization
	4th	VMM and its infrastructure requirements


  
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Week	Class Day	Theory /Practical Topics
10 <sup>th</sup>	1 <sup>st</sup>	VLAN and VSAN
Topic-6	2 <sup>nd</sup>	Need of cloud security
	3 <sup>rd</sup>	cloud security fundamentals
	4 <sup>th</sup>	cloud security services
11 <sup>th</sup>	1 <sup>st</sup>	Design requirement
	2 <sup>nd</sup>	Design principles
	3 <sup>rd</sup>	Secure cloud s/w requirements
	4 <sup>th</sup>	policy Implementation
12 <sup>th</sup>	1 <sup>st</sup>	security challenges
Topic-7	2 <sup>nd</sup>	Architectural Consideration and Info. classification
	3 <sup>rd</sup>	VPN, public key and Encryption Key mgmt
	4 <sup>th</sup>	Digital certificates, key management & memory cards

  
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Week	Class Day	Theory /Practical Topics
13th	1st	Implementing Identity mgmt
	2nd	Controls and Autonomic system
topic-8	3rd	cloud Information security vendors
	4th	cloud federation, characterization
14th	1st	cloud federation stack
	2nd	Third party cloud service
	3rd	case study
topic-9	4th	Basic concept of Hadoop
15th	1st	Hadoop requirement
	2nd	Data source
	3rd	Data storage and Analysis
	4th	Comparison with other system

  
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