To find out how to save energy is one of the important in the modern era, where the traditional energy sources are becoming a threat to humanity in addition these sources are limited and in the process of disappearing. Around half of the energy consumed by the human being is inside the buildings and this explains the enormous amount of energy that could be saved if designs adopted contribute to reducing the costs of cooling and heating, air conditioning and lighting in buildings.

This research aims to study the buildings which use integration of multiple systems to efficiently manage resources and capabilities in order to maximize the technical performance, the rationalization of operating costs, and to achieve flexibility, through continuous interaction between the main components for intelligent buildings, including construction, operations, users, and management, as well as the interrelationships among them.

The aim of this research is to investigate the concept of smart buildings and its components, it has taken a case study proposed using Ecotect, who works in the language of C++, consists of two parts (zone 1 and zone 2) was examining the findings of the effect of heating and cooling system as the most important components of the intelligent building, as well as lighting system and control the cost was reached the following conclusions:

1. The work of architectural designs and engineering must employ information technology in designs of buildings.
2. Creating standards for the selection of the appropriate system of intelligent buildings to reduce energy and resource consumption.
3. Economic benefit through the improvement of the hardware components and elements without change or modification of structural elements.

Many relevant recommendation have also been proposed and several related subjects for future researches have been suggested.