Orbital welding is a precise, automated method for welding together process tubing systems in high-tech industries ranging from semiconductor equipment manufacturing to biopharmaceutical processing to aerospace. In these critical systems, a precise weld is required to avoid corrosion in service, either to maintain system integrity or to keep corrosion byproducts from affecting the system fluid. It is commonly used on austenitic steels and other alloys, such as nickel-based corrosion-resistant alloys, titanium or aluminum. This presentation discusses the welding requirements in some of these industries, and will cover the fundamentals of joint preparation and purging to ensure a quality weld that will perform in critical environments.

Sunniva R. Collins, Ph. D., FASM, is Visiting Associate Professor, Mechanical and Aerospace Engineering (EMAE), at Case Western Reserve University in Cleveland, Ohio. Her responsibilities include teaching and developing a manufacturing curriculum between EMAE and the Materials Science and Engineering Department (EMSE). Dr. Collins spent 18 years with Swagelok Company, most recently as the company's first Senior Research Fellow. In this role, Dr. Collins was responsible for coordinating the company's academic and governmental research partnerships. She joined Swagelok in 1995 as a research metallurgist and served in engineering management positions, including manager of materials technology and manager, standards and product regulatory compliance. Collins also acted as the technical director of Swagelok Technology Services Company, a wholly owned subsidiary of Swagelok Company.

Collins received her doctorate and master's degree in materials science and engineering from Case Western Reserve University and her bachelor's degree from the University of Michigan. She was Swagelok's Principal Investigator on a three-year DoE-funded project to evaluate low temperature colossal supersaturation (LTCSS, commercialized by continued on page 2

Technical Chairperson: Don Jordan, Solar Atmospheres, Inc.

Meeting Sponsors: LTK Engineering Services and Ipsen, Inc.
Chairperson’s Message

MARCH 2015

Could we finally be seeing signs of Spring happening? I see my daffodils are tentatively poking up in my garden. Let's hope the worst of the winter is behind us, and that Spring is on its way!

A special thanks to all of you who attended February's Continuing Education Night with Scott Kreilick's talk about Conservation & Restoration of Historic Metal Sculpture, Architecture & Objects. Such a fascinating subject shouldn't be confined to only an hour or so. Also, a very special thanks to our meeting Sponsors, Solar Manufacturing & Forensic Sciences.

Now that most of the snow has melted, we're enjoying Daylight Savings, and the temperatures are a bit more seasonal, we hope you'll come out this month for our National Officer’s Night. We have Dr. Sunniva Collins, President of ASM International, presenting this month. Dr. Collins will be speaking about orbital welding for critical applications, and judging by her experience as a researcher and educator, it will be both educational and stimulating. Why not bring a colleague or a friend along? We always have such a great time.

Also, an upcoming tour for May at the Union League in Philadelphia. Details to follow! Thank you. Hope to see you on March 19th.

Very best regards,
Jerri Jefferies
2014-2015 Chapter Chairperson

SPEAKER: Sunniva R. Collins, PH.D., FASM

continued from pg. 1

Swagelok as the SAT 12 process), which completed at the end of 2006. On this project, she was responsible for program management of collaborative research with Case Western Reserve University (CWRU), Oak Ridge National Laboratory (ORNL) and other research partners. The results of this research have been recognized with the 2006 ASM Engineered Materials Achievement Award, and a 2008 R&D 100 Award.

Collins has worked to develop key standards on welding, surface finish requirements, and corrosion test methods for the semiconductor equipment industry. She has also instructed courses for ASME on Bioprocessing Equipment (BPE) and for the International Society of Pharmaceutical Engineers (ISPE). Collins is actively involved in the ASM Materials Camps, and was the Cleveland Chapter Chair from 2000 to 2001. She is listed in Who's Who in America, Who's Who in Science and Engineering, and Who's Who in American Women. Sunniva and Michael, her husband of 24 years, have two children and reside in Cleveland Heights, OH.

Sustaining Members Expo

The Sustaining Members Expo will be April 16, 2015 at 5:30 pm! Come and see what your fellow ASM Member Companies have to offer! If your company has a Sustaining Membership with the ASM Liberty Bell Chapter, don't forget to sign up to participate in the Expo.

If you are not a current ASM Sustaining Member, and want more information on how to become a Sustaining Member with the Liberty Bell Chapter, or if you are a current Sustaining Member and have questions about upcoming Sustaining Member events: Contact Sarah Mansuetti: email: sarah.mansuetti@rexht.com phone: 215.855.1131 x221.
**C. F. Burns Poster Contest**

The Liberty Bell Chapter will be holding its 14th annual poster contest for graduate students during our Sustaining Members Night on Thursday, April 16, 2015. This will be the 11th year the contest is sponsored by Solar Atmospheres, Inc. and prize money will be $500 for 1st Place, $300 for 2nd Place, and $200 for 3rd Place. Due to limited space, we are asking students to pre-register. Space will be awarded on a first come, first serve basis. Please register your name and poster title with Mike Moyer at mikem@solaratm.com or call him at 215-721-1502 x1207. Good luck to everyone!

**2015 Materials Camp**

We are accepting applications for our 11th Annual Materials Camp at Drexel University on June 22-26. Each year there is a strong demand for the camp, with between 75 and 100 applicants over the last few years. With between 20 and 25 slots available, it is very competitive. The very best engineering-oriented students in our region are being served by our camp. As a result of their experiences at camp many are pursuing a Materials Engineering career.

