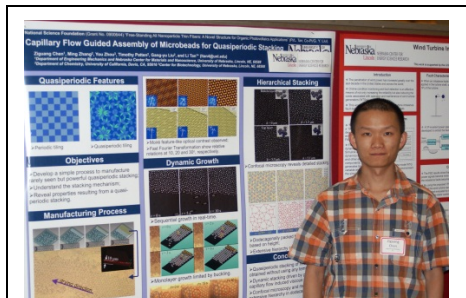


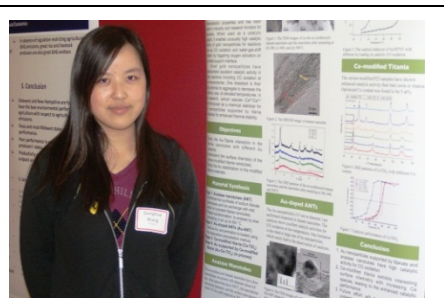
## Energy Sciences Research at the 2011 Graduate Student Poster Session

Seventeen or 9.2% of the 184 posters at the 2011 Research Fair were presented by graduate students working on energy sciences research grants supported by the Nebraska Center for Energy Sciences Research.



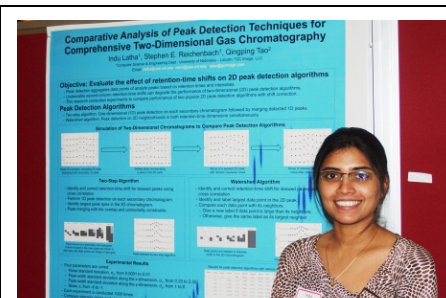
**Ziguang Chen**

*Capillary Flow Guided Assembly of Microbeads for Quasiperiodic Stacking*  
Engineering Mechanics



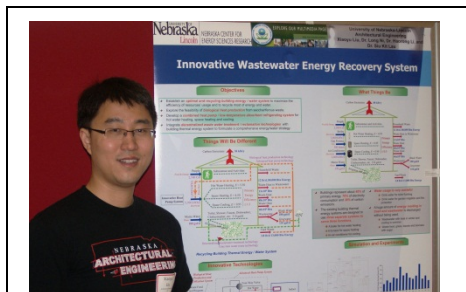
**Gonghua Wang**

*Titanium Nanotubes Supported Nanogold and Nanoceria Chemistry*



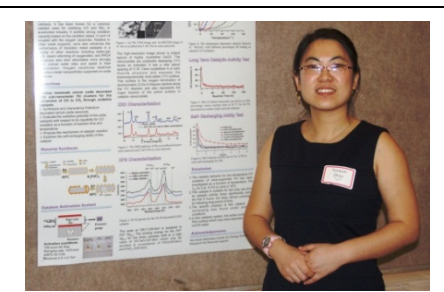
**Indu Latha**

*Comparative Analysis of Peak Detection Techniques for Comprehensive Two-Dimensional Gas Chromatography*  
Computer Science & Engineering



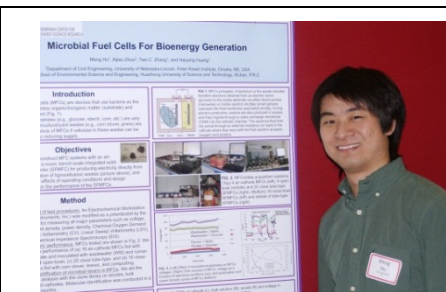
**Xiaoyu Liu**

*Innovative Wastewater Energy Recovery System*  
Architectural Engineering



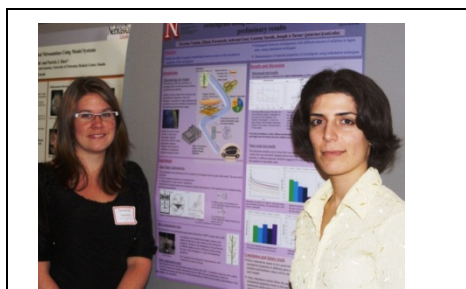
**Yunyun Zhou**

*ELF-Recharging Palladia Nanoparticles on Cerium Oxide Nanorod Support for Catalytic Oxidation*  
Chemistry



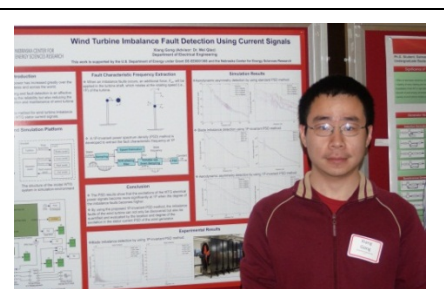
**Meng Hu**

*Microbial Fuel Cells for Bioenergy Generation*  
Civil Engineering, PKI



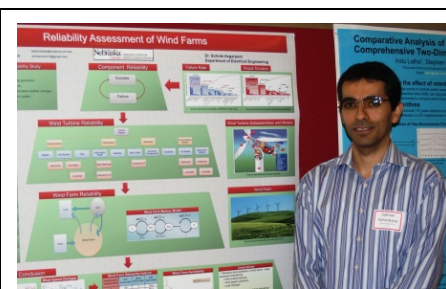
**Severine Vennin (left) and Elham Forouzes (right)**

*Quantifying the Viscoelastic Properties of Switchgrass Using Micro/Nano Engineering Tools*  
Engineering Mechanics



