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CLOUD COMPUTING

For B.E. / B.Tech. VII SEMESTER CSE / IT BRANCHES

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CLOUD COMPUTING

(CS8791 – Cloud Computing and CS8711 Cloud Computing Laboratory)

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PREFACE

This book “Cloud Computing” is to understand the concepts, key technologies, strengths and limitations of Cloud Computing. It contributes an impression towards enabling the technologies, in the development of cloud. It provides a preliminary study to understand and use architecture of compute and storage cloud, service and delivery models. It will help the beginner to understand and have hands-on experience in implementing the Cloud with resource management and security.

Unit I: It provides introduction towards the Cloud computing with evolutions, characteristics and future. Outline towards basic parallel and distributed computing, elasticity and current trends of on-demand provisioning.

Unit II: Introduction towards Service Oriented Architecture methodologies like Publish-Subscribe model, Web Service and REST API along with implementation methodology in Cloud infrastructure. It provides awareness towards basics, types, implementation levels, tools, mechanisms and disaster recovery plan of Virtualization.

Unit III: Brief awareness on cloud architecture, NIST reference standards, various services like Infrastructure-aaS, Platform-aaS, Software-aaS, Storage-aaS and architectural design challenges. It gives an applied experience on Cloud storage and Amazon S3.

Unit IV: Contributes a knowledge on Resource management and provisioning methods. Introduction to Cloud Security, Governance, Identity and access management were briefed in this section.

Unit V: Provides a study along with illustration over Hadoop, Virtualbox, Google App Engine and Openstack. It provides an different aspects of architecture, levels of programming, security challenge and futures of network protocols planned in federation in cloud.

Unit VI – Lab Experiments: It provides an gradually approach on utilizing Virtualbox and Trystack to create and launch an instance. It gives an active experience on setting up and developing applications over Google App Engine, Hadoop and CloudSim.

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CLOUD COMPUTING

Dr.K.SARAVANAN - P.KRISHNA SANKAR - N.P SHANGARANARAYANEE

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