



From the Chair – Howard Berkof

2002-2003 Executive Team

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2002-2003 Goals

- Minimum of 50 attendees per meeting
- At least 200 different ASME members participate over the 2002-2003 year (Approximately 2500 members in the section – 2nd largest section in the world)
- Two meeting per month in locations around the territory
- Monthly newsletter
- Promote current ASME Scholarships to members
- Student Section involvement – at least 4 joint meetings
- Win Earl V. Fisher Award
- Joint meetings with other Engineering societies

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April Event

“EcoDesign and Manufacturing”

Hosts: ASME SE Michigan Section and the University of Michigan – Dearborn Student Section

Topic: EcoDesign and Manufacturing, Dr. Steven Skerlos
 Date: Thursday, 3 April 2003
 Time: 6:30 – 8:30 pm
 Location: 1030 CB (CASL Bldg is on the south side of campus)
 University of Dearborn-Michigan
 Dearborn, MI

Map: <http://www.umd.umich.edu/about/campusmap.html>
 RSVP: Rebecca King E-Mail: rhk77@yahoo.com
 Phone: (313) 845-8938

Current rates of human population growth, energy consumption, and raw materials depletion are unsustainable in the long-term. To create a secure, stable world with continual economic growth, pressures have steadily risen to integrate human economic activity and resource management into global biological, chemical, and physical systems. In the manufacturing sector, the most significant pressures have included 1) proposed improvements in workplace air quality, 2) reductions in plant effluents, and 3) increased costs for waste disposal. Three key areas of research for U.S. manufacturing that can reverse this trend include:

- 1) Life cycle analysis of discrete products and the processes that manufacture them to raise environmental awareness, improve manufacturing efficiency, and prioritize research;
- 2) Process chemical recycling and minimal application strategies to reduce disposal and health risks;
- 3) Efficient resource utilization and materials reuse.

Please turn to page 3 for a bio on Dr. Steven Skerlos.

Upcoming Events

Reconfigurable Manufacturing Systems Lab Tour & Presentation

Joint Meeting with MED
 Wednesday, 23 April 2003
 University of Michigan, Ann Arbor, MI

Link Engineering Company Tour

Tuesday, 13 May 2003
 13840 Elmira Ave, Detroit, MI
 Link Testing has the largest independent testing laboratory of its kind in the world. <http://www.linkeng.com/>

Lead the Way!

Support Your Profession and ME Students Recruit New Members

The 2002-2003 Member-Get-A-Member Campaign continues through June 30, 2003.

Jump on board and start recruiting today!

Recruit a new member and 50% of their first year dues will fund scholarships for ASME student members. It's easy to offer membership to your colleagues!

Visit www.asme.org/membershipdrive/ to learn more about the campaign and resources to get started.

ASME eMentoring Program for Young Engineers

As you progress in your new or existing career - your goals and choices will change. Get advice from a seasoned engineer in your field. We have mentors from various backgrounds, to match you with a compatible professional to help you in your career.

Developing a relationship through a mentoring program can be the key to finding the resolution.

Sign up today!

Visit www.asme.org/ementoring.cfm for additional information.

DISTANCE LEARNING

ASME Online Courses-Topics include GD&T, the Bolted Joint and Section VIII, Div 1
<http://elearn.asme.org/>

New University Partners offering graduate-level technical courses

UC Berkeley:

<http://www.asme.org/asmvirtualcampus/berkeley.htm>

Drexel University:

<http://www.drexel.com/partners/asm/index.shtml>

AMA Live Management Courses:

<http://www.asme.org/education/disted/ama.htm>

Introduce a Girl to Engineering

More than 100 engineers responded to ASME President Susan H. Skemp's call for engineers to take part in encouraging young girls to consider a career in engineering.

In this ASME/GSUSA Engineers Week project, engineers shared their personal experiences with Cadette and Senior Girls Scouts in grades 6-12 during troop meetings. Participating engineers received an "Introduce a Girl to Engineering" Resource Kit that includes: a 10-minute video, "Mothers of Invention," a plan for a hands-on activity that will earn credit toward the GS Patch for "Building a Better Future," some brochures and giveaway items that were left with the GS Leader and the girls in the troop as reminders of ASME and Engineers Week.

Although this program was initially intended for use during Engineers Week, it will continue to be available throughout the year! Learn more about how you can help make a difference in the lives of young girls:

www.asme.org/education/precollege/gsusa

Your Email Address – The Key to ASME International

Did you know that your email address is the key to what's happening at ASME? By providing us with your current email address, you can learn about events taking place in your local section, such as professional development courses, industry tours, section meetings, lectures, networking opportunities and technical conferences.

