PROJECT REPORT

ON

AUTOMATIC AND DYNAMIC GENERATION OF RANDOM IMAGES

Submitted By

KEERTHI NAYAK	4PA05CS033
MEGHA C R	4PA05CS035
RAINY MARIA D'SOUZA	4PA05CS058
RAJATHA	4PA05CS059

As prescribed by Visvesvaraya Technological University for Eighth Semester

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

Under the guidance of

Dr. Waseem Ahmed, Ph. D
Professor

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

P. A. COLLEGE OF ENGINEERING

(Affiliated to Visvesvaraya Technological University and Recognized by AICTE)
Near Mangalore University, Mangalore – 574 153, Karnataka

2008 – 2009

ABSTRACT

Numerous computer applications utilize images for visualizing objects. An image gives more life and understanding in any field. An image is composed of several objects. Ray tracing is a method of creating visual art in description of an object or scene is mathematically converted into a picture. To create these objects we need to read a text file containing the information describing the objects and lighting a scene and generates a image of that scene from the view point of the camera also described in the text file.

A freely available image creation application in the public domain called Persistence of Vision Ray Trace (POV-Ray) provides these features. The POV-Ray creates image using rendering technique called retracing, that is software traces imaginary light rays backwards from where the end point lies (pixels on computer screen) to their initial point (some light source of the screen). This step is repeated pixel by pixel until entire image is created.

POV-Ray requires learning curve and debugging associated with it. To avoid this we are providing an interface which generates the images *dynamically*. The source code for these images is generated *automatically*. The parameters for the images are given by the user.