

Challenge X 2006 Outreach Program Report # 2

Instructions: Please use this template to provide your team's outreach program update since your last outreach report. Teams do not have to use the exact format shown below but should include all of the components of the template.

*Report #2 is due December 1, 2006. Report #3 is due March 29, 2006. Each of these reports must be posted to your team website by the due date. **Please post these reports as a PDF or Word document on your website.** (Note: DO NOT use this template for your final comprehensive report. That report should follow the format described in the Challenge X 2005-06 Outreach Program Reporting Procedures, and is due June 2, 2006 – at competition.)*

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.

Category <i>(Choose from Media Event, K-12 Outreach, Community Event, or Website Development)</i>	Activity <i>(List the name of your outreach activity.)</i>	Event Date/Time	Location	Participants and Audience <i>(Briefly describe which team members participated, and who was in the audience.)</i>
K-12 Outreach	4 th Grade Science presentation	November 21, 2005 9:30 -11:30 AM	Jenks Southeast Elementary School campus	Advisor Christi Patton to 44 fourth grade students and 2 teachers
Community event	IEEE Tulsa Section meeting	November 8, 2005 7:00 PM	OSU-Tulsa	Joshua Buck, Scott Rainwater, Andrew Harmon presenting to 26 students and professionals
Community event	Administration Lunch	November 29, 2005 12:00 PM	TU-HMW	All students and advisors with all major university administration
Community event	Presentation on teaching automotive science to Girl Scouts	November 29, 2005 7:30 - 8:00 PM	Girl Scout Council meeting	Advisor Christi Patton Luks and Outreach Coordinator Melissa Young to community Girl Scout leaders

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:



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



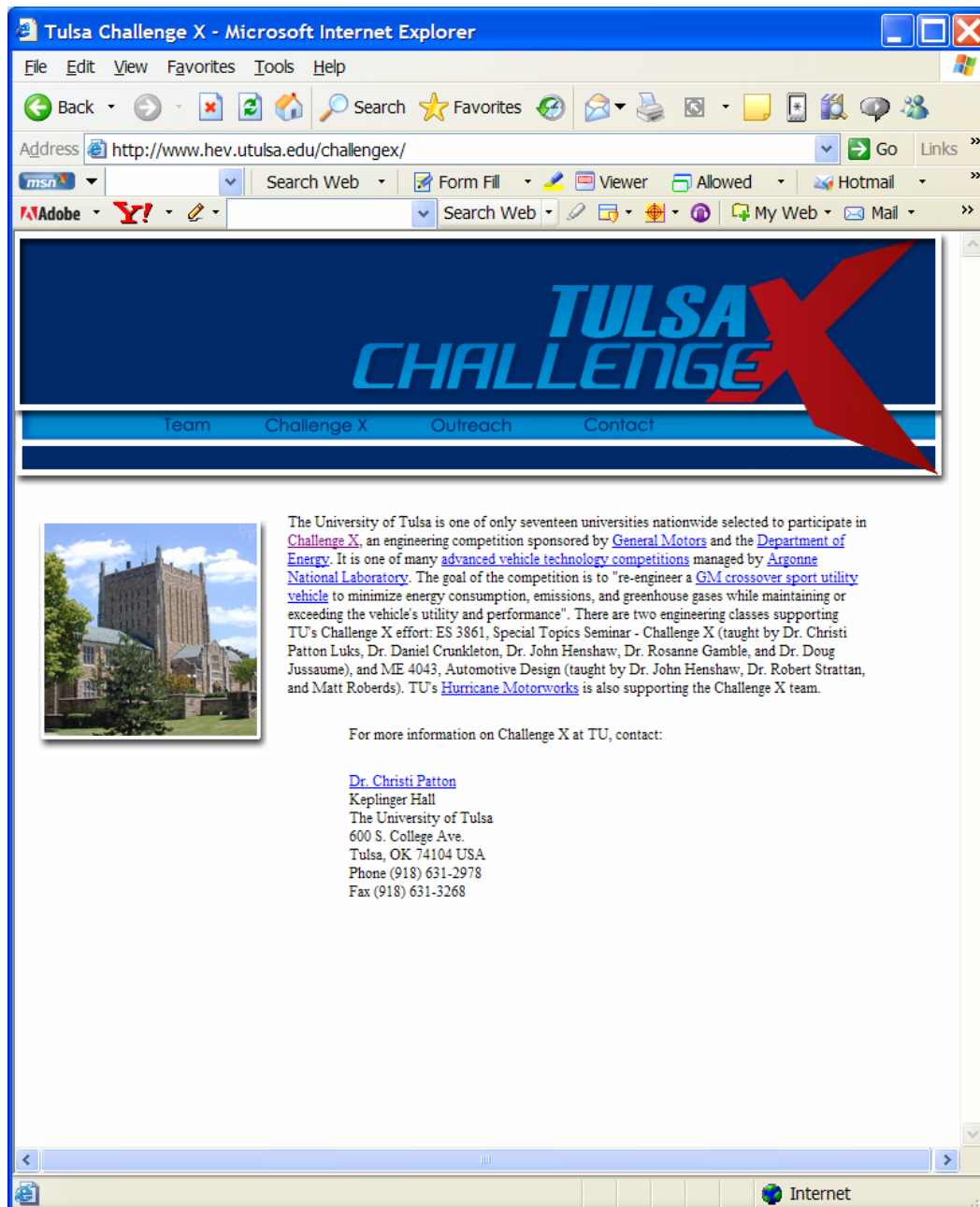
Dr. Patton demonstrating propulsion techniques using toy cars

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.



Tulsa Challenge X - Microsoft Internet Explorer


File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Copy Paste Paste as Text Paste as Plain Text Paste as Rich Text Paste as HTML

Address http://www.hev.utulsa.edu/challengex/teammembers.htm Go Links

msn Search Web Form Fill Viewer Allowed Hotmail


Adobe Y! Search Web My Web Mail



Team Challenge X Outreach Contact

Members Photo Gallery



Faculty:



Dr. Daniel Crunkleton, Chemical Engineering
 Dr. Rosanne Gamble, Computer Science
 Dr. John Henshaw, Mechanical Engineering
 Doug Jussaume, Electrical Engineering
 Dr. Christi Patton Luks, Chemical Engineering
 Matt Roberds, Mechanical Engineering
 Dr. Robert Strattan, Mechanical Engineering / Emeritus Electrical Engineering


Students:

Leaders

Christopher Flory and Ryan Guldán

Radar



Internet

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.*

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

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 hireable," Patton said.

"It's much more like real



UNIVERSITY OF TULSA

Students involved in a national engineering project at the University of Tulsa stand with their new Chevrolet Equinox, which they plan to turn into a hybrid vehicle. The students, from left, are Ryan Gillette, Sarah Rouk, Taylor Coleman, Ryan Guldán, Justin Rempel (squatting) and Aaron Acklen.



life than anything else we've got going at the university. They are really improving their communications skills; arguing design concepts with professors. It's a good lesson."

The final test of the hybrid vehicle will be in 2007, when the team demonstrates its creation for executives in Detroit.

The vehicle's original engine will be disassembled and taken to other classes at TU, so students in various courses will have the opportunity to see what's in an automobile engine.

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Reported by: Melissa Young
Date: November 30th, 2005

Appendix: Copies of Media Clips

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