



eoh 07

friday & saturday,
march 9 & 10, 2007

engineering
open
house

**INSPIRING
INNOVATION**

<http://eoh.ec.uiuc.edu>

VISITOR'S GUIDE

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HIGHLIGHTS

GRADE SCHOOL COMPETITION

The Middle School Design Contest is a prepared design for teams of 6th, 7th and 8th grade students. This year the teams were asked to construct a vehicle made entirely out of cardboard and a dowel rod. The vehicle is to accommodate one passenger and will be released from rest at the top of a ramp. The team that achieves the greatest distance will be declared the winner.

RUBE GOLDBERG HIGH SCHOOL DESIGN CONTEST

Teams of high school students have put their heads together to design exciting contraptions that will take a whole orange, juice it, and then pour the juice from a pitcher into a cup in as many steps as possible. Inspired by the famous cartoons by Rube Goldberg, students find complex ways of accomplishing a simple task using ordinary (and sometimes not-so-ordinary) materials. Science and engineering principles are combined with creativity and ingenuity to create these awesome inventions. Stop by the **Illini Union Ballrooms on Friday between 9am and 1pm** to see these exciting machines in action and vote for your favorite one!

ILLINI ENGINEERING CHALLENGE

The 10th annual Illini Engineering Challenge is a set of onsite designs where visitors are asked to build, design and tinker their way to a given goal with the materials provided. The event will take place on **Friday, March 9th, from 10 am to 3 pm and Saturday, March 10th, from 9 am to 3 pm**. Judges will be on hand to explain the rules and guidelines for each design and all creations will be measured and tested by the judges. We encourage students, teachers, parents and visitors of all ages to stop by, compete with friends and family, and show off their engineering skills.

AMD W.J. “JERRY” SANDERS CREATIVE DESIGN COMPETITION

AMD W.J. “Jerry” Sanders Creative Design Competition is an annual robotic contest which allows some of the best engineering students in the Midwest to test their engineering skills and ingenuity. Robots will be moving colored hoops and discs to bases that will change color throughout each round. This is one of the largest and most exciting events at Engineering Open House and is sponsored by Advances Micro Devices. Come join us to encourage creativity and excellence in engineering!

TRAFFIC AND SAFETY

Engineering Open House works hard to ensure the safety of our visitors. We ask you not to enter those rooms and buildings not marked for EOH use as indicated in the Visitor's Guide. Additionally, please follow standard safety precautions with special consideration for campus construction sites. For the safety of yourself and others, please cross at the designated crossings when walking on the campus. Thank you!

SHUTTLE AND PARKING

In order to make your visit to EOH more relaxing, parking at EOH is free. Please park your vehicles at E-14 parking lot along Kirby Ave. The EOH Shuttle – operated by Pioneer Coach Lines – will run every 15-20 minutes during EOH hours. There are seven stops: Sixth and Peabody (ExplorACES), Transit Plaza (EOH), Green and Wright (EOH), Kenney Gym (EOH), Loomis Laboratory (EOH), Bevier Hall (ExplorACES), and the Stock Pavilion (ExplorACES). A tour guide will introduce the University campus to the visitors during rides, and EOH visitor's guides will be provided in the EOH shuttle. School buses can drop off visitors just north of Green Street on Wright Street across from Everitt Laboratory. All buses must park in the E-14 parking lot.

FOOD AND ENTERTAINMENT

Engineering Open House is proud to present Area 51, food and entertainment central! Area 51 is conveniently located between Engineering Hall and Everitt Lab, right across the street from the Illini Union. Here you will be able to grab a bite to eat and enjoy entertainment by U of I's own student groups. So take a moment to stop by, relax, and recharge!

Operating hours:

Food and beverage: 11:00 a.m. to 2:00 p.m.

Entertainment: 11:30 a.m. to 1:30 p.m.

Friday:	11:30	No Comment
	12:15	Contraband
Saturday:	11:30	Girls Next Door
	12:15	No Strings Attached
	01:00	Rip Chords

EOH merchandise will be made available for purchase in Area 51.

EXHIBITOR VOTE

Be sure to vote for your favorite EOH exhibit! Volting ballots and boxes are located in most EOH buildings.

EOH 2007

Friday, March 9:
9am to 4pm

Saturday, March 10:
9am to 3pm

Engineering Open House Tours

Tours will be made available every half hour on Friday and Saturday between 10:00 a.m. and 2:30 p.m. These tours will be led by U of I student volunteers, covering our various exhibits. Tours will begin from the North side of Area 51, located between Engineering Hall and Everitt Lab, and will last about an hour and a half. No sign up is necessary!

Also available this year will be self-guided tours. You will be provided with a map and description of the available exhibits. Incorporated into our self-guided tours will be an EOH scavenger hunt for our younger visitors.

Hours: 10:00 a.m. to 2:30 p.m.

Every half hour on the 00's and 30's

“The significant problems we face cannot be solved at the same level of thinking we were at when we created them.” - Albert Einstein



Welcome to Engineering Open House 2007! This is one of the nation's largest and most innovative science fairs, organized and managed entirely by engineering and science students in the College of Engineering. For over 87 years, this showcase event has attracted thousands of visitors from throughout the state of Illinois and beyond. Everywhere you look you will find exhibits and competitions that challenge and inspire, motivate and amaze, and bring you face-to-face with tomorrow's cutting edge reality.

This year's theme, "Inspiring Innovation," represents the mindset of our students---their unlimited enthusiasm and passion for creativity and imagination. In classrooms and labs across this campus, you will find engineering students pushing the limits of tools and technology to pursue new ideas and solutions. Today, you will learn about the science and engineering behind every day products, see how engineering is used to solve problems, and catch a glimpse of emerging innovations in technology. Ask questions, get involved, and find out, first-hand, how engineering and innovative thinking drive our ever-changing world.

Engineering at Illinois is ranked No. 4 in undergraduate education and No. 5 in graduate education among more than 200 colleges of Engineering throughout the U.S. The University of Illinois is one of the preeminent global leaders in engineering education and research with a legacy of inspiring innovation dating back to the 1800s. Ask us about our programs and explore our web site at www.engr.uiuc.edu.

Thank you for joining us at Engineering Open House, and I hope you have a great day!

Sincerely,

Ilesanmi Adesida

Dean, College of Engineering

Open House Central Committee

Engineering Open House Director

Exhibits Director

Facilities Co-Directors

Corporate Co-Directors

College Design Contest Director

High School Design Contest Director

Grade School Design Contest Director

Judging Director

Visitor's Information Director

External Publicity Director

Internal Publicity Director

Safety Co-Directors

Social and Entertainment Director

Secretary/Treasurer

Webmaster

Jason Chang

Meagan Simantz

Sidharth Gopalan

Bryan Walker

Ravi Thakkar

Gavin Fernandes

Jeff Keith

Sam Dacanay

Yang Zhao

Uday Unni

Heather Curran

Mitul Patel

Scott Van Etten

Reid Parrish

Ketan Darji

Serena Liou

Kurt Adair

Steven Zazeski

SPECIAL THANKS

EOH Cen-Comm would like to thank:

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Awards Ltd.

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Ketty Duvall

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Insight Cable

Kay Kappes

Rick Kubetz

Greg Larson

Dan Mast

Donna Offenbecher

Kent Studer

EOH Volunteers

20th Annual AMD W.J. “Jerry” Sanders Creative Design Competition

College students from around the world come to participate in the 20th Annual AMD W.J. “Jerry” Sanders Creative Design Competition, a two-day contest of robotic design and engineering. This year, robots will battle against the clock and each other to move colored hoops and discs to color-changing bases around the 2000 square-foot, two-level course. More points are awarded towards the end of each round as the time that teams have to drop off their hoops and discs decreases. Four teams compete simultaneously in ten-minute rounds, and the highest scoring teams advance to the final rounds on Saturday, March 10th.

