



**The American Society of  
Mechanical Engineers**

**Central Oklahoma Section Newsletter**

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The Section is located at: Oklahoma Engineering Center, 201 Northeast 27<sup>th</sup> Street, Oklahoma City, OK 73105

The Central Oklahoma Section Newsletter is nominally published nine times per year to convey monthly meeting dates, meeting topics, section activities, and/or other ASME information to its membership.

**\*\*\*\*\* October Section Meeting Announcement \*\*\*\*\***

**Charles A. Amann, ASME Distinguished Lecturer**

**“Propulsion for Private Personal Transportation:  
Horse to Engine to - Fuel Cell?”**

**Thursday, October 23**

**Oklahoma Engineering Center,  
201 NE 27<sup>th</sup> Street, OKC**



Private transportation vehicles have become embedded in the American lifestyle. The twentieth century witnessed a transition from the horse and buggy to the automobile. Spark-ignited internal combustion engines emerged as the dominant choice for automotive propulsion. External-combustion steam and Stirling engines, gas turbines, and battery-electric drives have all challenged the spark-ignition engine, but have fallen short. An overview of efforts on those alternatives will be provided.

On the threshold of the twenty-first century, the desire for reduced energy consumption is stimulating interest in the compression-ignited diesel engine and the hybrid electric vehicle. Longer range, the fuel cell holds potential for improved energy efficiency and reduced vehicle emissions. The promises of those twenty-first century options, and the challenges they face, will be reviewed. **Please join us on October 23 for this cutting-edge program!**

**Schedule and Contact Information**

**Time:** 6:00PM: Registration and Social. 6:30PM: Catered Dinner.  
7:00PM: Short Business Meeting. 7:30PM: Presentation by Mr. Charles Amann.

**Cost:** \$10 each for all Senior Members & Guests, \$5 each for all Student ASME Members.

**PLEASE PLACE RESERVATIONS BY 12:00PM (noon) TUESDAY, October 21**

**Students**, please make reservations at your respective university's Mechanical Engineering office.

**Members**, please make reservations with Doug Brown ; brownd919@asme.org ; Phone: (580) 531-5871

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B (405) 744-9371 • beirr@okstate.edu

Kuang-Hau Chang, PhD ..... OU-AME  
B (405) 325-1746 • khchang@ou.edu

## **Additional October Meeting Information**

Mr. Charles A. Amann is Principal Engineer of KAB Engineering. He retired from a 42-year career at the General Motors Research Laboratories in 1991 as a Research Fellow. At General Motors, he worked on the design, development, and analysis of a variety of alternative power plants. For many years he headed the Engine Research Department, with responsibility for directing research on spark ignition and diesel engine emissions, fuel economy, and exhaust after treatment.

Mr. Amann has written over 60 technical papers and articles, and has been awarded 18 patents. He has been invited speaker at conferences in Europe, Asia, and North America. He is an ASME Life Member, a Fellow of the Society of Automotive Engineers, a member of the Sigma Xi Scientific Research Society, and has been elected to the National Academy of Engineering. His ASME honors include the Richard S. Woodbury Award, the Internal Combustion Engine Award, and selection as the 1992 Soichiro Honda lecturer. He has twice received the SAE Arch T. Colwell Award for technical papers, and in 2001 received its Forest R. McFarland Award. The Institution of Mechanical Engineers has awarded him the James Clayton Prize.

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### **ASME Members Alert: Please cast your VOTE for National ASME Officers!**

The Constitution and By-Laws of the Society provide for all ASME International corporate members to vote in person or by proxy for the election of the Society's officers. **A proxy by which you may exercise your voting right was mailed with the SEPTEMBER issue of Mechanical Engineering Magazine.** On the proxy portion of the form, you can indicate your vote for the election of Society officers and grant or withhold your proxy for any other business that is presented at the Business Meeting. **Please note that the DEADLINE DATE for return of the proxy is NOVEMBER 3, 2003.**

**PRESIDENT:** The Nominating Committee has made a single nomination for the office of President for a one-year term from June 2004 to June 2005: **HARRY ARMEN, P.E., Sc.D.**, Director of Technology Development, Northrop Grumman Corporation, Bethpage, NY.

