



news

A A M E

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2005 Annual AAME Banquet

The 2005 Annual AAME Banquet is scheduled for April 8-9, 2005 to be held at the Clarion Inn in Fayetteville, AR. Call 479-521-1166 to make reservations. Please mention that you will be attending the AAME annual banquet, to receive a special room rate that was negotiated by Lamar Pettus.

2005 Distinguished Alumni Banquet

The College of Engineering Distinguished Alumni banquet will be held on April 9th beginning at 6PM at the Fayetteville Town Center. It will be a formal affair and is to honor Alumni from all fields. Contact Sloan Robocker by phone at (479) 575-4092 or via email srobock@enr.uark.edu.

Board Members – Richard Roberts, Hugh Pack, Chris Weiser, James Bacon, James Kimzey, Charles Batson, and Charles Evans.

Committee Chairs - Lamar Pettus, Michael Z. Hays, Bo Siever, Lewis Hirschy, Sam Cummings, Bill Green, Don Johnston, Dr. William F. Schmidt, and James Kimzey.

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Board of Directors Meeting – February 4, 2005

The meeting was held at the Russellville Holiday Inn. The summary of the departmental report is covered elsewhere.

Mrs. Kathryn C. Cogburn

Mrs. Kathryn C. Cogburn died Sunday January 16, 2005 at her home. All will miss Mrs. Cogburn. Our heartfelt condolences go out to Dr. Cecil Cogburn and his family.

President Richard Roberts

Well its' that time of year again! We have concluded all of the planning aspects for the AAME Annual Banquet and Business meeting for the April 8-9 meetings. We have several areas that will provide you an evening of entertainment.

First, I am pleased to report to you that we have confirmation from NASA Legal Council that Sandra H. Magnus (PH.D) has received approval to speak at the AAME Annual 2005 Banquet. She is from Bellville, Illinois with a bachelor degree in Physics and a Master degree in EE. She received her doctorate degree from the University of Missouri-Rolla from the School of Material Science and Engineering at Georgia Institute of Technology and was student of Dr. Ashok Saxena, our Dean of Engineering. She has received awards as an outstanding graduate teaching assistance, Saturn Team member and received a NASA Flight medal. She worked for McDonnell Douglas Aircraft Company for several years and worked on several special projects. She was selected by NASA in 1996 and began work at the Johnson Space Center. She has completed two years of training and evaluation and is qualified for flight assignment as a mission specialist. In October 2002, Dr. Magnus flew aboard STS-112, Atlantis. In completing her first space flight she logged a total of 10 days, 19 hours, and 58 minutes in space. She is an energetic speaker and will help inform us on some of her experiences and what may be of interest to the expanding pursuits in the future for our students and members. I hope that you may be able to attend our Annual Meeting and meet a woman who has been there and back!

Secondly, the College of Engineering will be holding its' first Distinguished Engineers Awards Reception and Dinner on Saturday night April 9th at the Fayetteville Town Center.

It will begin at 6PM. There are 4 individuals chosen by Mechanical Engineering as Distinguished Alumni and they are Edward M. Harvey, Charles D. Morgan, Terral Whetstone, and Shannon Harrop. A plan will be presented for how this will be handled for 2006 at the Business meeting. Ms. Mary Lou Retton, 1984 Olympic Gold Medalist, will attend a brunch on Saturday afternoon that is open for us to attend. I know that from interviews I have seen of Ms. Retton she is an engaging speaker, with an extremely positive personality.

Third, your board continues to excel in its' efforts to expand the functional aspects of improving the Academy. Reports of the details will be given by the Committee Chairs. I really hope that you may be able to attend this weekend of activities! Our banquet will be held at the Clarion Inn in Fayetteville and special rates can be received by calling 479-521-1166 and referencing that you are a member of AAME. See you there!

News from Joe Rencis



I just wanted to first tell you how pleased and honored I am to serve as the Head of Mechanical Engineering. Following in the shoes of Bill Schmidt is a tough act to follow! I did not know Bill personally; by reputation he is widely respected on the national level. Bill has not only been a great mentor and resource, but has been great to interact with. Bill has been spending time in Sidney and Miami on sabbatical during the spring semester. I have also had a chance to interact with the AAME Board of Directors and could not have wished for a better group to work with!

