

INSIDE THIS ISSUE

1	ASME MN Calendar Quick Look
1	New Faces of Engineering
2	Programs and Professional Development Review
3	Check out the NEW ASME e-Library!
3	Treasurer's Report
4	Advancing Your Career
4	ASME To Hold Biotechnology Conferences
4	Professional Practice Curriculum Online
5	U-View: ASME Student Sections in our area.
5	Student Activity Calendar

CALENDAR QUICK LOOK

April 28	Six Sigma
May	Zimmer Spine Facility Tour
June 12-14	Pipe Stress Analysis per ASME Process Piping Code B31.3 Seminar
June 12-14	Student's Materials Camp

ASME Names New Face of Engineering for 2007



Aviva T. Bieler, a mechanical engineer at the Port Authority of New York & New Jersey, was honored among the New Faces of Engineering during Engineers Week 2007.

The Cooper Union graduate has focused on the redevelopment of the World Trade Center site, where she was instrumental in developing the air conditioning and smoke control systems for station platforms at the World Trade Center Transportation Hub. She is also currently involved with the design of the tunnel ventilation system for the Port Authority Trans-Hudson (PATH) line.

Recently, Bieler and 14 other New Faces representatives received national recognition when they appeared in USA Today.

New Faces of Engineering is an international recognition program aimed at promoting the accomplishments and contributions of young engineers, 30 years of age or younger, while creating awareness of the impact that engineers have on our daily lives.

The Fellow Grade recognizes significant engineering achievements and contributions to the engineering profession. ASME takes great pride in its Fellows Program and encourages the nomination of ASME members to Fellow Grade. Any ASME member can submit a nomination for Fellow.

For additional information on ASME's **Fellows Program** visit:

<http://www.asme.org/Governance/Honors/Fellows/Fellows.cfm>

Programs and Professional Development Review

by Angela Neidermire, Vice Chair

The program year kicked off in September with a joint event at Andersen Corp in Bayport. First a video was shown on the history of the corporation followed by a tour of the various products manufacturing and assembly lines. October followed with a technical presentation on "Design and Materials" by Michelle Cheever from Polaris Industries. She discussed material selection and design requirements considering product safety factors. This was a sit-down dinner event also held in conjunction with ASM. **Larry Kirchner**, a member of ASME and chair of ASM, has played a critical roll in planning joint programs that benefit both organizations.

The University of St. Thomas hosted the District C Leadership Seminar October 13-14th. **Burton Dicht**, Managing Director of the ASME Knowledge and Community Sector, spoke about "The Benefits of ASME from the Student's Perspective" on Friday night and Saturday there were breakout sessions and the traditional student contests. **George Lucas** continues to act as our College Relations chair providing support to the student section leadership and conducting presentations at the colleges assigned to the Minnesota section. Check out the updates from the schools in this newsletter. National Engineers Week was the third week of February and there were many activities executed throughout the nation. If you participated in any activity during E-week, please send the section an email to asme_minnesota@yahoo.com.

In November a small group of ASME members ventured over to Polaris Industries in Osceola WI for a tour of their facility. We got to see engine assembly lines, tube cutting, robotic welding, and seat fabrication from molding to fabric sewing. Afterwards the attendees reconvened at a local establishment. The annual networking event at Summit Brewery in St. Paul during December had the largest turnout of professional members, student members, and guests joining together for a presentation on the history of beer in the United States, followed by a tour highlighting their new bottling equipment, and finally free sampling of the brew.

Members were treated to a guided tour of the Rahr Malting facility in Shakopee. Each concrete floor was poured and then lifted to the floor elevation within the pre-fab exterior. The energy conservation and design utilized for their HVAC system was very impressive. Once again a majority of the attendees assembled for dinner afterwards at Turtles Restaurant on the old Main Street. Upcoming events include a tour of Leisure Products at 6pm on April 12th.

