

# Acceleration

*James Worth Bagley College of Engineering Student Newsletter*

## College of Engineering Formal

The Engineering Student Council (ESC) will host the FIRST EVER College of Engineering Formal Saturday, April 3<sup>rd</sup> from 8pm-12am at the Caragen House. The ESC thought that many engineering students have not had the opportunity to go to a formal party since high school, and we thought that it was time to have a large party for Engineering students. The Formal will be a lot of fun, with an awesome DJ who has every genre of music, beautiful decorations, a lit garden, and special effects. The ESC will raise money for the Formal from ticket sales and the ESC Auction. So please come support the Auction (see that article), and bring your friends!

The Formal will be held at the Caragen House, a local bed and breakfast, located on Hwy 82 W. Its entrance has two stone lions. Tickets are \$15/person or \$25/couple. Tickets will be on sale Wednesday, March 24 - Friday, March 26, from 11am-2pm each day on the drill field in front of McCain. Visit the website, [www.msstate.edu/org/esc/formal.html](http://www.msstate.edu/org/esc/formal.html), for



more information.

So Engineers, go home, check your closets, and shop, if needed. Get ready and get excited because the Formal is going to be here before you know it! House of Tux in Starkville is also giving a discount for the Formal. Each guy will receive free shoes and \$13 off a tux rental as long as supplies last. So drop by there as soon as possible to reserve a tux.

### Special points of interest:

- ? College of Engineering Formal
- ? Another tie for "Best Major on Campus" in this year's E-Week Competition
- ? New Engineering Society, NoBCChE
- ? Engineering Jokes — Ha, Ha

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## Engineering Student Council Date and Service Auction

The Engineering Student Council (ESC) will be hosting an Auction THIS Wednesday, March 24 @ 6:00pm in Swalm Auditorium. Students will be auctioned off for dates, house cleaning, homework help, yard work, etc. Anyone and everyone is welcome to come and buy and be sold. The proceeds from the Auction will go to support the College of Engineering Formal. If you are interested in being auctioned off, contact Jen Dearman ([jad10@msstate.edu](mailto:jad10@msstate.edu)) or just show up.

Don't miss out on a fun way to meet some of your fellow engineers!



## AICHE News—Laura Beth Dong, President

*The ChemE's win another "Best Major on Campus" award during this year's Engineering Week!*

Each year when National Engineer's Week rolls around, any spectator can see

Chemical Engineering students participating in the variety of E-Week events. This year was no different as Chemical Engineering received a second consecutive Best Major on Campus Award. ChemE's participation in E-Week events was highlighted by first-place victories in the Banner Competition, the Duct Tape Competition, and the Water Balloon Launching Competition.

With the Duct Tape Competition, **David Layton** hung for the time maximum of 30 minutes thanks to the taping skills of **Trent Jeffreys, Stephen Marbut, and Matt Moller**. This year's victory marks the second consecutive year that the ChemE's have won the Duct



Tape Competition. The efforts of **Jack Ford, Warren English, Jack Ford, Stephen Marbut, and Chris Messemore** resulted in a "W" for the ChemE's in the Water Balloon Launching Competition. **Michael Bestor** won first place in the Undergraduate Student Research Poster Competition. Also contributing to the ChemE effort were **Ernest Rufus**, who placed second in the Pass Competition, and **Laura Wood**, who placed second in the Twister Competition. A special kudos goes to the trio of **Erica Huntley, Barry Kirsch, and Ernest Rufus** for taking an evening

of their time to represent the ChemE's at the ASME Banquet in Tupelo. The ChemE's victory, which occurred with the leadership of **Courtney Danielle Frawley and Trent Jeffreys** (the ChemE E-Week liaisons to the ESC), puts the group in place for a three-peat in 2005.

## Bulldog Toastmasters—Shannon Campbell

I'm sure everyone has heard this, but engineers traditionally lack good communication skills. It's not that we don't talk all the time; it's just that our talks aren't always organized and, hence, effective. Toastmasters is there to help you now with speeches so that you can worry about more important things in the future, like chemical spills, concrete mixing, building bridges, the cure to cancer, electrical burns, or designing airplanes. ;)

Toastmasters is an International speech making club, designed to help its members improve their speech-giving abilities. Bulldog Toastmasters is the Mississippi State chapter of International Toastmasters, and any students, not just Engineering, can be members. Meetings are every Wednesday at 5:00pm in the Shackouls Video Room on the second floor of McCain, and the meetings last for one hour.