Updating your email address online only takes a few minutes. To access your membership information, go to www.asme.org. Click on the "Members Only" tab to log onto this site. Be sure to have your member number on hand. After logging on to Members Only, select the "Change of Address and Information" link, located on the upper right-hand side of your screen. From this screen, you will be able to update your primary contact information.

So don't miss out on all that ASME has to offer! If you have any questions about your membership information, contact InfoCentral at infocentral@asme.org.

ASME Southeastern Michigan Section and the Manufacturing Engineering Division Present:
NSF Engineering Research Center for
Reconfigurable Manufacturing Systems Lab Tour and Presentation

Date: Wednesday, 23 April 2003 Location: NSF Engineering Research Center for
Time: 6:30pm-8:30pm Reconfigurable Manufacturing Systems
RSVP: Rebecca King Ann Arbor, MI (Map & Directions on the website)
rhk77@yahoo.com <http://www.asme.org/sections/sems.news.html>

The ERC/RMS is located on the first floor of the H.H. Dow building, adjacent to the Pierpont Commons parking lot. Enter the H.H. Dow building through the West entrance (first entrance on your left from the parking lot). The meeting will be held in 1005 H.H. Dow and the tour will be in the nearby Integrated Manufacturing Systems Laboratory (IMSL).

The Southeastern Michigan Section has joined with the Manufacturing Engineering Division for the third joint technical division/section meeting of 2002-03. MED is hosting a visit to the NSF Engineering Research Center for Reconfigurable Manufacturing Systems (ERC/RMS) at the University of Michigan. The program will include a presentation summarizing the key research activities within the Center, an in-depth tour of the Integrated Manufacturing Systems Laboratory, and demonstrations of key ERC/RMS developed technology.

ERC/RMS Motivation

In an environment of fierce competition, industry cannot afford to accept large amounts of waste, either of time, material, or production capacity. Neither can they accept the wasted opportunity of failing to supply enough products to meet an unexpectedly high demand. What manufacturers need are production systems that can easily adjust to market pressures without requiring expensive retooling, equipment purchases, or time-consuming startup delays. The NSF ERC/RMS at the University of Michigan is developing a science base for just that kind of production scheme. By improving the system design process, developing integrated machine controls, and exploring new functionality for machine tools, the Center is focusing on what manufacturers need, to reduce their cost and increase their productivity.

Professor Steven J. Skerlos – The University of Michigan at Ann Arbor

Steve Skerlos received a Bachelor of Science degree in Electrical Engineering with Highest Honors in 1994, and a Ph.D. in Industrial Engineering in January 2000, both from the University of Illinois at Urbana-Champaign. During his Ph.D. studies, he spent 5 years with a dual research appointment at the Machine Tool Agile Manufacturing Research Institute (MT-AMRI) and at the State of Illinois Waste Management and Research Center investigating metalworking fluid recycling and pollution prevention. Since joining the Department of Mechanical Engineering at The University of Michigan in January 2000 as an Assistant Professor, he has received the National Science Foundation Faculty Early Career Development Award and the Caddell Materials and Manufacturing Award. He has also served as co-director of the Initiative in Sustainable Aqueous Systems (iSAS) and member of the College of Engineering Council on the Environment. In 2002, Professor Skerlos has been invited to present his research and vision for Environmentally Conscious Manufacturing at expert conferences in Mexico, Canada, and the U.S., and spent 6 weeks at the Technical University Berlin to initiate a joint research and education activity considering issues of sustainability in product design and manufacturing, specifically robust design for sustainability under uncertain and situational factors.

SEMS 2003-04 Officer Elections

Dear Colleagues,

Happy Spring! With the long awaited change in seasons, it is that time of year to start the process of electing next year's officers for the Southeastern Michigan Section of ASME. We will be accepting nominations for the 2003-04 Executive Committee through the month of April. The Executive Committee consists of **Chair, Vice-Chair, Treasurer, and Secretary**. In addition, the current board is seeking members interested in the many committee positions available. These opportunities, listed below, and many more provide a terrific avenue to advance your leadership and teamwork skills, as well as expand your network of talented engineers. I highly encourage everyone to consider getting involved in the section, in any capacity that your schedule allows. Please contact myself or Rebecca King, rhk77@yahoo.com, if you are interested in running for an executive board or committee position. Nominations will be accepted through April 23, and elections will be conducted through the May newsletter.

Best Regards, hberkof@yahoo.com
Howard Berkof (248) 890-0647

SEMS Officer & Committee Positions

Executive Committee, Government Relations, History and Heritage, Honors and Awards, Industry Relations, Professional Practice and Ethics, Member Interest, Membership Committee, Minority and Woman, Newsletter/Web, Nominating Committee, Professional Development, Program Committee, Public Relations, Student Relations, Technical Activities, Young Engineers, Community Service

ASME PRE-COLLEGE...FOR THE FUTURE! DO YOU WANT TO MAKE A DIFFERENCE?