Scoring:

- 15 points for each disc deposited at a base of its color
- 25 points for each hoop deposited at a base of its color
- Point values for objects will increase during the ten minute round

“Jerry” Sanders III graduated from the University of Illinois at Urbana-Champaign in 1958 with a Bachelor of Science in Electrical Engineering. Since then, he’s gone on to start one of the most successful companies of our times.

W.J. “Jerry” Sanders III co-founded Advanced Micro Devices (AMD) in 1969. Under his leadership, AMD grew from being a “second-sourcer” of other companies’ products to its current position as the fourth largest semiconductor manufacturer in the United States.

Sanders also co-founded several prominent industry groups including the Semiconductor Industry Association, the Santa Clara Manufacturing Group, the Semiconductor Research Corporation and the Microelectronics and Computer Technology Corporation.

The Wall Street Transcript named Sanders the Best Chief Executive Officer in the semiconductor industry for the years 1983, 1984, and 1985, and runner-up in 1991. Mr. Sanders received the Robert N. Noyce Award from the Semiconductor Industry Association (SIA) in 1998. In 2001 he received the Medal of Achievement for the AeA, the nation’s largest high tech industry association.

Sanders’ continued support for the University of Illinois and in particular this design contest is a testament to his support of education competition, both of which he thinks breeds success, creativity, and excellence.

W.J. Sanders III
Founder and Chairman Emeritus of Advanced Micro Devices, Inc.



Location and Time:

March 9 and 10, 2007

Kenney Gym Annex

University of Illinois at Urbana-Champaign

Schedule:

Competition will take place from 9 am to 4 pm on both days with final rounds starting around 1 pm on Saturday, March 10th.

There will be rounds running at all times with bonus rounds and even crowd participation events spaced throughout the day.

W.J. “Jerry” Sanders Creative Design Competition Committee

Director: Jeff Keith

Rules Chair: Chris Reeg

Field Chair: Alex Lorch

Multimedia Chair: Casey Roth

Publicity Chair: Dan McKenna

Webmaster: Stephen Kempf

Faculty Advisor: Dan Mast

PROJECT DESCRIPTIONS



Agricultural Engineering Science Building

1304 W. Pennsylvania, Urbana

Map Location: On South Quad

The Agricultural Engineering Science Building is home to the Agricultural Engineering Department and the Department of Food Sciences.



Digital Computing Lab

1304 W. Springfield, Urbana

Map Code: D7

The Digital Computing Lab is the former home to the Department of Computing and Communications Services Office.

Agricultural Engineering Science Building

Alpha Epsilon and Agricultural and Biological Engineering

Alpha Epsilon Honor Society
Alpha Epsilon is the honor society for Agricultural and Biological Engineers. Our department is not very well known, so this exhibit will provide an introduction to Ag and Bio Engineering, Alpha Epsilon, and what we do.

Location: 1st Floor Hallway

This exhibit is suitable for: All

Building Environment Control Simulator

Individual

This simulator will demonstrate the environmental control principles involved in operation of building systems and the audience will be able to understand building environment control better with these visual aids.

Location: Room 137

This exhibit is suitable for: All

Digital Computing Lab

A Biobased Economy: What's an Engineer to Do?

Agricultural and Biological Engineering Department
Engineering during the next century will focus on satisfying society's needs using

renewable, biological resources. Learn how bioprocess engineering can lead to a cutting edge career.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: All

Alpha Epsilon and Agricultural and Biological Engineering

Alpha Epsilon Honor Society
Alpha Epsilon is the honor society for Agricultural and Biological Engineers. Our department is not very well known, so this exhibit will provide an introduction to Ag and Bio Engineering, Alpha Epsilon, and what we do.

Location: Near the west entrance of DCL on the first floor

This exhibit is suitable for: All

American Society of Agricultural and Biological Engineers (ASABE)

ASABE
We are the Student Branch of ASABE. Come visit us to learn about an exciting career in Bioenvironmental, Food and Bioprocess, Off-Road Equipment, and Soil and Water Resources Engineering. Our members participate in a variety of activities ranging from 1/4 scale tractor pull competitions to a fountain wars competition.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: All

An Innovative System for Bioremediation of Agricultural Chemicals for Environmental Sustainability

Individual

A team of 12 students are currently competing in the nationally recognized EPA-P3 research competition. This exhibit discusses the research, which explores the amazing potential of natural materials to eliminate toxic chemicals from agricultural runoff.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: hs, adult

Biodiesel

Individual

Biodiesel is an intriguing replacement to petroleum diesel fuel. Many challenges exist in the production and use of this new fuel. This exhibit will cover these challenges and what is being done about them.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: hs, adult

Biodiesel Production and Uses

Department of Agricultural and Biological Engineering

Biodiesel has recently become a popular alternative to regular petroleum diesel fuel. However several issues still

lie in its production and usage that prevent it from becoming more widely used. This exhibit will discuss these issues.

Location: Near the west entrance of DCL on the first floor

This exhibit is suitable for: hs, adult

Bioengineering Department Tours

BMES

Come visit the new Bioengineering department of U of I. We will be showcasing out new facilities as well as demonstrating work done by students in the lab.

Location: Room 3110

This exhibit is suitable for: All

Career Opportunities in Agricultural and Biological Engineering

Department of Agricultural and Biological Engineering

Learn how Agricultural and Biological Engineers solve engineering problems related to living organisms and systems. Career opportunities are available in areas related to bioprocessing, renewable energy, water and air quality, natural resources, food production systems, biological systems and other areas that utilize biology as part of the engineering solution. Employment is available in industry, government and academics.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: All

Great Innovations from the Past and Present

Air conditioning, integrated circuits, skyscrapers, the LED, flat panel televisions -- these and many other innovations were made possible by technology developed at the College of Engineering. Explore this timeline to learn more about some of these innovations and achievements of our faculty and alumni.



1870

Stillman Robinson, the University of Illinois' first professor, and later, Dean of Engineering, institutes the nation's first engineering curriculum to include both science-based lectures and experimental laboratory practice.



Engineering Hall

1308 W. Green, Urbana

Map Code: E4

Engineering Hall, an example of Renaissance Revival architecture, was built in 1894. It is the administrative hub of the College of Engineering and home to a number of Engineering Council Societies.

EOG machine

BMES

The human sleep cycle is a great mystery to scientists to this day. We hope to remove part of that mystery through the development of a machine that measures eye movement and can discern the amount of time spent in rem sleep as well as other information.

Location: Room 3107

This exhibit is suitable for: All

Illini Pullers

Illini Pullers

American Society of Agricultural and Biological Engineers 1/4 Scale Tractor Design Team.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: All

Sims: More Than Just a Computer Game

Department of Agricultural and Biological Engineering

What do living on Mars and livestock grazing have in common? They are biological systems! A hands-on exercise will show how understanding connections within a system can help us understand the system as a whole. Put a map of these connections to use in a computer simulation of your system and create your own "Sims" for space exploration or farming.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: All

Vegetated Filter Strip

Individual

Vegetated Filter Strips (VFS) are an innovative and natural way to remove undesirable pollution from agricultural runoff. This exhibit includes a small-scale demonstration of how the system works.

Location: 1st floor hallway between west entrance and 1070

This exhibit is suitable for: hs, adult

Engineering Hall

Build Me a Ship!

Society for Business and Management in Engineering

Build Me A Ship! is an interactive project that will let participants of all ages have fun with spending money and purchasing materials to build an actual boat. The boats will race while carrying weights and sailing across a pool of water. CANDY FOR ALL and HIGH SCORE PRIZES.

