Topics for Today:

- Announcements
  - Last homework “Dispatch” due ~Fri this week.
  - Term Project final report due Fri Dec 12th (Online students may request ext.)
  - Final Project presentations - Wed Dec 17th 12:45 start
  - Office: EERC 623. Phone: 906.487.2857

- Project Presentations (by local students)
  - Emphasize your project (Journal paper analysis in Appdx)
  - 6 presentations in 2 hrs - 20 mins each including Q&A.
  - Provide .ppt handouts for audience (copies).

- Today: Example of Transient simulations
  - Lead-in to EE5220.
    - Transients in general
    - Time-domain simulations - power Electronics, FACTS, etc.
    - Some examples
## EE 5200 - Term Projects

**Time:** Finals Week  Wednesday  12:45-2:45pm  
**Room:** EERC B45

Allotted Time: ~20 minutes per presentation; 4 mins between.

<table>
<thead>
<tr>
<th>Start Time</th>
<th><strong>Team Members</strong></th>
<th><strong>Topic</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grimm</td>
<td>Mutual inductance of lines, fault calcs</td>
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<tr>
<td></td>
<td>Pelon, Shauger, Bischoff</td>
<td>UG Cable faults - fault locating</td>
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<td></td>
<td>Stenvig</td>
<td>Wide Area Control - Dynamic Vars via SVC</td>
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<td>Krzeminski, Schoenherr</td>
<td>AGC</td>
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<td></td>
<td>Egorova, Reynisson, Gao</td>
<td>Harmonic Load Flow</td>
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<td>Sahu, Solanki</td>
<td>Off-Nominal Transformers in Loadflow</td>
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<td>Heidfeld, Van Singel</td>
<td>Lightning Surge Protection of T-Lines</td>
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<td>Prajapati, Ekneligoda, Guan</td>
<td>Transient Performance of Compensated Line</td>
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<td>Ramamurthy, Vasireddy</td>
<td>Transformer Inrush and System Operation</td>
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<td>Kazianka</td>
<td>Load Flow?</td>
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<td>Tracy</td>
<td>Unit Commitment</td>
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<td>King</td>
<td>Lightning Protection on Transmission Lines</td>
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</tbody>
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- .ppt on memory stick
- Software

Format: (20 mins)

- Intro/Motivation (1 min)
- Background (5 min)
  - Info/Case
  - Theory/Concepts (Refs, Journ. Asp)
  - Weaknesses in existing approaches
- Development & Implementation (12 mins)
- Results
- Conclusions - Technical
- Recommendations (2 mins)
Conclusions
- If... then......
- Quantitative observations, "rules"
- Be specific

Summary
- Recap.
- Recommendations based on this work.
- Recommendations for further work.
Transients - EE5220

\[ \overline{V_{TH}} \]

\[ Z_{TH} \]

\[ \overline{V_B} \]

\[ L_{BW} \]

SFC CB w/ Synch Closing Controls

\[ U(t) \pm 20^\circ \]

CAP BANK SWITCHING

- RLC Step Response.