

**MTM COLLEGE OF ARTS, SCIENCE AND COMMERCE, VELIYANCODE**  
**(Affiliated to University of Calicut)**

**DEPARTMENT OF COMPUTER SCIENCE**

**SYLLABUS**

**MTMCCS INTRODUCTION TO CLOUD COMPUTING**

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**Objectives:**

- To develop a comprehensive understanding of cloud computing concepts and services.
- Recognize the advantages, disadvantages, and practical applications of cloud computing.
- Identify major cloud service providers and their roles in the industry.
- Explore how companies leverage cloud computing and the associated risks.

**Outcome**

- Gain knowledge of Cloud as PaaS,IaaS,SaaS
- Work in cloud environment
- Build their own cloud
- Take up role of Cloud Consultant

**Unit I - (8 Hours)**

**What is cloud?** Services provided by cloud are categorized: Software As a Service(SaaS) ,Infrastructure As a Service(IaaS) ,Platform As a Service(PaaS), Desktop As a Service (DaaS) and VDI etc

**Unit II - (6 Hours)**

**How Cloud Computing Works** Advantages & Disadvantages, Applications for Businesses Cloud Service Providers

**Unit III - (8 Hours)**

**Brief overview of major Cloud Service providers** – Amazon AWS, Google App Engine, Microsoft, VMware. How Companies are using Cloud Computing Cloud Computing Risks and Issues

**Unit IV - (8 Hours)**

**Virtualization concepts, Objectives, Types of Virtualization & its benefits**, Introduction to Various Virtualization OS (Hypervisor), HA/DR using Virtualization Live Migration of VMs, SAN backend concepts, S/W defined Networking (OpenFlow/OpenVSwitch), S/W Defined Datacenter, S/W Defined Storages.

**Text Books**

1. Mastering Cloud Computing by Rajkumar Buyya, Christian Vecchiola, S.Thamarai Selvi from TMH 2013.
2. George Reese Cloud Application Architectures, First Edition, O'Reilly Media 2009.

**References**

1. Cloud Computing and SOA Convergence in Your Enterprise: A Step-by-Step Guide by David S. Linthicum from Pearson 2010.
2. Cloud Computing 2 nd Edition by Dr. Kumar Saurabh from Wiley India 2012.
3. Cloud Computing – web based Applications that change the way you work and collaborate Online – Micheal Miller.Pearson Education.

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