MECH 497 - Green Vehicle Technology Projects

Instructors: Dr. Zuomin Dong or Dr. Curran Crawford
(Special Permission Needed)

Logistics

- Equivalent to 2xMECH499 Technical Electives
- 1 or 2 Terms Duration during Any Terms

Outcomes

- General background of Hybrid Electric Vehicles and EcoCAR2
- Technology Training from Industrial Sponsors
- Model Based Design Using Advanced Tools
- Design, analysis, prototyping and/or testing of vehicle subsystems or key components

Specific Project Examples

- Power electronics liquid cooling system design
- Rear suspension sub-frame upgrade
- Driver torque interpreter
- Traction control system
- Infotainment system development

Grading Policy

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Project Proposal</td>
<td>Problem Definition and Project Plan</td>
<td>15 %</td>
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<tr>
<td>Midterm Report</td>
<td>Technical Review and Feasibility Study</td>
<td>20 %</td>
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<tr>
<td>Project Assessment</td>
<td>Challenge/Complexity and Thoroughness of Work Completion</td>
<td>35 %</td>
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<tr>
<td>Project Presentation</td>
<td>Presentation Skills</td>
<td>5 %</td>
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<tr>
<td>Final Report</td>
<td>Documentation, Summary and Presentation</td>
<td>25 %</td>
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