



# Washington DC Section Newsletter December 2014



**Editor:** Bethany Springer  
240-422-4815  
bspringer@asme.org

**Executive Secretary:** Andrea Gironda  
703-489-9503  
agironda@verizon.net

[https://community.asme.org/washington\\_dc\\_section/default.aspx](https://community.asme.org/washington_dc_section/default.aspx)

**Chairman**

Kaykham Sysounthorn  
571-357-3011  
sysounthornk1@asme.org

**Vice-Chairman**

Paul Bizot  
301-648-5945  
bizotp2@asme.org

**Treasurer**

Jon Ward  
571-215-8981  
jonward@asme.org

**Recording Secretary**

Roger Schaffer  
202-781-1336  
Roger.schaffer@navy.mil

**Communications Secretary**

Bethany Springer  
240-422-4815  
bspringer@asme.org

## Local Section News

Have any ideas for events or volunteer opportunities that you would like to do? Feel free to offer up your suggestions at anytime! The ASME Board is always looking for additional events throughout the year. Please submit any ideas to Bethany Springer at [bspringer@asme.org](mailto:bspringer@asme.org).

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## Local Section News

### ASME JANUARY EVENTS

#### GUIDED TOUR OF THE SMITHSONIAN NATIONAL AIR AND SPACE MUSEUM

**Date:** Saturday, January 17, 2015  
**Time:** 10:00 a.m. – 12:00 p.m.  
**Place:** Smithsonian Udvar-Hazy National Air and Space Museum  
14390 Air and Space Museum Parkway, Chantilly, VA 20151

**Cost:** Free  
**Registration:** Please contact Andrea Gironda at [agironda@verizon.net](mailto:agironda@verizon.net) or (703) 489-9503 with the number of adults and number of children who wish to register for this event.

Please come join the Washington, DC ASME Section for a guided tour of the Smithsonian Udvar-Hazy National Air and Space Museum (14390 Air and Space Museum Parkway, Chantilly, VA 20151) on Saturday morning, January 17, 2015, from 10:00 a.m. to 12:00 p.m. Children are also welcome to attend this event.

The exhibits include more than 150 large space artifacts, including the space shuttle Discovery, a Gemini space capsule and more than 200 aircraft, including the Gossamer Albatross, the Lockheed SR-71 (Blackbird, YF-12A), and the Enola Gay. The docents include former NASA employees, pilots (some of whom piloted aircraft on display), engineers, and historians, and they will guide us through the development and history of the technology and these crafts. Of the 4,000 online reviews of these tours, 85% have rated them as excellent (5), the highest rating, with the balance at very good (4).

Although there is no fee for this event, parking will cost \$15 per vehicle.

Please also be aware that no food or drinks are allowed in the museum with the exception of bottled water, and all bags will be inspected for security upon entry. We look forward to seeing you there!



## Upcoming ASME Conference

July 6-9, 2015 • San Francisco, CA

InterPACK2015  
& ICNMM2015

ASME 2015 International Electronic Packaging  
Technical Conference and Exhibition

ASME 2015 13th International Conference on  
Nanochannels, Microchannels, and  
Minichannels

This is the first time that the **International Technical Conference and Exhibition on Packaging and Integration of Electronic and Photonic Microsystems (InterPACK)** and the **International Conference on Nanochannels, Microchannels and Minichannels (ICNMM)** will jointly hold their conferences together.

InterPACK is the premier international forum for exchange of state-of-the-art knowledge in research, development, manufacturing, and applications of electronics packaging, MEMS, and NEMS. It is the flagship conference of the Electronics and Photonics Packaging Division (EPPD). The InterPACK conference series was founded in 1992 as the ASME-JSME Joint Electronics Packaging Conference. It was renamed InterPACK in 1995 and has occurred biannually since then. The conference is held in technical co-operation with the Japanese Society of Mechanical Engineering (JSME). InterPACK attracts researchers and practitioners from academia, industry, and government and serves as a venue for knowledge dissemination and collaboration amongst its participants.

Call for papers: Abstracts are due **December 8, 2014**. General inquiries may be directed to [mje@us.ibm.com](mailto:mje@us.ibm.com) for InterPACK and to [Vinod.Narayanan@oregonstate.edu](mailto:Vinod.Narayanan@oregonstate.edu) for ICNMM.

