

# GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: II

M.E. Information Technology

Subject Name: **Cloud and Grid Computing (Major Elective – III)**

Sr.No	Course content
1.	<b>Environment:</b> Grid computing environments.  <b>Topics:</b> Overview of GCE;  Programming models; Middleware for building grid computing environments; Language support (MPI- G, MPI-G2, etc) for grid computing; Meta models for grid programming; Security
2.	Applications. Deals with case studies, how the global computing infrastructure has become a reality for collaborative complex data intensive computing aid for federated database services, web services, bioinformatics
3.	It will also include among others some selection of topics from Seti project, Sun grid engine, Skyserver and some national grid projects
4.	<b>Monitoring and evaluation:</b>  It will include following: Monitoring; Scheduling; Performance tuning; Debugging and performance diagnostic issues;
5.	<b>Understanding Cloud Computing:</b>  Beyond the desktop: An introduction to cloud computing- Cloud computing: What it is – and what it isn't, From Collaboration to the cloud :A short history of cloud computing, The network is the computer: How cloud Computing Works, Companies in the cloud :Cloud Computing Today, Why Cloud Computing Matters
6.	Are You Ready for computing in the cloud? The Pros and Cons Computing, Who benefits from Cloud Computing, Who shouldn't be using cloud computing?
7.	Developing Cloud Services  Why Develop Web-Based Applications?, The Pros & Cons of Cloud Service Development, Types of Cloud Service Development, Discovering Cloud Services Development Services & Tools.
8.	<b>Cloud Computing For Everyone:</b>  Cloud Computing For the Family, Cloud Computing For the community, Cloud Computing For the Corporation

9.	<p><b>Using Cloud Services:</b></p> <p>Like Collaborating on Calendars, Schedules &amp; Task Management, Collaborating on Event Management, Collaborating on Contact Management, Collaborating on Project Management, Collaborating on Word Processing, Collaborating on Spreadsheets, Collaborating on Databases, Collaborating on Presentations, Storing &amp; Sharing Files &amp; Other Online Content, Sharing Digital Photographs, Controlling it All with Web-Based Destops.</p>
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### **Reference Books:**

1. Grid Computing by Joshy Joseph, Craig Fellenstein, Provided by Prentice Hall, IBM Press
2. Grid Computing by Springer LNCS 2970
3. Cloud Computing by Michael Miller(Pearson Edu Publication)