

## CERTIFICATE

This is to certify that the thesis entitled **Performance Evaluation of Cloud Computing Systems using Queueing Models**, submitted by **Sudhansu Shekhar Patra**, a Research Scholar, in the *School of Computer Engineering, KIIT University, Bhubaneswar, India*, for the award of the degree of **Doctor of Philosophy**, is a record of an original research work carried out by him under our supervision and guidance. The thesis fulfills all requirements as per the regulations of this University and in our opinion has reached the standard needed for submission. Neither this thesis nor any part of it has been submitted for any degree or any academic award elsewhere.

**Dr. Veena Goswami**

Professor

School of Computer Application

KIIT University

Bhubaneswar

**Dr. G. B. Mund**

Professor

School of Computer Engineering

KIIT University

Bhubaneswar