Opportunities for involvement in pre-college programs abound! You can help encourage pre-college students to consider a career in engineering by getting involved with your local school and through programs like "Introduce a Girl to Engineering," FIRST Robotics and LEGO League Competitions, and Junior Engineering Technical Society (Jets). For information on these programs and much more visit: www.asme.org/education/precollege

Feature Article: "Engineering Alternatives: Patent Law"

Part I – by James Smalley

While studying Mechanical Engineering at Penn State, you likely find yourself short of time as you complete your daily assignments, make meetings and study for exams. Most students do not budget time, or at least sufficient time, for the most critical decision facing all undergraduate students: "What am I going to do with my future?"

Oftentimes, students may be complacent enough to just go through the interview process, see what options unfold, and then make their selection based on the highest salary they can obtain. Others land superior co-ops and choose to accept a full-time position upon graduation, choosing to live their senior year lives with the security of a job offer.

The real question though should be, not "what company I want to work for," but "what do I want to do with my mechanical engineering degree?"

As an undergrad, I co-oped at General Electric Power Systems in Schenectady, NY. While I enjoyed seeing what goes on "behind the scenes," I was unhappy with corporate engineering structure and the cut-throat competition to move up in the company (not to mention the desolate location). My co-op, instead of showing me what I wanted to become, showed me what I did not want to do when I graduated and it forced me to examine other careers.

I remembered meeting a representative of the U.S. Patent and Trademark Office at a career fair in Kunkle Lounge the year before. Although they were looking for seniors to hire, he still spoke with me and gave me all their info. The following summer, I interned at the USPTO and it was all I needed to know which path I would choose for my career, as after graduation last May, I began working fulltime at the USPTO.

Currently, I am a patent examiner in art unit 3727. I examine patents that are "closures for receptacles." Basically, I examine patent applications that deal with inventions for new soda can tops, tamper-proof caps for medicine containers, spill-proof valves for child drinking cups, and coffee lids you would find at Starbucks. While I working on an art that is simple to understand, I am exposed daily to what goes on when one applies for a patent. It is up to me to search U.S. and foreign patent databases to see if what someone says is new really is new or if it was anticipated by another inventor, sometimes over a hundred years before.

Working for the U.S. Government comes with many benefits unequalled in the corporate world. With "flex-scheduling," I am able to work more hours from Monday to Thursday in order to have off every other Friday. I receive paid sick leave as well as vacation and have the most comprehensive medical care available. I work in the most beautiful city in the U.S. I am making just as much as my friends in industry now, but can move up in the government (promotion in the PTO is based on *experience*, NOT credentials or politics) quicker and will soon be earning more, and the USPTO will pay for me to go to law school should I decide to switch over to the legal side of the industry.

So, what exactly is on the "legal side?"

Part II – by Brian Pandya

Like Jim above, I too was attracted to an alternative path in engineering. While I loved interning at Ford Motor Company, I wanted a career that was both intellectually challenging and allowed me to pursue my non-technical interests. So, the next summer, after participating in the Washington Internships for Students for Engineering (WISE) program that ASME International and the National Science Foundation sponsors, I realized that career in patent law was right for me since it allowed me to stay in touch with my mechanical engineering background (more so than had I taken the MBA route), while getting a broader view and exposure than in a highly technical design or research role. Unlike Jim, who is on the government side of intellectual property, deciding who gets patents, and really seeing the process at the nuts and bolts level, I am seeking to be on the legal side, helping clients with the process.

The process towards becoming a "patent lawyer" may seem long at first glance, but is easy to decipher if you plan. First, you must hold an engineering degree, so that you can understand the technology and write a patent application. In my opinion, a mechanical engineering background is ideal because it touches nearly every hot area where patents are obtained: biotech, computers, aerospace/defense, etc. Second, you must get a law degree. The law degree is the same as what Johnny Cochran, Edgar Snyder, or any other lawyer has, but as a third step, you must pass the "patent bar," the license to write patents and to submit them for approval to people like Jim at the USPTO.

Currently, I am a first year law student at the University of Michigan. This semester I am finishing up my required first year classes that every lawyer takes (torts, criminal procedure, constitutional law, etc.) and am beginning to take my electives in intellectual property such as patent law, copyrights, trademarks, anti-trust and unfair competition, technology management, bioethics, and e-commerce. Law school takes six semesters (approximately 2 ½ to 3 years) if you go full time as I am doing, or 4-5 years if you go part-time on the nights and weekends.