New this year at our Executive Committee meetings, held the last Tuesday of every month, members have been offered the opportunity to share on a topic of choice. **Bill George** presented a short module on Brainstorming. Last meeting our webmaster **Steve Burke** instructed us on how to set-up and create a webpage. At the March EC meeting **Bob Diesch** will be demonstrating vibration and acoustic analysis. All members are welcome and encouraged to attend the EC meetings. Contact the section to be added to the email list for meeting notification or review the website under the Executive Committee page for the list of meeting times and location.

Two professional development sessions have been offered to date this year with ASME attendance.

In December IEEE extended an invitation to our membership for a Workshop on "Making a Transition to Managing" by Gerald H. Gaynor. A few members took advantage of this opportunity for professional development hours or continuing education credits and received a copy of the presenter's book entitled [What Every New Manager Needs to Know: Making a Successful Transition to Management](#).

The second seminar was "Engineering and Failure Analysis of Materials: Case Studies" which was co-developed as a first annual event by the Minnesota organizations of ASM and ASME. **Mark Kroll** welcomed the attendees on behalf of ASME along with **Larry Kirchner** who kicked off the program and presented on "Failure Analysis in Product Development". **Christopher Wright** presented on "Fracture Mechanics in Various Products", **Russ Melton** presented on the legal and spoliation issues within materials and manufacturing in "Corrosion Engineering in Industry", **Larry Hanke** presented on "Failure Analysis Procedures for Evidence Preservation" **Les Engel** presented on "Failure of Superalloys in a Land-Based Turbine" and **Bill George** discussed "Hydraulic Cylinder Rod Failure".

Programs and Professional Development Review (Cont.)

Thank you to the three ASME members who spoke at this certified six professional development hour seminar. Upcoming PD events include a Six Sigma workshop on Saturday April 28th from 8-5 for \$50 to ASME members (\$25 for unemployed and \$100 for non-members) taught by Dale Mize at the University of Thomas BINZ lower level. For questions or to register contact Dave at 612-709-7675. In June there will be a Pipe Stress Analysis per ASME Process Piping Code B31.3 Seminar offered the 12th-14th by highly qualified ASME member Dr. Quy Truong for 22 PHDs at St. Paul College. Details are posted on the website for the May 12th registration deadline.

Also in June ASME has been working in conjunction with ASM to host the first Materials and Engineering Camp on the 12th-14th at the University of Minnesota for High School Students recommended by March 16th. Currently candidate applications are being solicited and there has been two teacher information sessions held in the Twin Cities. We are still looking for volunteers or corporate sponsorship, so please send an email to asme_minnesota if you are interested. More details on the camp can be found at www.mnasm.org/camp.

All registration information is posted monthly to the website www.asme-mn.org and recorded on the voicemail 651-649-4410.

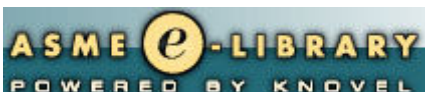
Check out the NEW ASME e-Library!

Not familiar with the ASME e-library? It's a collection of 75 interactive technical references, available free to members. Use it anytime for answers to your technical questions, 24/7, anywhere you have an Internet connection.

To find out more about the library – or to sign up and login, just go to <http://www.asme.org/Membership/Benefits/Professional/eLibrary.cfm>

Professional Members:
http://info.knovel.com/ASME/ASME_professional_quiz.htm

Student Members:
http://info.knovel.com/ASME/ASME_academic_quiz.htm



Treasurer's Report

by Angela Neidermire

ASME-MN received their allocation this year based on the merit based funding form submitted last year. We qualified for 100% of the allowable allocation based on membership headcount because of our performance of an overall score of 88 out of 100.

New criteria for funding was established last fiscal year and no longer entails just submitting an operations budget of planned activities for the year. Merit Based Funding has five categories individually scored including communications, section activities, opportunities for membership growth (professional development and awards), development of the engineering profession (students, industry, government), and section operations. In order to accurately complete the paperwork, the Minnesota section is requesting your assistance in notifying us of any award applications to ASME District or higher, as well as involvement with aid to development of the engineering profession. Examples for this category that we may be unaware of because the elected officers have not been directly involved, but members are encouraged to support, are financial contributions to ME students, involvement with Universities or K-12 schools promoting math/science education, participation in engineering job shadowing / mentoring program or Engineering Fairs/Symposium, and support to the local Government body regarding engineering/technical related topics. Please email the officers at asme_minnesota@yahoo.com regarding your award applications or involvement in the community to promote engineering.

