

CA6CRT17 - CLOUD COMPUTING (Core)

Theory:4 hrs. per week

Credits:4

Unit 1: (14 hrs.)

Introduction: Cloud Computing at a Glance, Historical Developments, Building Cloud Computing Environments, Computing Platforms and Technologies, Principles of Parallel and Distributed Computing: Eras of Computing, Parallel vs. Distributed Computing, Elements of Parallel Computing, Elements of Distributed Computing.

Unit 2: (14 hrs.)

Virtualization: Introduction, Virtualization and Cloud Computing, Pros and Cons of Virtualization, Technology Examples.

Unit 3: (14 hrs.)

Cloud Computing Architecture: Introduction, Cloud Reference Model, Types of Clouds, Economics of the Cloud, Open Challenges.

Unit 4: (16 hrs.)

Aneka: Cloud Application Platform: Framework Overview, Anatomy of the Aneka Container, Building Aneka Clouds, Cloud Programming and Management, Data Intensive Computing: Map-Reduce Programming - What is Data-Intensive Computing, Technologies for Data-Intensive Computing, Aneka MapReduce Programming.

Unit 5: (16 hrs.)

Cloud Platforms in Industry: Amazon Web Services, Google AppEngine, Microsoft Azure, Cloud Applications: Scientific Applications, Business and Consumer Applications.

Book of Study:

1. Rajkumar Buyya, Christian Vecchiola, S ThamaraiSelvi- Mastering Cloud Computing, Tata McGraw Hill Publications.

References:

1. Kumar Saurabha, "Cloud Computing " Wiley Publication Krutz ,Vines "Cloud Security".
Wiley Publication.
2. A Srinivasan & J. Suresh " Cloud Computing : A Practical Approach for learning and

Implementation “ , First edition ,Pearson