Course Specifications

General Information

Course name	Cloud Computing
Course number	ITSE5332
Faculty	
Department	
Course type	Major Needs
Course level	5
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Study cloud computing models and techniques

2 - Get introduced to various cloud computing architectures

3 - Understand the benefits and challenges of cloud computing

4 - Practice programming patterns for cloud computing applications

Intended Learning Outcomes

Knowledge and Understanding	* Understand what is cloud computing
	* Gaining knowledge on the key technical issues in cloud computing including security and control
	* Appreciate different cloud computing models and architectures
	* Appreciate the performance issues associated with cloud computing
Intellectual Skills	* Ability to judge the suitability of a cloud computing service for a specific enterprise
	* Ability to assess map a cloud computing service with an enterprise needs
Professional Skills	* Being able to handle technical cloud computing issues including capacity planning, disaster recovery, virtualization, cloud os
	* Hosting issues in cloud computing
	* Good practice in the programming patterns of cloud computing applications
	* Ability to deploy applications on the cloud

Course Contents

1 - Models and technologies for cloud computing
2 - Benefits, challenges of cloud computing
3 - Models of cloud computing: infrastructure, platform, software-as-service
4 - Types of clouds: public, private, hybrid
5 - Cloud computing architectures
6 - Cloud computing data centers
7 - Security issues in cloud computing
8 - VMWare ESX memory management
9 - Cloud computing capacity planning

Teaching and Learning Methods

1 - Lectures
2 - Projects

Students Assessment

Assessment Method	TIME	MARKS
Mid Term Exam 1	Week 6	15%
Mid Term Exam 2	Week 12	15%
Practical Project	Week 7	20%
Final Exam	Week 16	50%

Books and References

Essential books	Distributed and Cloud Computing, Morgan Kaufmann