**Chapter 2**

**REQUIREMENT SPECIFICATION**

**2.1 Functional Requirements**

These are statements of services the system should provide and do how the system reacts to particular inputs and how the system should behave in particular situations i.e. it describes what system should do.

* Simulation of Windmill should be implemented by using keyboard and mouse.
* Sequence of menus should be displayed on pressing middle mouse button as shown
* Side View 1
* Side View 2
* Back View
* Front View
* Custom View
* On pressing left mouse button, the windmill wheel starts rotating and on further clicks the speed of rotation increases.
* On pressing right mouse button, the rotating speed of the windmill wheel slows down and finally comes to halt.
* Simulation of Windmill shall also be done using the keys-

Right Arrow and Left Arrow keys can be used to rotate the whole Windmill Structure

**2.2Non Functional Requirements**

These are constraints on the services or functions offered by the system. They include timing constraints, constraints on the development process and standards. These requirements often apply to the system as a whole. They don’t usually just apply to individual system features or services. Therefore, they may specific system performance, security, availability, and other emergent properties.

* The implementation of windmill simulation shall render in real-time.
* This project shall maintain a simple user interface.

**2.3Software requirement and hardware requirements**

**2.3.1 Software Requirements**

* Operating System : Windows 98/XP or Higher
* Programming Language : C,C++
* Microsoft Visual Studio 2005 or higher: This Software package containing visual basics in C++ language is required.
* Toolkit : GLUT Toolkit, VC++

**2.3.2 Hardware Requirements**

This package has been developed on:

* Processor : Pentium Processor
* Processor Speed : 333 MHz
* RAM : 32 MB or Higher
* Graphics Card : 512MB
* Monitor : Color
* Keyboard : Low Profile, Dispatch able Type
* I/O Parts : Mouse, Monitor