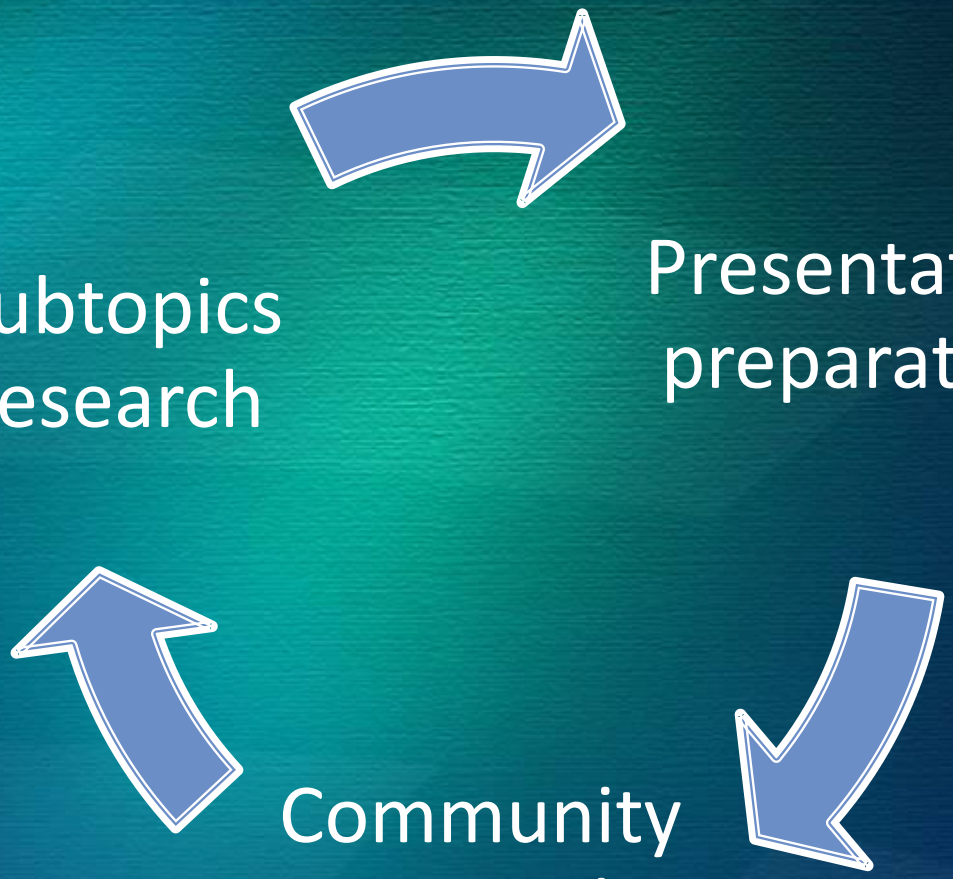
IPRO 331 – Spring 2009 Global Warming and Community Outreach

Why Is Our Project Important?

- Global warming affects everyone
- Awareness leads to solutions and everyone can do their part
- Many misconceptions about global warming exist
- Outreach offers a foundation for people to form opinions

