

Mechanical Engineering @ Iowa State



InCyde Mechanical Engineering April 22, 2011

ME Faculty and Staff Honored with University Awards

Johna Wolfe, Academic Adviser in Mechanical Engineering, was selected as a 2011 recipient of the ISU Award for Early Achievement in Academic Advising. Dr. Michael Kessler, Associate Professor of Materials Science and Engineering and Courtesy Associate Professor in Mechanical Engineering, was selected as a 2011 recipient of the ISU Award for Early Achievement in Research. Congratulations to Johna and Michael for these high honors! The recipients will be formally recognized at the Fall Convocation and Awards Ceremony on September 26th at 3:15 in the Sun Room of the Memorial Union.

wolfe



kessler



Design Expo Next Week

The [Mechanical Engineering Design Expo](#) will be held on Tuesday, April 26th from 12 - 4 p.m. in the Howe Hall Atrium. The Expo will feature student projects from ME 270, ME 415, ME 466 and ME 490. More than 50 design projects will be on display. In addition, the [ME Capstone Design Program](#) will be holding its ME415 Final Design Reviews with project sponsors in Black and Hoover Halls from 9 a.m. to 5 p.m.

LeAnn Faidley Named ME Professor of the Year

Each year the senior class in Mechanical Engineering has the privilege of voting for the Professor of the Year. This year, they have bestowed this honor upon Dr. LeAnn Faidley. Please join us in congratulating her on this fine achievement by attending an open house reception with some cake and other treats in her honor on Thursday, April 28 in the Kiewit Student Services Center. Please feel free to drop by anytime between 12:10 to 1 p.m.

faidley



ISU Solar Car Team Prepares for 100th Anniversary of Indianapolis 500

Team PrISUM is gearing up for a race at the 100th anniversary of Indy 500, and club member Evan Stumpges, senior in ME, is featured in the [full story](#).

Wind Energy ME Faculty Candidate Seminars Adrian Ilinca

Monday, April 25, 10 to 11:30 a.m.
3043 ECpE Addition (COOVER)
[Wind Energy and Compressed Air Storage: An Opportunity for Iowa and the World](#)

Daniel Laird

Monday, May 2, 10 to 11:30 a.m.
2004 Black Engineering

These seminars count toward the ME 600 seminar requirement for ME graduate students.

Emeritus Faculty Visit

emeritus



Left to Right: ME Interim Chair Ted Heindel, Jerry Colver, Dick Pletcher, Shyam Bahadur, Bill Cook, George Serovy, Al Joensen, Ted Okiishi

Undergraduate Research Symposium

Four ME undergraduate students participated in the ISU Undergraduate Research Symposium on Tuesday, April 19th. The symposium provides an opportunity for undergraduate students from across Iowa State to share their research experiences and results with the ISU community through short seminars. The event was coordinated through the University Honors Program and took place in the Memorial Union.

Mechanical Engineering students who participated:

kenney



Andrea Kenney
Junior, ME
Manufacturing Tracer Particles for X-ray Flow Visualization
Research Mentor:
Dr. Theodore Heindel

orlowsky



Nicholas Orlowsky
Sophomore, ME
Manufacturing and Testing of Metal Composites
Research Mentor:
Dr. Gap-Yong Kim

3rd Annual Graduate Research Symposium

The 3rd Annual Graduate Research Symposium in which graduate students presented their research work was held on March 28. Congratulations to all the participating graduate students for the exceptional effort they put in preparing the high quality presentation and posters. The extended abstracts for the presentation are posted on the [ME department webpage](#). It was an excellent showcase for the all the cutting edge research taking place in the department.

