

**Need Some Sweetness This Time of Year?
Come Take a Tour of Baltimore's Domino
Sugar Factory with ASME**



You've seen it from the Harbor, now see what goes on inside. Join the ASME Baltimore Section on Friday, December 16th at 1:30 PM for a tour of the Domino Sugar factory.

The Domino Sugar refinery is a Baltimore tradition and a familiar part of the Inner Harbor skyline. It began operation in 1922 and is still producing refined sugar and various sugar syrups for both industrial and grocery markets. The plant can process, clean and package about 6 million pounds of raw sugar per day. Sugar cane products arrive in bulk shipments of up to 65 million pounds from many domestic and foreign cane sugar mills. The sucrose purity of the final product is about 99.5% - more than enough to satisfy any sweet tooth. The plant tour will allow you to see the refining process, which consists of complex unit operations including:

- Affination syrup mingling
- Centrifugal machine separation
- Carbonation process which includes lime slaking, boiler flue gas scrubbing & compression
- Pressure filtration systems
- Traditional bone char filtration & regeneration
- Evaporation
- Crystallization under high vacuum
- Drying in large rotary drums
- Screening and packaging facilities

Following the tour, for those who wish to, we will meet at the Hull St Blues Café (see next page for details)

Domino Sugar Plant Tour Details

Date: Friday, December 16th

Location: Domino Sugar Refinery
1100 Key Highway East
Baltimore, Maryland

Itinerary:

1:15 PM	Arrive at the Factory
1:30 - 2 PM	Overview of Refining Process
2 - 4 PM	Tour of the Refinery
4 - 4:30 PM	Q & A
5 PM	Meet at Hull St Café (for those who wish to)

Cost: ASME Members \$5
Non-members \$7

Age: 16 years and up

RSVP and Payment: by 12/14/11 to Greg Harris at Greg.Harris@Oracle.com. **Limit 15 persons.**

Payment can be made by check or online via PayPal. Make checks out to ASME and sent to:

Greg Harris
108 Deputed Testimony Place
Havre de Grace, MD 21078

Alternatively, PayPal payments can be made by clicking on the PayPal button on our webpage: <http://sections.asme.org/Baltimore> and sending payment to: asmebaltimore@yahoo.com

SAFETY /SECURITY NOTE: The Domino Sugar refinery is an industrial plant. There are numerous stairs and this is an older building so folks unable to climb stairs or with limited mobility should not take the tour. All attendees must also abide by the following good manufacturers practices:

- Long pants are required
- No opened toed shoes, high heels, or tennis shoes
- No jewelry of any sort: rings, necklaces, earrings, etc. (a wedding band is permitted)
- You will be given a hair net, safety glasses and a hard hat.

The precautions are required for safety purposes. In addition, upon arrival, tour members will have to sign a waiver prior to taking the tour. **You will also need to bring a government issued picture ID.** Finally, photography is not permitted.

Following the Domino Sugar Plant Tour, please join us at the:



The ASME Baltimore Section will provide light appetizers

Hull Street Blues Café
1222 Hull Street
Baltimore, MD 21230
<http://www.hullstreetblues.com/>

Celebrating Engineers Week

The Baltimore Section of the ASME would like to celebrate the achievements of our membership during Engineers week this year (Feb 19-25). We are planning a Social Event where Engineers from our area talk about what they do as engineers, or what they and their employer have accomplished. This has proven to be a very interesting event for presenters and audience. It sponsors great networking as well as communicating a general pride in our profession.



Please consider showcasing what you do as an Engineer by volunteering to be a part of the presentation team. Yes, I am asking you to be a presenter. Surely you can create a few slides and talk for 30 minutes on what you are working on as an engineer. You may not think it is all that interesting, but I assure you a bunch of engineers will.

This can also be great practice for our young engineers, and the older group loves to learn about new technology. So come on, stick your chest out and tell us all about your job, and what makes this profession worth taking two semesters of differential equations!

Please send me an email with what you want to talk about and I'll put you on the agenda. I'll review the logistics with you and we can make this a great night to celebrate our profession. The National Engineers Week is February 19th to the 25th. We are planning to have the event at the Engineers Club during that week.

Thanks,
Greg Harris
Program Chair.
Greg.Harris@Oracle.com

ASME and FIRST Robotics Competitions

We need your Help

The Baltimore Chapter of the American Society of Mechanical Engineers, FIRST (For Inspiration and Recognition of Science and Technology), the University of Maryland Baltimore College, several Maryland High Schools and Universities, AmeriCorps, and a whole host of individuals will sponsor or help with robotics competitions all across Maryland this year.

The competitions are where students

- Design, build and program robots,
- Apply real-world math and science concepts,
- Research challenges facing today's scientists,
- Learn critical thinking, team-building and presentation skills, and
- Participate in tournaments and celebrations.

This year it is estimated that approximately 250,000 elementary, middle and high school students worldwide will compete in approximately 500 qualifying tournaments leading to a world championship in April, 2012. Maryland will host multiple competitions with approximately 2,500 students.

The idea behind the competitions are to foster the next generation of Engineers and Scientists by getting students interested in science, technology and engineering through a forum that allows for fun, learning, coopertition™ (a hybrid of cooperation and competition), and team building.

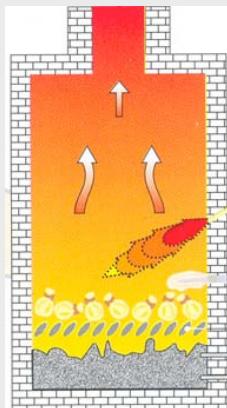
To make the competitions work, **we need your help**. We need volunteers for judges, referees, help with setup and registration, facilitators, etc. If you are interested in helping, please go to <http://www.mdfirst.org/get-involved/volunteers>

Thanks in advance for your support and help!!!



