



# Professors & Pizza

Ever wonder what your fellow faculty member's research interests are? Here's your chance to meet some of your colleagues and find out how their work might be beneficial to yours...and enjoy some pizza at the same time!



## This Month's Featured Faculty:

**David Garmire** (PhD Berkeley '07, BS Carnegie Mellon '01)

**Assistant Professor, EE**

**Microtechnology for Renewable Energies and Sustainability**

### Research Interests:

Micro/nano technology  
Renewable energies / Sustainability  
Bio devices  
Sensor technology



There are many ways in which energy may be created, transmitted, and stored as witnessed in the world around us by the vibrant array of biological niches that utilize different energy sources. There are parts of this emerging domain that have been studied for centuries (wind turbines and sails) and there are other parts just now dawning in our minds. It is likely that this domain will continue to grow rapidly in academia and industry over the next few years as we look for more effective and sustainable means of producing, transmitting, and storing energy.

The realm of microsystems is rich because it can offer useful information about the availability and consumption of energy at a low cost per device. Similarly, microdevices require much less energy to actuate allowing them to be used in energy controlling and sensing applications while not consuming much energy themselves. The challenge in this domain is designing devices to give accurate information or control energy processes precisely while at the same time being inexpensive to mass produce and energy efficient in operation.

This talk will examine some of the opportunities and major challenges in microtechnology for renewable energies and sustainability and ways in which they will be explored through the Green Holmes Hall Initiative.

**Wednesday, February 17, 2010**

**11:30 a.m.**

**Holmes 287**

Please RSVP by February 16<sup>th</sup> to Carrie Matsuzaki at x 62286

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