BASIC ENGINEERING DESIGN

GEN- N1003
Spring 2017

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Course Project (20%)

- The project main idea is to solve a problem in your school, your home, or your society.

- In the project you should solve a real problem and the solution must need some efforts

- The project grading is divided into 4 parts:
  - **Project idea (5%)**
    - Two simple ideas will receive very low grade
  - **Project prototype (5%)**
    - A project must have a working prototype to get this grade. A non-working prototype will receive very low grade
  - **Project report (5%)**
    - The project report must satisfy the report template and style
  - **Project presentation (5%)**
    - All the group members must present their work and meet the allowed time. No show up for the presentation means zero grade in the whole project (0/20).

Course Project (20%)

- The number of students per group is 2-3 students. To work alone (1 student) or in a group more than 3, you must have a valid justification and a written approval from the course instructor.

- The presentations, reports, and the project prototypes will be delivered at the last 4 lectures of the course and the selection will be random. This is expected tentatively starting at May 7, 2017.

- Please consult your course instructors if you have an idea and you are unable to judge whether it is too easy or too hard.

Course Project (20%)

- **<u>The project report should meet the following specifications:</u>**
  - Maximum <u>**15 pages**</u> including the cover page **(each extra page over 15 gets penalty marks)**
  - The font should be 12 points for the text and 14 points for the subject lines.
  - Page margins should be 1 inch from each side (normal page margins).
  - The project should be submitted as a **hard copy** on the submission day.
- **<u>- The project report should follow the following page limits:</u>**
  - **<u>Cover page (maximum one page)</u>**
  - **<u>Table of Contents (maximum one page)</u>**
  - **<u>Abstract (maximum one page)</u>**
  - **<u>Brief Introduction (maximum one page)</u>**

Course Project (20%)

- **- The project report should follow the following page limits:**
    - - Engineering Model that describe the following (maximum **5** pages)
        - -Problem definition
        - - Data Gathering
        - - Generating and Evaluating Alternative solutions (Show the advantages and disadvantages of each solution)
        - - Decision making to get the best solution and state the best solution (Using the decision matrix method)
        - - Test and Implementation of the selected solution
        - - The Six hats method to highlight all the aspects of the problem and solution decision
        - -Fishbone diagram to highlight all the aspects of the problem and solution decision
    - -project Management (maximum **4** pages)
        - - Resources Allocation
        - - Aims and Objectives formulation (Using the objectives pyramid)
        - - Responsibilities distribution table among the project members
        - - Gantt chart (Time Schedule) over four weeks
    - -Conclusion (maximum **one** page)
    - -References (maximum **one** page)

Course Project (20%)

- **The project presentation should meet the following specifications:**
- The presentation should be using power point or Prezo
- You are free to use whatever language in the presentation and formal dress is preferred
- The presentation allowed time is 10 minutes for groups of 3 students, 8 minutes for groups of 2 students. **Extra minute receives a penalty.**
- All the group members should present their work
- All the group members might be asked about any part of the project
- Every group should test their laptop on the projector before the presentation as if it does not work, this time will be included in the allowed time
- Every group should hand in the modified report on the presentation date as a hard copy
- No show up in the presentation means zero grade unless there is an official excuse
- Please do rehearsal as much as you can as the presentation skills will affect your grade
- The presentation topics should follow the report and fit in the allowed time.