The meetings are in the new Shackouls video room so that each of your speeches will be recorded and given to you for you to additionally critique yourself later.

The meetings are always fun, and members really get to know each other. You probably already know a few people in Toastmasters; there are several engineers in Toastmasters: **Dustin Bailey, Shannon Campbell, Derrick Cherry, Cedric Cole, Justin Crapps, Jason Darnell, Jared Fisher, Jack Ford, Sarah Hoque, Alta Knizley, Ashwini Mani, Stephen Marbut, Christine Morrison, Emmanuel Okoro, Marc Parisi, Hazel Payet, Sheena Reeves, Paula Jean Runge, Alex Smith, Tommy Thompson, Sam Walters, Byron Williams, and Michael Wilt**. If you have any questions about Toastmasters, please contact me at [shancamp@yahoo.com](mailto:shancamp@yahoo.com).

## TAPPI News—Becky Smith, President

TAPPI is the Technical Association of the Pulp and Paper Industry. This organization is the leading technical association devoted to the worldwide pulp, paper, and converting industry. TAPPI brings together experienced people in the industry, maintains a comprehensive collection of technical information and knowledge, and provides high quality products and services to assist with problem solving. The pulp and paper industry is very important to both our state and to our region. It is a part of the forest products industry, which is the largest industry in our state. This facet of industry employs many chemical engineers every year.

Although this organization is generally composed of mostly chemical engineering majors, it is open to anyone in an engineering or science major. So if you're a mechanical engineering, industrial engineering, electrical engineering, forestry, etc. major with an interest in the pulp and paper industry, this organization is for you!

As some of you may know, our chapter was inactive for the past few years. This year we currently have a good size chapter. I am, however, pleased to announce that this year the TAPPI chapter has been a complete success. This year we have attended two regional conferences – one in the fall in Pensacola, FL and one in the spring in Columbus, MS. While in Pensacola, our chapter was awarded a \$500 scholarship. And at both conferences, we met representatives from many different companies that deal with the pulp and paper industry.

Every year the Department of Energy and Georgia Tech's Institute of Paper Science and Technology (IPST) both sponsor an Energy Challenge competition. The objective of this "challenge" is to produce

an item made solely of paper products that properly works, as well as conserves energy. The challenge this year, of course, is to make the snowboard that everyone has heard so much about. Our student chapter was one of 10 colleges chosen to receive a \$2,000 start-up award. It has been quite interesting working to build something that so few of us in MS know so little about, but it has been a very fun and a unique learning experience. In April, we will take our snowboard to Colorado and compete with 13 other schools.

Along with all of these activities, we have gone on several plant trips. We also have t-shirts, which are still on sale for \$12 in sizes M-XXL, with the theme of "Making the Essentials".

I want to thank everyone who has been helpful in reactivating the MSU chapter. I'd also like to invite anyone who has not yet joined, to join – if not this year, next. We will be electing next year's officers before too much longer. So even if you aren't currently active in the organization, it is still not too late to meet people in industry, get "hands on" experience by working on projects, have the opportunity to tour different mills and facilities, and to learn more about all that the pulp and paper industry has to offer. If you have any questions, please feel free to contact any of the following people.

Becky Smith, President  
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Jenny Mask, Vice-President  
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*MSU's student section of TAPPI is back in full swing!*

## AMSE News—Justin Crapps, Chair

First Robotics competition – Monroe County Vo-Tech has entered NASA's first robotics competition. The MSU student section of ASME was asked to provide any guidance they could in helping to interpret the drawings for building the test course. The students were also required to create a video using a special animation software. **Brent Quigley**, a mechanical engineering student, was able to aid them in using this software. The students have now completed the robot and are awaiting competition.