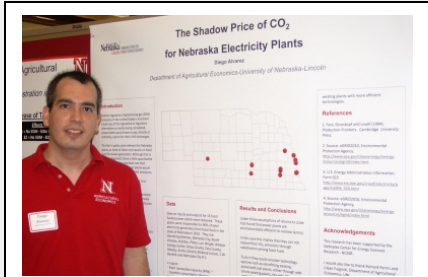
**Xiang Gong**

*Wind Turbine Imbalance Faults Detection Based on Current Signals*  
Electrical Engineering

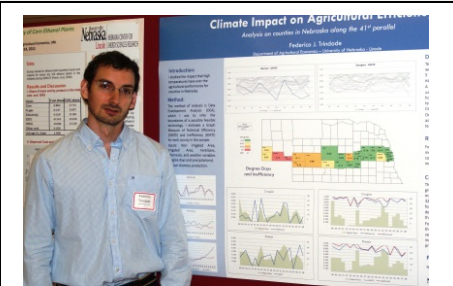


**Salman Kahrobaee**

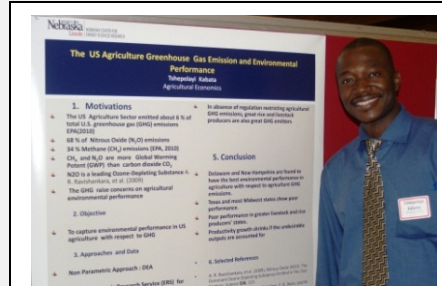
*Reliability Assessment of Wind Farms*  
Electrical Engineering



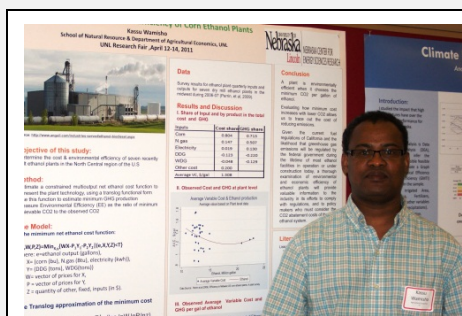
**Diego Alvarez**  
*The Shadow Price of CO<sub>2</sub> for Nebraska Electricity Plants*



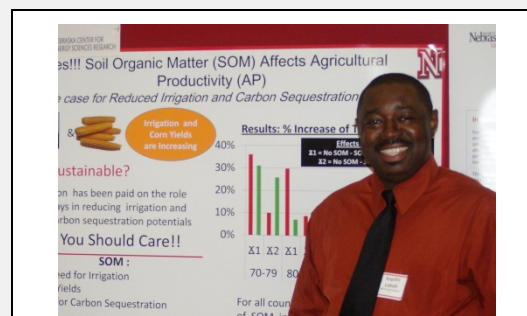
**Frederico Trindade**  
*Climate Impact on Agricultural Efficiency*



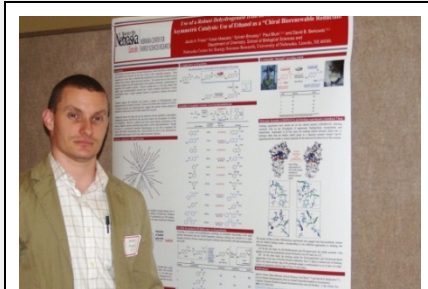
**Tshepelayi Kabata**  
*U.S. Agriculture Greenhouse Gas Emission and Environmental Performance*



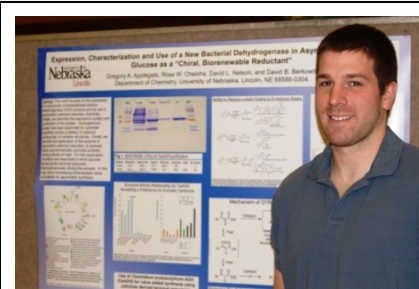
**Kassu Wamisho**  
*Environmental and Cost Efficiency of Corn Ethanol Plants*



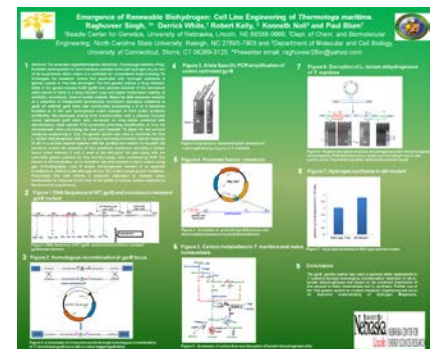
**Kepifri Lakoh**  
*An Analysis of the Effect of Soil Organic Matter on Agricultural Productivity in Nebraska*



**Jacob Friest**  
*Use of Ethanol as a Chiral Biorenewable Reductant*



**Gregory Applegate**  
*Use of Glucose as a Chiral Biorenewable Reductant*



**Raghuveer Singh**  
*Emergence of Renewable Biohydrogen*

The energy-related posters, which were displayed at the Graduate Student Poster Session\* are available to view in a larger size on the Energy Center's website at [www.ncesr.unl.edu](http://www.ncesr.unl.edu).

\* **The Graduate Student Poster Session**, a celebration highlighting graduate student research and creative activity, was held on April 13, 2011 as part of the campus-wide 2011 UNL Research Fair. The purpose was to give students the opportunity to showcase their research or creative activity; to communicate their results to other students, faculty and staff; and to learn about other areas of research and creative activity. The event was sponsored by the Office of Research and Economic Development, Office of Graduate Studies and the Nebraska Chapter of Sigma Xi.