Instructor: A. Keyhani, 202 Caldwell Lab  
E-mail: keyhani.1@osu.edu  

TA: Wenzhe Lu, 069 Caldwell Lab  
E-mail: lu.140@osu.edu  

Office hours: Prof. Keyhani MWF 11:00-1:00 PM, W. Lu MW 2:30-4:00 PM, or at mutually convenient times by appointment.

Prerequisite: EE 205 (It is your responsibility to drop EE 341 if the prerequisite is not met!)

Class notes A. Keyhani from Cop-EZ

Handouts of additional reference material will be provided. Handouts will be distributed to supplement the text, not to replace it. You are encouraged to make your own notes on the material covered during lectures.

Course objective: To provide an overview of electric power systems, energy conversion with emphasis on the operation of AC machines, various alternate energy conversion processes, and if time permits, DC machines.

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Final Exam on Last Day of the quarter

FOR MORE INFORMATION ON THE COURSE -- SEE NEXT PAGE
(1) **Homework problems:** They will be assigned to assure practice and preparations for examinations. **Solutions to all problems must be handed to the Grader, Not in My office Mail BOX by 5:00 p.m. on the due date. Late solutions will not be accepted after the due date.** Solutions not handed in by the deadline will get zero grades. A copy of solution will be posted on course website after due date. Students are required to use Matlab, C/C++ on special problems and a written paper will also be assigned. Its format will be discussed later.

**Topic of the paper:** Electric power systems, or energy conversion processes. Examples are: solar power, nuclear power, hydro power, fuel cells, batteries (electric cars), power system components, power system operation. Energy efficiency and environmental aspects are acceptable topics as well.

**Examinations:** Closed book and notes. One sheet of equations will be allowed.

**Grading:**
- Midterm 20%
- Final 30%
- Homework 10%
- Term paper 5%
- Project 15%
- Quizzes 20%

Non-attendance for an exam or a quiz that is not documented (e.g., physician's statement) will get a grade of zero.

**Guest speakers:** Talks related to power systems and high voltage engineering will be announced later.

**Honor System:** Examinations and specific individual (i.e., not team-type) assignments should reflect the own, individual work and efforts, not the cooperative effort of a group of people. Please contact your course instructor or the E.E. Student Council if you have questions about the E.E. Honor System.
Correction sheet for EE 341 text, Chapman, 3rd Edition
(Last update: April 21, 1999)

This list will be updated if more errors would be found in the text. If anyone finds a new correction item, please E-mail it to Prof. Sebo (sebo.1@osu.edu) together with the correct text so that it can be included in the list.

Chapter 1:
Page 61: 4th line from bottom where "thetap - thetas = theta": it should be "= 0 (zero)"

Chapter 2:
Page 82: for Ex. 2-2, P_OC = 400 W is mislabeled as V_OC
Page 83: the 3rd line after Eq. 2-49 gives \( Z_{SE} = \frac{(V_{SC}/I_{SC})}{-\cos^{-1} PF} \); the angle should be positive, not negative; the example that follows does take the angle as positive
Page 112: Eq. 2-90 should be "= a/sqrt(3)" rather than "= sqrt(3)/a"
Page 113, in Fig. 2-38 (d); the designation for number of turns of the primary winding of the bottom phase is given as "NS3" and it should be "NP3"

Chapter 7:
Page 365: equation 7-6 (at top of page) is correct; however, the next line where values are substituted is not correct -- "0.95" is given for the slip rather than "0.05"; the 1710 rpm is correct and is determined by using the correct value of slip; note 0.95 = 1 - slip
Page 373: in Eq. 7-24, the term "V2/s + jX2" in the denominator of the right-most term should be "R2/s + jX2"

Appendix A:
Page 662: in the equation before the 2nd (A-23) equation; the 2nd I_L should not be included
Page 666: in part (e), the degree sign was left off of the angle "-37.1^0"
Page 672: the 3rd line gives the angle as 4.14^0; however, the 5th line incorrectly indicates an angle of 34.14^0, though 4.14^0 is actually used for the power factor given