Team: University of Tulsa

Name of Outreach Coordinator: Melissa Young

Dedicated Outreach Coordinator (Y/N): Y

If no, please list other role the O.C. has on your team:

Date posted: 12/1/05

Participating in the following special Outreach Award(s):
  Outstanding Overall Outreach; K-12 Educational Outreach; Best Media Relations; Best Community Outreach, Best Website

I. Outreach Plan

  * Please report on any changes or updates your team has made to your Outreach Plan.
  * If none, please write “No changes.”

No changes
II. Outreach Activity Summary

Please fill in the following chart to summarize your team’s outreach activities since your last outreach report. Please be brief; you will provide detail for each activity in the next section. Do not list future or planned activities in this table – only activities completed since your last report. Feel free to add or delete rows as necessary.

<table>
<thead>
<tr>
<th>Category</th>
<th>Activity</th>
<th>Event Date/Time</th>
<th>Location</th>
<th>Participants and Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 Outreach</td>
<td>4th Grade Science presentation</td>
<td>November 21, 2005 9:30 -11:30 AM</td>
<td>Jenks Southeast Elementary School campus</td>
<td>Advisor Christi Patton to 44 fourth grade students and 2 teachers</td>
</tr>
<tr>
<td>Community event</td>
<td>IEEE Tulsa Section meeting</td>
<td>November 8, 2005 7:00 PM</td>
<td>OSU-Tulsa</td>
<td>Joshua Buck, Scott Rainwater, Andrew Harmon presenting to 26 students and professionals</td>
</tr>
<tr>
<td>Community event</td>
<td>Administration Lunch</td>
<td>November 29, 2005 12:00 PM</td>
<td>TU-HMW</td>
<td>All students and advisors with all major university administration</td>
</tr>
<tr>
<td>Community event</td>
<td>Presentation on teaching automotive science to Girl Scouts</td>
<td>November 29, 2005 7:30 - 8:00 PM</td>
<td>Girl Scout Council meeting</td>
<td>Advisor Christi Patton Luks and Outreach Coordinator Melissa Young to community Girl Scout leaders</td>
</tr>
</tbody>
</table>
III. Outreach Activity Detail

A. Media Events

Please provide a written description with additional details for each media event listed in Section II. Please number your events below.

1. Event name: n/a for this reporting period
   Date/Time:
   Location:
   Participants:
   Audience (include names and outlets of any media that attended):
   Event description/details:
   Key Messages Covered:
   Any measurable results:
   Photos:
B. **K-12 Outreach**  
*Please provide a written description with additional details for each K-12 Outreach activity listed in Section II. Please number your events below.*

1. **K-12 Activity name:** Jenks Southeast 4th grade science presentation  
   **Date/Time:** November 21, 2005, 9:30-11:30 AM  
   **Location:** Jenks Southeast Elementary School classroom  
   **Team participants:** Christi Patton Luks (advisor)  
   **Audience:** two classes of 22 students each and one teacher for each class  
   **Activity description/details:** presentation and hands-on demonstrations on energy, motion, and future automotive technologies  
   **Key Messages Covered:** energy technologies for reducing fuel use and emissions  
   **Any measurable results:**  
   **Photos:** None- our legal department has advised us not to post any pictures of children without parental permission
C. Community Outreach

Please provide a written description with additional details for each community event listed in Section II. Please also include at least one photo from each activity. Please number your activities below.

1. Community Event name: University Administrators Lunch at HMW
   Date/Time: November 29, 2005, 12:00 -1:00 PM
   Location: University of Tulsa North Campus Model Lab
   Team participants: all
   Audience: administration, including University President, VP of Research, Dean of College of Engineering and Natural Sciences, Arts and Sciences, Business Administration, Graduate School, and departmental chairs.
   Activity description/details: lunch, tour, and introduction to the project
   Key Messages Covered: Challenge X competition and team progress
   Any measurable results:
   Photos:

   [Photo of EE Chairman Gerald Kane, President Steadman Upham, ME Chairman Ed Rybicki, GM Mentor Kevin MacFadden]
Graduate Dean Janet Haggerty Haggerty, Challenge X advisor John Henshaw, Arts & Sciences Dean Tom Benedictson, Business Administration Dean Gale Sullenberger, Team Leader Chris Flory

ChE Chairman Geof Price and Engineering and Natural Sciences Dean Steven Bellovich
Controls Team Leader Joshua Buck with Dean Bellovich and President Upham
D. Community Outreach

Please provide a written description with additional details for each community event listed in Section II. Please also include at least one photo from each activity. Please number your activities below.