At end of February, ASME completed the Ingersoll Rand contest. Ingersoll Rand is a competition between ASME sections from schools all over the southeast. Last year University of Alabama won the Ingersoll Rand competition and MSU set out to reclaim its

title as having the best ASME student section in the southeast. Last year, Alabama's point total was 1600 points. This year, MSU has totaled over 2200 points for the Ingersoll Rand Contest. Needless to say, we expect to go to the Regional Student Conference and get our plaque back!

National Engineer's week was a big event for everyone. Mechanical Engineering came in third place in the best major on campus competition. On Saturday February 28<sup>th</sup>, ASME held a tail gate party at the baseball game for the College of Engineering's Breakfast of champions recruiting day. It was a nice day for baseball and for spending the afternoon with engineering colleagues and students MSU is recruiting.

## Engineering Student Survey and \$50

Do you want to improve Engineering student life and possibly win \$50?! Then take the Engineering Student Survey beginning on Monday, April 5<sup>th</sup>. One lucky survey participant will win \$50, much like the housing survey last year.

The Engineering Student Council wants to better serve the Engineering student body, and we thought that the best to find out. This survey is anonymous, so please give honest feedback.

Again, the survey will become available on Monday, April 5<sup>th</sup> at [www.msstate.edu/org/esc/survey.html](http://www.msstate.edu/org/esc/survey.html). We will accept surveys through April 30. Watch your e-mail the week before for a reminder with a link to the survey!



## Engineering Student Calendar

Do you ever wonder what's going on in the Bagley College of Engineering? Who's having meetings and what are they doing at them? Maybe you need to make plans for an organization or yourself or maybe you're just curious.

Well, the Engineering Student Council has developed an Engineering Student Calendar, which has Engineering organizations, along with University wide, activities on it. University wide activities include men's basketball

and baseball games, exams, holidays, etc. A person can select any date to see what is happening, and drop-down menus allow a person to selectively see activities in one of the eight Engineering majors or one of eighteen Engineering clubs.

Please visit the calendar at [www.msstate.edu/org/calendar/societycalendar.html](http://www.msstate.edu/org/calendar/societycalendar.html). We built this to help you, the Engineering students. So if you have any new activities or suggestions, please e-mail us.

## AIAA News—Angela Spence, President

Aerospace Engineering was proud to garner the designation of “Best Major on Campus” during this year’s Engineers Week celebration. This win was made possible through first place finishes in Twister, thanks to **Will Barksdale** and **Adrienne Bottom**, and Quarter Wars. The Aerospace Department also had strong finishes in the Photo Scavenger Hunt, the Water Balloon Launcher Competition, and the Cookout. The hall emptied on the last day of the competition when undergrads, grads, faculty, and staff gathered for the Awards Ceremony. AIAA was awarded the “Best Website” award during E-Week thanks for a combined effort from **Joel Konkle-Parker** and **Vanessa Aubuchon**. Many thanks, of course, to our E-Week coordinators, **Will Barksdale** and **Vanessa Aubuchon**, as well as all those aersos who showed up to kick tail!

AIAA will be offering a unique opportunity to high school students across the state to finish off the school year. AIAA will be offering a “First Flight” scholarship to any student interested in obtaining his/her pilot’s license. The scholarship will include the first flight les-

son and ground training materials. Information has been released to all high school guidance counselors, and any interested students may contact their guidance counselor or [aiaa@ae.msstate.edu](mailto:aiaa@ae.msstate.edu).

AIAA will be attending regional conference April 4-6 in Memphis, TN. About 30 students will travel to conference.

The event includes several key speakers, design team presentations, individual research presentations, and a tour of the FedEx Rebuild Facility.

There are several new opportunities this year for students to get involved in aerospace engineering in our department. We are now hosting a UAV team, led by **Calvin Walker**, and a materials society, SAMPE, headed by **Jordan Haines**. We look forward to sharing the successes of these new organizations!

Any questions about AIAA can be directed to: [aiaa@ae.msstate.edu](mailto:aiaa@ae.msstate.edu).



