

King Fahd University of Petroleum and Minerals
Department of Electrical Engineering
EE 340 Electromagnetics
Dr. Hassan Ragheb
Design project

This project is due on Dec 31-2007. A maximum of 2 students can work together and submit one report.

Design a variable capacitor in which the capacitance can vary either by mechanical or electronic means. Your design must be clearly explained and a theoretical background for your design must be furnished. In addition consider one conductor at a potential V_0 while the other conductors at potential zero. Solve Laplace's equation numerically using MATLAB and calculate the value of you designed capacitor.

Report Format:

- 1- Introduction.
- 2- Theoretical development.
- 3- Design .
- 4- Numerical calculations
- 5- Results.
- 6-Conclusion.