

## Minnesota Section Highlights & Upcoming Events

This year we are introducing three new types of programs, all with social and networking opportunities, to supplement our tours. The “**dinner meeting**” features a 1.5 hour presentation on a topic of interest or of general technical value. The “**technical presentation**” contains 3-4 hours on a subject with an intermediate meal break. The full day “**symposium**” will feature multiple speakers (5-6 this year) on a subject of interest to all mechanical engineers. In August, we published the program for the year. The following is a summary of our past and upcoming activities:

In September, we toured the Stratus plant. A large group attended to see the machines and process of producing a 3-D model/part. The parts are generated from a 3-D CAD file and are made of a variety of polymer resins. Components can be up to 3 ft. square and about 18 inches thick, with the possibility of assembling them into larger sizes.

In October, we held a dinner meeting featuring Professor Kortshagen from the University of Minnesota. The topic was “nano-technology for M.E.’s” and covered raw materials and conversion to nano-materials. The focus was on applications in the fields of renewable energy, environmental applications, bio-medicine and photovoltaic and light emitting devices.

In November, we gave a technical presentation on Root Cause Analysis. This is a logical and disciplined process used to identify all possible contributions to a problem or failure. It is modified for various investigations and can lead to more rigorous forensic investigations.

In December, we toured the Guthrie Theater. A large group attended to experience the unique architectural qualities of the facility and see the

various mechanical systems involved with the operation of the three stages. We also saw the “shops” where they fabricate the stage props, wigs, and costumes.

In January, we will host a dinner meeting with a presentation on “Reverse Engineering”. Plan to attend in order to find out just what this term means. This will be a practical introduction to the equipment and processes used. Primary applications are in the engineering department, the parts documentation, and the manufacturing methods.

In February, we will host another dinner meeting with a presentation on the use of laser equipment in the processes of inspections and quality control. Practical applications will be demonstrated.

In March, we will hold our first (full day) symposium. The focus will be on an engineer’s responsibility and how to be proactive with respect to product and professional liability. Learn what you can do to help avoid or defend against litigation. Information given at this event will increase your value as a consultant or employee, no matter what your job requires or what industry you are in. We have 5-6 engineers and legal experts lined up to present this topic.

In April, we will have a technical presentation covering traditional and new bolting methods and components. This will be 3-4 hours of presentation plus a dinner and include aspects of failures and failure analysis.

In May, we will have a dinner meeting about Intellectual Property. It will include an overview of the patent system and laws. Learn how to prepare for and improve the work relationship with legal counsel in order to protect intellectual assets.

# 2012 Leadership Training Conference (LTC)

**“If you can only attend one leadership conference during the year, make this the one...and reward yourself with valuable information enhancing your professional and volunteer leadership skills.”**

The LTC provides ASME’s volunteers with leadership training, essential information for key unit and committee members and networking opportunities with peers.

### **LTC Will Provide You:**

- Leadership skills training to help you succeed professionally and in your volunteer position
- Networking opportunities with other volunteer leaders and ASME staff
- An overview of the Society’s organization and key initiatives and resources
- Idea Mart – a mini-expo that gives you the opportunity to speak with key staff and volunteers, and learn more about the latest programs and initiatives going on at ASME
- An opportunity to share ideas and best practices with your peers

### **Attending Will Help You To:**

- Bring innovative ideas back to your workplace
- Enhance your leadership skills
- Improve communication and project management skills

### **Attending**

ASME encourages bright, energetic Early Career Engineers to volunteer their time for the Engineering Profession. Each year, a group of early career engineers are funded to attend the LTC. Information on how to apply is at the event website. <http://events.asme.org/LTC12/home.cfm>

This year’s LTC will be held in New Orleans, LA on March 1-4, 2012. Martha Engel will be representing our section.

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## **LinkedIn® (www.linkedin.com)**

LinkedIn is an excellent tool for professional networking, whether you are looking to network with colleagues, build your professional network by finding new colleagues, or review job postings. It is free to join and once you are a LinkedIn member, look for ASME’s group to **join with other ASME members throughout the world**. The ASME group provides discussions, resources, networking opportunities and ASME related information to all ASME members.

To find the ASME group once you are logged into LinkedIn, go to the search box in the upper right corner; pick “Groups” in the search filter and type “ASME” in the search box. Then select the join group icon on the right-hand side.

## Inspire Innovation Workshops: Connecting K-12 Educators and Engineers



For more than 15 years, ASME has hosted teacher workshops to bring hands-on engineering activities to K-12 classrooms and to bring teachers and engineers together. EWeek 2012– through its coalition of engineering associations, corporate, and government partners – offers a unique forum to celebrate and highlight these grassroots-level initiatives and to gather resources for local engineering groups to connect with educators. Developing a skilled workforce through strengthening K-12 STEM education and supporting educators is a goal shared by all E-week partners around the globe. Inspire Innovation Workshops and ASME are helping educators reach children.

The ASME-MN Chapter is also working to advocate and encourage K-12 STEM programs. The most direct involvement is with the TechFest celebration at The Works Children’s Museum during E-Week. ASME-MN is a Sponsor providing financial support and Volunteers for the TechFest event.

