JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD,
KUKATPALLY : HYDERABAD - 500 085, TELANGANA STATE

ADMISSION TO Ph.D./M.Phil./M.S. RESEARCH PROGRAMS – 2015

Abstract :

Designing an optimal Scheduling Algorithm in Cloud Computing Environment

Cloud Computing has recently emerged as a compelling paradigm for managing and delivering services over the internet. It is rapidly changing the landscape of information technology, and ultimately turning the long-held promise of utility computing into a reality. It attracts business owners due to its ability to eliminate the provisioning plan overhead, and allows enterprises to start from the small scale and dynamically increase their resources simultaneously with the increase of their service demand. Cloud Computing promises to deliver reliable services through next-generation data centers built on virtualized compute and storage technologies. Users will be able to access applications and data from a Cloud anywhere in the world following the pay-as you-go financial model. Cloud computing allows users to utilize the computation, storage, data and services from around the world in commercialize manner. **In cloud environment, scheduling is the major issue.**

Cloud computing service providers' one of the goals is to use the resources efficiently and gain maximum profit. This leads to task scheduling as a core and challenging issue in cloud computing. Millions of user share cloud resources by submitting their computing task to the cloud system. Scheduling these millions of tasks is a challenge to cloud computing environment. Different scheduling strategies are proposed. These strategies consider different factors like cost matrix generated by using credit of tasks to be assigned to a particular resource, quality of Service (QoS) and heterogeneity of the cloud environment and workloads, etc.

I would like to proposal an Optimal Scheduling algorithm that is energy efficient and environmentally friendly. The algorithm aims to meet the requirement of the cloud user and cloud Provider and provide good performance under heavy loads.