

Engineers Day Open House February 28, 2004



UNIVERSITY OF KENTUCKY
College of Engineering

Schedule of Events

Welcome to the College of Engineering!

We're glad you're here to help us cap off a week-long celebration of the engineering profession, National Engineers Week. Engineers are the world's problem solvers, and today you'll be able to learn what engineers do and how they do it. While you're learning, you'll have fun participating in contests, winning prizes, watching experiments and demonstrations, and talking to engineers about their jobs.

The names of the main buildings where you'll find events are: **F. Paul Anderson Tower (FPAT)**, **The Advanced Science and Technology Commercialization Center (ASTeCC)**, **UK Center for Manufacturing (RMB)**, **Ralph G. Anderson (RGAN)**, **Oliver H. Raymond (Raymond)**. Other buildings in use include: Mining and Minerals Resources Building (**MMRB**), James F. Hardymon Building (**Hardymon**), and the Terrell Civil Engineering Building (**DVT**). Directional maps and floor plans are available at the registration tables. Look for signs that will tell you what building you are entering. The listings in the schedule are color-coded with the names of the buildings. There are three information tables. They are located in the lobby of **RMB**, first floor of **RGAN** and the first floor of the **Raymond** building. In the event of an **EMERGENCY**, go to room 161 in the **Raymond** building, or dial **257-4856**.

Times for all activities are from 9 a.m. to 1 p.m., unless otherwise noted

Enter to win a digital camera !!!!!

check at information tables and entry boxes for rules and details

General Activities

Department/Center/ Sponsor	Activity	Location
University of Kentucky	Office of Admissions	1 st Floor, RGAN
College of Engineering	E-Day Information Table Locations	1 st Floor ,RGAN
College of Engineering	E-Day Information Table Locations	Lobby, RMB
College of Engineering	E-Day Information Table Locations	RGAN atrium
College of Engineering	E-Day Information Table Locations	1 st Floor, Raymond
College of Engineering	E-Day Headquarters & Emergency Center	161 Raymond
College of Engineering	Career Services	1 st Floor, RGAN
College of Engineering	Co-op	1 st Floor, RGAN
College of Engineering	Financial Aid	1 st Floor, RGAN
College of Engineering	Minority Engineering	1 st Floor, RGAN
College of Engineering	12 Noon to 2 p. m. Minority Engineering Pizza lunch	323 RMB
College of Engineering	Women in Engineering	1 st Floor, RGAN
College of Engineering	College of Engineering	1 st Floor, RGAN
College of Engineering	Zoom into Engineering	57 Raymond

Departmental and Center Activities

Department/Center	Activity	Location	
Biomedical Engineering	Blood Pressure and Blood Flow	253, FPAT	
	Biomedical Materials and Implants	253, FPAT	
	Adjustable Shunt for Cardiothoracic therapy	253, FPAT	
	Cardiorhythms	253, FPAT	
	NASA's Human Powered Centrifuge	253, FPAT	
	Biosystems and Agricultural Engineering	How Popcorn pops – an edible demonstration	263, FPAT
What does foam have to do with it?		263, FPAT	
How do enzymes work? A great learning opportunity		263, FPAT	
Developing Healthy Stream Corridors		263, FPAT	
Balloon Giveaway		263, FPAT	
Enhanced Midsole gives athletes a spring in their step		263, FPAT	
It's a Toy, It's a Tool, It's a Remote Sensing Device		263, FPAT	
Trane: It's Hard to Stop a Trane		263, FPAT	
ASHRAE:For the World We Live In		263, FPAT	
¼ Scale Model Tractor		Basement, ASTeCC	
U-Kat, No Driver Necessary		Basement, ASTeCC	
Center for Manufacturing (UKCM)		Welding Research Laboratory	119, RMB
		Applied Sensing & Control Laboratory	9, RMB
	Injection Molding	9, RMB	
	Machining Research – Poster presentation of Active Projects	9, RMB	
	Rapid Prototyping	112, RMB	
	High Speed Filming Analysis of Machining Processes	9, RMB	
	Cutting Force and Temperature Measurement in Machining	9, RMB	
	Near-Dry Machining Operation	9, RMB	
	Web-based Machining Optimization	9, RMB	
	Destructive Material Testing	012A, RMB	
	Chester the Checker-Playing Robot	1st Floor, RMB	
	Digital Photo Giveaway – Exciting Backgrounds	213, RMB	
	Lean Manufacturing Boot Camp	320, RMB	
	COE Balloons	2nd Floor, RMB	
	UK Center for Manufacturing Information Table	2 nd Floor, FPAT	
	Computer simulation of manufacturing processes	220K, RMB	
Chemical and Materials Engineering	Fluid Flow	59A, FPAT	
	Packed Column	59A, FPAT	
	Distillation	59A, FPAT	
	Membranes	59A, FPAT	
	Department Information	1 st Floor, FPAT	
	Electron Microscopy	8, ASTeCC	
	Nanotubes in Polymer Composites	67, FPAT	
	The World of Materials	67, FPAT	