Location: Room 106B3

This exhibit is suitable for: All

Custom Paintball Marker

Individual

A visual presentation of how the featured two paintball markers work. One being a custom built marker, made from modified parts of various production markers. Another being a marker that has completely stock parts. Both have been built on the same concept.

Location: Room 106B6

This exhibit is suitable for: All

DBF

Design Build Fly

Design Build Fly is a student organization that competes in an international competition. Each year teams are required to design and build a remote controlled airplane that meets certain specifications, and then complete various “missions” to determine which plane is the best.

Location: Room 106B8

This exhibit is suitable for: All

The Hoefft Technology and Management Program

The Hoefft Technology and Management Program

The Hoefft Technology and Management Program is a multidisciplinary University minor that is available to undergraduate engineering and business students. Along with exclusively offered classes tailored to the program, T&M gives students gain exposure to a variety of businesses through workshops, company presentations, and a corporate sponsor career fair.

Location: Room 110D

This exhibit is suitable for: hs, adult

Marble Sorter

Danville High School

Danville High School freshmen and sophomores have the unique opportunity to take an engineering course this

year. Come see the marble sorter we made from Fischertechnik!

Location: Room 106B6

This exhibit is suitable for: All

Everitt Lab

AES Listening Room

Audio Engineering Society

The Audio Engineering Society does a lot of cool stuff, we make speakers, subwoofers, and amps, and we’re showing it all off. Come see what we’re all about.

Location: Room 168

This exhibit is suitable for: All

Design Your Own Rocket

Illinois Space Society

Learn about rocket and airplane design, and then build your own!

Location: Room 241

This exhibit is suitable for: All

Digital Information Technology: Boris the Fish Talks Back!

Individual

Have you ever felt technology-challenged? Don’t worry, even non-engineers can innovate! After learning some basic techniques in digital signal processing, a student in ECE 101 (a course for non-engineers) was able to visualize and implement a procedure for mapping the movements of his fish to music. Stop by to see how!

Location: Room 269



Everitt Laboratory

1406 W. Green, Urbana

Map Code: E9

Everitt Lab is home to the Department of Electrical and Computer Engineering and is named after the late William L. Everitt, former department head and dean of engineering.



1922

Electrical Engineering Professor Joseph Tykociner invents the first sound-on-film technology through a double feature motion picture that included ringing a bell and reading the Gettysburg Address. Tykociner's invention is still used for sound-on-film today.



1927

Arthur Cutts Willard, a mechanical engineering professor, and later, president of the University of Illinois, designs the ventilating system for New York's Holland Tunnel.

This exhibit is suitable for: All

Electric Slide Whistle

Individual

The MIDI Controlled Slide Whistle is a slide whistle which has been revamped, so that instead of requiring a human with skilled motion and breathing control to play, it accepts a standard MIDI signal, and actuates the slide whistle accordingly. Using a proportional control valve to monitor compressed air flow, we can vary the volume and duration of a given note. Then to slide the whistle to the correct position, a stepper motor is used to drive a carriage connected to the whistle. The coordination of these movements is realized by a microcontroller chip which analyzes said MIDI signal, provided by any MIDI compliant instrument. The setup allows the user to do some interesting things with the slide whistle that would normally be quite difficult.

Location: Room 261

This exhibit is suitable for: All

Fantasy to Reality: Why we go to Space

Illinois Space Society

Learn about modern luxuries developed through the space program that today we couldn't think of living without.

Location: Room 143

This exhibit is suitable for: All

Foosbot

ADSL

Foosbot is a robotic foosball

table that controls one entire team and will play the game against a human.

Location: Room 261

This exhibit is suitable for: All

G9 Impulse

ECE 395 ADSL

Video Game System

Location: Room 261

This exhibit is suitable for: All

Illinois Space Society

Illinois Space Society

The purposes of ISS are to (1) create a network of space supporters in the Champaign-Urbana area, (2) to serve the community through educational outreach, and (3) to provide supporters with resources that will assist them in following their dreams in the field of space exploration.

Location: Room 143

This exhibit is suitable for: All

Library & Information Science

Graduate School of Library & Information Science

More than just books! Librarians & information scientists advocate public access to information, intellectual freedom, information literacy, and service to all communities.

Join us for storytelling, a live demonstration of our distance education program, and the innovations of the #1 Library & Information Science School in the U.S.

Location: Room 260

This exhibit is suitable for: All

Little Engineers Tackle Big Earthquakes

Engineering Outreach Society
Third, fourth, and fifth grade students will construct buildings from simple materials that will be tested for durability during an earthquake.

Location: Room 165

This exhibit is suitable for: gs

Race to Space!

Illinois Space Society

The Illinois Space Society's award winning space trivia game returns to EOH. Challenge your knowledge of space and space exploration and help launch the space shuttle!

Location: Room 245

This exhibit is suitable for: All

Racing Cars

WECE

Have you ever wondered what it's like to street race? Learn what's inside RC cars and challenge yourself for the best time around the track!

Location: Room 163

This exhibit is suitable for: All

Trident

International Projects in Engineering & Consulting

Trident is a small submarine that is highly maneuverable, modular in design and is capable of being air-dropped from a C-130 military transport aircraft. Potential uses include in the fields of military, tourism as well as surveillance and maintenance of underwater pipelines and

cables.

Location: Room 169

This exhibit is suitable for: hs, adult

Why Go to the Moon?

Illinois Space Society

Want to know why there's all this talk about going to the Moon again? Learn why we went there in the first place, and why NASA wants to go again. Also experience the Lunar Explorer, a fascinating Moon simulation program developed from actual NASA missions. So far, 12 men have walked on the Moon. Now you can, too.

Location: Room 143

This exhibit is suitable for: All

Hydrosystems Lab

Ever seen the bottom of the Ocean?

IAHR

Come discover for yourself the interesting bed forms which are present beneath the waves.

Location: Room 1520

This exhibit is suitable for: All

Hand-On Hydrologic Model

IAHR

In this hands-on model one can explore how the power of water shapes the topology of our earth. Come design your own landscape and see how water works its magic.

Location: Room 1504

This exhibit is suitable for: All



Hydrosystems Laboratory

301 N. Mathews, Urbana

Map Location: North of DCL

The Hydrosystems Lab is a research facility in the Department of Civil and Environmental Engineering.



Loomis Laboratory

1110 W. Green, Urbana

Map Code: L9

The Loomis Laboratory of Physics is home to the Department of Physics.

Squiggly Rivers of the Earth Exposed!

IAHR

The project displays a model of a meandering river. This model is currently being used to perform state-of-the-art research on flow in meandering rivers. Come see research in action!

Location: Room 1504

This exhibit is suitable for: All

The Hazards of the Modern Spillway

IAHR

This demonstration examines the incredible increase in energy as flow overtops a spillway.

Location: Room 1504

This exhibit is suitable for: All

The Perfect Storm

IAHR

Think you have what it takes to design a ship to battle the elements of the open ocean. Come build your own aluminum foil boat and test it in our enormous wave tank to see if it survives Mother Nature.

Location: Room 1504

This exhibit is suitable for: All

Why does the Chicago River Flow Backwards

IAHR

The Chicago River is often reported as “flowing backwards” in the winter. This project uses a scale model of the Chicago River to expose the phenomena associated with two fluids of different densities flow on top of each other.

Location: Room 1520

This exhibit is suitable for: All

Loomis Lab

African Americans in Chemistry and Chemical Engineering Quiz Bowl

NOBCCChE

Come learn about blacks in the fields of chemistry and chemical engineering! Win prizes!!!

Location: North Lobby outside room 151

This exhibit is suitable for: gs, adult

AIChE Exhibits

AIChE

Location: North Lobby outside room 151

This exhibit is suitable for: All

Augmented Reality

IEEE

Come explore the world of augmented reality. Virtual reality is so 90's. Audience will have a chance to participate in an augmented reality and print off and take home a picture of themselves in an augmented reality!

