EEM 206 ELECTRICAL CIRCUITS LABORATORY
SYLLABUS

This laboratory course aims to teach how to design and analyse the analog and digital circuits, while predicting and verifying the laboratory results by using PSPICE applications.

<table>
<thead>
<tr>
<th>Experiment</th>
<th>Date</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>09.10.2012 - 12.10.2012</td>
<td>Inductors and RL Circuits</td>
</tr>
<tr>
<td>3</td>
<td>06.11.2012 - 09.11.2012</td>
<td>Resonant Circuits</td>
</tr>
<tr>
<td>4</td>
<td>13.11.2012 - 16.11.2012</td>
<td>Passive Filters</td>
</tr>
<tr>
<td>5</td>
<td>20.11.2012 - 23.11.2012</td>
<td>Op-Amp Circuits</td>
</tr>
<tr>
<td>6</td>
<td>27.11.2012 - 30.11.2012</td>
<td>Active Filters <em>(Detailed Report)</em></td>
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</tbody>
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Lab’s experiments Assignments on a weekly basis!

Lab Policies

1. Students will work on their own throughout the semester. A station will be assigned to each student, and they are responsible for all parts and equipment at that station.
2. Students are required to read the experiment sheets and the necessary references before coming to the laboratory. They will likely run out of time if they don’t.
3. Students will record the analysis, design, results, and measured data through the lab activities. It is strongly recommended each student to keep track of the lab work.
4. Complete the assigned lab work during your scheduled session. Uncompleted lab requires a valid excuse and must be arranged in advance.

Prelaboratory Works

All of the laboratory experiments have mandatory prelab works. These works mostly require calculation of the expected results, and some simulations either in Pspice or Proteus software. **The students simply cannot start the experiment without doing these exercises**, since they will have no way of knowing whether their measurements are correct or not. Your prelab work will be checked at the beginning of each session.

Prepare your preliminary work such that it will include the objectives of the experiment, the theory that is going to be emphasized, the calculations required and the Pspice simulations in a clear and brief format.
Guidelines for Lab Reports

Students are required to write a short report at the end of the laboratory sessions except for the Experiments 2, 6 and 8.

A detailed report must be prepared only for Experiments 2, 6 and 8; and should consist of the following separate sections, which are clearly titled and underlined:

1. Title, date, and name.
2. Equipment used.
3. Procedure and Discussion of Results (your measurements, graphs, circuits and observations that verify your pre-lab calculations).
4. Conclusion (What generalized behavior did you observe? Did the theory agree with the measurements? Why? Can you now come up with a better equation and method for predicting what you measured? Was the method used unreliable, or inaccurate or in any way? Can you give some industrial applications?)

Grading Policy

Students will be graded for each laboratory activity. The percentage distribution is as follows:

Lab grade distribution

- Preliminary work: 35 %
- Report: 25 %
- Performance: 40 %

Overall Grade Distribution

- Midterm: 15 %
- Final: 40 %
- Lab grade: 45 %

Note that the preliminary work and the detailed lab reports must be handed in at the beginning of the lab on the turn-in dates. Late reports after the turn-in date is subject to 50% penalty per day.

Attendance policy

Attendance is required. Only one make up experiment is allowed in case there is an excused reason (such as a medical report). Students with two absences are going to fail from the course.  

Don't be late. The TAs usually give important instructions at the beginning of the lab.

T.A Metin ÇAM  T.A Hüseyin Şar  T.A Fesih Keskin