**BOARD OF GOVERNORS:** There are currently nine at-large members on the Board of Governors, with the terms of three to expire in June 2004. The Nominating Committee has made a single nomination for each position to be filled for a three-year term from June 2004 to June 2007: **WILLIAM T. COUSINS, Ph.D.**, Engineering Fellow, Pratt & Whitney, East Hartford, CT; **DIRK F. DAUW, P.E., Ph.D.**, General Technical Director, KBA-GIORI S.A., Lausanne, Switzerland; **ROBERT J. SIMONEAU, P.E., Ph.D.**, Professor of Mechanical Engineering and Director, School of Engineering and Engineering Technology, Penn State Erie, Erie, PA.



**VICE PRESIDENTS:** There are currently 38 Vice Presidents, with the terms of 12 to expire in June 2004. The Nominating Committee has made a single nomination for each position to be filled for a three-year term from June 2004 to June 2007: **REGION III:** S. DYER HARRIS, P.E., Ph.D., Consultant, Equipment Engineering Services, Wilmington, DE; **REGION V:** LEONARD A. ANDERSON, P.E., B.S.M.E., Project Manager, Sunoco Toledo Refinery, Toledo, OH.; **REGION X:** **DOUGLAS R. BROWN**, B.S.M.E., Technology Engineer Specialist, The Goodyear Tire & Rubber Co., Lawton, OK.; **REGION XII:** ROBERT E. LUNA, P.E., Ph.D., Consultant, Albuquerque, NM.

**Be sure to vote for Doug Brown for Region X Vice-President !!!**

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### **OU Student Team to attend ASME Winter Congress to Compete in ASME Fluids Engineering Division Senior Design Project Report Contest**

The ASME Fluids Engineering Division (FED) sponsors a Senior Design Project Report Contest for the 2003 International Mechanical Engineering Congress & Exposition (IMECE), November 15-21, 2003 in Washington, D.C.

This effort began with a senior design project, sponsored by Halliburton Energy Services, for Dr. Ajay Agrawal's Design Practicum Course (AME 4163). The project, mentored by Curtis Vickery, was entitled "**Air Entrainment Measurement of Slurries and Mixtures**". Sought was a means to measure air entrained within Halliburton cements and gels. The team, consisting of Hakeem Adedehinbo, Akinjide Famuagun, Daniel Sequera, and Joe Woodward, studied the problem, formulated a design, and fabricated the prototype measuring device. The team also performed full-scale testing at Halliburton-Duncan.

To enter the ASME-FED competition, the team submitted a 500-word abstract describing their (industry sponsored) fluids engineering senior design project. Based on this abstract, the team was invited to submit a full written report describing their efforts. These full project reports were reviewed by the FED Senior Design Project Contest Committee, and the **OU team was selected as one of three finalists.** Each finalist team will attend ASME-IMECE to compete in a final project presentation. At the FED Awards Reception, the best project presentation will receive a \$500 prize and industry sponsors will receive a certificate of recognition. **Congratulations Dr. Agrawal and the OU Student Design Team!**



(left) Prototype Entrained Air Measurement Sensor, (right) Student Team Performing Halliburton Test.



## Chair's Chatter

Dear ASME-Central Oklahoma Section Members:

**Greetings !!!** Several things I'd like to share with you this month, but, will limit my message to what I believe is the single most important item. **PLEASE READ THE FOLLOWING – IT IS IMPORTANT TO EVERY ASME MEMBER!**

**Continuity and Change at ASME International.** Heard about it yet ?? Read on !!!

The first comprehensive look at how the Society operates in over 20 years. Four elements are under review: **(1) Alignment of resources with strategic directions, (2) ASME's organizational structure, (3) A strategic marketing plan, and (4) ASME's budget model.**

In a nutshell, the goal is to improve the Society for each of us, our profession, and our internal and external customers to most effectively move us forward into the future. Again in simple terms, the direction is captured in the process "name":

- **Continuity – Keep what is, and will continue, working well.**
- **Change – Those things that aren't working well enough to propel us forward most effectively.**

**Yes, changes are coming, and soon. What is the timetable ?? What can YOU do ??**

- Your executive leadership and others have been working on this self-evaluation for many months.
- Current findings of the self-evaluation process will be presented at a General Assembly of all ASME members who attend the ASME Congress on November 17<sup>th</sup>. The intent is to inform all members and get their feedback.
- Four other General Assemblies will be held in different locations in January & February 2004 for the same purpose.
- **One of the General Assemblies will be held in our Region, in Houston on Feb 7<sup>th</sup>.** We will be holding our Region X Regional Administrative Conference (RAC) in conjunction with this to maximize attendance and participation of all Sections, Sub-Sections and Technical Chapters within Region X.
- Your executive leadership will review and consider all feedback, YOUR FEEDBACK, in determining changes and their implementation.
- Actual changes in our Society may be introduced and be effective at next year's Summer Annual Meeting.

