**PROJECT ABSTRACT**

**Project Name:** Light Actuated Home Automation

**Project Description:** In this project, by combining sensors and actuators that operate in the environment based on acquired sensor readings, it is possible to realize a variety of applications in the area of feedback control systems. While it is often argued that systems combining sensing and actuation are the next logical step in the evolution of wireless sensor networks, so far there have been few examples of sensor networks that actually integrate actuators. An important reason for this is that few appropriate actuators are available and that integrating them with existing sensor network technology is hard. The availability of easy-to-use prototyping systems is essential for the development of sensor-actuator networks. Exploring such a prototyping system in the area of home automation is the main scope of the project.

**Abstract:** Our main goal will be to look out a simple and cost effective but at the same time powerful solution for prototyping home automation applications that integrate wireless sensor networks. The problem is how to associate sensor nodes to the actuators that influence their values and how to determine the individual effect of each actuator. The simple light control system is to use dimmers controlled by a sensor network to provide light levels as specified and checked by individual sensor nodes. The motivation is to use daylight to provide the desired luminance level whenever possible and only add light by artificial light sources as required in order to achieve energy savings.