As advertised last year, we went paperless this year to significantly reduce operating costs for the local section in printing and postage expenses. A list of individuals who require paper communications is being compiled so please submit your request to asme_minnesota@yahoo.com with your name, membership number, and preferred mailing address. This information can also be left on our voicemail system 651-649-4410.

This year we budgeted to rejoin the Minnesota Federation of Engineering, Science, and Technology Societies (MFESTS). ASME-MN renewed their membership in January so check out the website www.mfests.org for a list of local activities with other organizations. **Bob Diesch** has agreed to be the ASME-MN representative to MFESTS Board of Directors.



Advancing Your Career

The ASME Professional Practice Curriculum (PPC) is an online resource designed to help you advance in the engineering profession by providing guidance and resources on subjects that complement an engineers technical skills.

The PPC consists of 42 modules on topics ranging from product development and writing cost proposals to team building and negotiation. The PPC also provides information on alternative engineering career paths such as patent law, marketing and sales, and entrepreneurship.

Currently, the 5 modules in the Career Transition Series are free of charge. ASME members additionally have access to the following 4 modules through the [Members Only](#) website:

- Introduction to Intellectual Property (Business & Legal Series)
- Leadership Styles and Attributes (Management & Leadership Series)
- Effective Technical Presentations (Communications Series)
- Product Management (Product Management Series)

To get started, please visit www.professionalpractice.asme.org.

MARK YOUR CALENDARS!

ASME 2007 Early Career Forums & Fairs

Don't miss the opportunity to network with peers and get practical advice and information on issues relevant to your developing engineering career.

These events consisting of career fairs and panel discussions from successful industry experts and senior-level engineers will increase your awareness of trends and career opportunities in the engineering profession.

Career Fairs will feature companies hiring engineers and other opportunities. Get more information about the Forums & Fairs and important information for US Citizens traveling to Canada in 2007 visit:

http://www.asme.org/Communities/EarlyCareer/Forum/Upcoming_Events.cfm

Montreal, Canada - May 13, 2007 (At ASME Turbo Expo)

Toronto, Canada - June 10, 2007 (At ASME Summer Annual Meeting)

Seattle, Washington - November 11, 2007 (At ASME International Mechanical Engineering Congress & Exposition)

ASME To Hold Three Industry-Focused Conferences on Biotechnology

Leaders in the science and engineering communities will assess the latest technology in bioprocess engineering, biomechanics and medical devices and instrumentation at three ASME conferences in June 2007.

The ASME Bioprocess Technology Seminars and Exhibits will be held June 4-6, 2007, at the Radisson-Dublin St. Helens Hotel in Dublin Ireland. The second conference, Frontiers in Biomedical Devices 2007, is scheduled for June 7-8, at the Hyatt Regency Irvine in Irvine, Calif. The 2007 Summer Bioengineering Conference will take place June 20-24, at the Keystone Resort and Conference Center in Keystone, Colo.

The three conferences will examine the progress and future directions in biotechnology research, and provide practitioners with the latest tools and training to advance commercial applications in the field. ASME's objective in presenting the conferences is to provide the fast-growing biopharmaceutical industry with useful resources to solve technology challenges.

For more information, visit: http://www.asme.org/Communities/Technical/BPE/Bioprocess_Activities.cfm

U-View: A look at ASME Student Sections in our area.

All nine of the ASME Student sections that are part of the Minnesota Senior Section have been had and active fall and winter.

