

## Themes for final year project (1)

Select one problem to investigate and write simple introduction and literature survey

### Theme 1:- building services

#### Subject 1:- design air conditioning (AC) system for building

In this subject you must:-

1. Write introduction chapter that include:- the beginning of AC system, the main objective behind these systems and the system description (components and function for each part)
2. Write a literature survey about this subject. this may includes: (1) the first record AC system in the world, the enhancement of AC systems through the last centuries and the new approaches in AC systems (refrigerants, economizer, efficiency enhancement, ..., etc)

#### Subject 2:- energy auditing and supplying building with photovoltaic (PV) system for electricity generation

In this subject you must:-

1. Write introduction chapter that include:- the classifications of renewable energy, the solar energy systems (types and specifications), the main objective behind solar systems and the PV system description (components and function for each part).
2. Write a literature survey about this subject. this may includes: (1) the first record PV system in the world, the enhancement of PV systems through the last century and the new approaches in PV systems (materials, concentrators, efficiency enhancement, ..., etc) .

**Note: this subject can be done for other types of renewable energy sources and for hybrid systems**

#### Subject 3:- design sanitary system for building

In this subject you must:-

1. Write introduction chapter that include:- the beginning of sanitary system, the main objective behind these systems and the system description (components and function for each part)

2. Write a literature survey about this subject. this may includes: (1) the first record sanitary system in the world, the enhancement of sanitary systems through the last centuries and the new approaches in sanitary systems (pipes materials, pumps, waste treatment, ..., etc).

### **Theme 2:- machine design**

In this theme you can choose and machine you prefer and write introduction and literature survey about it just like the subjects mentioned in theme 1.

### **Theme 3:- other subjects**

You can chose the subject you want and write an introduction and literature survey about it but you have to **inform me before the end of day Thursday 7/1/2016**