**Course Topics**

**EEE 576: Power System Dynamics**

**Prerequisites:** Engineering graduate student; Credit is allowed for only EEE 576 or 598 (Power System Dynamics)

**Catalog Course Description:** Dynamic performance of power systems with emphasis on control. Modeling of control equipment, FACTS devices, wind generators, and nonlinear loads. Design of power system stabilizers. Prior knowledge of electric power devices, power system analysis, and electrical machinery is required to be successful in this course.

**Course Topics:**

1. Modeling of Excitation Control

2. Effect of Excitation Control

3. Power System Stabilizers and their Design

4. Modeling of Mechanical Torque

5. Modeling of Load

6. Modeling of Protection Systems in Stability Programs

7. Incorporating FACTS Elements

8. Special Stability Controls