Dean Ashok Saxena has set forth an ambitious and exciting course for the College of Engineering. I am very much looking forward to supporting his vision to grow and move the College and Mechanical Engineering into the top fifty. The position of head provides an exciting opportunity to lead a department with a rich history into a future of academic excellence, visionary research and memorable teaching and learning experiences for the students. I am very impressed with the undergraduate program and how it is focused on student learning and hands-on education. This is a strength that must be maintained so that Arkansas can move to the top. I am also very impressed with the faculty and staff that support both the undergraduate and graduate programs.

I will be working with the Department and College to identify its future emphasis and to develop a staffing plan consistent with the college's vision and strategic plan. I believe that building Mechanical Engineering and other programs at UA is critical for two important areas. We need robust research growth in the Department and College to meet the institutional research goals. An active,

strong research program is also vital to creating new businesses and good jobs for Arkansans.

When I arrived in September the first priority was getting to know the faculty, staff and students in ME and the administration and faculty in the College. I also visited Fort Smith in the fall and early spring semesters three times to monitor the progress of our B.S. degree students. John Hamilton, the on-site instructor and coordinator, has been very helpful in implementing changes requested by the students during my meetings with them. The Solar Boat Project, co-advised by Bill Springer, has moved from the Engineering Research Center to the ME Building. The student machine shop has reopened with the help of Ben Fleming and Leon West. My wife Minerva and daughter Christina (7th grader at McNair Middle School) and I moved into a home on the east side of Fayetteville in mid-February. At the end of the spring semester the first AAME Project Presentation Day will be held showcasing the creative projects. Judges will be AAME members, prizes will be awarded and the posters will be displayed permanently throughout the ME Building. Special thanks also go to Charles Batson for agreeing to print the posters and James Davis and Linda Pate for organizing the event.

Right now the faculty search committee has finalized a short list for two new faculty positions. There is a pool of over 270 applicants that Steve Tung (Chair), Matt Gordon, Ajay Malshe and Sreekala Bajwa used to identify the short list. Interviews will begin in early April. This overwhelming response is one indication that we are an up and coming department, university and region!

Bill Schmidt and Rick Couvillion were recognized as ASME fellows and Ajay Malshe has been named a fellow of the Institute of Physics. Steve Tung who works in the areas of MEMS, nanotubes and fluid dynamics was awarded tenure and promoted to Associate Professor. Faculty are actively submitting proposals and a number have been awarded this academic year.

I want to especially thank a close friend of Mechanical Engineering who wishes to remain anonymous for a \$200,000 commitment for two Distinguished Doctoral Fellowships. The fellowships will be available beginning in the fall due to a match from the Walton Foundation. A Doctoral Fellowship is a valuable resource for the department to attract and retain highly qualified Ph.D. students. I want to also express my sincere appreciation to Orville J. Hall, Jr. (BSME '59' & MSME '61) and Susan Hall for leaving in their estate \$100,000 to establish a Faculty Fellowship. The Faculty Fellowship can be used to attract and retain an Assistant Professor and can support graduate assistant stipends, secretarial assistance, travel expenses, etc. These types of support from alumni and friends will help move the department upward nationally.

I would also like to thank all AAME members for your continued support of the department. I appreciate the special projects that were supported recently by the AAME Board of Directors for project presentation day, the new web page, the TV showcase, and reception area. Your support of the Retention Graduate Teaching Assistant is very much appreciated by our freshman students.

Please be sure to stop by the ME Building if you are on-campus to see some of the changes that have occurred. I look forward in meeting each of you in early April!

The Competitive Edge: Mary Lou Retton

April 9, 2005 Mary Lou Retton, the Olympic gold medalist, will be the featured speaker at the Women's Giving Circle Annual Symposium.

Registration: 8:00 am: Enrichment sessions: 8:30 am – 9:45am & 9:45 am – 10:30 am, Brunch with Mary Lou Retton: 10:30 am to 12:00 pm, Alltel Ballroom, University of Arkansas Student Union, Parking: Available in the parking deck on Stadium Drive.

