A term project counting for 10% of your grade is due in week 10. The project could be a technical paper that details how a technology works, a lab project, or some other project that is approved by your instructor. You will work in pairs - find a partner. If it is a technical paper, follow these guidelines:

**Format:** Formal, prepared on word processor, and printed on laser printer. 1” margins on sides, top, and bottom. 11 point font, 1½ line spacing. Use a CG times or times roman font. Provide separate cover/title sheet, and attach a separate reference list sheet at the end. Staple in upper left corner.

**Length:** Maximum of 6 pages of text. Figures and equations don’t count toward this limit.

**Style:** Use standard technical writing style - 3rd person impersonal, passive voice. Inclusion of figures, equations, etc. to help explain your points is encouraged. (Figures and equations do not apply toward page count). Write in your own words. Direct cut-and-paste from the web, word-for-word copying from books or articles, or copying of past term projects is not allowed – it is plagiarism.

**Resources:** Use your text, the MTU library, WWW, etc. Also feel free to quiz your professor for leads or hints. He may have even have info in his office he could loan you. Stop by during his office hours for lots of free help.

**Content:** The topic you choose should be something new to you, and preferably a new and interesting technology. **Get approval from your instructor before proceeding on the specific topic.** Anything related to energy conversion involving electricity should be a good topic.

**Grading:** Grading criteria are: organization, grammar/spelling, mastery of the technical aspects of chosen topic, complete coverage (don’t leave the reader hanging), content, and completeness of research/references.

One-page abstract is due Monday of Week 6 (a slight extension is possible).

Detailed outline and reference list is due on Monday of Week 8.

Full report is due on Wednesday of Week 10.

Some ideas and links to info are given on the EE280 web page:

http://www.ee.mtu.edu/faculty/bamork/ee280/

To make it more fun and interesting, the topic could be on recent technical advances in energy conversion, novel power systems, motor types or drives, application in today's industrial/applications settings, etc. The purpose of this project is to give you realistic practice in quickly researching and getting up to speed on a new technology. **Be sure to include technical specifications and document the calculations needed for analysis and design related to this technology!** In most cases, I have some info to loan you, or some hints on where you can find info. Stop by during my office hour for a chat.

### $$ Prizes if you extend this project! $$

Thinking ahead, you could develop your work into a IEEE student poster paper - $200 first place prize. We usually take several students with us to the IEEE Power Engineering Society winter and summer meetings. Take a look at the IEEE Student PES web page for cash awards for designs, poster paper contests, jobs and coops, etc.

http://www.ee.mtu.edu/stu_orgs/ieeepes/freebies.html