

To: Darlene Kilian
From: Tom Macht, Dirk Lindner, Georg Jansen
Date: April 16, 2012
Subject: The Car that will survive the Energy Problem

We have the chance to connect our actual studies with a foreign language this semester at our C1 Technical English Course. Interesting Projects are planned in different Teams.

Background

Since about the Millennium it is commonly known that more mineral fuels are extracted than synthesized under the surface of our planet. So tremendous amounts of money are invested to find the best way to become more independent from oil, gas and coal. The transportation sector is a field that is substantially effected by these issues, and people in the modern society are spending a lot of their income on mobility.

Proposal

We plan to prepare and present a project that explains different technologies that cars function with. At first we will collect the already existing knowledge about this topic from the students and broaden this to a good basic understanding. Our presentation will show the current established driving systems with their energy sources and the most promising concepts for the future. A handout will give an overview and will support our performance. The plenum will be prepared to debate their thoughts and opinions in the discussion afterwards. Little exercises are intended to improve the listeners' grammar and vocabulary that are important for the technical English used in this topic. We will evaluate the effectiveness of our project in a following report. There, also the results of our discussion will be summarized.

Benefits

There is a public discussion about what mobility will look like in the future. Its important to have a general idea about this topic because it has become a growing part of politics and economy. We want to give an overview of new energy sources for road transportation and upcoming driving systems.

Results

Our goal is that every student can discover something new at the presentation. So we will integrate some practical demonstration in it. Our studies about our topic have shown that it is very likely to have one system of drive that will establish like the combustion engine has so far.

Projected Schedule

Mar 19	field of research fixed, brainstorming
Mar 26	certain topic, research
Mar 12	start presentation work, proposal draft
Apr 18	hand in proposal
Apr 23	presentation
Jun 18	hand in report

Our Qualifications

As a team consisting of students studying mechanical engineering and computer science we already had some experience in the automobile sector. Writing scripts and reports with office software and giving presentations are everyday-tasks for us. Some of us have deeper knowledge about cars and engines from

hobby or apprenticeship.

Tentative Outline

1. Introduction
 - Brainstorming
 - History of fuels and cars
2. Mainpart
 - fuels from Biomass
 - Electric Drive
 - Drives based on Hydrogen
3. Exercises
 - Grammar and topic related vocabulary
4. Discussion
 - What will the future of transportation look like?
5. Outro
 - Summarizing
 - Sources

Tentative Bibliography

Scientific American Newsletters, . N.p., n.d. Web. 18 Apr 2012. <<http://www.fuelcells.org/>>.

Wikipedia, . "Fuel cell." *Wikipedia foundation*. Wikipedia, 2011. Web. 18 Apr 2012.
<http://en.wikipedia.org/wiki/Fuel_cell>.

United States Department of Energy, . "Hydrogen." *fuel economy*. US department of energy, 2012. Web. 18 Apr 2012. <<http://www.fueleconomy.gov/feg/hydrogen.shtml>>.

Velella, . "Hydrogen Vehicle." *Wikipedia*. N.p., 2011. Web. 18 Apr 2012.
<http://en.wikipedia.org/wiki/Hydrogen_vehicle>.

Cherry, Steven. *The Car Battery*. N.p., n.d. Web. 18 Apr 2012. <<http://spectrum.ieee.org/podcast/green-tech/advanced-cars/the-car-batterys-carbon-footprint>>.

. "Electric Vehicle." *Wikipedia*. N.p., 2012. Web. 18 Apr 2012.
<http://en.wikipedia.org/wiki/Electric_vehicle>.

. "Electric Vehicle Battery." *Wikipedia*. N.p., 2011. Web. 18 Apr 2012.
<http://en.wikipedia.org/wiki/Electric_vehicle_battery>.

Brain, M. "How Electric Cars Work." *How stuff works*. How Stuff Works, 1998. Web. 18 Apr 2012. <<http://www.howstuffworks.com/electric-car.htm>>.

. "Electric vehicles." *Fueleconomy*. U.S. Government, 2012. Web. 18 Apr 2012. <<http://www.fueleconomy.gov/feg/evtech.shtml>>.