EL5613 – Introduction to Electric Power Systems

SYLLABUS

9/9 - Lecture 1: Power in single-phase AC circuits, and power factor
9/16 - Lecture 2: Voltage and current in three-phase circuits
9/23 - Lecture 3: Complex power, and power triangle
9/30 - Lecture 4: Transmission lines parameters: resistance, inductance and capacitance.
10/7 - Lecture 5: Pi-equivalent diagram – short and medium length lines
10/14 - Lecture 6: Pi-equivalent diagram – long lines
• **Midterm examination (Oct. 21)**
10/28 - Lecture 7: Transmission lines parameters – Transformers
11/4 - Lecture 8: Per-unit normalization
11/11 - Lecture 9: Transmission lines parameters – generators
11/18 - Lecture 10: Symmetrical components – basics
11/25 - Lecture 11: Symmetrical components – application to fault analysis
12/2 - Lecture 12: Symmetrical components – unsymmetrical faults
12/9 - Lecture 13: Load-flow programming – basics
• **Final exam (Dec. 16)**

Text book: J.D. Glover, M.S. Sarma, T.J. Overbye, "Power System Analysis and design," Thomson Publishing, 4th Ed., 2008.

Grading policy:
Home work – 10%
Midterm exam – 30%
Final Exam – 60%

Instructor: Francisco de Leon
Room: LC 255
Tel: (718) 260 3961
E-mail: fdeleon@poly.edu
Office LC 225
Consulting: Wednesdays 5 to 6