Location: Northwest Stairwell

This exhibit is suitable for: All

Bubble Room

Physics Society

Here children of all ages can play with and explore bubbles. Come find out what shapes you can make.

Location: Room 137

This exhibit is suitable for: All

Chaos Demos

Physics Society
Chaos is all around us, from the weather to boat wakes. Come see some demonstrations that show what chaos really is and how it works. This is in the same room as the Mechanics Demos.

Location: Room 153

This exhibit is suitable for: hs, adult

Cloud Chamber

Physics Society
The chamber allows you to see cosmic rays. These rays are emitted by the sun and other cosmic sources, but this chamber reveals them.

Location: South End of South Lobby

This exhibit is suitable for: hs, adult

Compulsator

Physics Society
Our Project is to determine exactly what goes into the

physics that make a compulsator (compensated pulse alternator) work. This includes a small prototype that shows that it delivers a sharper current spike than an alternator without the compensated coilings.

Location: Room 144

This exhibit is suitable for: hs, adult

E&M Demos

Physics Society
We have put together several small demonstrations using electricity and magnetism including levitation and magnetic coupled oscillators. The Tesla Coil, Compulsator, and Theremin are also in this room.

Location: Room 144

This exhibit is suitable for: hs, adult

Lecture Demos

Physics Van
Come sit and relax while enjoying demonstrations by



1932

Civil Engineering Professor Hardy Cross proposes his revolutionary Moment Distribution Method, enabling rapid, safe design of skyscrapers.



1934

Mechanical Engineering Professor and alumnus Seichi Konzo (MS 1929), designs the first air-conditioned house in the world--at 1108 West Stoughton Street, Urbana--and moves his family in to test it.

Something Interesting To Check Out at EOH 2007

This is always one of the biggest hits at EOH! In **50H Everitt Lab** you can watch a laser engraving of poker chips with this year's EOH logo! You can even take it home as a souvenir! Come check it out and get your **FREE** momento today!



1940

Physics Professor Donald Kerst invents the first betatron and uses it to determine the basic properties of uranium and plutonium for the Manhattan Project.



1950

Civil Engineering Professor Nathan Newmark designs the first earthquake-proof skyscraper, the 600-foot Latino-American Tower in Mexico City.

the Physics Van Outreach Program. Demos will include laws of motion, states of matter, and a few explosions along the way. Shows times: Friday 10:30, 12, 1:30, and 3 and Saturday 10, 11:30, and 2.

Location: Room 141

This exhibit is suitable for: All

Liquid Nitrogen Table

Physics Van

Stop by the Liquid Nitrogen table to see what happens when things get really cold. How cold you ask? -320 degrees Fahrenheit. You can watch things like balloons and flowers get placed in the nitrogen. We also demonstrate a banana as a hammer and propel a cork out of a cannon!

Location: North End of South Lobby

This exhibit is suitable for: All

MacGyver Competition

IEEE

The local student branch of IEEE is sponsoring a MacGyver competition at this year's EOH. Three times a day, participants will have to accomplish tasks under time constraints, using only household items. The winner of each competition will receive an electronic item worth ~20\$

Location: North Lobby outside room 151

This exhibit is suitable for: All

Mechanics Demos

Physics Society

This room contains small

demonstrations to show physics in action including oscillators and projectile launchers. This is in the same room as the Chaos Demos.

Location: Room 153

This exhibit is suitable for: hs, adult

Modified Jacob's Ladder

Physics Society

The Jacob's ladder is a popular and impressive demonstration of a climbing electrical arc. We have designed a simple experiment to learn how it moves.

Location: Room 144

This exhibit is suitable for: All

Self Healing Polymers

NOBCCHE

Come hear a brief, interesting presentation and see a demo about the innovative technique of self healing polymerization that could allow cracks in cell phones or other electronic devices to fix themselves.

Location: North Lobby outside room 151

This exhibit is suitable for: All

Tesla Coil

Physics Society

The Tesla coil is an air-core transformer capable of producing very high voltages at high frequencies. Invented by Nikola Tesla, the device was first intended for radio transmission. This is in the E & M Demos room.

Location: Room 144

This exhibit is suitable for: hs, adult

Theremin

Physics Society

Do you think you have telekinetic powers? Come show them off by playing our musical instrument that doesn't require touching. This is in the E & M Demos room.

Location: Room 144

This exhibit is suitable for: All

Mechanical Engineering Lab

Hovercraft

ASME

We will use leaf blowers to develop a hovercraft. Principles such as air flow (fluid dynamics), and general physics will be displayed.

Location: Room 2009

This exhibit is suitable for: All

Mechanical Engineering Class Projects

Society of Manufacturing Engineers

Injection molding and casting techniques will be demonstrated in one of the mechanical engineering laboratories. Along with these, certain CNC techniques will also be on display. These are from a Design for Manufacturability class within the ME curriculum.

Location: 1225

This exhibit is suitable for: All

Penny Smasher

ASME

This penny smasher will show the use of gears and work in an ideal system. It will also be used to make souvenirs for the EOH guests.

Location: Second Floor Atrium

This exhibit is suitable for: All

Society of Automotive Engineers

Society of Automotive Engineers

The Collegiate Chapter of the Society of Automotive Engineers International at the University of Illinois Urbana-Champaign is dedicated to the promotion of advancement in designing, building, maintaining and operating vehicles of all types. Vehicles designed and build by the Formula SAE and Mini-Baja teams will be on display.

Location: Outside West Door

This exhibit is suitable for: All

Solar Decathlon 2007

Individual

The Solar Decathlon is a university competition sponsored by the Department of Energy and the National Renewable Energy Laboratory. This year the University of Illinois will compete for the first time against other world-class institutions to design an innovative and efficient stand-alone solar house. The project is to be built and transported to the National Mall in Washington D.C. Points are awarded over the three week period of the competition based on functionality, aesthetics and



Mechanical Engineering Laboratory

105 S. Mathews Ave, Urbana

Map Code: M9

The Mechanical Engineering Laboratory is home to the Department of Mechanical and Industrial Engineering.



Material Sciences Engineering Building

1304 W. Green, Urbana

Map Code: M4

The Material Science and Engineering Building holds labs and offices for the Department of Material Science and Engineering.



1952

Physics Professor Ralph E. Meager and colleagues developed ILLIAC I, the first digital computer entirely built and owned by an educational institution. The ILLIAC series later continued with ILLIAC II, a transistorized computer, and culminated in the mid 1960s with the ILLIAC IV supercomputer--at the time the fastest and largest in the world. Meager also went on to become the first head of the Department of Computer Science at UIUC.

marketability. Here at the University of Illinois our team is made up of students from all fields of engineering as well as architecture, art and design. Come see U of I's engineering at its best!

Location: Room 2005

This exhibit is suitable for: All

Material Sciences Engineering Building

Electronic Materials Project

Undergraduate Materials/AVS Project

See a comparison of technology through the ages: Cathode ray displays, Liquid Crystal Displays (LCD), plasma screens, and organic light emitting devices.

Location: Hallway to room 119

This exhibit is suitable for: All

Fuel Cells

Engineers Without Borders

Can a car run off of sunlight and water? Come learn about hydrogen fuel cells, the energy storage medium of the future! Watch as we use a solar cell to convert water into hydrogen and oxygen gases, which are then used in a fuel cell to power a model car.

Location: Main Hallway (west)

This exhibit is suitable for: All

High Performance materials

Undergraduate Materials Organization

The affects of composition on composite materials, such as concrete, carbon fiber, and others.

Location: Hallway to room 119

This exhibit is suitable for: All

Hydrogels

Undergraduate Materials Organization

The Biomaterials Applications of Hydrogels. You'd be surprised what this encompasses.

