

Rathnavel Subramaniam College of Arts & Science (Autonomous), Sulur, Coimbatore

School of Computer Studies

M.Sc. Information Technology

2019 -2020

PROGRAMME OUTCOMES (POs) :

PO1	To provide outcome based education in the respective disciplines and to impart skills which will enable the students secure job in their core disciplines in this digitally transforming era
PO2	To develop the art of critical thinking, creativity and to imbibe emerging trends thereby to excel in their interested domains of specializations.
PO3	To inculcate and develop research competence systematically besides the capacity to analyze the viability of new ideas, entrepreneurship and professionalism based on the students' choice and aptitude.
PO4	To instill a culture of life-long learning and the ability to understand the socio-economic issues

PROGRAMME SPECIFIC OUTCOMES (PSOs) :

On the Completion of the M.Sc. IT Degree, the post graduates will be able to competently

PSO1	To perform the Job Roles such as AWS Engineer, S3 Administrator, EC2 Administrator, IAM Operator and Route 53 Engineer
PSO2	To acquaint the skill sets of configuring and deploying IAM principles.
PSO3	To acquire skill sets for maintaining and architecting block storage families.
PSO4	To deploy and monitor virtual computing using EC2 instance types with archival process.

Graduate Attributes

- DISCIPLINE KNOWLEDGE
- PROBLEM ANALYSIS
- CRITICAL THINKING
- MODERN TOOLS USAGE
- SOFT SKILLS
- SELF LEARNING
- LIFE LONG LEARNING
- INDIVIDUAL & TEAM WORK
- PROJECT MANAGEMENT & FINANCE

Course Outcomes (COs)

Semester	Title of the paper	Course Outcomes
I Semester	Basic IP Services	<ul style="list-style-type: none">• Understanding and analyzing the layered approach of networking with concepts of twisted pair cabling usage.• Understanding the implementation of Subnetting and IP address concepts in building a network.• Understanding and implementing the requirements and effects of configuring proper switch functions• Understanding how to define and implement routers with basic routing phenomenon• Understanding how to configure dynamic IP address allocating process.• Understanding and implementing address translations with Access Control List mechanics
	Linux Essentials	<ul style="list-style-type: none">• Understanding and configuring booting environment for Linux operating systems• Understanding and configuring package management

		<p>and YUM models.</p> <ul style="list-style-type: none"> • Understanding and analyzing file operations with search activity. • Understanding and implementation of process management and partitioning. • Understanding and configuring file systems. • Understanding and configuring file permissions and file links.
	<p>Cloud Practitioner</p>	<ul style="list-style-type: none"> • Understanding and analyzing cloud computing and its early models. • Understanding and analyzing cloud service categories and its business perspective. • Understanding the technical perspective of cloud computing with its effect on business values. • Understanding and outlining the importance of cloud computing along with its compliance factors for risk management. • Understanding the cloud computing adoption process. • Understanding the governance issues of cloud computing integration factors.
<p>II Semester</p>	<p>Building Scalable IP Networks</p>	<ul style="list-style-type: none"> • Understanding and Virtual LAN and VLAN trunking Protocol Concepts with implementation of loop free layer 2 networks using Spanning Tree Algorithm • Understanding and implementation of centralized user authentication process with understanding and implementation of Dijkstra algorithm in the manner of OSPF routing protocol in a single routing area. • Understanding and implementation of centralized name resolution services using DNS • Understanding how to implement AD objects and their properties. • Understanding how to configure object groups inside

		<p>AD and their parameters</p> <ul style="list-style-type: none"> • Understanding and implementing the load balancing factors by using HSRP and traffic capturing using port analyzers.
	<p>Basics of Cloud Computing</p>	<ul style="list-style-type: none"> • Understanding and accessing the cloud computing phenomenon and service delivery models • Understanding and configuring object storage and backups in AWS. • Understanding and configuring EC2 computing instances and usage of block storages • Understanding and implementation of VPC with Elastic IP address schemes • Understanding and configuring access prevention techniques using ACLs inside AWS environment. • Understanding and implementing the load balancing mechanics inside AWS
	<p>Serverless Computing</p>	<ul style="list-style-type: none"> • Understanding and configuring IAM authentication principles with scaling factors. • Understanding and implementation of account authentication and related key factors inside AWS • Understanding and implementation of centralized database operations inside AWS. • Understanding and implementation of Reshift and Redshift load balancing inside AWS. • Understanding how to configure elastic caching inside AWS. • Understanding and configuring SQS and DynamoDB inside AWS.

III Semester	Enterprise Computing	<ul style="list-style-type: none"> • Understanding and configuring Simple Workflow Services and Simple Notification Services. • Understanding and implementation of DNS and its operation using Route 53. • Understanding and implementation of cache operations using ElastiCache functions. • Understanding and implementation of resource replication and scaling with backup-recovery inside AWS. • Understanding how to configure storage gateways and access control inside AWS. • Understanding and configuring directory services and analysis of data inside AWS.
	Security & Compliance in Cloud Computing	<ul style="list-style-type: none"> • Understanding and analyzing the DevOps culture and its operational effects inside AWS. • Understanding and deploying compliance factors using account security features and service specific security. • Understanding and implementation of risk management in relation to compliance measures. • Understanding and analysis of third part attestation factors and certifications. • Understanding how to configure storage options.

	EDC- Cloud Hosting	<ul style="list-style-type: none"> • Understanding and examining the concept of AWS Fundamentals and AWS Cloud Computing Platform. • Understanding and examining about the hypervisor and Elastic Block Storage Basics with its roles and types. • Understanding and implementation of Databases in AWS • Understanding and implementation of Amazon SWF, Amazone SNS, Amazon ElastiCache . • Understanding and verifying the working association of Amazon Cloud Front Advanced Features and AWS Directory Service
IV Semester	Project& Viva Voce	<ul style="list-style-type: none"> • To carry out Client Side Cloud Maintenance by using Amazon AWS, Microsoft Azure, Google Cloud and/or Private Cloud Environments. • To enhance the expertise of the students by utilizing holistic understanding.