Many ASME members are providing Volunteer support for many STEM Programs throughout the Minnesota area. This includes Mathcounts, Future Cities, First Robotics, Lego League (High Tech Kids), and other programs on an individual basis. ASME-MN Board is also coordinating our efforts with other Stem advocate organizations and those Societies that are affiliated with The Minnesota Federation of Engineering, Science, and Technology Societies (MFESTS).

These activities are complementing and supplementing the efforts of our public Educational System and brings the Engineering community into the educational process.

The ASME-MN Board is interested in advocating and supporting K-12 Stem programs and would like to hear from our members who are active in this area. Please contact Rick Heinecke [rheinecke@gmail.com](mailto:rheinecke@gmail.com) if you are involved in or want to participate in these activities.



### 2012 Awards

Each year MFESTS collects nominations from its member societies to recognize outstanding work in engineering, science and technology. This year the Minnesota section is nominating the following members for the corresponding award.

Award	Nominee
Charles W. Britzius Distinguished Engineer Award	Larry Kirchner
Richard S. Alberg Distinguished Science and Technology Professional Award	Uwe Kortshagen
Minnesota Young Engineer of the Year Award	Jennifer Olsen

# TECH FEST

## 2012



SATURDAY, FEBRUARY 25<sup>TH</sup>

### **It's all about engineering!**

On Saturday, February 25, 2012, The Works will welcome over 2,000 guests to attend its ninth annual Tech Fest, a special day of hands-on engineering fun for kids and adults. This special event brings together kids, parents, engineers and community partners and businesses for a day of fun in honor of National Engineers Week. Our goal- to gets kids excited about science and engineering!

### **Tech Fest Activities**

Guests will enjoy a wide variety of hands-on activities led by The Works' staff and volunteer scientists, engineers, students and technicians from partner businesses and organizations. Past events featured:

- Building rockets with aerospace engineers
- Tech Take Apart room with technology professionals.
- Papermaking with scientists and students
- Chemistry experiments with chemists and students
- Bridge building with architects and engineers
- Circuit play with electrical engineers

### **Tech Fest Shows and Demonstrations**

Tech Fest also features interesting shows and demonstrations. Past events have included:

- Planetarium Shows
- Chemistry Shows
- Physics Force
- Robot demonstrations
- Wind Power demonstrations

### **Get involved with Tech Fest at The Works!**

The MN ASME section will again be supporting Tech Fest and is looking for volunteers. If you are interested contact Rich Heinecke (763-420-4764 or RLHeinecke@gmail.com)

*Join us in celebrating engineering and in inspiring the next generation of innovators, engineers, and creative problem solvers.*

## ASME-MN 2011-2012 Officers:

Chair	Babar Khan	952.937.3353	zaheer_babar_khan@yahoo.com
Vice Chair	Andy Johnson	952.994.3235	johnsona3@asme.org
Treasurer	Nate Overby	763.262.9547	nathan.overby@xenuclear.com
Secretary	Jennifer Olsen	612.280.3571	Jennifer_Olsen@IRCO.com

Director	Larry Kirchner	Director	Rich Heinecke
Director	George Lucas	Director	Robert Bies
Director	Steve Burke	Director	Mark Bliss
Director	Tom Johnson	Director	Martha Engel
Director	Bill George		

## Get involved with ASME-MN

The MN section officers invite members to become more involved by attending the executive board meetings and contribute their ideas and support for future events. The executive board usually meets the third Tuesday of every month at 6pm at the Edina public library. Contact one of the existing officers to confirm date and location as they may change due to the library's schedule.

If you are interested in becoming a board member, please contact Larry Kirchner (952-545-5664). Nominations will be open in March and voting will take place at the May executive committee meeting.

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## LaCrosse Subsection Activities:

The Minnesota section includes the LaCrosse subsection which organizes and participates in several events of its own.

They have already started supporting the Coulee Region Engineering Scholarship. This is in conjunction with several other engineering societies (WSPE, IEEE, ASHRAE, SME). In December, the group started participant screening by reviewing applications. The second part will be conducting phone interviews which will wrap up in February.

Also in February, the section participates in E-Week Activities. They help with high school engineering presentations and the Joint Society Awards Banquet (CRES awardees).

From March to May, members support the Design Contest at Western Technical College as part of the Mechanical Design Technology program. This contest is part of course requirements. Volunteers will judge student designs and present awards to the winners.

If you are interested in learning more about these events, contact Chris Thilges at [cthilges@trane.com](mailto:cthilges@trane.com)

## Updated ASME-MN 2012 Event Calendar:

The Minnesota Section's Program Committee has created a schedule of programs for the remainder of the Section year. Each meeting is designed to enlighten, inform, and educate our members, giving you ideas and inspiration you can take back to your job and improve your companies' products &/or processes. Mark your calendars now and watch our website ([www.asme-mn.org](http://www.asme-mn.org)) for details on each meeting.

January 11, 2012  
February 08, 2012  
March 21, 2012  
April 11, 2012  
May 09, 2012

Reverse Engineering  
Laser Inspection and Quality Control  
Product Liability and Professional Liability  
Bolting Methods and Failure Analysis  
Intellectual Property for Engineers

**We are always looking for speakers and/or companies to tour for our events. Go to our website, pick Section Meetings, and click the link at the bottom of the page to email us your suggestions.**



Check inside for  
Section Meeting Dates  
and topics.

Also included are Engi-  
neering Events of interest  
to the entire Engineering  
Community

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