Our Approach



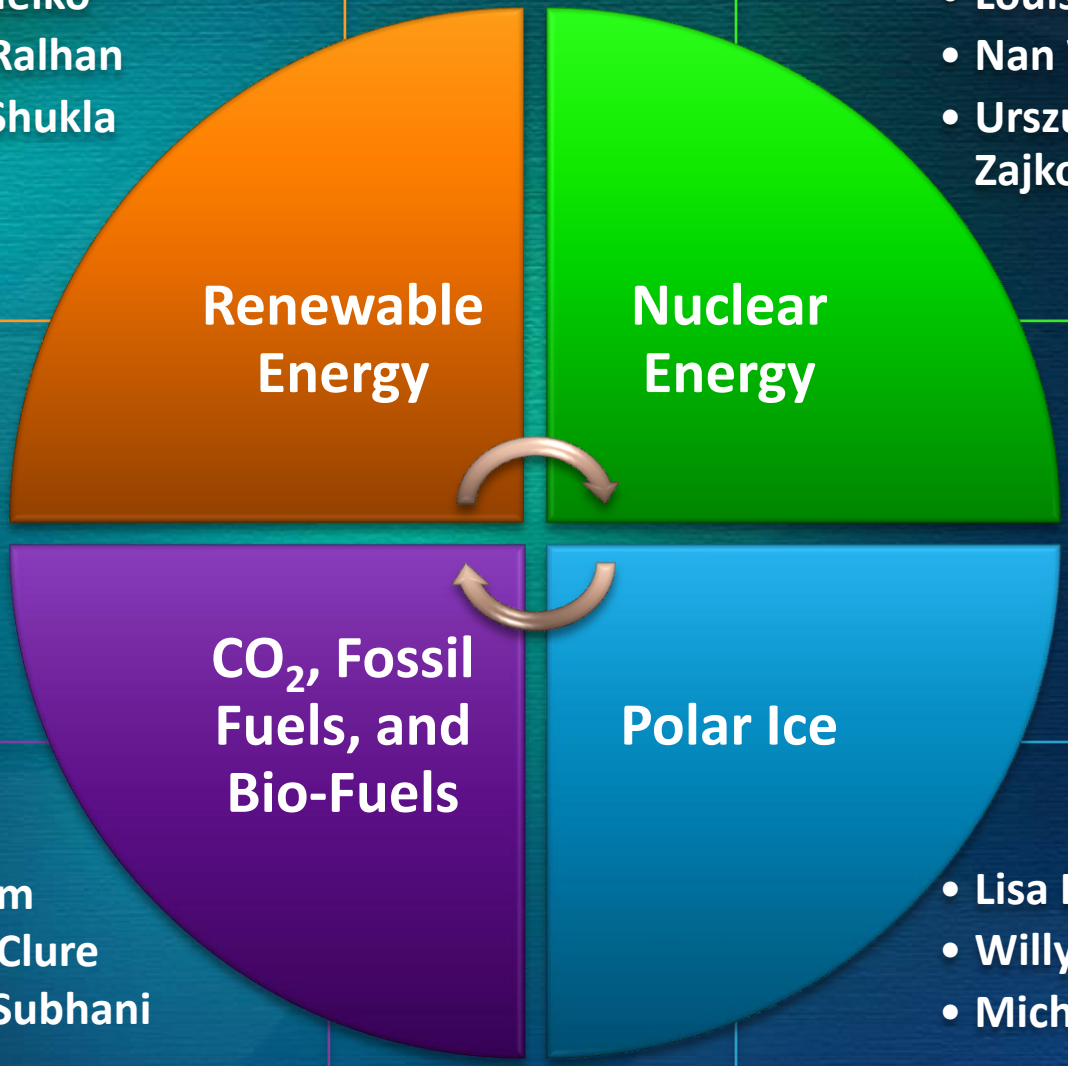
Methods

- Creating a presentation featuring subtopics
- Brainstorming about potential audiences and contacting people
- Receiving constructive feedback on presentations
- Analyzing survey results to obtain feedback

Team Organization

- Aaron Melko
- Puneet Ralhan
- Adarsh Shukla

- Louis Ocampo
- Nan Wang
- Urszula Zajkowska



- James Kim
- Ryan McClure
- Maham Subhani

- Lisa Reed
- Willy Taracena
- Michael Yee

Assigned Tasks

- Project Plan
- Website
- Brochure
- Presentation teams and organization of teams
- Assigned positions
  - Contact Teams
  - Transportation
  - Budget
  - Minutes
- IPRO Day

Previous Work

- Provided a good foundation for presentation slides
- Focused on the five main topics: carbon dioxide, fossil fuels and bio-fuels, polar regions, solar power, and wind energy
- Established contacts for Spring ’09 semester