Department/Center	Activity	Location
Civil Engineering	Hydro Lab Demonstration Surveying Civil Engineering Exhibits Computer Graphics Demo	16, Raymond 16, Raymond 120, Raymond 211, RGAN
Computer Science	Demos and Presentations Demos and Presentations 10:45 a.m. Freshman Day Program 10:45 a.m. UPE/ACM Programming/Web	215E, RMB 215E, RMB Hardymon Hardymon
Electrical & Computer Engineering	Information on Exhibits and Free Short Courses E-day Exhibit Index and Maps Electromagnetic Simulation Supercomputers R Us Laser Micromachining Electronic Devices Research Lab Digital Design Lab KAOS Software Development Lab IEEE student robot competition Undergraduate wireless communication lab Palace of Power Holodeck Multispectral Imaging Nanotechnology and Semiconductors Lab Digital Halftoning Center for Nanoscale Science & Engineering Computer Architecture Lab Welding Research Lab 2 – 3 p.m. Short Course Introduction to Linux 2 – 3 p.m. Short Course Introduction to Digital Photography 3:30 – 4:30 p.m. Linux Install Fest and LAN Party 3:30 – 4:30 p.m. Short Course Manipulating Digital Images with Free Software	http://aggregate.org/Entry , FPAT 682, FPAT 672, FPAT 659, FPAT 651, FPAT 581, FPAT 577, FPAT 559, FPAT 465, FPAT 462, FPAT 455, FPAT 453, FPAT 369, 365, 349, 346 ASTeCC 368, ASTeCC 361, ASTeCC 521, RMB 119, RMB 302 DVT TBA 581, FPAT 302 DVT
Kentucky Transportation Center	Interactive Highway Safety ArcView Display of Kentucky Crash Sites and Statistics Intelligent Transportation Systems Accelerated Testing of Coatings Composite Materials Display - plastic bridges and more KTC Library - Information and resources about engineering Video Microscope Earthquake Machine – it will rock your world! Thermography Equipment – as seen in the movie “Predator” Engineering Field Equipment Inspecting Pipes from the Inside – Pipe Line Inspection Technology	1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond 1 st Floor, Raymond Basement, ASTeCC Basement, ASTeCC
Mechanical Engineering	Acoustics Lab Anechoic Test Cell Learning to Fly with BIG BLUE (Joint Project with ECE Department) Wind Tunnel Dynamic Structures and Control Lab Precision Laser Pointing System Magnetically Levitated Vibration Absorber Optical Profilometry Demonstration Fluid Mechanics Lab ME Program Information Painting Technology Research Energy Efficiency Research Flame Synthesis of Carbon Nanotubes Combustion and Fire Computational Fluid Dynamics and Portable CP Cluster Advanced CFD Group Poster 3-D Immersive Visualization Demo Intelligent Defect Detection on Smooth, Specular Surfaces Ultra-Rapid and Uniform Heating Using Microwave Artificial Kidney Freezing of Living Cells and Tissues for Transplantations Freeze-Dry of Blood Cells Radiation Transfer Lab	RGAN 6, RGAN 1 st Floor, RGAN 8, RGAN 010, 010A, RGAN 14, RGAN 14, RGAN 14, RGAN 18, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN 202, RGAN
Mining Engineering	Gold Ore – a UK Gold Rush Demonstration of Mine Roof Support Hydrocyclone Demonstration Measuring Strain Mine Ventilation Laboratory Mine Design Laboratory	255, FPAT 255, FPAT 255, FPAT 255, FPAT 111, MMRB 248, MMRB

