KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS

Electrical Engineering Department

EE 340 Electromagnetic Research Projects

The aim of this research projects is to prepare students in exploring application of Electromagnetic (EM) field. Each student is to research an EM application, write a standard summary report and give a class presentation of his findings. The exercise is divided into stages with deliverables and due dates set in advance.

The specific objectives of the Research Projects are:

1- To train students on using library resources
2- To help students explore the scientific research world of advance technology
3- To teach students in preparing scientific reports using IEEE standard format
4- To train students to give technical presentation

The final grade depends on the following achievements:

1- The progress of the work during the semester
2- The clarity, the consistency and the format of the summary report
3- The clarity, the illustrations and the approach used in the final presentation

Schedule of Tasks

Task # 1   Selection of Titles   Due: 25th of October 2008

Do a careful search of different EM applications using Internet search engines, *i.e.* Google. Select an EM application for your topic. Each student must select an application different from the rest of the group. Submit your title by e-mail using WebCT e-mail system. Titles will be assigned based on first come first come bases. *Students are encouraged to consult with the instructor for help and guidance.*

Task # 2   Selections of References   Due: 1st of November 2008

Find and read at least two suitable references of the title that you have been assigned in task # 1. Other references may used fully or partially to help in understanding the subject.

Task # 3   Project Report   Due: 20th of December 2008

Prepare and submit a two page summary report of your title based on IEEE standard Two-Column format. Read the IEEE format and samples before writing your report. The report should be submitted as a PDF file. The report should be easy to read by all students and should contain the necessary information needed to give a through idea about the topic. The report should contain an abstract, introduction, main topic and a summary/conclusion with references at the end. *Hint: Avoid including too much technical detail and also avoid adding too many pictures.*

Task # 4   Project Presentation   Due: 10th of January 2009

Prepare and submit a 10-15 minutes power point presentation (around 15 slides max.) of your topic. The presentation should give the rest of the class a good review of the subject with useful information for engineers. *Hint: avoid complicated technical terms and concepts as much as possible. You may use pictures and videos for illustration purposes.*