Benefits of Community Outreach

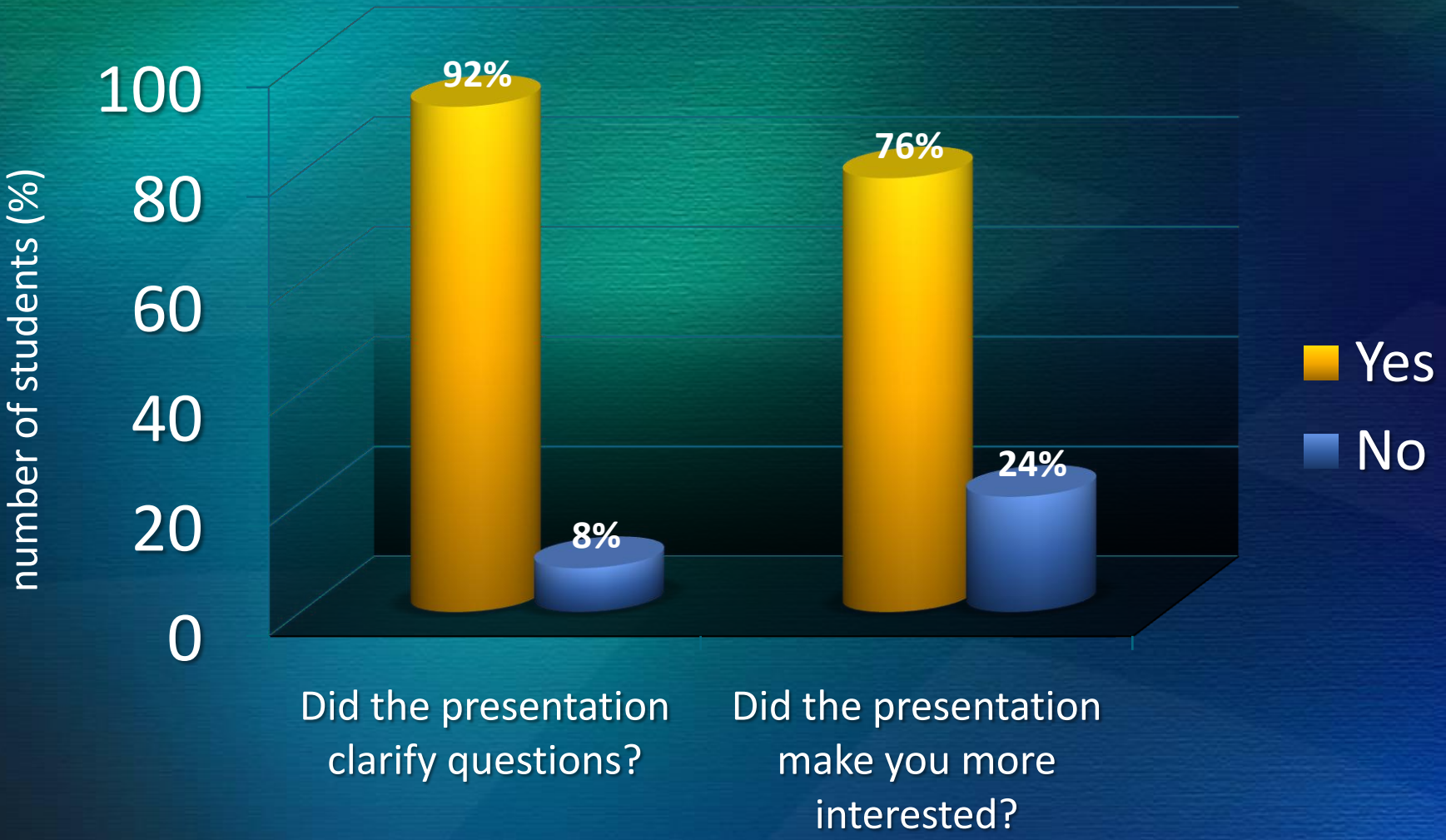
- Directly communicating with people
- Increasing audiences' knowledge about global warming
- Answering questions and discussing the issues of global warming
- Motivating audiences to learn more about global warming

Obstacles & Challenges Encountered

- Finding reliable sources
- Finding contacts and scheduling meetings
- Increasing and diversifying our audiences
- Organizing and coordinating presentations
- Providing interesting and informative presentations
- Scheduling and supplying transportation

