Who Are We?

Our team of undergraduate students have specially prepared four PowerPoint presentations pertaining to climate change. We are ready to visit your site and present on any of the following:

- *Biofuels*
- *Carbon Dioxide*
- *Polar Ice Regions*
- *Solar Energy*

The team is composed of undergraduate students from various majors working together on an Interprofessional Project Program (IPRO). An IPRO project course is a team-based learning environment in which students from various concentrations and disciplines work together to solve a real-world problem. Through the experience of working on this problem, students have the opportunity to apply and develop their teamwork, project management, communication, and ethical behavior skills. There is a wide range of topics proposed by sponsors, faculty and students that includes all of IIT's disciplines and professional programs. The IPRO projects offered each semester are constantly changing to reflect emerging trends in technology and the needs of society.

Contact

To schedule a presentation at your site, please contact us at iitglobalwarming@gmail.com.

Visit http://www.iit.edu/~ipro331s08/

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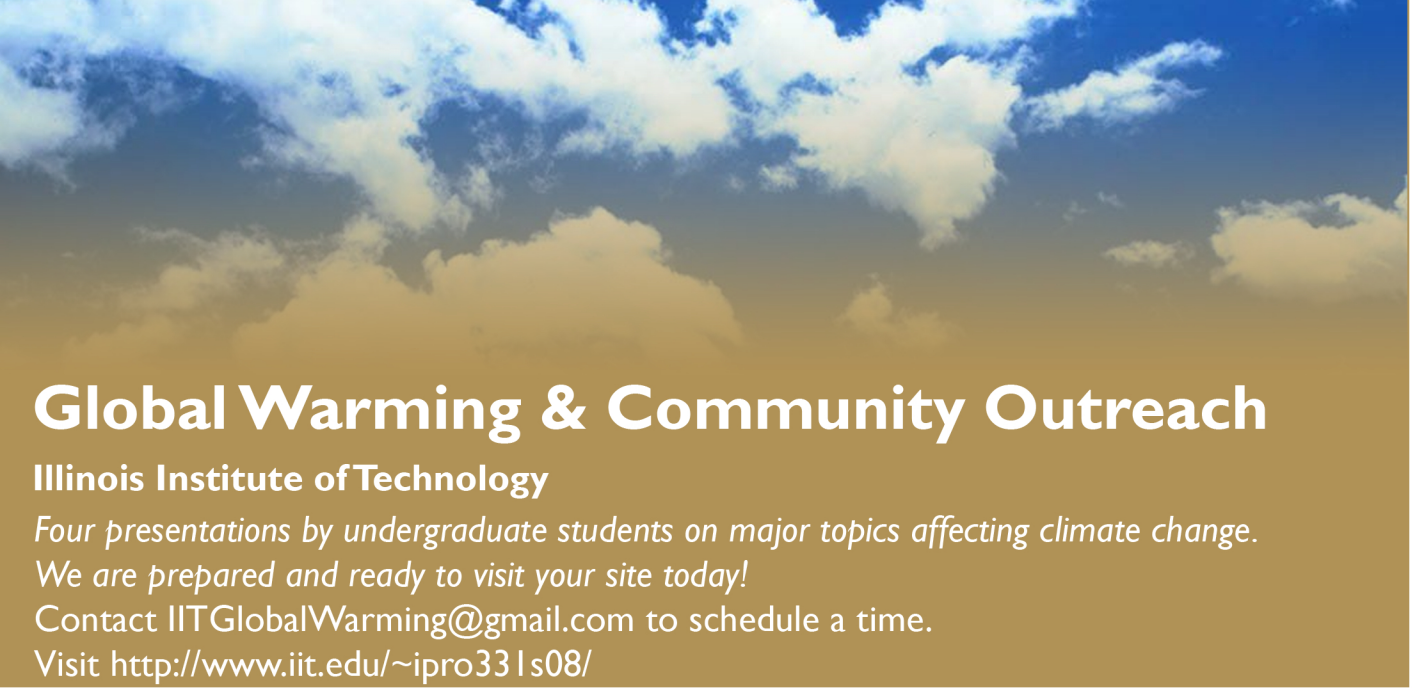
Illinois Institute of Technology
3300 South Federal Street
Chicago, IL 60616

Global Warming & Community Outreach

Illinois Institute of Technology

A presentation on four critical topics pertaining to climate change, including:

Biofuels
Carbon Dioxide
Polar Ice Caps
Solar Energy



Global Warming & Community Outreach

Illinois Institute of Technology

Four presentations by undergraduate students on major topics affecting climate change.
We are prepared and ready to visit your site today!
Contact IITGlobalWarming@gmail.com to schedule a time.
Visit http://www.iit.edu/~ipro331s08/

Solar Energy

Solar Technology relates to Global Warming in that it is one of many ways to reduce Greenhouse Emissions, which is just one of the many contributors to Global Warming. We are looking at Solar Technology from an architectural approach, which is especially relevant because we each have somewhere that we call home. The objective for this particular presentation is to look at a real-life solar smart home, and look at the science behind it. From there, we can learn what each of us can do to help save the earth as well as our wallets; since after all, sunlight is FREE!

Biofuels

The burning of fossil fuels produces CO2 and other green house gases, which are the driving forces behind the Global Warming debate. Over 85% of the world's energy is derived from the burning of the fossil fuels: coal, oil and natural gas. We know these sources are going to run out, and we are working to increase their power generation efficiency and decrease their impact on the environment through technologies such as gasification and carbon sequestration. 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.

Carbon Dioxide

The EPA and IPCC have determined carbon dioxide to be largest air pollutant in the atmosphere among the greenhouse gases, making it an important compound to study in terms of its relation to climate change. Here we note the basic principles of this linear molecule, including spectroscopic characteristics that contribute to the greenhouse effect. Furthermore, we examine the sources of carbon dioxide in the atmosphere and how the gas is distributed, accounting for changes in temperature and carbon sinks. These sinks directly correlate with the ocean as a natural process of CO2 removal from the atmosphere, where it is essentially cycled back into the air. Plants remain another source for carbon sinks, due to their photosynthetic ability to absorb CO2. From this information, we can determine future projections of CO2 in the atmosphere along with its effect on temperature.

Polar Ice Regions

The effects of climate change are not the same in all parts of the world. The polar regions are highly sensitive areas where rising temperature induced changes are happening at rates exceeding those between the polar regions. Higher temperatures in the Arctic and Antarctic have a direct global impact and are an indication of further changes in the offing. Here we examine the abundant evidence of reduction in snow and ice as measured by researchers working during the International Polar Year (IPY). The IPY, a program running from March 2007 to 2009, seeks to encourage awareness of and sensitivity to the global consequences of the rapidly changing polar regions. Not only are terrestrial and marine ecosystems being affected but there are global consequences on coastal cities and global sea levels as well.