Reggie Vachon, ASME President, and the Board of Governors want to hear from YOU. They want YOUR opinions, questions, and comments. Also, please feel free to contact me with any question, etc. I'll be at the Congress and can personally represent YOU.

"Continuity and Change at ASME" may, or may not, be quite as important to YOU as "Ahhnuld Schwarzenegger Wins California Gubernatorial Recall Election", but it is easier to spell and pronounce, and YOU can have a lot more input about C & C. Look at the impact the voters of California just had. **So please do yourself a favor and check it out at: [www.asme.org/change](http://www.asme.org/change) , the site is being updated regularly with new info about C & C.**

THANKS for the opportunity to share my thoughts with YOU, and hope to see YOU at this month's Section Meeting!

**Doug Brown – Chair**

## ***Student Section News: More Fall Semester Activities!***

**OC Mechanical Engineering Section:** Philip Snell and Jay Gramling attended the September Region X RSLs. It was a good forum for exchanging and discussing ideas about how senior and student sections might get members involved. Helpful suggestions for fundraising and expenses were offered, and we very much appreciated being able to meet leaders from other student sections as well as from other senior sections.



Our immediate Section goal is to increase student membership and involvement in ASME. Historically, OC has had a very active student section, but recently this has sharply declined and we would like to reverse this trend. In addition, we would like to give students a chance to meet ME students at other schools and professionals in industry. We would like to give them a wide variety of opportunities to explore the broad spectrum of mechanical engineering.

We already had a very successful Freshman Engineer's Lunch that allowed us to introduce all the freshmen to the faculty and to many of the upperclassmen. This event, held during OC's freshman orientation week was attended by over 30 freshmen students. The engineering faculty had opportunity to discuss who they were and what they taught. Following that, a panel of current students was introduced who discussed their experiences at OC and with engineering in general. The freshmen students commented that this lunch was very helpful to them in beginning their education at OC.

We are currently planning a Club Night for late September that will include a cookout and a speaker from industry. We are planning to heavily push ASME student membership at this meeting. We are also planning a social party to be held at one of the ME professors' home. Other plans include a Mini Baja activity where we'll have fun driving a Mini Baja car around. This should provide a good opportunity for students and professors to get better acquainted.

**Philip Snell & Jay Gramling**

## Future ASME-Central Oklahoma Section and Other Events

Date	Location	Program Topic and Speaker
October 23, 2003 (Thursday)	Okla. Engineering Center 201 NE 27 <sup>th</sup> St., OKC	<b>ASME Distinguished Lecturer: Dr. Charles A. Amann</b> Topic: "Propulsion for Private Personal Transportation: Horse to Engine to - Fuel Cell?"
October 24, 2003 (Friday)	University of Central Oklahoma, Edmond	 Professional Engineering Exam (PE) Tests academic and practical knowledge of engineers & land surveyors. Includes 4-hour breadth + 4-hour depth portions.
October 25, 2003 (Saturday)	Univ. of Oklahoma, Norman Okla. State Univ., Stillwater University of Tulsa, Tulsa Univ. of Central Okla., Edmond	 Fundamentals of Engineering Exam (FE) Covers subject matter taught in typical ABET-accredited baccalaureate engineering programs.
Dec. 4 (Thurs.) or Dec. 11 (Thurs) 2003	TBA	Tentative Speaker: M. Dewayne Andrews, M.D. Executive Dean, OU College of Medicine

FOR UPDATES ON THESE AND OTHER EVENTS, VISIT OUR SECTION WEB SITE AT  
<http://www.asme.org/Sections/CentralOK>

ACCESS MORE OF ASME'S RESOURCES ON THE WORLD WIDE WEB AT  
<http://www.asme.org/>

ALSO VISIT THE ASME SOUTHERN FIELD OFFICE, DALLAS, TX AT  
<http://www.asme.org/regions/sro/>

**The American Society of  
 Mechanical Engineers  
 OKLAHOMA ENGINEERING CENTER  
 201 NORTHEAST 27<sup>TH</sup>  
 OKLAHOMA CITY, OKLAHOMA 73105**

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