Results

based on 350 surveys

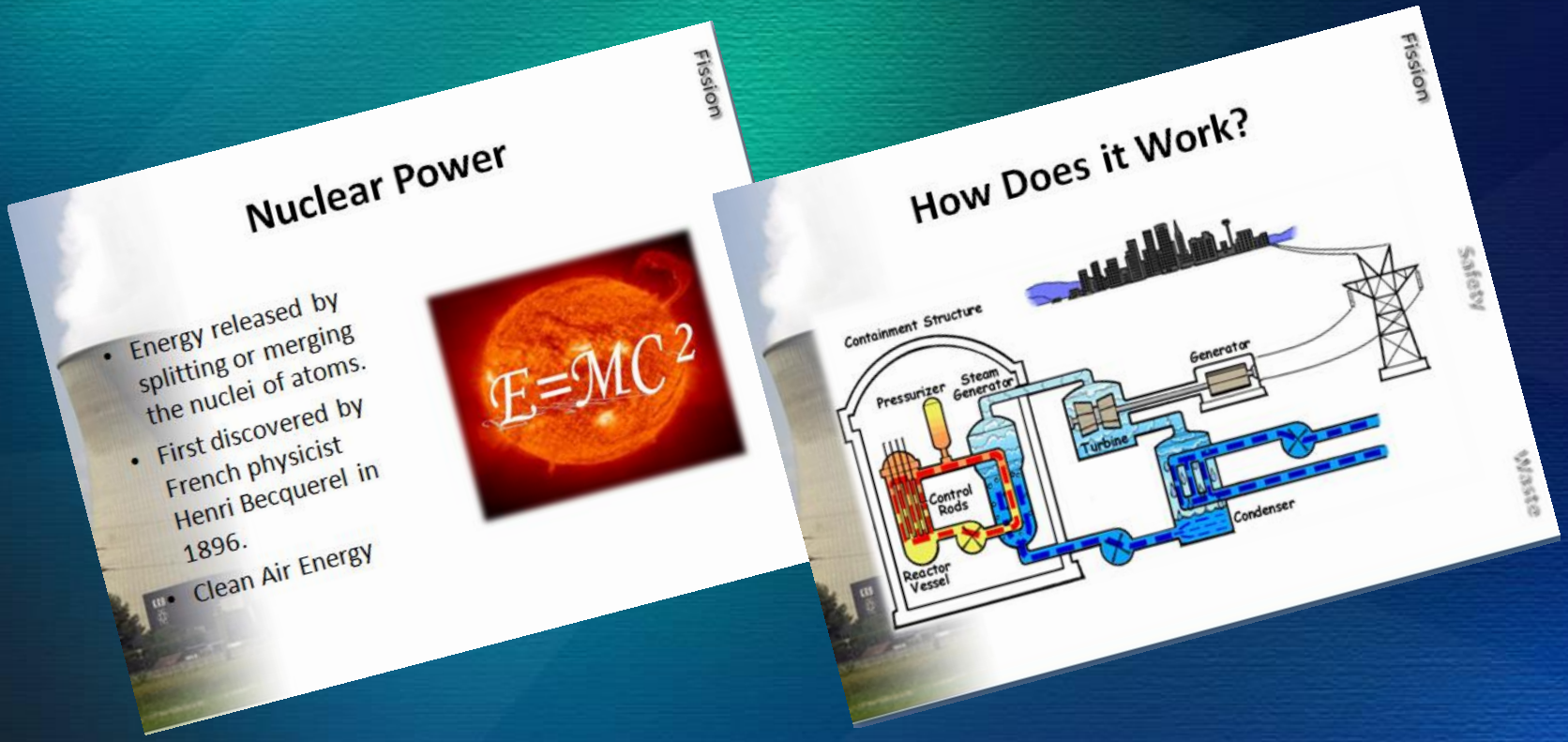


Results

- Feedback
  - Well organized (animations, stats, pictures, etc.)
  - Length of presentation
  - What we can do to prevent global warming?
  - More solutions
  - More interaction with audience