What will I do with my law degree? I plan to join a law firm and/or start my own practice, representing inventors and corporations, helping them to obtain patent protection from people at the USPTO like Jim, and if they fail to obtain a patent, appealing Jim's decision in federal court (a common practice, and a reason why people get lawyers to write their patents). Law is a good stepping-stone into management, finance, and entrepreneurship, so I may eventually transition into one of those fields. The majority of patent work is around Washington, DC (the USPTO is in nearby Crystal City, VA), which is where I hope to practice, though with the ever increasing role of technology in life today and companies' strong desire to protect their intellectual property, nearly every a major city from Los Angeles to New York to Minneapolis to Pittsburgh to Denver to Atlanta to Seattle has a very good market for patent attorneys.

(James Smalley's email address is jsmalley12000@yahoo.com, and Brian Pandya's email address is bpandya@umich.edu. Both would be happy to field any questions about patent law and careers in intellectual property.)

ASME Southeastern Michigan's Industry Roundtable continues to grow

The ASME Southeastern Michigan Section's "Industry Roundtable" continues to grow. Following the programs launch during December 2002, it has grown to include over 20 professionals. Members include executives from the automotive industry and the automotive supplier base. What is their common interest? Improving engineering education, addressing key technology issues, and helping engineering based businesses to grow.

Launched by volunteer Tom Libertiny and Regional staff member Tom Wendt, the team meets once per month. The current initiative is focused on improving undergraduate education. During a time when tuition costs continue to escalate while the number of credits required to complete a BSME decline, there is a growing concern that many freshly minted engineers are not prepared to face the business world of engineering.

Cost is a key issue. Just 10 years ago, financing an undergraduate engineering degree was not a tremendous burden. Today, with the total cost for many public universities surpassing \$50,000 many engineers leave undergraduate school with a significant amount of debt. Reductions in the amount of credit hours required to graduate reflect to a certain extent the overall cost hurdle for students.

What is the solution? Engineering employers have an inherent interest in the quality of graduating engineering students. After all, graduating students and employers are the direct clients of universities. The proactive solution discussed by the Industry Roundtable is to team up with universities to provide help in specific areas of the engineering curriculum and daily education under the ASME umbrella. There is no fee to the student or university for this service.

How? The two specific areas being developed for our first initiative are:

- 1) Volunteering to teach particular portions of an engineering class, and
 - 2) Volunteering to participate with the Accreditation Board for Engineering and Technology (ABET).
- In the United States, accreditation is used to assure quality in educational institutions and programs. Accreditation is a voluntary, non-governmental process of peer review. It requires an educational institution or program to meet certain, defined standards or criteria.

The benefit: Students, businesses, and universities all win under the above scenario. Students obtain real life examples of how their knowledge will help them to solve problems found in industry. Businesses receive students that are well rounded and understand how the engineering profession fits within a technology based business. And, universities get additional resources at not cost.

Members of the Business Roundtable have already agreed to participate in the initiative. The next step is for the section and region to put together the strategy and details.

The topic of the March meeting presentation by Mr. John Petty of General Dynamics Land Systems was: "Program Management Tools and Techniques". Mr. Petty stressed the importance of planning and related this to his personal experiences on a variety of programs during his career at GDLS. The presentation is posted on the SEMS ASME Web Site: <http://www.asme.org/sections/sems.news.html>

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Engineering & Auto Racing: ASME SEMS End of the Year Fun & Lunch

Date: Friday, 6 June 2003
Time: 10:00am-3:00pm
Location: Waterford Hills race track, Waterford, Michigan.
Directions are available at www.waterfordhills.com/info/trackinfo.htm#directions
Vendor: Specter Werkes auto racing www.spectergtr.com
Fees: \$45 for ASME members, \$65 for non-members
Capacity: 50. Send in your check for receipt by 30 April 2003 to reserve your seat.

Join us for a day of fun at the Waterford Hills racetrack. We'll provide race prepared Corvettes, race drivers, helmets, lunch, and the venue. All you need to do is have fun!

Enjoy the great outdoors while celebrating the end of our fiscal year with the ASME Southeastern Michigan Section during this very special event. Check out the Corvettes and take "hot laps" around the racecourse with one of our racing drivers (they'll drive as fast or as slow as you desire).

Tickets are \$45/person for ASME members and \$65/person for non-members (Sign up as an ASME member anytime from now until race day and we'll reduce your fee to \$45.). The event is limited to the first 50 people. Please mail your checks for receipt by 30 April 2003 for your reservations.

ASME Southeastern Michigan Section
691 N. Squirrel Road, Suite 105
Auburn Hills, MI 48326

Please check the website for more information on the drivers:
<http://www.asme.org/sections/sems.news.html>

