

# Senior Design Committee

## 1. Introduction:

As per curriculum, students of the college of Engineering are expected to do a senior design project as a part of their Bachelor Program; this project is divided into two parts that are typically delivered in two consecutive semesters.

## 2. Vision:

Make students able to use their skills and insight methodologies to address a practical issue in their field.

## 3. Mission:

Provide students with appropriate knowledge of advanced technologies and developments in their academic field.

## 4. Responsibilities:

1. Registration for senior design.
2. Supervise and follow-up for the senior design program.
3. Prepare of the brochure for senior design program.

## 5. Goals and sub-goals:

- 1- To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, and sustainability.
- 2- Work in a team and presenting ideas in an oral and writing manner.
- 3- To apply knowledge of mathematics and, science and engineering.
- 4- To design and conduct experiments, as well as to analyze and interpret data.
- 5- To Identify, formulate, and solve engineering problems.
- 6- To use the techniques, skills, and modern engineering tools necessary for engineering practice.

## **6. Initiatives, activities, and achievements.**

Senior design projects were incorporated in multi-area of engineering research, including:

- 1- Evaluation and design of roundabouts at Jalagel , Majmaah, KSA.
- 2- Using Total Station and GPS TO Create surveying maps and ground control points at portion of Majmaah city.
- 3- Study the reality of concrete mixers in some mixing centers is KSA and its compliance with the international methods.
- 4- Development of residential green building according to Majmaah region requirements.
- 5- Design of photovoltaic power plant for haramain high speed train.
- 6- Photovoltaic system design for street lighting.
- 7- Evaluation of ground water quality parameters using multi-variate statistics.
- 8- Study and modeling of thermal characteristic of honey-com: Energy Storage.

### **Members:**

1. Dr. Yasser elaraki (Coordinator)
2. Dr. Belal ahmed (Member)
4. Dr. Tareq Albajoory (Member)
5. Mr. Abdalmohsen alhusainan (Member)
6. Dr. Omar Aloadhi (Member and Secretary)