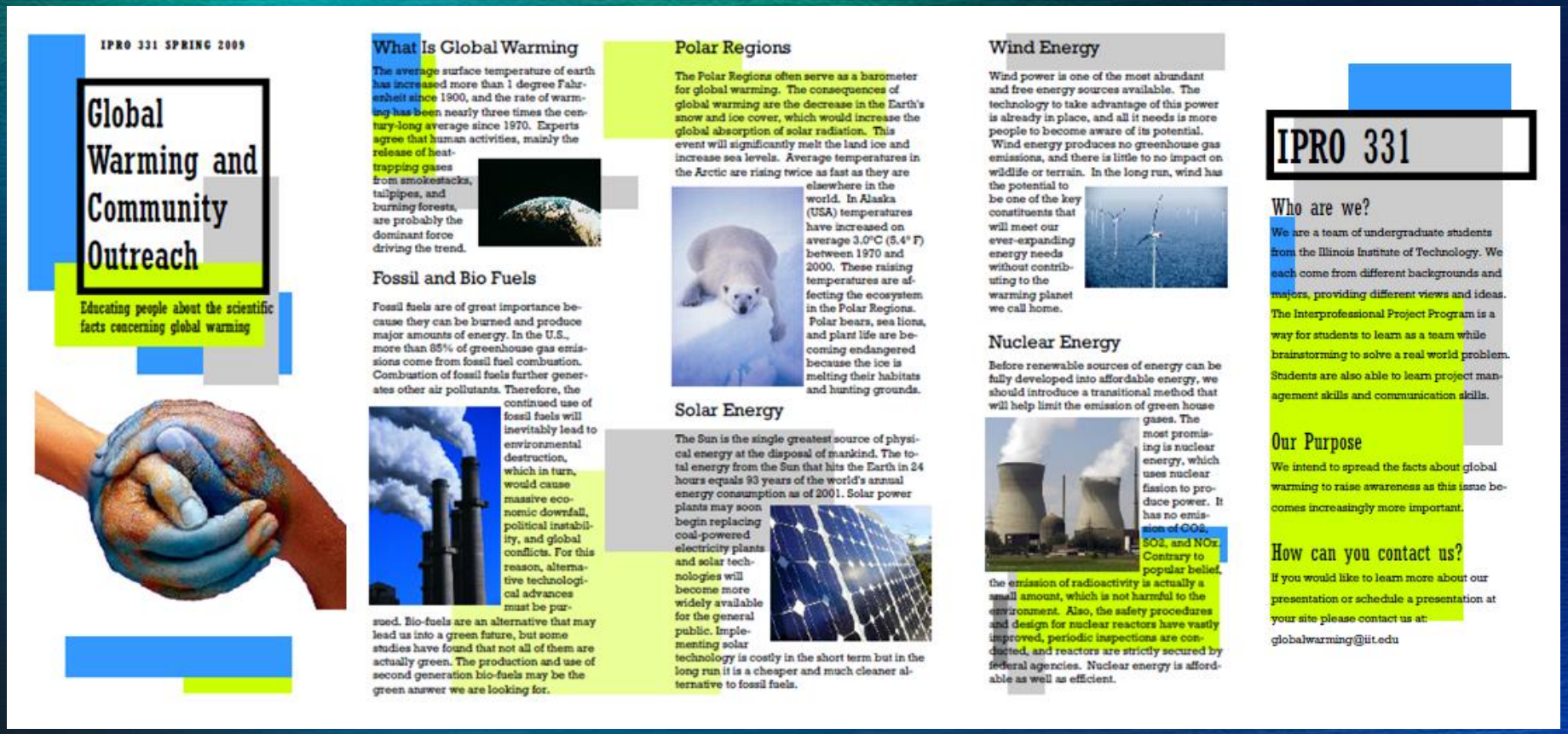
Accomplishments

- Created presentations
- Added new subtopic: nuclear energy



Accomplishments

- Updated brochure



IPRO 331 SPRING 2009

Global Warming and Community Outreach

Educating people about the scientific facts concerning global warming

What Is Global Warming

The average surface temperature of earth has increased more than 1 degree Fahrenheit since 1900, and 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 and Bio Fuels

Fossil fuels are of great importance because they can be burned and produce major amounts of energy. In the U.S., more than 85% of greenhouse gas emissions come from fossil fuel combustion. Combustion of fossil fuels further generates other air pollutants. Therefore, the continued use of fossil fuels will inevitably lead to environmental destruction, which in turn, would cause massive economic downfall, political instability, and global conflicts. For this reason, alternative technological advances must be pursued. 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.