These nine schools include:

University of St. Thomas, St. Paul
University of Manitoba, Winnipeg
University of Wisconsin Stout, Menomonie
St. Cloud State University
University of Minnesota Twin Cities
Minnesota State University Mankato
North Dakota State University, Fargo
University of Minnesota Duluth
University of North Dakota, Grand Forks

This fall the University of St. Thomas, for the first time, sponsored the fall ASME Student Leadership Seminar for District "C". This conference is for the student leaders of the ASME Student sections in District C, which includes Saskatchewan, Manitoba, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Kentucky and Indiana. The district includes 11,000 members, 20 senior sections and 56 student sections. The UST Students and their Student Section Advisor, Dr. Michael Hennessey, did a great job in setting up this conference.

The next major event will be the Spring Conference, now called the Student Professional Development Conference. This will be held at Purdue University in West Lafayette, Indiana. Most of our schools have teams planning to participate in the design contest. This year the contest is to design a "Human Powered Still" to make potable water.

There will also be an impromptu design contest, Poster and Web Page contests, as well as an Oral Presentation contest. There will also be a number of professional development training sessions and opportunities for the students (and advisors) to network both socially and professionally.

Submitted by: George Lucas, Chair College Relations

Student Activity Calendar

April

March 30-April 1

Student Prof. Development Conference, District B, Ann Arbor, MI

Student Prof. Development Conference, District C, West Lafayette, IN

Student Prof. Development Conference, District D West, Reno, NV

Student Prof. Development Conference, District D East, Moscow, ID

April 13-14

Student Prof. Development Conference, District E North, Tulsa, OK

Student Prof. Development Conference, District E South, Edinburg, TX

April 14

Student Prof. Development Conference, District A North, Hartford, CT

Student Prof. Development Conference, District A South, Newark, NJ

April 17-29 2007 Design of Medical Devices Conference

April 30-May 3 Offshore Technology Conference (OTC)

May

May 14-17 Turbo Expo, Montréal, Quebec, Canada

University of St. Thomas ASME Student Section, St. Paul, Minnesota

The University of St. Thomas ASME section has had a great first semester and is awaiting an even better second semester. In the up and coming semester there will be two engineering facility tours, head to head design competition, a possible spring break trip to Louisiana to volunteer, and a teamed Girl Scout event with SWE.

UST-ASME and its members have been continually working with the Society of Women Engineers at the University of St. Thomas to make the engineering club experience that more enjoyable. Throughout the year we have held events for both club members such as the *ASME vs. SWE Volleyball Challenge*, and the *fall community clean up*. This collaboration has been made very simple due in part to our secretary Ann Majewicz, who also holds the secretary position in SWE. Along with Ann's secretary position in SWE the rest of the ASME council have become active members participating in most, if not all of the events that SWE hosts. The board members of ASME and SWE have brought the two clubs ever closer throughout the year.

We have received a diversity grant from ASME National to help host a Girl Scout engineering day with SWE. This money will be going towards supplies for the various activities throughout the day. ASME and SWE are both very excited and hope that this will become an annual event for both clubs to participate.

In the month of March UST-ASME will be heading to Purdue for the Student Professional Development Conference (SPDC). We are all very eager for this event to arrive. We will have competitors in some of the events and hope to do our best competing against other quite intelligent contestants.

In closing I would like to thank all of those who attended the Student Leadership Seminar in October. We had a great time and hope that your sentiments were the same.

Submitted by; Joe Crimando, President UST ASME Student Section

University of Manitoba, Winnipeg, Manitoba

The student section at the University of Manitoba has recently competed in the GNCTR (Great Northern Concrete Toboggan Race). This was the section's big event for the year. It took place from January 31 -

-February 4 in Winnipeg, and is the largest trans-Canada contest for engineering students.

The section sent a large contingent to the Fall Student Leadership Seminar in St. Paul Minnesota.

Submitted by Jason Dacquisto, ASME Student Section President

University of Wisconsin Stout, Menomonie, Wisconsin

The UW Stout chapter is doing well. We are busy working on our student design competition designs. We have two teams that will be competing in the District Design Contest at Purdue University in late March. The prototypes of both projects should be done within the next week or two. Our relationship with our sponsor is still going well. It is not much that they provide but it is nice to have a company that allows us to use their laser cutting tools for our precision parts.