For more information, please see: <https://www.asmeconferences.org/InterPACKICNMM2015/index.cfm>

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# CHAIRMAN'S CORNER

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## Discover Engineering Family Day 2015: Request for Volunteers

by

Kaykham "Kai" Sysounthorn  
Chairman (Washington D.C. ASME Section)



The American Society of Mechanical Engineers (ASME) Washington, District of Columbia (DC) section will once again be actively participating in Discover Engineering Family Day during the 2015 National Engineers Week. The event will be taking place on Saturday, February 28, 2015 at the National Building Museum (401 F Street NW, Washington, DC 20001), during which we be hosting an interactive exhibit.

Therefore, we are seeking five (5) professional members, preferably Mechanical Engineers with various types of experience, and five (5) college student members from the ASME community to volunteer their time at this event. Both professional and student members will be split into two shifts (Morning: 8:00 am - 12:45 pm and Afternoon: 12:30 pm - 5:15 pm), with five volunteers assigned to each shift. These times include setup, cleanup, and a 15-minute overlap for volunteer handover between shifts.

ASME's interactive exhibit, *Sound Waves*, is a series of short hands-on and interactive demonstrations of various wave phenomena related to sound and vibrations. Guests, including children and adults alike, will participate in demonstrations and have an opportunity to learn about wave propagation, frequency, amplitude, and resonance. At this exhibit, volunteers will be assisting in the demonstration and explanation of different wave phenomena. We will also be including new activities to debut at this year's event.

For detailed information regarding this event, please visit: <http://www.nbm.org/families-kids/festivals/discover-engineering-family.html>

Please direct inquiries and responses for volunteering to Kaykham Sysounthorn, Chairman, Washington D.C. section at [sysounthornk1@asme.org](mailto:sysounthornk1@asme.org). Your continued support is appreciated!

## **ASME POWER DIVISION: STUDENT PAPER COMPETITION WINNER**



Congratulations to Nathan Smith (left) from the University of Maryland and Jonathan Lee from the University of California, Berkeley, this year's first and second place winners of the Student Paper Competition!

The inaugural Student Paper Competition event attracted over 25 abstracts, which resulted in 8 final papers being presented at the 2014 Conference representing Student Authors from four different countries. In addition to the rigorous peer review process required by ASME for all technical papers, these student papers and presentations were further scrutinized by a Committee of Judges.

The ASME Power Division and the Student Paper Competition Committee is honored to announce Power2014-32144 "Justification for Long Distance Transmission" authored by Nathan Smith from the University of Maryland, Baltimore County as the winner of this competition. Nathan received a \$2,000 cash award and his paper will be published in the January 2015 digital edition of Energy Tech Magazine.

Thanks to our partners at Energy Tech Magazine we were able to announce a second place winner as well. Power2014 -32231 "Automatic Fault Location on Distribution Networks Using Synchronized Voltage Phasor Measurements Units" authored by Jonathan Lee from the University of California, Berkeley was chosen as the second place winner. Jonathan's paper will be published in the July 2015 digital edition of Energy Tech Magazine.

MECHANICAL  
**ENGINEERING**

### **FREE WHITE PAPER: Maximize Power Efficiency with Placement and Routing**

Some of the most time-consuming tasks in PCB design are placing parts on the board and routing traces. Designers who complete these tasks efficiently can make a more positive and direct impact on design quality and development time than designers who do not. This white paper reports on a new solution, which provides placement and routing capabilities that reduce the design cycle and improve product quality.

To access this white paper, please click [here](#).

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## **ASME Environmental Division**



For the latest news, articles, and information regarding EED safety, health, and the environment as it pertains to AMSE, feel free to access the ASME Environmental Division's monthly newsletter: [https://community.asme.org/environmental\\_engineering\\_division/b/weblog/default.aspx](https://community.asme.org/environmental_engineering_division/b/weblog/default.aspx)

## Program Lineup For This Year

The Executive Committee met in July 2014 to formulate this year's program and continues to finalize and organize events to serve the Washington, DC Section:

<b>Date</b>	<b>Event</b>
October 21 <sup>st</sup>	Reception at the Embassy of Italy
October 23 <sup>rd</sup>	Submarine Safety Event
October 29 <sup>th</sup>	Career Panel: University of Maryland, College Park
January 17 <sup>th</sup>	Smithsonian Air & Space Museum Tour
February 25 <sup>th</sup>	DCCEAS Proclamation Luncheon
February 28 <sup>th</sup>	Discover Engineering Day
February 28 <sup>th</sup>	DCCEAS Awards Banquet
March	ASME Washington Fellows Dinner
March	Library of Congress Tour
April	ASME WDC Community Award Science Fair
April	ASME DC Awards Dinner
May	Young Engineers Event
June	Family Event

## Social Media: Washington, DC Section

Make the ASME Washington, DC Section part of your social media life! Feel free to connect with us through Facebook and Twitter for updates on events and to post suggestions.