Community Event name: IEEE Tulsa Section Meeting
Date/Time: November 1st, 2005 7:00 PM
Location:
   Team participants: Joshua Buck, Scott Rainwater, Andrew Harmon
   Audience: 26 IEEE student and professional members
Activity description/details: “Performance Oriented Control of a Hybrid Electric SUV” Presentation at local section meeting
   Key Messages Covered: HEV control for improved fuel economy
   Any measurable results: This paper will proceed to the IEEE Region 5 Student Paper Contest for Spring 2006.
Photos:

Challenge X students Scott Rainwater, Andrew Harmon and Joshua Buck prepare for their presentation.
Community Outreach

Please provide a written description with additional details for each community event listed in Section II. Please also include at least one photo from each activity. Please number your activities below.

Community Event name: Girl Scout Leader science education presentation
Date/Time: November 29th, 2005 7:30-8:00 PM
Location: Girl Scout Council meeting
Team participants: Christi Patton (advisor) and Melissa Young
Audience: 24 Girl Scout leaders
Activity description/details: presentation/demonstrations on energy and future automatic technologies
Key Messages Covered: energy technologies for reducing fuel use and emissions
Any measurable results:
Photos:

Dr. Patton introducing Challenge X to Girl Scout Leaders
Dr. Patton demonstrating propulsion techniques using toy cars
E. Website

*Please list any updates or modifications to your team’s website, including:*

- new additions in functionality
- new look/design
- special features
  
*Please include at least one screen grab of your team website below*

The website has gotten a facelift with more improvements planned! In the meantime, students from Computer Science are working on a new game for K-12 site visitors.
Faculty:

Dr. Daniel Crumpton, Chemical Engineering
Dr. Roxanne Gamble, Computer Science
Dr. John Henshaw, Mechanical Engineering
Doug Jesseme, Electrical Engineering
Dr. Christi Patton Luka, Chemical Engineering
Matt Roberts, Mechanical Engineering
Dr. Robert Stratton, Mechanical Engineering / Emeritus Electrical Engineering

Students:

Leaders

Christopher Flory and Ryan Guldan

Radar
F. Other

Please provide any other information on your team’s outreach program developments not covered above.

IV. Media Coverage

Please fill in the chart below to track any media coverage your team has received since your last outreach report. This can be coverage resulting from a media event your team organized, or coverage garnered through interviews, press releases you’ve distributed, etc. Please append copies of any print news clips, or any TV or radio transcripts you may have, at the end of this report. Feel free to add or delete rows as necessary. If you need help identifying some of the missing information, please contact Strat@comm for media coverage assistance.

<table>
<thead>
<tr>
<th>Outlet Name</th>
<th>Reporter</th>
<th>Date of Coverage</th>
<th>Clip attached (yes/no)</th>
<th>If coverage resulted from an Outreach activity YOU ORGANIZED, list event</th>
<th>If coverage resulted from an activity you PARTICIPATED IN, list event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Oklahoman</td>
<td>Diane Clay</td>
<td>Nov. 8, 2005</td>
<td>yes</td>
<td>In response to our program on August 28th, 2005</td>
<td></td>
</tr>
</tbody>
</table>
Students redesign hybrid vehicle

By Diane Clay
Staff Writer

TULSA — Students at the University of Tulsa are getting invaluable research experience in hybrid technology as part of a national competition.

The group of students, mostly future engineers, won the right to dismantle a Chevy Equinox and rebuild it with a diesel-electric engine.

The 45 students and five faculty members will test their creation June 1-10 at the General Motors Proving Grounds in Phoenix.

The three-year competition among 17 universities is designed to find ways to reduce automobile pollution and improve energy consumption.

The Tulsa group received a $10,000 grant last year to begin development and testing. They traveled to Michigan in June to get the vehicle.

Associate professor Christi Patton, the faculty adviser on the Challenge X Sustainable Mobility project, said students have removed the vehicle's engine and most of its rear-drive components.

They are installing an electric motor to operate with the original gasoline engine, which will test the effectiveness of the electric motor. Patton said team members hope to have this first phase completed by the end of December.

Students also are working to create a cleaner diesel engine that will work with the electric motor to power the vehicle. Once finished, the diesel engine will drive the front wheels and the electric motor will drive the back wheels.

Researchers plan to have the vehicle completed in March, with April and May set aside for tweaking.

Patton said the experience is invaluable for students, who are learning much more than they could from a textbook alone. She said the extra work also is drawing attention from employers.

"It makes them incredibly hirable," Patton said.

"It's much more like real
Appendix: Copies of Media Clips

*Please scan in or otherwise paste any clips of media coverage here.*