

ECE5613 — Introduction to Electric Power Systems

Instructor:

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Introduction:

Principles of operating electric power systems; single and multi-phase systems.

Transmission line parameters: resistance, inductance and capacitance, and current-voltage relations. Modeling: generators, transformers, and transmission lines. Introduction to network calculations, per-unit normalization, one-line diagram presentation. Symmetrical components and fault analysis.

The ref. book:

J.D. Glover, M.S. Sarma, T.J. Overbye, "Power System Analysis and design," Cengage Learning Publishers, 6th Ed., 2017

Prerequisite would be:

Fundamentals of Electric Circuits

Grading policy:

10% for HW's. 30% for midterm exam, and 60% for the Final.