After the conference in Purdue our year is not going to be done. We are participating in our school's founder's day celebration. We have never done this before, but we are hoping that this will increase our visibility on campus and possibly gain more sponsorships. I also believe that by doing this that we can compete with the other engineering organization for lab and storage space. Then when that is finally over we will be getting new officers for next year so we hopefully our organization can increase.

Submitted by Carl Brauch, University of Wisconsin Stout ASME President

St. Cloud State University, St. Cloud, Minnesota

This past semester, Saint Cloud State University's student section conducted several meetings and gatherings. One meeting was held to recruit underclassmen and educate them on how ASME benefits their educational experience. This semester we have had the highest number of members joining from St. Cloud State. The second meeting was for all members to socialize. It involved a quick update on the section, followed by group bowling.

In order to help our student body, ASME is sponsoring a Fundamentals of Engineering study session. The sessions will begin in late February. Every Monday night, students who would like to participate, will meet and review questions supplied by reference manuals -

St. Cloud State University (Cont.)

as well as have reference to a professor for questions and concerns. Hopefully this will help our members gain confidence as they prepare for this mile-stone test.

This current semester, our section has plans for touring Remmele Engineering and having another socializing event, as well so those FE study sessions. The final meeting this semester will involve election of new officers, since all officers this semester are graduating seniors.

Submitted by Maria D. Melsha, ASME Student Section President

University of Minnesota Twin Cities

The University of Minnesota ASME chapter has had quite a changing year this time around. With only one officer remaining from the last year's officers serving as Co-President (Dan Waller), he and Johnny Fuerst now share the position of leadership working with mostly sophomores and one freshman in the officer pool.

The year, as usual, was kicked off with an ASME Luncheon where free pizza, pop, and information about the U of M ASME was given out, which had a turn out of over 120 interested students.

This year has consisted of a number of general meetings with local engineering companies such as Cargill, Cummins Power Generation, 3M, and Hormel Foods. Occasionally we have had more than 100 people attend these meetings.

In addition to these general events, we also sponsored a gift drive for a local family during December. Students were asked to donate money to the cause, and the officers purchased and wrapped gifts for the family we adopted for the season. Additionally, we sponsored a movie night for the film "Astronaut Farmer". The movie showing was, in fact, a free screening where the stars of the movie, Billy Bob Thornton and Virginia Madsen, were actually in attendance.

We have a number of other activities in the works, as well. In the next few weeks, we will begin selling t-shirts with a hilarious list of the "top ten reasons you know you're a mechanical engineer". We are also hoping to plan a banquet for graduating mechanical engineering seniors in May. On top of this, we are, of course, gearing up for the Student Conference in March -

and hope to bring a lot of fellow Mechanical Engineering students with us.

Submitted by Dan Waller and Johnny Fuerst, ASME Student Section Co-Presidents

Minnesota State University, Mankato Minnesota

There have been new changes in our A.S.M.E student section over the past semester. Charlie Boushek is now the President of our section, myself Tom Lawrence, became the Vice President of our section. Also Chelsea Nelson became the activities coordinator, Tony Becker is the Student Section Liaison, Joel Minturn is still the webmaster, Graham Johnson became the Student Membership Director, Kyle Warren is now Secretary, Jake Carrol is Treasurer, Michael Ostendorf is Industry Relations, and Ankit Duttgupta and John Schieirl are the Underclassmen Representatives.

Thanks to the work of the previous officers, our student section continues to grow in numbers of active members. We continually have growing numbers of people coming on tours and participating in ASME events. This year is going to be very exciting for MSU at the SPDC. We are going to have two possibly three design teams at the conference. After having only one team at last years event, we are excited to see how we do at this years event. We also plan on having around 20 members attending this years event at Purdue University. We also have about 25 members who will be helping out at the Rube Goldberg competition that is held at the University in the next coming weeks. We still continue to be active outside the school and in the community. We have continued to adopt a highway as well as raise donations for the food drive around the holidays.

