Abstract

Cloud computing has opened a new era to a shared IT infrastructure in which large pools of systems are linked together via the internet to provide IT services, such as different utility services of our day to day lives like tax calculation web services, weather information web services etc; which are on pay per user basis. It provides a virtual resource and therefore is not limited by the power and capabilities of local or remote computers. But cloud computing is in its nascent stage of progression. It has some serious demerits. The data centre hosting cloud application needs huge consumption of energy, which is subsequently responsible for the emission of carbon dioxide gas, which aggravates global warming—a threat to existence of life on earth. In this paper, we propose eco-friendly cloud computing which will not only mitigate global warming but also minimize operational cost by reducing power consumption. Here we have introduced noble algorithm for proper utilization of energy for cloud computing. We have
validated our study by a set of experiments using Ubuntu’s 10.04 Server editions.

Reference

- Xinhui Li, Ying Li, Tiancheng Liu, Jie Qui, Fengchun Wang “International Conference on Cloud Computing” IEEE Computer, 2009, pages 93-100,
pages 137-150
- Marco Dorigo and Thomas Stutzle “Ant Colony Optimization”, Prentice-Hall of India, India, 2001

Index Terms
Computer Science
Information Technology

Key words
cloud computing
eco-friendly
bee colony algorithm
ant colony algorithm