The program is one our Chapter is extremely proud of. It really makes a difference in the lives of the students. We depend on the generosity of local companies and individuals to continue providing this priceless learning experience. Please contact Brian Gorney at 586-354-5167 or gorneybj@gmail.com to become a sponsor and have your company linked to this wonderful program. Students may apply for the 2015 Materials Camp by downloading the application on the Outreach tab of our website at www.philadelphia.asminternational.org.

We would also like to announce a new Teacher’s Camp that will be coordinated jointly between the ASM Liberty Bell Chapter and Temple University in the summer of 2016. The purpose of the week-long course is to assist teachers in finding ways to better interact with students and promote science and engineering in their school. More information will be posted in the Delaware Valley Science Fairs Judges Needed

Once again this year, ASM chapter members will be involved in judging the Delaware Valley Science Fairs. April 1, 2015 is the judging day for students in grades 8-12. The DVSF is an annual competition for middle and high school students from eastern Pennsylvania, Delaware, and southern New Jersey. In addition to selecting the recipients of ASM prizes for materials-related projects, some members have assisted in judging categories such as physics, chemistry, and engineering. Again this year, the award medals will be handed out at the awards ceremony on April 2.

But, more judges are always welcome. The judges are all volunteers and come from a variety of technical areas, including industry, education, and research. Although there is not a specific materials category, your materials background qualifies you for a variety of areas.

So, in addition to helping the DVSF, you could help the chapter further its educational goals by being a judge. This year’s fair will be held at the Greater Philadelphia Expo Center in Oaks, PA. If you are interested in being a judge, you can sign up at http://www.drexel.edu/dvsf. If you need more information about judging, or some encouragement, talk to John Janiszewski (janiszewski@ltk.com or 215.641.8849).

**Welcome New Members . . .**

Dave C. Barnickel  PH Tool
Nick Brachelli      Six Flags Great Adventure
Joseph Farrell     Laboratory Testing Inc.
Rob Gormley        PH Tool
Steven Grabey      Heraeus Precious Metals
Nicholas Harris    LTK Engineering Services
Heather Heathwood  Laboratory Testing Inc.
Adam Hodnett       DC Fabricators
Brian Holtzman     Liberty Alloys
Howard Johnson     Laboratory Testing Inc.
John Kim           Houghton International
Judith Koenig      Solar Atmospheres, Inc.
Sankaip S. Kota    Drexel University
Pelin Lemons       Johnson Matthey
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Ronnie Parker      SPS Technologies, Inc.
Martin Payton      Precision Metal Service
Christopher Perry  DC Fabricators
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Andrew Robinson    PH Tool
Sherri Scheifele   Laboratory Testing Inc.
James Smith        Princeton University
Amanda Toth
Charli Tyska       Laboratory Testing Inc.
Jason Van Pelt     Solar Atmospheres, Inc.
Daria A. Weaver    Dana Driveshaft Products, LLC
Tyler Wiltrout     Panadyne

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29th Annual Golf Outing - Monday, June 1, 2015

Hosted By: The Greater Philadelphia Section of ASNT

Closest to the Pin, Longest Drive, Putting Contest
Registration - 7:00 a.m.  Golf - 8:00 a.m. (Shotgun Start)
Buffet - 1:30 p.m. at the
LIMEKILN GOLF CLUB - 1776 Limekiln Pike, Ambler, PA  215-643-0643

IN CASE OF RAIN PLEASE CALL LIMEKILN GOLF CLUB

The 29th Annual Golf Tournament has been scheduled and reservations are now being taken. The cost of this outing is only $95.00, if paid by May 25, 2015, $100.00 if paid after May 25, 2015. Price includes golf fees, golf cart, buffet, refreshments, and prizes.

Hole Sponsors are being sought for this event at all holes. The cost of becoming a Hole Sponsor is only $85.00. A "Sponsor Sign" is included in the cost and will be displayed at your hole.

29th Annual Golf Outing - Monday, June 1, 2015
Registration Form

RSVP: Golf/Hole Sponsor by May 25, 2015
Cost: $95:00 - Golf & Buffet ______ (Number) $85:00 - Hole Sponsor ______
Foursome:
Name: ______________________________ Name: ______________________________
Name: ______________________________ Name: ______________________________

Amount Enclosed: __________ Checks Payable to "Greater Philadelphia Section of ASNT"


Return to:
Anthony Gatti, Sr. Golf Committee:
7525 Brous Avenue Anthony Gatti
Philadelphia, PA 19152 267-251-8808
agattisr@yahoo.com

Directions to Limekiln Golf Club: Limekiln Golf Club is located in Horsham Township, Pennsylvania, on Limekiln Pike (Rt.#152), ½ mile north of Horsham Rd.(Rt.#463). Heading north, the driveway is on the right side of Limekiln Pike, across from Whitemarsh Memorial Park.
2015 Upcoming Events...  

4-16-15 Thursday Sustaining Members Night - Sustaining Members Mini Expo/Annual Charles F. Burns Poster Contest, Williamson Banquet, Willow Grove, PA

5-21-15 Thursday Honors & Past Chairmen Night - Awards & Honors

6-1-15 Monday 29th Annual Golf Outing at Limekiln Golf Club

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Check out our website at: http://philadelphia.asminternational.org

Mission Statement - ASM International, Philadelphia Liberty Bell" Chapter
The Philadelphia “Liberty Bell” Chapter of ASM International supports the development and continuance of the materials industry in the Philadelphia area. Chapter activities strive to inform the local technical community of new developments in materials, raise the visibility of the materials industry, provide educational opportunities in materials technology, recruit new people and organizations into materials-related activities, and provide networking opportunities for members of the materials community. The Chapter works with ASM International to use our joint resources to accomplish this mission.

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