## NoBCChE News—Renita Horton

There’s a new student organization on campus. NoBCChE is an organization geared towards the professional development and encouragement of students to pursue careers in science and technical fields. NoBCChE stands for National Organization for the Professional Advancement of Black Chemists and Chemical Engineers. Membership is open to anyone who expresses an interest in promoting awareness of science and engineering. The co-advisors are **Dr. Adrienne Minerick**, an associate professor of the Swalm School of Chemical Engineering, and **Dr. Thompson**, an associate professor in the chemistry department. **Dr. Minerick** and **Dr. Gloria Thompson**, along with the interim president, **Sheena Reeves**, a sophomore in Chemical Engineering, are spearheading the chartering of this organization. This organization was established

for the Professional Advancement of Black Chemists and Chemical Engineers and was organized in April 1972. In December 1973, the Organization’s Executive Board met to plan the first national meeting which was held in March 1974 in New Orleans. The purpose of the organization is to develop and carry out programs to assist ethnic minorities in realizing their full potential in the fields of chemistry and chemical engineering. NOBCChE is committed to the discovery, transmittal, and application of knowledge in the fields of science and engineering. The mission of NOBCChE is to build an eminent community of scientists and engineers by increasing the number of minorities in these fields. For more information about NOBCChE please contact **Sheena M. Reeves** at [smr92@msstate.edu](mailto:smr92@msstate.edu).

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*MSU is excited to welcome NoBCChE to campus. Please support all of our new organizations!*

## First Annual Car Show—Ben Payment

Mississippi State's Engineering Student Council is organizing the first ever car show to be hosted by Mississippi State University. The event will take place April 24, 2004, from 8:30 AM to 3:30 PM in the Hunter Henry Alumni Center parking lot on campus. The car show will be held in conjunction with the Starkville Arts Festival, and the two events will be within walking distance.

We will be hosting seven categories of vehicles: Unmodified (both modern and classic), Rear Wheel Drive Modified, Front Wheel Drive Modified, Four Wheel Drive Modified, Motorcycles, Race Cars/Alternative Power/Research/Military/Experimental, and Clunker.

The car show will have concessions, door prizes, and music from a local radio station. There will be judging of the various categories with prizes awarded to the winners. Apart from the main car display area, a separate section will be reserved for the Clunker category (students only) and a car bash.

All are welcome to come and for those of you who have a vehicle you would like included or just want more information please visit:

<http://www.msstate.edu/org/esc/carshow/>

## Oh! That's funny...

To the optimist, the glass is half full. To the pessimist, the glass is half empty. To the engineer, the glass is twice as big as it needs to be.

A pastor, a doctor and an engineer were waiting one morning for a particularly slow group of golfers. The engineer fumed, "What's with these guys? We must have been waiting for 15 minutes!" The doctor chimed in, "I don't know, but I've never seen such ineptitude!"

The pastor said, "Hey, here comes the greens keeper. Let's have a word with him." "Hi, George. Say, what's with that group ahead of us? They're rather slow, aren't they?" The greens keeper replied, "Oh, yes, that's a group of blind fire-fighters who lost their sight saving our clubhouse from a fire last year, so we always let them play for free anytime." The group was silent for a moment. The pastor said, "That's so sad. I think I will say a special prayer for them tonight." The doctor said, "Good idea. And I'm going to contact my ophthalmologist buddy and see if there's anything he can do for them." The engineer said, "Why can't these guys play at night?"

What is the difference between Mechanical Engineers and Civil Engineers?  
Mechanical Engineers build weapons. Civil Engineers build targets.

"Normal people ... believe that if it ain't broke, don't fix it. Engineers believe that if it ain't broke, it doesn't have enough features yet." -- Scott Adams, The Dilbert Principle



There was an engineer who had an exceptional gift for fixing all things mechanical. After serving his company loyally for over 30 years, he happily retired. Several years later the company contacted him regarding a seemingly impossible problem they were having with one of their multi-million dollar machines. They had tried everything and everyone else to get the machine to work but to no avail. In desperation, they called on the retired engineer. The engineer reluctantly took the challenge. He spent a day studying the huge machine. Finally, at the end of the day, he marked a small "x" in chalk on a component of the machine and said, "This is where your problem is." The part was replaced and the machine worked perfectly again. The company received bill for \$50,000 from the engineer. They demanded an itemized accounting of his charges. The engineer responded briefly: One chalk mark \$1; Knowing where to put it \$49,999. It was paid in full and the engineer retired again in peace.

