**Games, Simulation and Modelling(PC742) : Final Project**

**The Game Skeleton:**
The project is to design and implement a game that is based on four spaces that are given. The first space is the context. Here the player(s) learn or acquire a set of sensory skills that would be useful for them to move to further levels. Here, the challenges are in selecting the skills which need to be practiced and perfected either individually or in groups. The second space is a cave where the major challenge is to explore the space in search of knowledge that would useful further in the game. The third space is a theatre where the knowledge acquired in the cave needs to be demonstrated to the satisfaction of an audience. Convincing the audience about your knowledge is the main challenge here. The fourth space is a market where several characters compete or cooperate to establish a value for the knowledge they posses. The challenge is to win.

With this basic skeleton, you have to design the detailed structure, mechanics and the dynamics of the game. You also need to visualize and form the spaces. Use the design lectures to clearly define all the aspects of your game.

**Groups:**
Groups of a maximum of four members shall be allowed. Group names must be sent to Mr. Hirav Shah before September 25.

**Discussions:**
Discussions on the project shall be held for each group during the class hours on Tuesdays and Fridays.¹

**Emphasis:**
Your project must attempt to improve the Panda3D engine. There are many areas where this can be achieved. The areas of potential improvements could be

1. Collision detection and response
2. Physics
3. AI
4. New graphics effects (Shader programming)
5. Alternatively, your project could focus on an algorithm that is vital to your game design.

**Deliverables:**
1. Design document. This has a comprehensive description of the game as discussed in the game design lectures. You may use illustrations where necessary.

2. The complete source code files. Include all models, textures and any other dependencies that may be required to build the executable version.

3. The executable file (Windows version). This must be built to run on any windows machine.

¹NR 20/9/12  PC742