INTRODUCTION:

In the present world due to the rising of the construction field at a rapid rate the demand for manpower and resources has increased over a period of time. By taking this in mind the project topic which was selected to work was regarding Curing and Irrigation. In this particular project the major concentration will be given to understand the behavior of the concrete and the soil for different water supplies from least to the excess. Based on the observations made on this behavior suitably a device will be developed and will be connected to an application so as to have an automation i.e. in order to perform scientific curing and scientific irrigation.

OBJECTIVE:

1. Minimize the consumption of the water used for the curing purpose.
2. Save the power which will be exhausted for the curing purpose.
3. Reduce the manpower involved in the curing of the concrete structure.
4. Introduction of IT to the field of civil engineering to allow the future research and development in this field.
5. Provide an ease and comfortable method for the curing purpose to the owner or the contractor or the engineer.

METHODOLOGY:

In this project for curing and irrigation we did different experiments in order to determine the efficient method of curing and minimum amount of water required for crop. So for curing us casted 2 mould and fixed 3 temperature sensors to know the heat of hydration and one sensor to know the surface temperature.

For irrigation we irrigated one land and took the readings before and after the irrigation then after 24hrs after that readings are taken at temporary and permanent wilting point. At the end we decided the minimum water content needed for the crop.

Based on these value we prepared one device that will be monitored and controlled by the android device.
CONCLUSION:

By comparing the above outputs it is clear that the temperature of surface of the concrete will be reduced after curing in each method is almost same. So the sprinkling method can be taken as most efficient one because the water consumption in this process is very less comparatively.

As we know that too much is too bad, the water which is the easily available water Content for the plant is 450. So maintain that level in the root zone of the plant.

FUTUREWORK:

In curing only by using temperature we cannot judge the requirement of water so if we use the moisture sensor then it will we more accurate. And the temperature may differ from season to season. So the reading should be taken with respect to season.