

## Green Technology

### Developing a More Sustainable Future

As the cost of transportation and home heating and cooling continue to rise, one thing remains constant: the necessity of change. Emerging technologies such as wind and solar power are certain to be a part of that change, but less dynamic strategies such as energy management systems and home automation are also necessary for a viable solution.

The 2009 IEEE Green Technology Conference in Lubbock, Texas, hosted by IEEE Region 5 and Texas Tech University, will cover the most pressing issues facing green technology today, including the development of new technologies and the implementation of those new technologies into the existing power infrastructure.

In 2007, new investment in global sustainable energy increased 60% over 2006 to \$148.4 billion, and is expected to continue rising.

**-UNEP Sustainable Energy Finance Initiative Report**

### 2009 IEEE Green Technology Conference

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### 2009 IEEE Green Technology Conference

April 16-17

Lubbock, Texas

**John Clifford**  
Conference Coordinator

# Conference Highlights

## Topics

Among the topics to be addressed at the 2009 IEEE Green Energy Conference:

- Renewable energy sources
- Alternative vehicle power sources
- Home automation and energy management
- Commercial energy management strategies
- Energy usage reduction
- Integration of green energy sources into the existing power grid

The conference will also highlight the social and economic implications of renewable and reduced carbon emission energy sources.

The conference will also host several continuing education seminars and tutorials.

## Tutorials

The tutorials will provide attendees the opportunity to learn practical skills related to green technology. There will also be advanced tutorial sessions for more experienced attendees. The tutorials will be taught by industry experts as well as leading members of the academic community. This year's topics will range from core principles of clean energy to more advanced industry applications of the technology.



## Information

### When:

April 16-17, 2009

### Where:

Holiday Inn Hotel Towers  
801 Ave. Q  
Lubbock, Texas 79401

### Who:

- IEEE student and professional members
- Business leaders
- Academics

### How:

To register visit the website:

[www.ieeegreentech.org](http://www.ieeegreentech.org)

“Energy efficiency is a significant, but largely invisible market, which is now attracting an increasing share of the limelight as investors realize its role in addressing growing global energy demand.”  
-UN Environment Program Report

## Sources of Green Energy

### Wind

In 2007 wind power made up nearly 30% of new energy capacity added nationally. That is up from only 1% in 2002. The rapid increase in production is expected to continue as bigger turbines and more efficient technology are developed.

### Solar

Of all green energy sources, solar energy holds the most potential. If harnessed, the amount of energy the sun transmits to the Earth would far exceed any other method of energy production. Solar energy production continues to increase annually, but storage issues and unpredictable weather patterns have prevented it from becoming a more accessible source of power.

### Hydrogen

A relatively new energy option, hydrogen fuel cells have been powering NASA spacecraft since the 1970s. The technology is becoming more consumer focused and is considered a logical choice for powering personal automobiles. Since the byproduct of hydrogen fuel cells is H<sub>2</sub>O, cars powered by hydrogen would be 100% cleaner running than their gas powered counterparts.