ECE 321 Spring 2000

PAPER ASSIGNMENT

1. Find and make a copy of one magazine or journal article (at least 3 pages in length) about one of the electric components in an Electric Vehicle (EV) or Hybrid Electric Vehicle (HEV) such as electric motor, generator, battery technology, fuel cells, inverter, or power electronics. Each student must find an article different from the other students in the class.

2. Send an e-mail to the instructor (tolbert@utk.edu) with the bibliographic information on the article. Due date for finding article **March 16, 2000**, 12 noon.

   Example:
   K. M. Rahman, B. Fahimi, G. Suresh, A. V. Rajarathnam, M. Ehsani, "Advantages of Swtiched Reluctance Motor Applications to EV and HEV: Design and Control Issues," *IEEE Transactions on Industry Applications*, vol. 36, no. 1, Jan./Feb. 2000, pp. 111-121.

   Instructor will send an e-mail reply approving the article and post the bibliographic information on the class web page.

3. Using a word processor, write a 2 – 3 page double-spaced paper summarizing the article. Paper should have a separate cover page, should have 1" margins on all sides, and should use 10, 11, or 12-point font. Keep in mind the following the questions when writing the paper:

   1) What is the new technology that is being touted in the paper?
   2) How will this new technology affect the performance of an EV or HEV?
   3) Is this new technology an incremental improvement or a dramatic change from what was previously done?
   4) Is this technology mature (already being implemented on prototype vehicles) or more theoretical or abstract (simulation work only or laboratory work only)?
   5) Does the new technology allow an EV or HEV to be manufactured or operated more economically or more efficiently?

4. Turn in paper and copy of article by the beginning of class, **Thursday, April 13**.

5. Paper will be graded for content, grammar, and general neatness.