The cost of attendance is \$50.00 per person. To make reservations you may call the primary contact for this event Susan Neyman at (479) 575-5507.

News Since Last Fall

Enrollment

The previously reported enrollment record of 17,269 for the UA still holds as well as the ME enrollment of 326. The latter is the highest in the college. Other details of enrollment are as previously reported. An item of interest, however, is that the UA and the College of Engineering appeared for the first time in the 2005 U.S News and World report survey of colleges and universities. The UA was ranked 59th of 64 for public schools and the college of engineering as 111th among "Best Undergraduate Engineering Programs" with a PhD program. It was thought that 250 – 300 schools were included in this ranking.

Recent Research Funding and Faculty Honors

- "REU: "Development of PVD Crystalline" by Dr. Deepak Bhat for \$12,000 from NSF
- "Development of a Finite Element Method Learning Environment for Undergraduates" by Joe Rencis and Javed Alam (Youngstown State) for \$52,500 to UA and \$22,499 to Youngstown from NSF.
- "A Label-free DNA –based Carbon Nanotube-wire Sensor System" by Steve Tung, Russell Deaton and Jing – Woo Kim for \$200,000. This is a collaborative project between ME, CE and AgE.

Recent Donations

There was a gift annuity of \$200,000 made on 1/31/05 from an anonymous donor. This will be matched by the Walton Foundation and provide funding for two (2) ME doctoral fellowships immediately and possibly four (4) in the future as the annuity matures. This also impacts recruiting and national recognition. The news is not so good for the ME department regarding the capital campaign of the college. ME ranks at the very bottom of the departments with \$553,061. The next lowest is IE at 3.26 times that of ME. Electrical Engineering, at the top, is 24 times that of ME. Should we ask for adoption?

Future Plans (particularly this spring)

Faculty Honors

Three faculty members were nominated for national awards. They are:
Dr. Steve Tung for ASEE Young Mechanics Educator. Support letters from Jong and Schmidt.
Dr. Ing-Chang Jong for ASEE Distinguished Mechanics Educator. Support letter by Lamar Pettus.
Dr. Min Zou for Oak Ridge Assoc. Universities Ralph E. Powe Junior Faculty Enhancement Award by Joe Rencis.

Projects

Dr. Rencis outlined four (4) projects whose implementation is to begin this spring.

1. **AAME Project Presentation Day**
2. **ME TV Showcase**
3. **ME Web Site Update**
4. **ME Reception and Office Area Renovation**

1. AAME Day

This will be a dramatic enlargement and improvement of the current presentations made by the Creative Projects I & II classes. Remember those projects and the reporting on them? As a footnote, it used to be called Machine Design. The proposed new format will invite attendance by local industry, parents and the UA community. It is also proposed that there be awards in the fall and spring for the top three presentations at each, and that the judges be from industry and the AAME membership. The student grade is still to be

determined by the faculty. There will be a permanent awards plaque in the building entrance.

The basic foundation of the presentations will be set by a poster type format that all must follow as a beginning. It is hoped that this new approach will become a model for the college of engineering and can eventually extend to graduate students. The publicity and recruiting benefits are apparent. Dr. Matt Gordon has the responsibility for the first Creative Projects class and Dr. James Davis the responsibility for the building and posters. The low and high projected costs are \$1,875 and \$3,075, respectively. This covers display materials and awards.

2. ME TV Showcase

This will be in the ME building entrance and the reception area of the ME office. The TV displays (2 or 4) will continuously display ME student activities (via DVD players) such as AAME Day, Solar Boat, Mini-Baja and others. Of course there

is discussion as to whether CRT or flat screen. The low and high projected costs are \$1,650 and \$4,650.

3. ME Webpage

First impressions are now being determined increasingly by webpage first impressions. Therefore the need for an update. It is hoped that the results of this update will serve as a template for the other departments. The cost is estimated at \$3,740 for software and hourly student work.

4. ME Reception and Office Areas

These areas were last updated twenty (20) years ago. The proposed details are not totally concrete at this time. Thus projected costs for this proposed project range from \$3,290 to \$18,300.

The total projected costs for all four (4) projects together range from \$6,815 to \$29,765. The board authorized \$15,000 of AAME funding to be used at Dr. Rencis's discretion.