DON’T MISS THESE OPPORTUNITIES!!

- The Engineering Club will have one more meeting this semester, Tuesday December 2nd at 5pm in Houston Hall, Room 232
- Fluid Power Systems Project Demo on Thursday, December 4, 12 noon, AEC Room 205 (see pages 4-5)

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ENGINEERING CLUB UNVEILS NEW SHIRT DESIGN!

That’s right, the Engineering Club has decided upon a V.2 logo for the 2015 Spring Semester! If you are interested in purchasing a t-shirt or hooded sweatshirt please fill out an order form (included on page 2) and return it to Harriet at the AEC front desk.

Advance payment is required. Short sleeved t-shirts are $15 and hoodie sweatshirts are $35. All proceeds benefit the CMU Engineering Club and their quest to compete in the 2015 Formula SAE events.

Tis the Season … … to apply for scholarships and internships!!!

Check out the opportunities listed on pages 6 and 7!

Interested in the new Applied Mechanical Engineering degree offered by CMU? Contact your faculty advisor to explore this new option!

(Faculty Advisor contact information is included on page 8.)

IMPORTANT DATES:

FINALS WEEK: December 8-11

SPRING 2015 Classes begin on Tuesday, January 20

ATTENTION SOPHOMORES:

If you plan to apply to the BSME program for the 2015-2016 academic year, please be sure to complete your CU-Boulder Transfer Application as soon as possible. If you have already turned in the initial Transfer Application, please plan to work on the Supplemental Application before or during winter break.

(Contact Harriet Carpenter, Administrative Assistant, at 970-248-1400 or hcarpenter@coloradomesa.edu if you have questions or need forms.)
The month of November was a great month for the Engineering Club!

Design and fabrication continues to progress for the Formula SAE team. We have had many productive sessions at All-Metals Welding and Fabrication where the chassis is being constructed. Mr. Bill Campbell of the WCCC welding department has also been a big help over the past few weeks. Mr. Campbell invited us to use some tools and equipment to bend the main hoop and front hoop for our formula car chassis.

As FSAE Michigan approaches, we are looking for sponsors to support us. For more information please contact project manager, Aaron Howell by email: aaron.howell@colorado.edu, or phone: 970.361.2942.

We are also happy to welcome aboard any individuals to help with marketing, branding, video and photo compilation, editing, engineering, ergonomics and sponsorship. The Engineering Club will have one more meeting this semester, Tuesday December 2nd at 5pm in Houston Hall, Room 232.

Use the form below to place an order for t-shirt or hoodie sweatshirt with the new Engineering Club logo. Drop off your completed order (with payment) to Harriet at the AEC Front Desk.

Name:_________________________________________________________

e-mail address:______________________________________________

Phone Number: _________________________

Short Sleeve T-Shirt: $15 (advance payment required)

Adult sizes only, Women’s cut also available (please specify)

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Hoodie Sweatshirt: $35 (advance payment required)

Adult sizes only

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Here are some photos of the chassis progress for FSAE Michigan.
Fluid Power Systems (ENGR 455) is a senior level elective course available to ME students in both CU and CMU programs. The course deals with the design and analysis of pneumatic & hydraulic systems. Students spend about a third of the semester completing their course project. Below are the two projects completed this semester.

Project #1: The system designed by Alex Zemezonak, Chris Rowley, and Kyle Bartels simulates a pneumatic device for cleaning parts. The parts are put in a basket and then transported into a solution to allow them to soak for certain period of time. They are then removed from the solution, drained over the bathing solution for a while, before returning to the reload position. The whole operation is fully automated using pneumatic actuators, valves, and position sensors and many electrical switches. The device works in both manual and automated modes.
There will be a project demo on Thursday, December 4, from 12 – 12:50 PM at AEC 205. Everybody is welcome to attend!

Project #2: This project was about designing a sparkplug packaging device and was designed by Daniel Harbert, Kevin Hilken, Marcus Matthews, and Robert Rowsam. The operation starts by feeding boxes from a hopper, which are in turn filled with 4 spark plugs before being pushed away for another round of operation. As Marcus put it: “The project portion of the Fluid Power Systems class was a wonderful opportunity for our team to make use of the skills we had learned”. Instead of designing a completely pneumatic circuit, the team opted to combine pneumatic components with electrical switches and sensors operated through an Arduino, thus significantly reducing the number of pneumatic valves and switches needed.
The REU program goal is to provide undergraduate students in mechanical engineering and related fields an opportunity to participate in ongoing active research programs including development of micro air vehicles, multi-modal robots, active flow control, sensors and actuators, smart materials, energy harvesting and storage, etc.. The multidisciplinary nature of these projects will engage students in cross-cutting technologies by inspiring the integration and synthesis of original ideas and facilitating a better understanding of engineering design at the system level. Working closely with faculty and graduate students, the participants will gain hands-on experience and higher level learning skills through other educational and professional development activities.