Based on the judges feedback, the prize winners for presentation and posters are:

Presentation Session I

First Prize

- Chris Tourek
["Characterization of the Chemistry and Structure of Transferred Material at the Nanoscale"](#)

Second Prize

- Yufeng Wu
["Modeling of Semisolid Powder Processing for a Closed Die Compaction"](#)

Presentation Session II

First Prize

- Joe Miller
["Hybrid Coherent Anti-Stokes Raman Scattering for KHZ-Rate Temperature and Species Measurements in Combusting Flows"](#)

Second Prize

- Praveen Kumar
["Ammonia as a Clean Energy for Power Generations & Heating"](#)

Poster Session

Shared First Prize

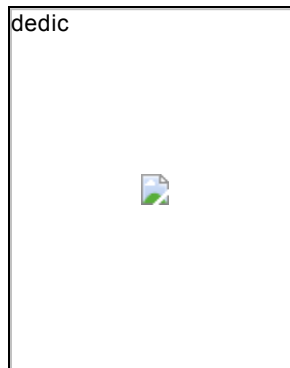
- Yu Xie
[Phase Transitions in Vortex Shedding in the Wake of a Heated Circular Cylinder at Low Reynolds Number](#)
- Anthony Fontanini
[Thermal Comparison Between Ceiling Diffusers and Fabric Ductwork Diffusers for Green Buildings](#)

Shared Second Prize

- Jing Ren
[Evolution of Random Roughness in Microchannel and its Impact on Laminar Flow](#)
- Hamed Attariani
[Mechanochemical Continuum Model for Nanovoid Nucleation and Growth in Reacting](#)
- Xuhui Feng
[Applying Transient Technique to Measure Thermophysical Properties of Micro/Nanoscale Materials](#)
- Kyung Ho Kang
[Microcantilever Based Aptameric Nanosensor for Cocaine Detection](#)

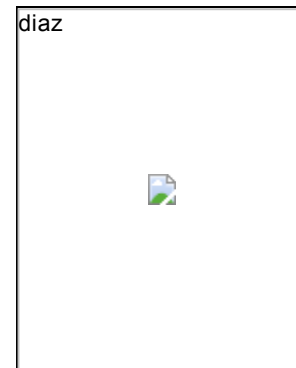
In addition, the following students were honored:

- Kyung Ho Kang received a Research Excellence Award
- Kristin Tucker and Lin Liu received Teaching Excellence Awards



Chloe Dedic

Senior, ME
N₂—N₂ Collisional Energy Transfer Effects on Hybrid fs/ps Coherent Anti-Stokes Raman Scattering at Initial Interaction Time Scales
Research Mentor:
Dr. Terrence Meyer



Daniel Diaz-Martinez

Sophomore, ME
Minimizing Environmental Impact with NH₃ combustion for Heating & Power
Research Mentor:
Dr. Terrence Meyer

Morgan Hoke, a freshman in Computer Engineering, also participated and her mentor was **Dr. Song Zhang**. Her presentation was titled "3D Imaging with Infrared Light."

A comprehensive list of abstracts from the symposium can be found [online](#).

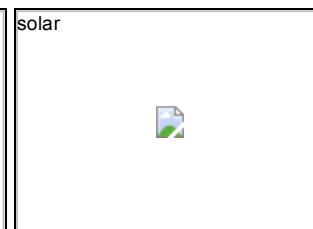
Mechanical Engineering at VEISHEA

VEISHEA 2011 and the Student Activities Center had a recognition ceremony Tuesday to honor Iowa State's outstanding leaders, faculty, and organizations. Brian Capesius, senior in mechanical engineering, was recognized for his hard work as a student leader. [Full Story](#).

The cold weather at VEISHEA didn't stop ME supporters from attending the festival. Here are a few photos from Saturday.



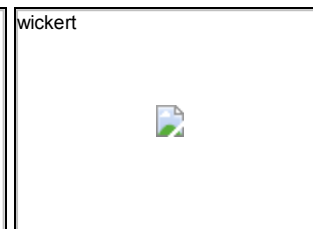
Anson Prust (Mechanical Engineering) and Andrew Montag (Computer Engineering) with ISU Robotics.



The ISU solar car team takes a stroll at the VEISHEA parade.



The sun finally peeked out in the afternoon, warming the visitors.



Dean Jonathan Wickert made it out to march in the parade.

[Check out more photos from the day's activities.](#)

Do you have department news you'd like to share? Please e-mail news items for InCyde Mechanical Engineering to Alex Rausch.

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