Student Organization Exhibits and Demonstrations

Engineering Student Council	Information Table	1 st Floor, FPAT
AIAA	Information Table	1 st Floor , RGAN
ACM/UPE	Information Table, Computer Puzzles & Games	1 st Floor, Raymond
ASAE	Information Table & Tractor Model	Basement, AS ^{Te} CC
ASCE	Information Table	1 st Floor, Raymond
ASCE-Concrete	Concrete Canoe Exhibit	16, Raymond
ASCE-Steel Bridg	Steel Bridge Exhibit	Basement, Raymond
ASME	Information Table	202, RGAN
Blanding III	Information Table	1 st Floor, Raymond
BMES	Information Table	253, FPAT
AICHE	Information Table	1 st Floor, FPAT
CHEGSA	Information Table	2 nd Floor, FPAT
Chi Epsilon	Information Table	2 nd Floor, Raymond
IEEE	Robot Demonstration / Battling Robots	559, FPAT
IMAPS	Information Table	10, RMB
KSPE	Information Table	Basement, Raymond
NSBE	Information Table	1 st Floor, RGAN
Phi Sigma Rho	Information Table	1 st Floor, Raymond
Pi Tau Sigma	Information Table	202, RGAN
SAE	Information Table and Mini Baja and Formula Cars	Basement, AS ^{Te} CC
SME (Mining)	Information Table	255, FPAT
SME (Manufacturing)	Information Table & Solar Car	Basement, AS ^{Te} CC
SWE	Information Table	1 st Floor , RGAN
Tau Beta Pi	Information Table	1 st Floor, RGAN
Triangle	Information Table & Assistance	1 st Floor, Raymond
Food – NSBE	Candy/Soft drinks	1 st Floor, RGAN
Food – Chi Epsilon	Pizza & Soda	267, FPAT
Food – ASCE	Bake Sale	Basement near vending Raymond
Food – ASM	Bake Sale	Basement corridor of FPAT

Exhibitors

Company/Organization	Location	Company/Organization	Location
Air Force ROTC	2 nd floor Raymond	KY Coal Foundation	255, FPAT
ASHRAE	263, FPAT	Kentucky Transportation Cabinet	265, FPAT
Asphalt Institute	2 nd floor Raymond	Lexmark	257, FPAT
Association of State Dam Safety Officials	2 nd floor Raymond	Link-Belt Construction Equipment Company	203, RGAN
Belcan	203, RGAN	Martek	2 nd Floor, RMB
Burgess & Niple, LTD	2 nd floor Raymond	Mason & Hanger	2 nd Floor Raymond
Cummins, Inc.	Basement, AS ^{Te} CC	Newton's Attic Robot Cars	RGAN courtyard
Fuller Mossbarger Scott and May Engineers Inc.	2 nd floor Raymond	Noveon Inc.	2 nd Floor Raymond
Girls in Science	2 nd floor Raymond	Palmer Engineering	2 nd Floor Raymond
IEEE	2 nd floor Raymond	Toyota	2 nd Floor, RMB
Kaba Mas Corp.	203, RGAN	Trane	263, FPAT

Contests

Sponsor	Type of Contest/Time	Name of Contest	Location
ACM/UPE	Pre-Registration Contest 9:00	High School Programming/ Web Challenge Results	1 st Floor, Raymond
KSPE	Pre-Registration Contest 9:30	Pringle Mailing	Basement, Raymond
Chi Epsilon	Pre-Registration Contest 9:00	Popsicle Stick Bridge	226, Raymond
Eta Kappa Nu	Pre-Registration Contest 9:00	Rube Goldberg	207, RGAN
ASCE	Pre-Registration Contest 11:00	Egg Drop	Basement, Raymond
AICHe	Pre-Registration Contest 9:00	Volcano	Basement, FPAT
ITE	Pre-Registration Contest 12:00	Newspaper Bridge	112, Raymond
ASME	Pre-Registration Contest	Mini Battle Wagon	12, RGAN
AIAA	Walk-up Contest	Glider	Basement, Raymond
SWE	Walk-up Contest	Edible Car	53, Raymond
FESC	Walk-up Contest	Barge Loading	2 nd Floor walkway, AS ^{Te} CC
ASCE	Walk-up Contest 11:00	Index Card Bridge	112, Raymond
SAE	Walk-up Contest	Catapult Basketball	209 RMB
ASME	Walk-up Contest	Model Crane	209, RMB
SMSE	Walk-up Contest	Hair Strength Test	67, FPAT
CHEGSA	Walk-up Contest	Scavenger Hunt	2 nd Floor, FPAT
NSBE	Walk-up Contest	Tower Building	1 st Floor, RGAN
SME (Mining)	Walk-up Contest	Coal Loading	255, FPAT