An architect, an artist and an engineer were discussing whether it was better to spend time with the wife or a mistress. The architect said he enjoyed time with his wife, building a solid foundation for an enduring relationship. The artist said he enjoyed time with his mistress, because of the passion and mystery he found there. The engineer said, "I like both." "Both?" they asked. Engineer: "Yeah. If you have a wife and a mistress, they will each assume you are spending time with the other woman, and you can go to the lab and get some work done."

I'll never forget the day that my Mom called and told me the terrible news. My Grandmother had been diagnosed with lung cancer. The pain and suffering that she went through should never have to be endured by anyone. After she passed away I begin wondering what I could do to help others so they wouldn't have to go through the pain and suffering that she did. Then I remembered something from a computer forum that I visited all the time. They constantly talked about Folding@Home. So I began my research.

During my research I discovered that Folding@Home is a project at Stanford University that is researching the folding, and more importantly, the mis-folding of proteins. This mis-folding of proteins is what causes cancer and certain other diseases. Stanford has discovered a way to simulate the folding of proteins with a computer. The problem is that it takes a very long time to simulate this on one computer. By using the internet and a small, easily distributed client program, the Pande Group at Stanford University began to rapidly simulate protein folding by using thousands of CPU's worldwide.

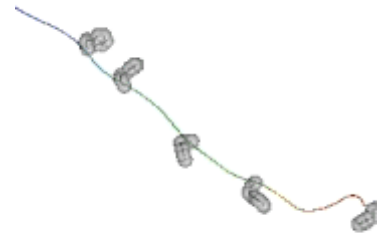
My mind was made up, it was time to download the Folding@Home program and install it on my computer. In less than 5 minutes I had it downloaded, installed and running. My computer began doing research to help fight cancer. Your computer can help find a cure for cancer also. By going to <http://www.stanford.edu/group/pandegroup/folding/download.html> and downloading the F@H client for your operating system.

To help encourage more people to help in the Folding effort, Stanford University has made it a friendly competition. Individual can go solo and fold for the "anonymous" team, or join up with one of the thousands of folding teams out there. This competition not only gives bragging rights for the team that puts up the most points, but also give us a sense of

"doing it for the greater good". Think, for a moment, about the chain of events that could happen. You start folding. You fold for "x" number of years. You complete "x" number of work units. The Pande group at Stanford finds a cure for many different types of cancer. The people that are not in the know think it's a miracle of modern science. We who fold know different. We know of a small distributed computing client that was downloaded and run in the background of thousands of computers, worldwide, that helped find the cure for one of the nastiest diseases to ever be discovered by humankind.

Now you ask yourself, "What can I do to help?" For starters, you can visit the Folding@Home web site mentioned above and grab the graphical client for your operating system. You will need to create a unique user name and use the Mississippi State University team designation of 11675. You won't need a constant internet connection to help out. The F@H client will grab work units, as well as turn in completed work when you connect to the internet. The F@H client runs in the background and uses the idle cycle of your CPU, so you shouldn't notice a decrease in speed or processing power while folding. The MSU folding team also has a bulletin board setup at <http://folding.thespis377.com> for FAQ's and help topics.

As of the writing of this article, there are 135,084 CPU's and 29,412 folding teams that are helping out in this collaborative effort. In the last 50 days, the MSU Folding team has donated millions of processor cycles from 392 processors. There are new users and processors being added each day. Do the world a favor and start folding, the life you save could be your own.



*Acceleration* is a publication of the Mississippi State University Engineering Student Council. We welcome all articles and input (please send to [ams77@msstate.edu](mailto:ams77@msstate.edu)). Anyone interested in helping with the newsletter is not required to be a member of the ESC and should contact **Angela Spence** at [ams77@msstate.edu](mailto:ams77@msstate.edu). We look forward to keeping you informed of all activities within the Bagley College of Engineering.

Available on the internet @ <http://www.msstate.edu/org/esc/acceleration.html>