

header



August 26, 2011

What is Mechanical Engineering?

There is a new video posted on YouTube featuring four ME undergraduate students talking about Mechanical Engineering at Iowa State. The students, **Micayla Haugen**, **Martese Hoffman**, **Ryan McCleish** and **Roslyn Melookaran**, were asked what mechanical engineering means to them and to discuss some of the extracurricular activities they have participated in so far at the university. Check it out:

me



Terry Meyer Appointed William and Virginia Binger Assistant Professor

Dr. Terry Meyer has been appointed as the William and Virginia Binger Assistant Professor of Mechanical Engineering. The professorship recognizes the success of early career faculty, and Dr. Meyer will retain the title until he is tenured.

Terry is an expert in laser imaging and spectroscopy techniques. He is a 2010 Young Researcher Award recipient from the Friedrich-Alexander University in Erlangen, Germany, which includes a guest professorship at Friedrich-Alexander University. He received a 2011 NSF CAREER Award for a project titled "Ultrafast Time/Frequency Domain Coherent Anti-Stokes Raman Spectroscopy for Combustion and Plasma Systems." His research is currently funded by the Air Force Research Laboratory, the Air Force Office of Scientific Research, NASA, Conoco-Phillips, the Grow Iowa Values Fund, and NSF. In the classroom, Terry teaches fluid mechanics, heat transfer, and combustion. He also includes as many undergraduates as he can in his research endeavors.

meyer



Summer Research Excellence Awards

ME graduate students **Lei Zhang**, **Zhonghua Xu**, and **Yanan Yue** were recognized by the ISU Graduate College for excellence in research.

Advancing Ultrasound Technology

ME Student Receives National Scholarship

Katherine Kopytko was named the Engineering Scholar for the Gorecki Scholarship Program from the Polish Falcons of America. This national scholarship program was established in 1999 in honor of Druh Gorecki, a longtime member of Nest 79 in Southgate, MI. The scholarship honors Falcon members who demonstrate the highest academic standards and leadership qualities. Katherine is a junior in mechanical engineering at Iowa State, and is active with the Society for Women Engineers, serving as co-coordinator of Girls Learning & Exploring Engineering Day. She has also volunteered her time for various youth leadership development programs, theatrical productions and for her parish.

ME Grad Student Launches New Company

Andrew Friend, graduate student in mechanical engineering, is launching a new company based on his research thesis about renewable fuel. Friend and his company Renovo Fuel Technologies are working to market an alternative energy product that coal power plants can burn in their boilers. ([Friend story](#))

Iowa State Energy Study Proves Fabric HVAC Efficiency

Mechanical engineers always suspected that fabric HVAC ductwork is more energy efficient than its metal duct counterpart, but now three members of Iowa State University's Department of Mechanical Engineering have proven an overwhelming 24.5-percent efficiency differential. ([HVAC story](#))

Gregory Maxwell Gives Viewpoint on Nuclear Power Plant after Earthquake in Japan

It has been four months since a massive earthquake and tsunami rocked Japan's Fukushima Daiichi Nuclear Power Plant, resulting in what is being called the second largest nuclear accident in history. Despite hard hits from the public, industry experts, including two Iowa State professors and one alumnus, are standing by nuclear energy, hoping to bring some clarity and understanding to the extremely publicized incident. ([Nuclear story](#))

maxwell



New NDE Graduate Certificate to be Offered

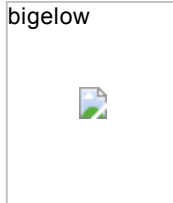
Beginning fall 2011, a new graduate certificate in nondestructive evaluation (NDE) will be offered through Iowa State's Engineering Online Learning program. **Nicola Bowler**, director of NDE graduate certificate studies, says the certificate will assist professionals who are looking for an opportunity to advance their education and understand more about NDE through a flexible program of learning. ([NDE certificate story](#))

Upcoming Events

August 29 – [Commit to a Girl](#)

The Iowa State College of Engineering Recruitment & Community Outreach unit has teamed with the Girl Scouts to host "Commit to a Girl Event." During the event, the groups will honor the Girl Scouts

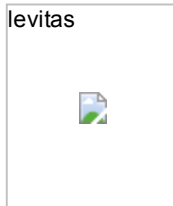
Combining his interests in the engineering and medical fields, EE sophomore **Grant Riesberg** is working with Assistant Professor of Electrical and Computer Engineering and Mechanical Engineering **Timothy Bigelow** to advance the technology and application of ultrasound therapy to treat cancer. ([Riesberg story](#))



who made up the Flying Monkeys FIRST LEGO League Team that won the 2011 X Prize Global Innovation Award. Commit to a Girl will be held August 29, 2011, at 4 p.m. in the Howe Hall Atrium. The event is free and open to the public. Come welcome the young innovators and help support the efforts of the Iowa Girl Scouts to promote STEM to young women across the state.

Professor's research published in *Nature Communications*

The research of **Valery Levitas**, Schafer 2050 Challenge Professor and faculty member in both aerospace engineering and mechanical engineering, and PhD student **Kamran Samani** gained global attention when it was published in *Nature Communications* (2011, Vol. 2, 284), a journal specializing in significant advances in physical, chemical, and biological fields. ([Nature Communications release](#))



August 31 – [College of Engineering Convocation](#)

The College of Engineering Convocation will be August 31, starting at 3:10 p.m., in the Alliant Energy—Lee Liu Auditorium of Howe Hall. Dean Jonathan Wickert will deliver an address and CoE faculty and staff will be recognized with college awards. A reception will follow in the atrium after the presentation.

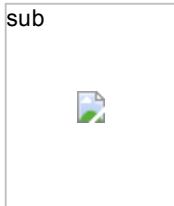
September 6 – [Tour the World: Study and Work Abroad Fair](#)

5:30 to 7:00 p.m., Howe Hall Atrium

Where do you want to go? More than 30 engineering-friendly programs are available to you! Tour The World offers:

- Tables stocked with information on each program, staffed by ISU program coordinators and students who know the programs well.
- Academic advisors available to answer questions on-site.
- Free food!
- Door prizes!

Grant Award Announcements



Dr. Shankar Subramaniam

"Stability Limits for Gas-Solid Suspensions with Finite Fluid Inertia using Particle-Resolved Direct Numerical Simulations"
Award Amount: \$250,497

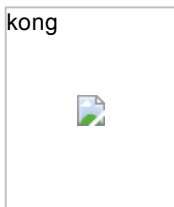
Awarding Agency: National Science Foundation
Subramaniam's group will use highly resolved direct numerical simulation of particles in flow to gain insight into the stability of flow in fluidized beds for CO2 capture and carbon-negative energy technologies such as chemical looping combustion.

Faculty and staff are invited to attend the fair too. Come experience the excitement!

Reminder: ME students can come to 2043 to sign up for free tickets to Season at Stephens!

New ME Staff Member

Joel Buehler has joined the ME department as a Systems Support Specialist II, and will assist in the information technology (IT) support in the department. Joel recently graduated from Iowa State with a degree in Management Information Systems. Welcome, Joel!



Dr. Song-Charng Kong

"Increasing Combustion Modeling Accuracy Using KIVA-4MPI"
Continuation Award
Awarding Agency: Los Alamos National Laboratory

This research is to develop high-fidelity computer models to simulate engine combustion and heat transfer. This will be an integrated model to simultaneously predict the combustion inside the cylinder and surface temperature and thermal loading of the combustion chamber.

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Do you have department news you'd like to share?
Please e-mail news items for InCYde Mechanical Engineering to [Alex Rausch](#)