Polar Regions

The Polar Regions often serve as a barometer for global warming. The consequences of global warming are the decrease in the Earth's snow and ice cover, which would increase the global absorption of solar radiation. This event will significantly melt the land ice and increase sea levels. Average temperatures in the Arctic are rising twice as fast as they are elsewhere in the world. In Alaska (USA) temperatures have increased on average 3.0°C (5.4° F) between 1970 and 2000. These raising temperatures are affecting the ecosystem in the Polar Regions. Polar bears, sea lions, and plant life are becoming endangered because the ice is melting their habitats and hunting grounds.

Solar Energy

The Sun is the single greatest source of physical energy at the disposal of mankind. The total energy from the Sun that hits the Earth in 24 hours equals 93 years of the world's annual energy consumption as of 2001. Solar power plants may soon begin replacing coal-powered electricity plants and solar technologies will become more widely available for the general public. Implementing solar technology is costly in the short term but in the long run it is a cheaper and much cleaner alternative to fossil fuels.

Wind Energy

Wind power is one of the most abundant and free energy sources available. 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. Wind energy produces no greenhouse gas emissions, and there is little to no impact on wildlife or terrain. In the long run, wind has the potential to be one of the key constituents that will meet our ever-expanding energy needs without contributing to the warming planet we call home.

Nuclear Energy

Before renewable sources of energy can be fully developed into affordable energy, we should introduce a transitional method that will help limit the emission of green house gases. The most promising is nuclear energy, which uses nuclear fission to produce power. It has no emission of CO_2, SO_2, and NO_x. Contrary to popular belief, the emission of radioactivity is actually a small amount, which is not harmful to the environment. Also, the safety procedures and design for nuclear reactors have vastly improved, periodic inspections are conducted, and reactors are strictly secured by federal agencies. Nuclear energy is affordable as well as efficient.

IPRO 331

Who are we?

We are a team of undergraduate students from the Illinois Institute of Technology. We each come from different backgrounds and majors, providing different views and ideas. The Interprofessional Project Program is a way for students to learn as a team while brainstorming to solve a real world problem. Students are also able to learn project management skills and communication skills.

Our Purpose

We intend to spread the facts about global warming to raise awareness as this issue becomes increasingly more important.

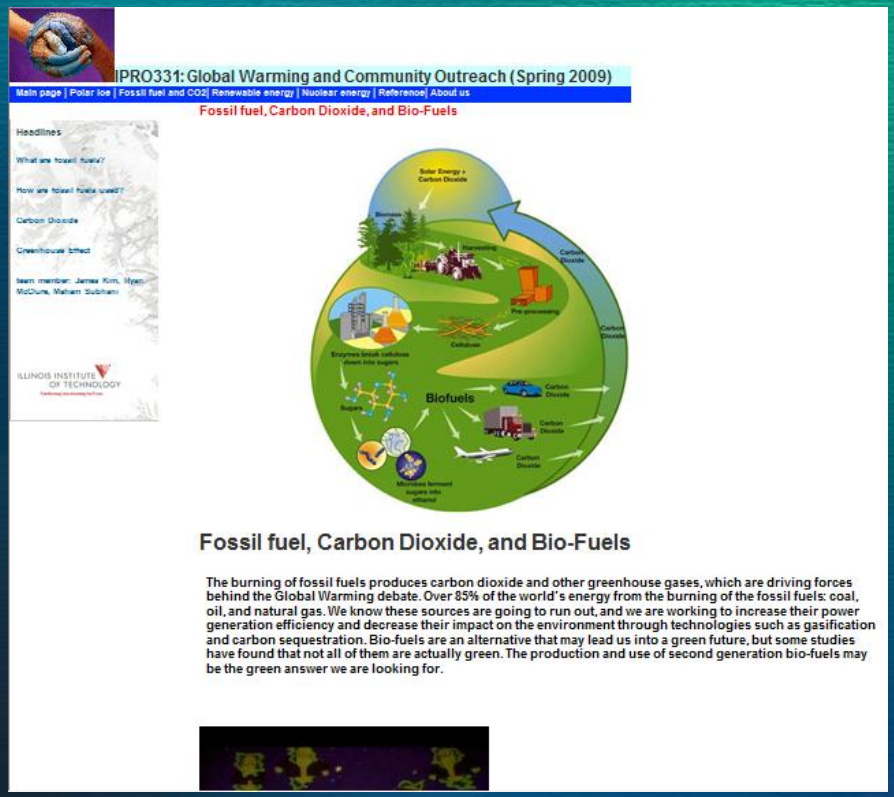
How can you contact us?

