IPRO 331 GLOBAL WARMING: STUDY & COMMUNITY OUTREACH

ILLINOIS INSTITUTE OF TECNOLOGY

Transforming Lives. Inventing the Future

Problems

- Too much unreliable information
- Not enough knowledge and awareness exists
- Uninformed of solutions and ways in which people can help

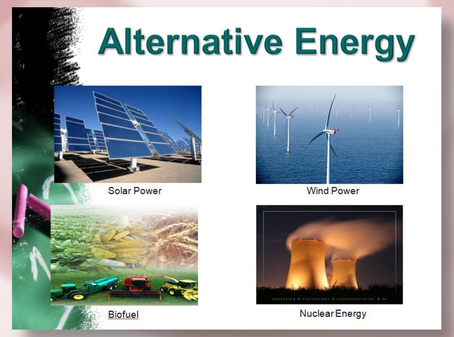
Objectives

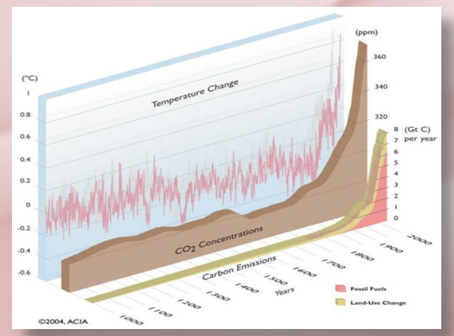
- Present material to a large and diverse audience
- Focus on scientific data from credible resources
- Determine the effectiveness of the presentations

Methodology

- Phase I:
  - Four Subtopic Team: acquiring research
- Phase II:
  - Combining research and creating presentations
- Phase III:
  - Finding public forums to present

Photos from our Presentations





Outreach

- Seven outreach contacts:
  - Engineers' Week
  - De La Salle Institute
  - Chinese American Service League
  - Schaumburg High School
  - Olive Harvey College
  - AIChE
  - Environmental Fair
- 13 presentations performed
- Over 500 people informed

Conclusions

- New research topic
- Revamped brochure
- New general-use presentation
- New website
- Survey Results:
  - Cleared up any confusion
  - Gave more awareness to the public
  - Gave solutions to how one can personally help

Faculty:
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Faculty Advisors:
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Wind Energy

Wind power is one of the most abundant and free energy sources available. It is a renewable, eco-friendly power source that can be utilized in nearly every region of the globe. The technology to take advantage of this power is already in place, and all it needs is more people to become aware of its potential.

What is Global Warming?

- The average surface temperature of earth has increased more than 1 degree Fahrenheit since 1900
- The rate of warming has been nearly three times the century long average since 1970
- Experts agree that human activities, mainly the release of heat-trapping gases from smokestacks, tailpipes, and burning forests, are probably the dominant force driving the trend.

Fossil/Biofuels

The burning of fossil fuels produces carbon dioxide and other greenhouse gases. Bio-fuels are an alternative that may lead us into a green future, but some studies have found that not all of them are actually green. The production and use of second generation bio-fuels may be the green answer we are looking for.

Solar Energy

The Sun is the single greatest source of energy at the disposal of mankind. The total solar energy absorbed by Earth's atmosphere, oceans and land masses is approximately 3,850,000 EJ per year. If one were to convert the solar energy generated in one hour, this can be used to power the Earth for one year.

Ice and Snow

Ice and snow are important influences on the surface energy budget components of the Earth’s climate system and are particularly sensitive to global warming. The high albedo of ice and snow has a major effect on Earth's radiative balance. Decreases in snow-cover extent will act as a positive feedback to global warming by allowing more solar radiation absorption.

Nuclear Energy

Nuclear energy doesn’t burn anything and has no emission of greenhouse gases. This simple fact will greatly help out with the problem of global warming. Safety procedures currently in place have vastly improved. Nuclear energy is very affordable as well as efficient.

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