Hold the Date

**Baltimore
Incinerator
Tour
January 13**



Annual Straw Bridge Competition

We NEED YOUR HELP!



Each year, the American Society of Mechanical Engineers, Baltimore Section sponsors the Straw Bridge Competition for middle schools as part of the Engineering Challenges competition that are organized and hosted by The Baltimore Museum of Industry.

What does it take to make a bridge? The Strawbridge Challenge is designed to let teams of two to four middle school students learn some of the finer points of building a bridge that will allow a 1/64rd (Matchbox ®) scale truck loaded with 6.5 pounds of lead to travel over a bridge that spans a gap 20 inches wide. The students are allowed to use only plastic soda straws, hot melt glue and tabs of plastic to build their bridge. This, along with a simulated road surface, must hold the truck for one minute.

If you would like to help, please contact:
Roberto Montanez-Morales
410-961-1826
roberto.montanez@gmail.com

Important Dates:
Coaches session: January 21, 2012
Challenge date: April 28, 2012



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Competitive Product Design Selection

Dr. Shapour Azarm, Professor

Department of Mechanical Engineering
University of Maryland
College Park, MD 20742

When: December 8, 2011

Where: Pier 7 Restaurant
650 Water Street SW
Washington DC 20024

Socializing: 6:30 pm

Dinner: 7:00 pm

Presentation: 7:45 pm

Cost: \$22 per person/\$12 per student

Abstract

Two disciplines that are critical to product design selection are engineering design and marketing. Traditionally, these two disciplines have contributed kind of independently, often sequentially and not in an integrated fashion, to product design selection. Our research group at the University of Maryland, College Park, has been involved in developing an evolving framework for integration of engineering design and marketing. This is done to better support product design selection of a single product, product line, bundled and convergence product.

A few of the questions that we have explored in our research include: How should a single product/product line design be selected, given the uncertainties in the market and engineering design? How should products be designed to ensure a dominant retail channel acceptance while maximizing profit in the face of customer demand and market competition? How should multi-category product bundling and convergence strategies be devised to improve design decisions? How should online customer reviews be considered in product design selection?

The objective of this talk is to give an overview of some of our methods, models and results that we have developed in response to these questions over the last fifteen years.

Author's Bio

Dr. Shapour Azarm received his PhD from the University of Michigan, Ann Arbor, in 1984. He then joined the University of Maryland, College Park, where he is currently serving as a Professor of Mechanical Engineering and Director of the Design Decision Support Lab.

Dr. Azarm's research interests are in multi-objective and multi-disciplinary design optimization, multi-attribute decision analysis, and integration of engineering design with marketing for design of a single product, product line, product bundle and convergence product. Dr. Azarm has served as an Associate Editor and Guest Editor of numerous journals, including ASME Journal of Mechanical Design, international journal of Mechanics-Based Design of Structures and Machines, journal of Structural and Multidisciplinary Optimization, and International Journal of Reliability and Safety. He is an Operating Board Member of the ASME Systems and Design Group, a Member-at-Large of the ASME Technical Communities Committee on Division Health and Assessment, and past Chair of the ASME Design Engineering Division, one of the largest divisions within ASME. He was Conference and Paper Review Chair of the ASME Design Automation Conference and served as the Chair of the ASME Design Automation Committee.

Dr. Azarm received the 2007 ASME Design Automation Committee Award: "For his sustained and meritorious contributions to research in Design Automation: Specifically in computational design optimization and engineering design decision making." Dr. Azarm is a Fellow of the ASME and a Licensed Professional Engineer in the State of Maryland, USA.

Registration

To register for this event, contact the ASME Washington Executive Secretary, Andrea Gironda by phone at **(703)-489-9503** by noon on Monday, December 5, 2011. When calling to make your reservation please select between Beef Bourguignon and Fillet of Corvina (fish). Please write a check to Andrea's instructions for advanced payment.

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Program Lineup For This Year

The Executive Committee met in Aug 2011 to formulate this year's program. The following is a preliminary schedule for planning purposes.

Date	Event
August 31	FIRST Robotics seminar at APL
September 1-3	Baltimore Grand Prix Tours
November 17	Tech Mgmt Presentation
December 16	Domino's Sugar Plant Tour
January 13	Incinerator Tour
January 21	Strawbridge Training
February	Johns Hopkins Surgery Demo
March	Brewery Tour
March	Christie Lecture
April 28	Strawbridge Competition
April	JHU/APL Robotics
April	Program Mgmt Course
May	Tour of Camden Yards

The Baltimore Section of ASME International Publishes this Newsletter

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Executive Committee Meetings

All members are welcome and encouraged to attend the Executive Committee meetings.

Meeting dates can be found at:

<http://sections.asme.org/baltimore/Programs.html>

Meetings are at 6 pm at UMBC, Room ECS 112

Contact Section Secretary Karen Campbell at campbellk1@asme.org for details.

Directions To UMBC: *Note – Parking in Lot 16 costs \$.50, quarters only*

Take I-95 to exit 47, which is I-195/MD Rt. 166. Follow the signs to UMBC, which will lead you to bear right. Once on the campus, turn left at the stop sign onto Hilltop Circle. Turn right at the stoplight, and continue going straight until you reach the faculty parking lot. Pay \$.50 and park anywhere in the lot. The ECS building is the middle building bordering the parking lot.

See map at

<http://www.umbc.edu/aboutumbc/campusmap/>

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