Location: Main Hallway (east)

This exhibit is suitable for: hs, adult

Keramos Mugs

Keramos

Display of ceramic mugs including the processing and material science of the ceramics.

Location: Main Hallway (west)

This exhibit is suitable for: All

Light Emitting Diodes

Undergraduate Materials Organization

LEDs you never thought existed! Demos with Christmas lights and other LED products.

Location: Hallway to room 119

This exhibit is suitable for: All

Materials Challenge

Undergraduate Materials Organization

Kids can learn about the magic of composites versus other material properties. This is interactive and great for kids.

Location: Main Hallway (west)

This exhibit is suitable for: All

Materials Science of Candy

Undergraduate Materials Organization

Get a view of the real science of candy! See what candy looks lie up close, and learn about the science that goes into it....plus taste some!!!

Location: Hallway to room 119

This exhibit is suitable for: All

Materials Science of Chewing Gum

Undergraduate Materials Organization

You would have never thought how much science goes into your gum!!

Location: Hallway to room 119

This exhibit is suitable for: All

Materials Science of Make-Up

Undergraduate Materials Organization

Kids learn about materials science in make-up and get to make their own lip gloss.

Location: Main Hallway (east)

This exhibit is suitable for: gs, hs

Materials Science of Sports Balls

Undergraduate Materials Organization

Explore the world of Materials Science with an INSIDE look at different sports balls.

Location: Hallway to room 119

This exhibit is suitable for: All

Materials Show

Undergraduate Materials Organization

A ~15min short film showing the fun side of Materials Science. Join the Materials Rangers as they use fundamental basics of science to save the world from the evil plots of Entropic Man!

Location: Hallway to room 119

This exhibit is suitable for: All

Photochromic Materials: They're Colorific!

Undergraduate Materials Organization

Demos of photochromic materials, showing how they change color when under a blacklight. Will be making photochromic bracelets for kids!

Location: Hallway to room 119

This exhibit is suitable for: All

Piezoelectric Materials

Undergraduate Materials Organization

Displaying the varied uses of piezoelectric material in things such as sonar, switches, and the basic concept of the piezoelectric phenomenon.

Location: Hallway to room 119

This exhibit is suitable for: All

Polymer Magic Show

Undergraduate Materials Organization

A "magic show" showcasing the magic of polymers to small children!

Location: Main Hallway (east)

This exhibit is suitable for: All



1955

Physics alumnus Polykarp Kusch (MS 1933, PhD 1936) shares the Nobel Prize in Physics for his work toward the precise measurement of the magnetic movement of the electron.



1956

Physics and Electrical Engineering Professor John Bardeen shares the Nobel Prize in Physics for research on semiconductors and the invention of the transistor with former Bell Labs' colleagues, William Brattain, and William Shockley.



Newmark Laboratories

205 N. Mathews Ave, Urbana

Map Location: North of DCL

Newmark Laboratories is home to the Department of Civil Engineering.



1961

Electrical Engineering alumnus Donald L. Bitzer (BS 1955, MS 1956, PhD 1960) and colleagues develop PLATO, the first computer-based interactive educational network and home of the first online community. The flat-panel plasma monitor, a forerunner of today's high-definition flat-panel television monitors, was a spin-off invention made by researchers working on PLATO.

Polymer Slime

Undergraduate Materials Organization

A demonstration of polymer properties and a demo hand out of "polymer slime".

Location: Main Hallway (east)

This exhibit is suitable for: All

Reducing Greenhouse Gas Emissions: Capturing CO₂ and from Power Plants with Polymeric Membranes

Undergraduate Materials Organization

Power plants are the largest single source producers of CO₂ and widespread efforts have been made to capture CO₂ from flue gas. We will present a short survey of current technologies for CO₂ capture, discuss ideas for CO₂ storage, and also present our research efforts toward a new solution.

Location: Main Hallway (west)

This exhibit is suitable for: All

Self-Cleaning Glass

Undergraduate Materials Organization

New Generation Windows! Thin coating cleans the glass on its own as well as kills bacteria! The future starts here!!!

Location: Main Hallway (west)

This exhibit is suitable for: All

Shape Memory Alloys

Undergraduate Materials Organization

A demonstration of the properties of Shape Memory

Alloys and examples of possible applications.

Location: Hallway to room 119

This exhibit is suitable for: All

WaterCAMPWS- Future Household Water Use

WaterCAMPWS

What will you do when drought hits you? WaterCAMPWS students will demonstrate water treatment concepts in the context of how households will use water more intelligently in the future. Demonstrations that visualize fundamental water treatment concepts will help you understand the chemical, physical, and biological principles of water treatment.

Location: Main Hallway (east)

This exhibit is suitable for: All

Welding

Undergraduate Materials Organization

The material science of Welding in all of its wondrous innovation!

Location: Main Hallway (east)

This exhibit is suitable for: hs, adult

Newmark Civil Engineering Lab

Civil Engineering Extravaganza

ASCE

Many different organizations from the Civil and Environmental Engineering Department will be present with fun activities like a Shake Table,

Concrete Cylinder Design Contest, Balsa Wood Bridge Contest, Concrete Canoe, and Steel Bridge. Come join us in the Crane Bay of Newmark to see what the CEE Department can do.

Location: Crane Bay

This exhibit is suitable for: All

Railroad Engineering

ASCE and UIUC Railroad Engineering Program

See what railroads look like from the inside! Practice running a freight train in a full-scale locomotive simulator, or get a peak at the system used to coordinate the movement of dozens of trains sharing the same track. Students and industry representatives will be available to help you understand how the railroads and the public can work together to keep a 15,000 ton train moving safely.

Location: Crane Bay

This exhibit is suitable for: All

Shaking Experience

MUST-SIM/Civil Engineering Department

The Exhibit will contain a poster for projects that are currently taking place in the laboratory. In addition, videos and automated PowerPoint presentations will be run on smartboards to demonstrate the effect of earthquakes on structures and people’s lives. There will also be a live demo in the small-scale lab showing an actual structure “shaking” due to an earthquake record.

Location: Crane Bay

This exhibit is suitable for: All

Siebel Center for Computer Science

AFS Installable File System

Individual

An Installable File System (IFS) implementation of the OpenAFS for Windows Cache Manager.

Location: 1st Floor Hallway (between west entrance and room 1210)

This exhibit is suitable for: All

Cellular Automata

ACM SIGBio

Biological cells have certain rules they live by -- when to divide, what genes to express, etc. We model cell growth based on these rules using 3-dimensional cellular automata.

Location: Atrium outside room 1302

This exhibit is suitable for: All

Chess v. 2.0

Individual

Like chess? Neither do I. Come check out Chess v. 2.0. Chess v. 2.0 is a combat chess program for head-to-head no holds barred bare-knuckle chess combat. It’s like chess but better.

Location: 1st Floor Hallway (between west entrance and room 1210)

This exhibit is suitable for: All



Siebel Center for Computer Science

201 N. Goodwin, Urbana

Map Code: S2

The Thomas M. Siebel Center is the new home to the Department of Computer Science.



1969

Civil Engineering Professor Ven Te Chow pioneers the field of watershed hydraulics with an innovative experimentation system that produces storms in the laboratory. Today, the Ven Te Chow Hydrosystems Laboratory at UIUC focuses on four major research areas: Rivers, Sediment Dynamics, Environmental Hydraulics, and Hydraulic Modeling.



1972

Physics and Electrical Engineering Professor John Bardeen becomes the only person to receive the Nobel Prize in Physics twice--the second prize was for solving the 50-year-old mystery of superconductivity (a puzzle that Einstein tried, and failed, to solve). Superconducting magnets have made possible advanced technologies from MRI to cell phones. The achievement was shared with Physics alumni, John Robert Schrieffer (MS 1954, PhD 1957), and postdoctoral fellow Leon Cooper.



