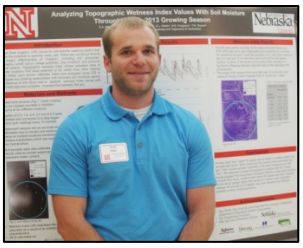
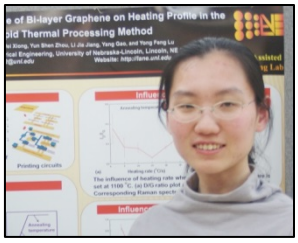
University of Nebraska Lincoln | NEBRASKA CENTER FOR ENERGY SCIENCES RESEARCH

2014 UNL Research Fair
Graduate Student Poster Session
April 15, 2014

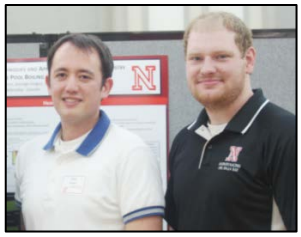


Keith Miller
Biological Systems Engineering
Analyzing Topographic Wetness Index Values with Soil Moisture

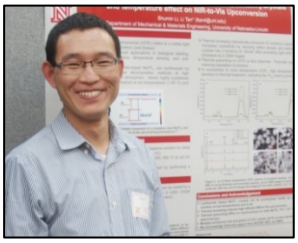
Mahdi Alhajji
Chemical & Biomolecular Engineering
Capturing and Conversion of CO_2 with Chemical Looping Technology



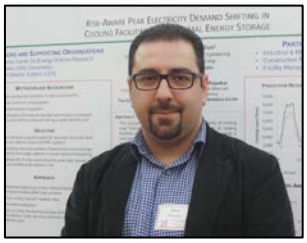
Wenjia Hou
Electrical Engineering
Quality Dependence of Bi-Layer Graphene on Heating Profile



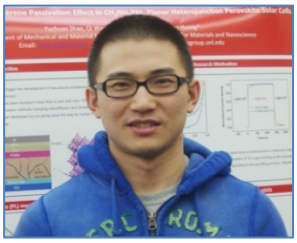
Chris Wilson and Corey Kruse
Electrical Engineering
Femtosecond Laser Surface Processing Techniques and Applications



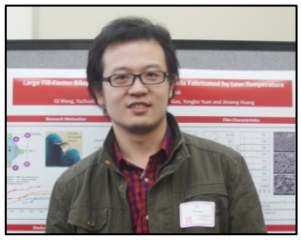
Shumini Li
Mechanical and Materials Engineering
Low Temperature Synthesis of lanthanide Doped NaYF4 Crystals



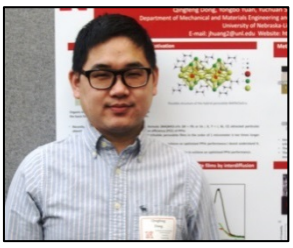
Ehsan Nazarian
Industrial & Management Systems Engineering - *Risk-Aware Peak Electricity Demand Shifting*



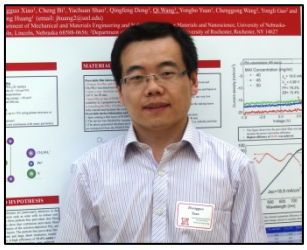
Yuchuan Shao
Mechanical and Materials Engineering
Elucidating the Fullerene Passivation Effect



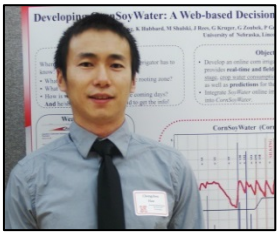
Qi Wang
Mechanical and Materials Engineering
Large Fill-Factor Bilayer Iodine Perovskite Solar Cells



Qingfeng Dong
Mechanical and Materials Engineering
Crystal Grain Enlargement in Organolead Trihalide Perovskite

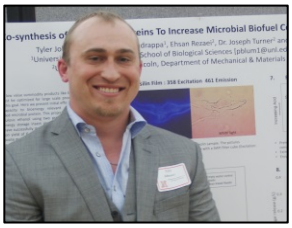


Zhengguo Xiao
Mechanical and Materials Engineering
Efficient, High Yield Perovskite Photovoltaic Devices



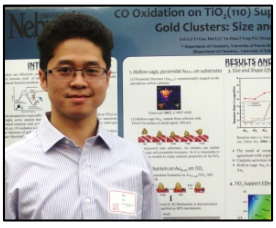
Chengchou Han
Agronomy and Horticulture
Developing CornSoyWater: A Web-based Decision Aid

Andrea Watson
Animal Science
Optimizing Biogas Production from Anaerobic Digestion

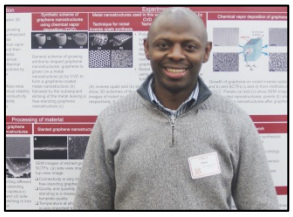


Tyler Johnson
Biological Sciences
Co-synthesis of Bioenergy Proteins to Increase Microbial Biofuel

Tsz Him Lo
Biological Systems Engineering
Informing Variable Rate Irrigation Investment Decisions



Lei Li
Chemistry
CO Oxidation on TiO2(110) Supported Subnanometer Gold



Gilbert Mbah
Chemistry
Three-dimensional Graphene Periodic Nanostructures

Sumit Beniwal
Physics and Astronomy
Organic and In-Organic Engineering Towards Better Pyroelectric Materials

- The Graduate Student Poster was sponsored by the Office of Research and Economic Development and the Office of Graduate Studies as part of the campus-wide 2014 UNL Spring Research Fair. The event is an opportunity for graduate students to showcase research, communicate results and exchange knowledge and ideas.
- Of the 160 posters entered, 19 posters or 12 percent of the total participants were submitted by students who worked on NCESR-funded research. Seventeen of these participants are pictured on this page. Two who submitted posters but were not available for photos were Cheng Bi, Mechanical and Materials Engineering – *Understanding the Formation and Evolution of Interdiffusion Grown Organolead Halide Perovskite Thin Films by Thermal Annealing* and Mukesh Kulsreshath, Mechanical and Materials Engineering – *Modeling of Near-Field Concentrated Solar Thermophotovoltaic Microsystem.*
- Gilbert Mbah was selected by the event sponsors as having one of the top ten posters overall and awarded a $400 travel grant to present their research at a regional or national conference.
- Mukesh Kulsreshath was selected by the College of Engineering as one of five of the top posters from among more than sixty of its student participants and awarded a $200 prize.

To view the posters related to NCESR-funded projects, go to: http://ncesr.unl.edu/?page_id=7854.