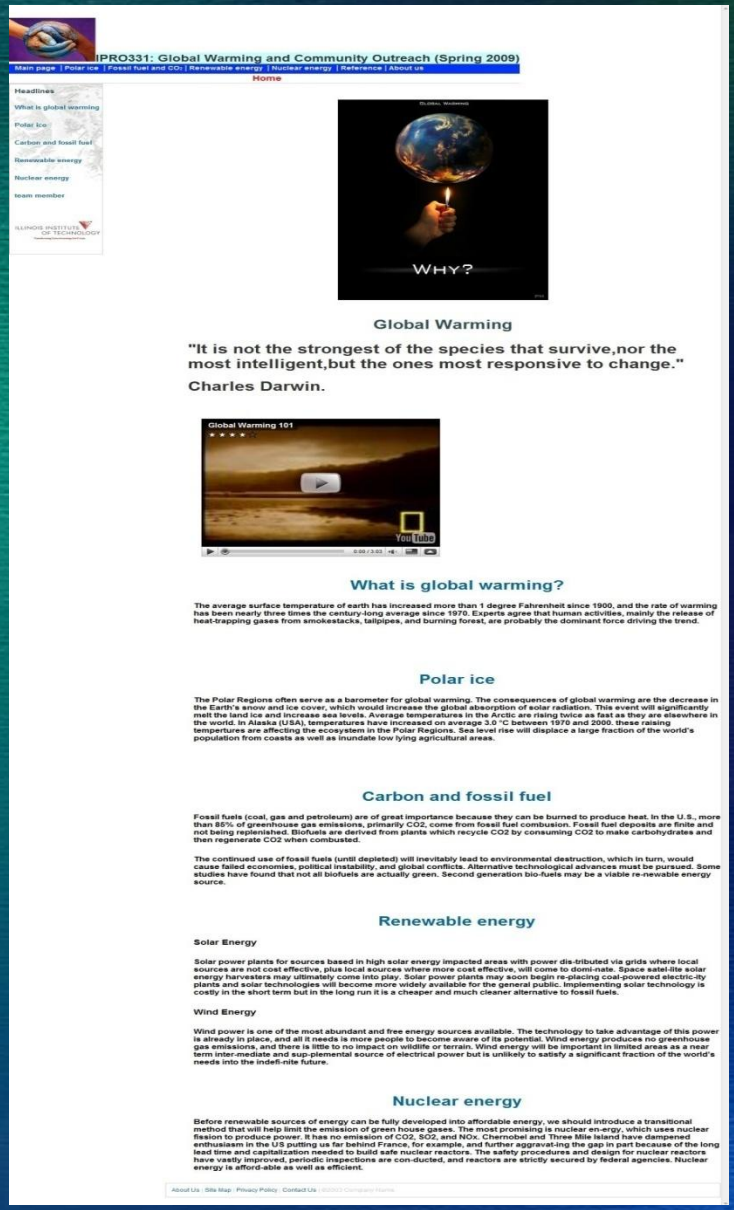
If you would like to learn more about our presentation or schedule a presentation at your site please contact us at:

globalwarming@iit.edu

Accomplishments

- New website: www.iit.edu/~ipro331s09





Accomplishments

- Increased outreach to over 500 people through 13 presentations
- Contacts:
  - Engineer's Week (IIT Rice Campus)
  - De La Salle Institute
  - Chinese American Service League
  - Schaumburg High School
  - Olive Harvey College
  - AICHE
  - Environmental Fair (Andrew High School)

Plans For Next IPRO

- Get more contacts early on in the semester
- Start making presentations as soon as possible
- Learn more about and incorporate more on current events
- Practice presentation skills

Questions?