



**April 2007 Newsletter for the
Dayton Section of the American Society of Mechanical Engineers**

>> Wright State University to Host Presentation by Dr. Raymond Freymann, Director of Science and Technology for BMW

Dr. Raymond Freymann, Director of Science and Technology for BMW in Munich, Germany, will be at Wright State University on Tuesday, May 15th. He will give an overview of the future (2025-2030) of science and technology in the automobile industry, as seen by BMW. The tentative agenda for this event is:

10am, available for discussion/tours
12pm, lunch in the WSU student union
2pm, talk by Dr. Freyman
4pm, available for additional discussions

Dr. Freymann's topics will include Future Trends, Hydrogen Technology, Driver Assistance and Active Safety, Human Machine Interface (HMI) and the Connected Vehicle.

A flyer with additional information will be emailed out within a week; for questions, please contact Jim Olsen at me-dept@wright.edu.

>> American Institute of Aeronautics and Astronautics (AIAA) Dayton-Cincinnati Aerospace Sciences Symposium (DCASS) Art-In-Science Winners

The **32nd Annual Dayton-Cincinnati Aerospace Sciences Symposium** was held on Tuesday **6 March 2007** at the Dayton Mall Holiday Inn. The symposium program included parallel technical sessions in the morning and afternoon, covering a wide range of aerospace-related technical disciplines and an Art-In-Science competition. There were fifteen entries in the Art-In-Science competition. Out of the fifteen entries symposium attendees chose three winners. Look for the winning entries to be posted in the near future on the AIAA DCASS website, <http://www.aiaa-daycin.org>.

>> ASME Call for Nomination for the 2007 Dayton Section Awards

It is that time of year again to nominate your candidates for the **Young Engineer of the Year Award**, the **Outstanding Member Contribution Award**, and the **Lifetime Achievement Award**. These awards recognize exceptional contributions of local members to the mechanical engineering profession in a broad range of endeavors, including professional practice, research, teaching, management, and service to the ASME and the Dayton community. The awards are open to members of the ASME Dayton Section, and the winners will be chosen by the section board. The winners will be honored with a complimentary dinner and certificate at the AIAA/ASME Awards Banquet on May 21st at the University of Dayton.

Please complete the attached nomination form and E-mail by Friday 25 April 2007 to:

Dr. Jonathan Poggie
AFRL/VAAC
Bldg. 146 Rm 225
2210 8th St
Wright-Patterson AFB OH 45433-7512
Tel: (937) 255-5464 Fax: (937) 656-7867
E-mail: Jonathan.Poggie@wpafb.af.mil

>> AIAA/ASME Awards Banquet, University of Dayton Kennedy Union, 21 May 2007

All are welcome to join in honoring members of the Dayton Section of the ASME during the annual awards banquet, to be held in conjunction with the Dayton-Cincinnati Section of the AIAA at the University of Dayton Kennedy Union East Ballroom. The awards program will honor winners of awards for the ASME Science Fair, local section awards including Young Engineer, Outstanding Member Contribution and Lifetime Achievement and well as Best Paper from the Dayton Engineering Sciences Symposium held in Oct 2006. Cost is \$25 for professional members, \$15 for student members, and \$0 for award winners. Please contact Angie Gladney for reservations by May 15th (937-255-2331, Angie.Gladney@wpafb.af.mil).

>> Local Students Present Design Work at District B Student Conference

On March 30 to April 1, 2007 mechanical engineering students from the Dayton area attended the District B student conference at the University of Michigan. The students participated in the following contests: Old Guard oral presentation, Old Guard poster presentation, Old Guard web page contest, Student Design Contest, and Impromptu Design Contest.

University of Dayton student Jennifer Lukens came in second in the Old Guard oral presentation with a talk on: "Landing a Bird-like Micro Air Vehicle." Bryan Pelly came in fourth in the same competition with a talk on: "Dishwasher Heat Recovery System." Other recognition for UD students includes Tom Wenning being named the outstanding student in District B. This is the ninth consecutive year and fifteenth out of twenty-two years that a UD student has received this honor competing against fifty-four schools in the district. Tom will now compete against students from nine other districts at the international level. UD was named the best section in District B by winning the Ingersoll-Rand contest. UD scored over 1900 points; the nearest school scored less than 1500 points. UD will now compete at the inter-district level against other schools that have scored a large number of points.

Two mechanical engineering seniors represented Cedarville University in the Old Guard Oral Competition. Bill Obaker presented the "Self-Deployable Composite Swim Prosthesis," described as an artificial lower limb for either an above- or below-knee amputee. The key to the project was the development of the materials which would not deteriorate in the caustic environments of beach sand and salty seawater. Chris Plume described a "Cooling System for Third-World Generator." A community in Liberia, Africa has already seen one of its generators literally burn up due to the inability to remove heat from its coolant. Chris' team has analyzed a variety of solutions for properly cooling the current generator and is in the process of testing the customer-selected system before it ships to Liberia this summer.

James Dahlman, a sophomore student at Wright State University, presented his work entitled "Corrosion Properties of Calcium Based Bulk Metallic Glasses" in the Old Guard competition.

Alyson Turri
Chair, Dayton section of ASME