The program is designed for students who have completed their sophomore or junior year in engineering or related fields. Women, underrepresented minorities, and students from colleges and universities without significant research opportunities are encouraged to apply. Applicants are expected to have a GPA of 3.0 or higher and must be citizens or permanent residents of the US. We are currently accepting applications for summer 2015. Applications are due February 13, 2015. Prospective students should download and complete the REU-MASS Application. Find the application at: http://www.eng.fsu.edu/reu-mass/. Applicants must also provide a resume, a personal statement (500 words max), two letters of recommendation and a copy of their official transcripts.
The American Council of Engineering Companies of Colorado (ACEC/CO) Scholarship Committee will award $30,500 in scholarships to students in engineering programs for the 2015-2016 school year. This amount will be divided between 11-12 students; the top award is $6,000.

The competition is open to students pursuing Bachelor’s degrees in Colorado in Accreditation Board for Engineering Technology (ABET)-accredited engineering program and entering their junior, senior, or fifth year (in a five-year program) in the fall of 2015. To qualify, a student must be a U.S. citizen, with preference given to those who have an understanding of the consulting engineering profession. Students must be full time as determined by the school.

Deadlines: Applications must be postmarked by January 21, 2015 or delivered by 12 Noon, January 23, 2015 to the ACEC/CO office at 800 Grant Street, Suite 100, Denver, CO 80203. The top 11-12 applicants will be interviewed on Saturday morning, February 21, 2015, at our office. Local winners will be notified shortly after the interviews. ACEC/CO scholarships will be paid in the Fall of 2015. All applicants will be invited to a special reception in early April 2015 where they can meet and network with engineers, human resources staff, and other professionals from our member firms. To find the application and recommendation forms, go to: http://acec-co.org/scholarships/
Faculty Advisors

The purpose of a faculty advisor is to assist in the process of degree completion. Students are required to have a faculty advisor's signature on their Program Sheet and other graduation paperwork.

Find Your Advisor

Advisor assignments can be found in MAVzone under the Student Academics tab. Students can view their Academic Profile in the top-center column by selecting the current term in the drop-down box at the bottom of the profile and clicking Go. This will cause the current program of study and advisor(s) to appear. Your Primary Faculty Advisor will be the first name listed. (Note: Dr. Brower is the secondary advisor for all Engineering students. He is the primary advisor only for students in the CU-Boulder BSME degree program.) You can click on the envelope icon by the advisor's name to email your advisor.

Engineering Faculty Advisors

We strongly urge all students to take advantage of the opportunity to plan their course sequence, review potential elective choices, and discuss issues of concern with their Primary Faculty Advisor. Please make an appointment when you need to see your advisor.

Contact information for Engineering Faculty Advisors is shown below:

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<th>Name</th>
<th>Office</th>
<th>Office Phone</th>
<th>E-mail</th>
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<tr>
<td>Dr. Scott Bevill</td>
<td>AEC 212</td>
<td>970.248.1459</td>
<td><a href="mailto:sbevill@coloradomesa.edu">sbevill@coloradomesa.edu</a></td>
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<tr>
<td>Dr. Timothy Brower</td>
<td>AEC 213</td>
<td>970.248.1662</td>
<td><a href="mailto:tbrower@coloradomesa.edu">tbrower@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Francisco Castro</td>
<td>AEC 215</td>
<td>970.248.1564</td>
<td><a href="mailto:frcastro@coloradomesa.edu">frcastro@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Scott Kessler</td>
<td>AEC 216</td>
<td>970.248.1673</td>
<td><a href="mailto:skessler@coloradomesa.edu">skessler@coloradomesa.edu</a></td>
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<tr>
<td>Dr. Nathan McNeill</td>
<td>AEC 206</td>
<td>970.248.1623</td>
<td><a href="mailto:nmcneill@coloradomesa.edu">nmcneill@coloradomesa.edu</a></td>
</tr>
<tr>
<td>Dr. Farzad Taghaddosi</td>
<td>AEC 125</td>
<td>970.248.1678</td>
<td><a href="mailto:ftaghaddosi@coloradomesa.edu">ftaghaddosi@coloradomesa.edu</a></td>
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How many mechanical engineers does it take to change a light bulb?

Five. One to decide which way the bulb ought to turn, one to calculate the force required, one to design a tool with which to turn the bulb, one to design a comfortable-but-functional-hand grip, and one to use all this equipment.

ENGINEER IDENTIFICATION TEST

You walk into a room and notice that a picture is hanging crooked. You...

A. Straighten it.
B. Ignore it.
C. Buy a CAD system and spend the next six months designing a solar-powered, self-adjusting picture frame while often stating aloud your belief that the inventor of the nail was a total moron.

The correct answer is "C" but partial credit can be given to anybody who writes "It depends" in the margin of the test or simply blames the whole stupid thing on "Marketing."