### Like us at:

<http://www.facebook.com/ASMEDC>

### Follow us at:

[https://twitter.com/ASME\\_DC](https://twitter.com/ASME_DC)

## Newsletter Available Online!

The Washington, DC Section Newsletter is available online at:  
[https://community.asme.org/washington\\_dc\\_section/default.aspx](https://community.asme.org/washington_dc_section/default.aspx)

For comments or questions, please contact our Newsletter Editor, Bethany Springer at [bspringer@asme.org](mailto:bspringer@asme.org).



## Engineering Corner



### 3D Printing Houses

**By Michael Abrams**  
**November 13, 2014**

Dr. Berok Khoshnevis, a professor of multiple engineering disciplines at the University of Southern California and director of the Center for Rapid Automated Fabrication Technologies, dreamt up a way to print things of larger size and, arguably, importance. His company, [Contour Crafting](#) has, or will have soon enough, the capability to quickly print out walls, houses, buildings, and, conceivably, entire neighborhoods.

View Full Article at: <https://www.asme.org/engineering-topics/articles/construction-and-building/3d-printing-houses>

### 30 Years of Bionic Ears

**By Michael MacRae**  
**November 21, 2014**

About the time 1970s sci-fi spy Jaime Sommers put her cybernetic ear to work as a government eavesdropper on TV's *The Bionic Woman*, a real-life experimental hearing device was beginning to turn the meaning of deafness on its ear. The cochlear implant, as close as it gets to a true bionic ear, hit the U.S. market following approval by the U.S. Food and Drug Administration in 1984-85. The continually evolving technology doesn't restore better, stronger, faster hearing, but for people with profound deafness, cochlear implants open a world of sound.

View Full Article at: [https://www.asme.org/engineering-topics/articles/bioengineering/30-years-of-bionic-ears?cm\\_sp=Home\\_-HomeHero\\_-30-Years-of-Bionic-Ears](https://www.asme.org/engineering-topics/articles/bioengineering/30-years-of-bionic-ears?cm_sp=Home_-HomeHero_-30-Years-of-Bionic-Ears)

### MechE Spinoff Launches All-Terrain Wheelchair in U.S.

**By Alissa Mallinson**  
**November 24, 2014**

In 2007, the GRIT team came together as students in the Department of Mechanical Engineering to create a wheelchair that fits the needs of people with disabilities in developing countries. They needed to design something that could travel off-road for approximately two miles a day, could be powered manually with ease, and was small enough to use indoors — all at an affordable price. It was these constraints that forced Winter, Scolnik, Bollini, and Judge to veer off the established path and create an entirely mechanical wheelchair at a fraction of the cost.

View Full Article at: <http://newsoffice.mit.edu/2014/meche-spinoff-launches-freedom-chair-all-terrain-wheelchair-1124>

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**Thursday, December 11, 2014  
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The [Engineering for Change Webinar Series](#) provides the opportunity to learn from and interact with creative thinkers and leaders who are developing new technologies and initiatives that contribute to solving humanitarian engineering problems. This live, interactive, monthly series promotes emerging ideas and connects a community of passionate engineers who want to improve quality of life around the world. Attending is easy and free: register at least one hour before each webinar and you'll receive a participant link prior to the event. Can't attend? View previously recorded webinars online and on E4C's YouTube channel. Visit [www.engineeringforchange-webinars.org](http://www.engineeringforchange-webinars.org) to learn more and register for the next live event.



## ASME Mentoring Program

**Get valuable career advice from a mechanical engineering professional!**

The **ASME Mentoring Program** is designed to provide rewarding experiences that both mentor and mentee can learn and grow from. This is a unique opportunity for you to get career-guiding advice from an engineering professional with broader experience or more advanced skills. Benefit and learn from their real-life expertise, while sharing your own valuable insight and perspective!

Participating in the program is easy with our Web-based platform, made available through a partnership with WisdomShare™. Our targeted matching system will pair you with someone who can provide anything from general advice and a fresh point-of-view, to help identifying the right training or niche in mechanical engineering, or even assistance with finding a non-traditional career path.

The valuable insight you can gain by participating in the **ASME Mentoring Program** can have a positive impact on your career for years to come!

If you are ready for a most rewarding experience, please go to: <http://go.asme.org/mentoring> to become an **ASME Mentor or Mentee**.



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Abstracts are solicited on uses, methods and research in techniques for Verification and Validation in all engineering and scientific computing disciplines. Individuals who would like to participate in the presentation sessions should submit an extended 400-word abstract. There will be no requirement for a formal paper submission.

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