IPRO 331

Who are we?

We are a team of undergraduate students from the Illinois Institute of Technology. We 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:
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Illinois Institute of Technology

IPRO SPRING 2010

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Global Warming and Community Outreach

Educating people about the scientific facts concerning global warming

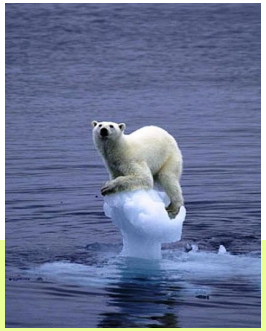
Global Warming Is Not Cool...

What Is Global Warming

The average surface temperature of earth has increased more than 1 degree Fahrenheit since 1900, but since 1970 the rate of Global Warming has increased threefold. Experts agree that human activities, mainly the release of greenhouse gases like carbon dioxide from smokestacks, tailpipes, and burning forests, are probably the dominant force driving the trend.

Effects of 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 will significantly melt the land ice and raise sea levels. Average temperature in the Arctic is rising twice as fast as elsewhere in the world. In Alaska, temperatures have increased an average 3.0 degree Celsius between 1970 and 2000.This increase in temperature poses a threat to the ecosystems in the polar regions. Species such as the polar bears are facing endangerment because the ice is melting their habitat. The Gulf Stream that bathes Britain and northern Europe in warm waters from the tropics has weakened dramatically in recent years, a consequence of global warming that could trigger more severe winters and cooler summers across the region, scientists warn today.



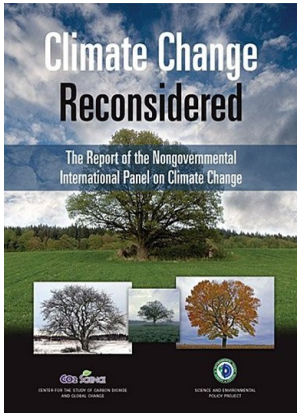
Climate Engineering

Climate engineering involves proposals to deliberately manipulate the Earth's climate to counteract the effect of Global Warming from Greenhouse Gas emissions. Proposals of this sort include ideas such as carbon dioxide capture from the atmosphere and methods of solar radiation management such as stratospheric aerosols. Climate engineering is the cutting edge of climate research and development and is still in very early stages. It will take many years for any of these proposals to get implemented but they will be the subject of massive research in coming years. While such approaches could be effective, it is very important to note that the potential of climate engineering should not divert efforts from reducing carbon emissions overall.

Alternative Energy

There are many alternative fuels which can be used to obtain energy. Using crops high in cellulose, sugar or vegetable oil can form biofuels which create less CO_2 and get better gas mileage. Nuclear fission is a resource that can be utilized to obtain emission free energy. Nuclear fission entails the act of splitting atoms to release large amounts of energy. While nuclear energy is a great resource, its main shortcoming is the disposal of radioactive waste. Other forms of energy—such as wind and solar energy—function without fuel. Wind energy is also emission-free and government subsidies are available for its use. Solar energy converts radiant energy from the Sun (the main source of energy for our planet) into useable energy.

The Skeptics



Skeptics have been around from the beginning making their claims that Global Warming is not caused by human activity. They provide evidence to support the claim that measurements of temperature are not accurate and models do not provide reliable projections of future climate change. Other evidence for the view of skeptics is that Earth's temperature was warmer in the past and today there are regional variations in climate change. They believe increases in CO_2 do not cause global warming, and the effects of CO_2 can be more beneficial than harmful.

What should we do?

Whether or not global warming is caused by human activity, developing new energy sources and becoming more efficient is still crucial. For example, the amount of fossil fuels is quickly declining and prices of non-renewable energy sources are increasing. Some ways to become more efficient are to reduce the use of electricity by unplugging unused electronics and switching to compact fluorescent light bulbs.

If you would like to learn more ways you could help out or are just interested in learning more about Global Warming, visit our website at:

http://www.iit.edu/~ipro331s10/