1977

Physics alumna Rosalyn Sussman Yalow (MS 1942, PhD 1945) shares the Nobel Prize in Medicine or Physiology for the discovery and development of radio-immunoassay, a technique that employs radioactive isotopes to detect and measure the levels of insulin and hormones in the blood and in body tissues.

Cling

ACM Gamebuilders

Cling is a multiplayer top-down 2D game where players roll, jump, and zip around levels in an attempt to oust their fellow players with a variety of useful weapons in fun and exciting gametypes.

Location: Atrium outside room 1214

This exhibit is suitable for: All

Distributed Music Player

ACM SIGSoft

The Distributed Music Player project is designed to allow universal multimedia access. We plan to provide the tools which make it possible for the average user to access their own media from any networked device.

Location: Atrium outside room 1304

This exhibit is suitable for: All

Dynamic Message Exchange in High-Demand Systems

SIGNet

An advanced networking system for immersive multimedia communications. The project showcases independent student research in robust distributed systems, and also serves as an educational display for visitors.

Location: Atrium outside room 1304

This exhibit is suitable for: All

Gamebuilders Minigames

ACM Gamebuilders

The minigame project is a compilation of three easy-to-play games which are focused on bursts of fun. The projects included in this compilation is Super Einstein, Frantic Elevator, and a Tetris/Breakout hybrid game.

Location: Atrium outside room 1214

This exhibit is suitable for: All

General Game Playing

ACM/SIGArt

While computer programs like Deep Blue can defeat the world champions in certain games, they are specialized systems only capable of playing that game. Our goal is to create a program that can learn to play, and win, any game, given only the rules for that game.

Location: 1st Floor Hallway (between east entrance and room 1304 atrium)

This exhibit is suitable for: hs, adult

Geometry Fox

ACM Gamebuilders

Fly through space destroying as many enemies as possible in this arcade-like game. Some of the game's features are fun music, items to add/enhance the abilities of the player, and numerous different enemies to keep the player busy.

Location: Atrium outside room 1214

This exhibit is suitable for: All

Graphical Threaded Debugger

ACM SIGSoft

Modern programmers are faced with the problem of effectively controlling multiple threads of execution. Our Graphical Thread Debugger (TDB) seeks to aid programmers by allowing them to visualize their application in execution the same way a film editor scrubs through a movie.

Location: Atrium outside room 1304

This exhibit is suitable for: All

Gravity Simulator Screensaver

ACM

A very cool screensaver that simulates the effects of gravity on a system of many particles with random initial configuration.

Location: Atrium outside room 1214

This exhibit is suitable for: All

Grey Frame

ACM Gamebuilders

An inherently rhythmic side-scrolling fighting game, Grey Frame is an experimental video game which attempts to combine the skill based rhythmic genre such as Guitar Hero and Dance Dance Revolution with the intense action of Side-scroller beat'em ups.

Location: Atrium outside room 1214

This exhibit is suitable for: All

IlliTurk - General Game Playing Agent

Individual

Programs like Deep Blue are capable of playing specific games at a world class level, but they can't learn how to play other games. IlliTurk is capable of learning to play any turn-based game.

Location: 1st Floor Hallway (between west entrance and room 1210)

This exhibit is suitable for: All

JSTR

Individual

JavaScript development has traditionally been difficult because of the language's powerful but confusing idioms and incompatibilities with browsers. JSTR provides a platform for JavaScript which shifts the developer's focus from quirks to software engineering.

Location: Atrium outside room 1302

This exhibit is suitable for: All

Laptop Ensemble

UIUC Course

We will give a short musical and video performance using networked laptop computers.

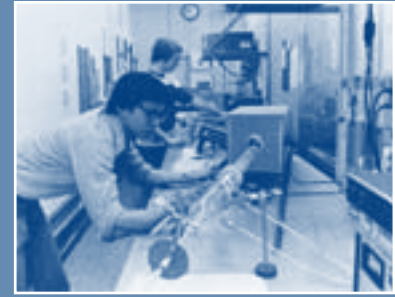
Location:

This exhibit is suitable for: All

Laptop Ensemble

Student musical ensemble

We will perform a set of original music in the Siebel Atrium, using the video wall if available; we will use both computers and traditional instruments. The audience is



1977

Electrical Engineering Professor and alumnus Nick Holonyak, Jr. (BS 1950, MS 1951, PhD 1954) invents the quantum well laser, making possible lasers for fiber-optic communications and the Internet, CDs, DVDs, medical diagnosis, surgery, ophthalmology, and many other applications. In 2006, Professor Holonyak was inducted into the Consumer Electronics (CE) Hall of Fame.



1993

Computer Science students Marc Andreessen and Eric Bina work with an NCSA development team to create Mosaic, the first graphical browser to introduce the general public to the power of the Internet. Mosaic took the Internet out of the hands of physicists and into the hands of the public.



1998

Computer science alumnus Max Levchin (BS 1997) is co-founder (with Peter Thiel) and former chief technology officer of PayPal. Initially started as a Palm Pilot payments and cryptography company, PayPal enables anyone with an email address to make and receive online payments quickly and securely using the existing payment infrastructure with the benefit of the latest fraud prevention technology. In October 2002, eBay acquired PayPal, which had employed a number of U of I computer science alumni including YouTube co-founders Jawed Karim and Steve Chen.



2000

Electrical Engineering alumnus Jack S. Kilby (BS 1947) is awarded the Nobel Prize in Physics for his part in the invention of the integrated circuit at Texas Instruments. He held over 60 patents and is credited as co-inventor of the hand-held calculator and the thermal printer used in portable data terminals.

welcome to try out our instruments!

Location:

This exhibit is suitable for: All

LaserLine 2.0

ACM

LaserLine 2.0 is professional-grade software for laser show performance and production on the Macintosh. Using our newly fabricated precision projection hardware, any aspiring Laserist can use the system to display stunning laser visuals.

Location: Atrium outside room 1214

This exhibit is suitable for: All

Motion Capture Flash

Women in Computer Science

The Motion Capture Flash

is an interactive video game made in Flash. Video camera captures your motion and transfers it to the video game. Use your hands, legs, or head to move the objects on the screen and earn points! The game is fun and simple for everyone to play.

Location: Atrium outside room 1302

This exhibit is suitable for: hs, adult

Programming as it should be

ACM SIGPLAN

An advanced programming language system which allows developers to make the optimal compromise between static and dynamic transformation and analysis, thus

automating robust, efficient software development processes.

Location: Atrium outside room 1304

This exhibit is suitable for: All

R.A.G.E. - Beyond the Ether

ACM SIGMIL

SIGMIL will once again be demonstrating cutting edge security software with real world applications. This year's project combines student expertise from multiple different fields to solve today's increasingly difficult computer security problems.

Location: Atrium outside room 1302

This exhibit is suitable for: All

Real-Time Strategy Game

ACM Gamebuilders

A dynamic strategy game where players create their own units. Project emphasizes engine design (99% of engine written from the ground-up), networking, and unique gameplay.

Location: Atrium outside room 1302

This exhibit is suitable for: All

Robotic Orchestra

ACM SigMusic

Ever wanted live music, but it was too expensive? Look no further. ACM's SigMusic has designed an interface for instruments which can be played by your computer. Come see it in action!

Location: Atrium outside room 1302

This exhibit is suitable for: All

Robotic Platform Manipulation

ACM

we will be building multiple platform vehicles and doing real tests on their communication, object detection and real time recognition in order to better understand the obstacles in the way of cheap, robust platform vehicles.

