Lab 5: Electromagnetic Transients

ECE 433 – Power Systems Stability and Transients

# Pre-lab Questions

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| **Name** | **Student ID** | **CCID** | **Lab Section** |
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## Questions

1. What are electromagnetic transients, and how are they different from electro-mechanical transients?

2. Why is the study of electromagnetic transients important in power systems design?

3. What is transient recovery voltage (TRV)?

4. Why are there electromagnetic transients when a capacitor is connected to a system?

5. How many resonant frequencies are there when a second capacitor branch is added in parallel to a operating system that already has an existing capacitor (ie. A back-to-back capacitor energization)?

6. How does the simulation time step affect simulation results?