**CSC481 Team Project Description**

This is a semester-long project, which consists of five parts that will be handed out as the class progresses.

**General Description**

The task of the project is to design a fire and security alarm monitoring simulation system for a building. The system to be developed is described as follows:

**A fire and security alarm monitoring simulation system -- FSAMS**

A large building may require an automated alarm system which monitors and controls all fire and security alarms in the building. Normally, the building is divided into zones and a number of alarms are associated with each zone. Alarms alert a central manned control area who may pass these on to the emergency services or may respond personally.

Factors that have to be taken into account in building such a simulation system are, but not limited to:

* If the control area is unmanned and an alarm is activated, this alarm should not be ignored if it is potentially serious. Emergency services should be automatically called.
* Some but not all parts of the building may be equipped with sprinkler systems or systems to shut down electrical equipment. These should be activated if a fire alarm is confirmed. They should not be activated if there are people in the same room.
* The building may be equipped with direction indicators, which illuminate the route to the nearest exit. These should be activated when a fire alarm is confirmed. At the same time, an audible signal should sound alerting occupiers to leave the building.
* A security alarm may cause some internal doors to be locked automatically. It should be possible to isolate complete zones by automatic door locking.
* False alarms are common and it might be normal practice to have an alarm confirmed before alerting emergency services. There are different ways of confirming an alarm. Multiple sensors that are detecting a problem may confirm the fire in the case of a fire alarm.