Location: Atrium outside room 1214

This exhibit is suitable for: All

Seekbot

Individual

Created to demonstrate computer, electrical, and software engineering principles, seek-Bot is a 4-wheel drive rover with onboard computer and sensor array that allows for remote data collection and exploration. If you're into robots and computers, check out this impressive machine.

Location: Atrium outside room 1302

This exhibit is suitable for: All

SharedFS

ACM SIGOPS

SIGOps will be presenting SharedFS, a peer-to-peer filesystem designed for Local Area Networks. SharedFS has been in development since Spring 2005 and this will be its second year at EOH.

Location: Atrium outside room 1304

This exhibit is suitable for: All

Sucrose

ACM SIGARCH

Our project will be a candy machine that will utilize the University's ID to buy items. Users will be able to select the item, swipe their ID; a local database will store what they bought.

Location: Atrium outside room 1302

This exhibit is suitable for: All

Teaching Software

ACM SIGSoft

This application is designed to allow students to begin learning the main concepts of programming without having to look at a foreign and confusing new language through use of a powerful graphical development tool.

Location: Atrium outside room 1304

This exhibit is suitable for: All

Webprint

ACM Webmonkeys

Webprint will take data from all over the internet and use this to intelligently compile a summary of the personal information that is "out there", openly available to the public if anybody wants to look hard enough. Sure it sounds a little creepy... but wouldn't you like to know what you've been telling everybody?

Location: 1st Floor Hallway (between east entrance and



2001

Electrical Engineering alumnus Donald L. Bitzer (BS 1955, MS 1956, PhD 1960, Electrical Engineering), Robert Willson (BS 1959, Engineering Physics; MS 1961, Physics; PhD 1966, Electrical Engineering), and the late H. Gene Slottow (PhD 1964, Electrical Engineering), receive a Technical Achievement Emmy for their invention of the plasma display monitor--forerunner of the modern flat panel television screen. The Bitzer-Slottow Award in the Department of Electrical and Computer Engineering in the College of Engineering was established in 1989.



2003

Chemistry and Bioengineering Professor Paul C. Lauterbur shared the Nobel Prize for Medicine or Physiology with England's Peter Mansfield for their seminal discoveries concerning the use of magnetic resonance to visualize different structures. Lauterbur was among the first scientists to use nuclear magnetic resonance (NMR) in the studies of molecules, solutions and solids. He was also the first researcher to produce an image with NMR and apply the technology to medicine.



Talbot Laboratory

104 S. Wright, Urbana

Map Code: T2

Talbot Laboratory houses the Department of Aeronautical and Astronautical Engineering and the Department of Theoretical and Applied Mechanics.

room 1304 atrium)

This exhibit is suitable for: hs, adult

Talbot Laboratory

Century of Flight

American Institute of Aeronautics and Astronautics
Movie detailing 100 Years of Flight.

Location: 1st Floor (east-west hallway between 104 and west end)

This exhibit is suitable for: All

Concrete Cylinder Crushing

Society for Experimental Mechanics

In one of the most exciting exhibits of EOH, watch as 18 inch in diameter and 4 foot tall concrete cylinders are crushed by our 3 million pound crushing machine. Crushing times are as follows for both Friday and Saturday: 10:00 11:30 1:00 2:30 All crushing is held in the basement of Talbot Lab.

Location: Basement Hallway (west side of north end)

This exhibit is suitable for: All

Double Pendulum

Society for Experimental Mechanics

This year, SEM has added a new dimension to the double pendulum exhibit by incorporating a driving mechanism to add energy to the system. Come see the chaos in Talbot 104!

Location: Room 104

This exhibit is suitable for: All

Flight Simulator

American Institute of Aeronautics and Astronautics
An improved Frasca Flight Simulator will be placed in the hallway of Talbot Laboratory for visitors to use and experience flight.

Location: 1st Floor (east-west hallway between 104 and east end)

This exhibit is suitable for: All

Fluids Lab

Demonstrations

Society for Experimental Mechanics

Come to the Fluids Lab in room 126 Talbot Lab and get hands on experience learning about fluid in open channels, converging and diverging nozzles, and other experimental setups. We will also have a hydraulic jump running and tin foil boat contest.

Location: Room 126

This exhibit is suitable for: hs, adult

Illini Space Jet

American Institute of Aeronautics and Astronautics
Illini Space Jet will display an 11 foot long jet powered airplane with a launchable rocket.

Location: Garage

This exhibit is suitable for: All

Magnus Effect

Society for Experimental Mechanics

Ever seen a rotating object

take flight? That is what this exhibit is all about. Because of a few fluids properties, a spinning object actually creates lift. Come see how in Talbot 104.

Location: Room 104

This exhibit is suitable for: hs, adult

Space Shuttle Heat Tile Demonstration

American Institute of Aeronautics and Astronautics

Demonstration of a Space Shuttle Heat Tile and its ability to dissipate heat during reentry into the Earth's atmosphere.

Location: Room 103

This exhibit is suitable for: All

TAM Toys

Society for Experimental Mechanics

See what mechanics is all about in a fun and interactive way. Get hands on experience with moments and angular velocity using our bicycle wheel gyroscope. Plus many other exciting toys. Wonder what makes a strong knot? Test your favorite knot in our tension machine during the Knot Tying Contest held both days.

Location: Room 220

This exhibit is suitable for: All

Torsion of Non-Circular Members

Society for Experimental Mechanics

The torsion of members can be seen in hundreds of

everyday applications, from drive shafts to springs. Also, check out our hands on soap bubble experiments, an innovative way to observe shear stress in non-circular members. Don't miss the fun in Talbot 105!

Location: Room 105

This exhibit is suitable for: hs, adult

Trebuchet

Society for Experimental Mechanics

The Trebuchet, which first appeared on medieval French battlefields as dominating siege engine, is making an appearance at this year's EOH. The Society for Experimental Mechanics has designed its own trebuchet, and will discuss a mathematical model of the device. SEM will also discuss the design process and production process for the final model. Come and see the trebuchet in action as SEM demonstrates its creation with a few test launches in Talbot 105!

Location: Room 105

This exhibit is suitable for: All

Wind Tunnel Demonstration

AIAA

Demonstrate lift, drag and other aerodynamic properties of a wing, sphere and golf ball.

Location: 18A

This exhibit is suitable for: All



2003

Physics Professor Anthony J. Leggett shares the Nobel Prize in Physics with Alexei A. Abrikosov and Vitaly L. Ginzburg for pioneering contributions to the theory of superconductors and superfluids..



2005

Robert H. Liebeck (BS 1961, MS 1962, PhD 1968, Aerospace Engineering) has attained world recognition with his novel designs for high-lift airfoils, referred to by the aeronautics community as the "Liebeck airfoils." He is co-developer of the Blended-Wing-Body (BWB), a revolutionary design for subsonic transports which is widely considered as the next revolution in subsonic commercial transportation. It is a 600-passenger, "flying wing" aircraft with significantly better economics and efficiency than traditional designs. The BWB is a top priority at NASA, and is under serious consideration by Boeing, where Liebeck is a Senior Fellow.



Transportation Building

104 S. Mathews, Urbana

Map Code: T6

The Transportation Building houses the Industrial and Enterprise Systems Engineering.

Transportation Building

Castaway

ISGE

Each participant will be given a piece of aluminum foil, 4 sections of drinking straw, and scotch tape. The goal is to build the raft that will hold the most pennies.

Location: Room 103

This exhibit is suitable for: gs

Earth Wall

GESO

Paper can do more than you think! Paper strips make the wall carry more loads.

Location: Room 206

This exhibit is suitable for: All

IIE

Institute of Industrial Engineers

Class projects from the industrial engineering curriculum. These will include supply chain demonstrations, signal detection and control systems.

