EECS 522 Final Project

- Worth 33% of total grade
- Open-ended project: be creative
- Final presentations given in class
  - Fill out evaluations of other groups’ presentations
  - Everyone votes on the “Best Project”
  - 2% of total grade based on presentation attendance

- Cash prize for best project: $500/student sponsored by Texas Instruments

Project Scope

- Come up with an application: RF, ADC/DAC, biomedical, MEMs, etc.
- Think simple: complex doesn’t always mean better
- Look at ISSCC papers on IEEEXplore for ideas
  - Radio receiver, quadrature LC-oscillator, etc.
- If choosing a large application, target individual components of the overall design for your project
  - Specs are driven by the application
- Modeling, design, and layout
  - DRC, LVS checks (no post-layout simulations required)
Project Deliverables

<table>
<thead>
<tr>
<th>March</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>15min meeting with me discussing project</td>
<td>4</td>
<td>6</td>
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<tr>
<td>9</td>
<td>Project abstracts due</td>
<td>11</td>
<td>Quiz 1</td>
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<td>16</td>
<td>Block Diagram and Goals</td>
<td>18</td>
<td>20</td>
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<tr>
<td>23</td>
<td>CAD2 Due</td>
<td>25</td>
<td>27</td>
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<tr>
<td>30</td>
<td>PS5 Due</td>
<td>1</td>
<td>3</td>
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<tr>
<td>April</td>
<td>6</td>
<td>8</td>
<td>Report Due</td>
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<tr>
<td>13</td>
<td>Project Presentations</td>
<td>15</td>
<td>17</td>
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<td></td>
<td>Project Presentations</td>
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Meeting (3/2) and Abstract (3/4)

- Email me to setup a time to meet on M 3/2
  - Between 2pm-5pm
- Come prepared to the meeting to give an overview of your group’s idea for a project
  - Bring any related journal or conference publications
  - Our objectives will be to make sure the scope is appropriate and identify the parts your group will design
- The abstract should be **150 words or less**, and should describe the overall idea/application and the project goals
Block Diagram and Goals (3/13)

• Your group will submit a detailed block diagram of your project
  – This should include all components you will be designing
  – Should be detailed (biasing, control, gain stage, buffer, ...)
• At the same time, your group will submit two bulleted lists
  – Project goals (such as specifications for each block)
  – Deliverables and division of labor (who is doing what):
    items such as circuit design, layout, DCR, LVS should appear here

Final Report (Due 4/10)

• 4 page report including abstract, figures, text, references
  – IEEE Journal format (use IEEE template posted on project page)

• In your report, focus on
  – The main challenges
  – The interesting parts of the design/application
  – Include your relevant results (power, bandwidth, offset, etc.) in a summary table as one of your figures on page 2

• You will lose points for illegible graphs
Presentation

- Each group gets about 15 min. to present + Q&A
  - Rehearse, Rehearse, Rehearse so you don’t run over
- Introduce your project idea/application, then focus on the key design and results
- Each group member should have a turn to speak
- Keep your slides concise: 1 idea per slide, budget 1 minute per slide
- Clear, readable text and figures (no 12pt font)

Project Grading

<table>
<thead>
<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Design methodology, functionality, specs</td>
<td>15</td>
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<tr>
<td>Report</td>
<td>8</td>
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<tr>
<td>Presentation</td>
<td>8</td>
</tr>
<tr>
<td>Class participation (group presentations)</td>
<td>2</td>
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<tr>
<td>Total Points</td>
<td>33</td>
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