We have had about one student section meeting and offer a tour or an ASME event a month. We are going to have a combined meeting with SWE, and ASCE to hopefully create working relationships between the other engineering clubs and us. As a student section, we are really looking forward the spring softball tournament that is held every year. Our student section has improved a lot over the past two years and all the hard work has proven to be worth the time and effort.

As one of our section leaders, I can say that we plan to work just as hard during the current semester to continue making improvements in our sections budget, and active participation.

Submitted by Tom Lawrence, ASME Section Vice President

North Dakota State University, Fargo North Dakota

The North Dakota State University ASME Student Chapter has had a busy fall semester and looks like an even busier schedule for the spring semester. Last fall, the chapter hosted numerous events for members and non-members including: monthly business meetings, Engineering panel discussions, design competitions, and FE Review sessions.

In late September, the chapter hosted a panel discussion on "What is Mechanical Engineering?" This discussion consisted of several engineers from globally known companies that spoke to students about the profession of mechanical engineering. The fall design competition was the Rat Trap Race. The main focus of this competition was to design and build a vehicle that would pull a series of weights the farthest by using the force of the spring alone. The chapter also hosted the Fundamentals of Engineering review sessions to assist the students to prepare for the Fall FE exam.

The spring semester has a busy schedule planned for students. There are several tours of local businesses planned. Some of these businesses include the Budweiser Agriculture P plant, Case New Holland and Sno-Bear. Along with the tours, the chapter is preparing to send several Senior Design Teams to National Competitions including HPV and the conference design competition. NDSU is also planning on sending several students to the ASME Student Conference for other competitions.

Submitted by: Kristi Kautzman, ASME Student Section Officer

University of Minnesota Duluth ASME

It has been an eventful academic year for the ASME student section at the University of Minnesota Duluth (UMD). Two fund-raising drives were conducted to help raise money for group activities and design competitions. The tour of Lake Superior Brewing Company and the student section bowling night were highlights of the fall semester. More recently, the Navy was kind enough to send a nuclear-trained officer, a naval aviator, and a recruiter to give a presentation on February 8th. The talk was very informative and raised awareness about the many opportunities that the Navy has to offer engineers. Preparations are under way to attend the Student Professional Development Conference (SPDC) on March 30th – April 1st at Purdue University. UMD plans on having one design team in the Human-Powered Water -

Still competition. The current ASME officers and some of the newly-elected officers for the 2007 – 2008 year will also be attending the SPDC.

Many of our ASME members have become involved in two competitions sponsored by the Society of Automotive Engineers (SAE). Student teams are currently working on the SAE Formula Car and the Clean Snowmobile Challenge projects. The Formula Car team is about to begin fabrication of the suspension system. The students are dedicated to getting the car up and running by the end of the spring semester. This is UMD's second year participating in the Clean Snowmobile Challenge. The students hope to improve over last year's second place finish and win the competition.

Submitted by Dr. Daniel Pope, Student Section Advisor, University of Minnesota Duluth

University of North Dakota, Grand Forks, North Dakota

The UND chapter of ASME had three speakers come in the fall and talk to our students. They were ASHRAE, Marvin Windows and Doors, and LM Glassfibre. We had one ASME sponsored event, bowling. Also in the fall, we had students from local schools come in and listen to different demonstrations on the different fields of engineering. ASME showed the students robots from the LEGO League competition held here.

For the spring, we already have one speaker coming in from L & M Radiator. We are organizing a curling event for just after spring break.

ASME and the mechanical engineering department are setting up a competition called Engineering Eyes. It will have students in groups of 4 or less find an "engineering" flaw in a design and propose a corrective solution. Top prize is \$300, 2nd is \$200. They will have to give a 5 min presentation on the problem and solution to a panel of judges.

We will be having the annual engineering softball tournament to compete in and the annual ASME golf outing.

We will be attending the District C conference at Purdue. We are currently bringing one design team and one speaker.

Submitted by: Gregory Dvorak, President UND ASME Student Chapter