Location: Room 114

This exhibit is suitable for: All

Indoor Air Quality and Aerodynamic Particle Separation

Individual

An aerodynamic particle separator created by the Agricultural and Biological Engineering Dept for high volume air cleaning will be on display. Functional prototypes will be exhibited.

Location: 2nd Floor Hallway (south end)

This exhibit is suitable for: All

Light Pulsating Subwoofer

Individual

Have you ever seen a light pulsating speaker? Here's your chance to check out our 500 watt floor trembling subwoofer. With its intricate design and luminous light show, our subwoofer will blow you away!

Location: 1st Floor Hallway (north end)

This exhibit is suitable for: All

Liquefaction Tank

GESO

How does quicksand swallow objects? You might've seen it in movies...see it real...with reasoning.

Location: Room 203

This exhibit is suitable for: All

SplatFest: Egg Drop

Gamma Epsilon

Each participant is encouraged to build a protective device that prevents a raw egg from cracking when it is dropped from a second-story window. The design will be limited by fun-dollars used to purchase supplies such as cotton balls, duct tape, newspaper, rubber bands, etc.

Location: Room 207

This exhibit is suitable for: All

Sticky Skyscrapers

ISGE

Each participant is given

toothpicks and marshmallows in a plastic bag. The goal is to build the tallest tower with the materials provided. The tower must be able to stand on its own.

Location: Room 101

This exhibit is suitable for: gs

SWE Breakfast

Society of Women Engineers
Free breakfast for all EOH attendees including bagels, donuts, muffins, coffee, juice, and more!

Location: Room 112

This exhibit is suitable for: All

Some other exciting Exhibits!

Power and Energy Systems Laboratory

Power and Energy Systems Group

Power and Energy are the core disciplines in Electrical Engineering. Come see the Magnetic Ring Cannon,

the Floating Frying Pan, the Automated Etch-a-Sketch and many more!

Location: Room 50 in Everitt

This exhibit is suitable for: All

MEDUSA: pursuing the ultimate maneuverability in a UAV platform.

MEDUSA will be a UAV propelled by ducted fans. Currently one arm (of 6) is built and visitors will be able to control this arm through a joystick.

This exhibit is suitable for: All

Metaverse

Department of Computer Science

Metaverse is a software engineering and research project striving to create the world largest, most scalable and flexible MMO environment, where anything from gaming to complex social interaction is going to be possible.

This exhibit is suitable for: All



2006

Ray Ozzie (BS 1979, Computer Science), created and led the development of Lotus Notes, the defining groupware product used by more than 100 million people worldwide. In April 2005, he became a chief technical officer at Microsoft which acquired Groove Networks, Inc., the company he founded in 1997. Groove Networks offers virtual office software that allows teams of people to work together over the network as if they were in the same room. Ozzie was first exposed to the nature and significance of collaborative systems and computer-supported cooperative work while working on the university's PLATO project as an undergraduate.

College of Engineering Meeting with a Dean

Friday, March 9 & Saturday, March 10

9:30 a.m. & 11:00 a.m.

Friday, March 9 - 1:30 p.m.

Room 151, Everitt Laboratory

All students welcome

For students admitted for Fall 2007 to

College of Engineering

For more information stop by the College of Engineering booth on the 1st floor of Engineering Hall.



Beckman Institute

Beckman Blimp



Beckman Institute Open House Scheduled for March 9-10

Visitors get an inside look at cutting-edge research and technology

URBANA, Ill. — What is it like to get an MRI? What are researchers learning from a colony of the tiny trap-jaw ants? What does “brain on a chip” mean? These are just a few of the questions that inquiring minds can get answered at the Beckman Institute Open House March 9-10, 2007.

The Beckman Institute Open House is a biennial event, held in conjunction with the University of Illinois’ College of Engineering Open House. The exhibits and demonstrations will be presented by Beckman Institute faculty, staff and students and are designed to give visitors a hands-on, inside look at some of the research and projects being conducted at the Beckman Institute. **The exhibits will be open on Friday, March 9 from 9 a.m. to 4 p.m.; on Saturday, March 10 from 9 a.m. to 3 p.m.** A list of the exhibits will be posted on www.beckman.uiuc.edu in early February.

The Beckman Institute is located on the University of Illinois campus at 405 North Mathews Avenue in Urbana, at the intersection of Mathews and University Avenue. Metered parking available in the parking deck across from the Institute. Meters are enforced on Friday, but parking is free on Saturday. Schools, clubs, and other large groups are welcome.

For more information, please contact:
Sue Johnson, External Relations Manager:
217-244-7114; e-mail: johnso16@uiuc.edu

www.beckman.uiuc.edu

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Raytheon
Customer Success Is Our Mission

Inspiring Innovation **29**



Verizon Wireless is Proud to be the
Exclusive Wireless Telecommunications
Sponsor of EOH 2007

Please stop by our booth located at Engineering
Hall to see a demonstration of our services.
Or, please visit our convenient Champaign
locations:

910 West Town Center Blvd
Champaign, IL
217.355.5117

2006 N Prospect Ave
Located inside Circuit City
Champaign, IL
217.351.1100

PEOPLE OF A GREAT ORGANIZATION



He's on a roll.

Just days into his first job, Adam was assigned to a product team at Garmin that was developing the company's very first GPS car navigator featuring touch screen technology. Adam, a recent computer engineering grad, rolled up his sleeves and immediately began working with other engineers on the team. He even came up with a solution that allowed the device's computer-generated voice commands to work loud and clear. Not bad for the new guy.

In the months following, this tight-knit team of engineers wrote new software, installed prototype systems and even field-tested the product. Now that's hands-on engineering.

Garmin, a world leader in GPS-enabled products and other innovative electronics, is ready to get more engineers in the driver's seat. We are seeking Software, Electrical and Mechanical Engineers.

We are currently hiring in the following departments:

- Software Engineer • Design Engineer
- Mechanical Engineer • Engineering Technicians
- Aviation Software & Systems Engineer
- Aviation Systems Engineer/Program Coordinators
- Flight Control Systems Engineer
- Aviation Database Software Engineer

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Bioengineering and Chemical Engineering Camp – August 5-11
 For girls in 7th & 8th grades

Computer Science Camp – August 5-11
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Structural Camp – August 5-11
 For girls in 7th & 8th grades

Illinois Aerospace Institute
Aerospace Camp – July 8-14
 For students in 6th, 7th, 8th & 10th grades



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WaterTEC Water Camp – July 18-21
 For students in 9th, 10th, 11th & 12th grades

Worldwide Youth in Science and Engineering (WYSE)
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 For students in 11th & 12th grades

Discover Engineering Camp – July 22-28
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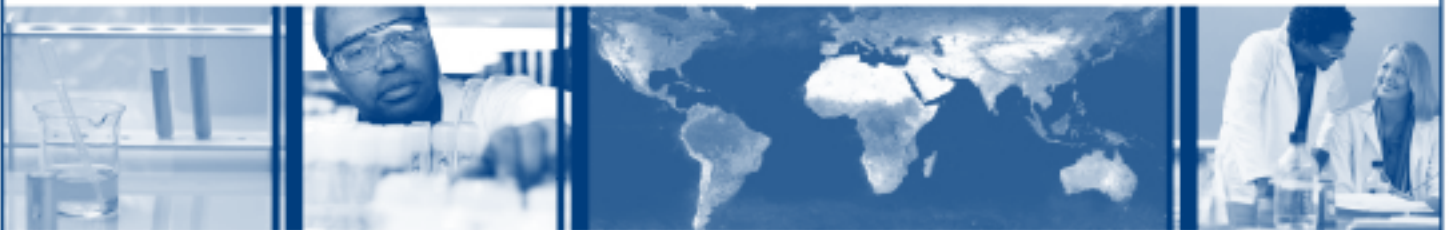
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