Golf Raffle 3





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TECHNICAL ARTICLE

The Green Team By Jana Eisenberg, Director of Communications at Nardin Academy

Nardin Academy's green initiatives, in particular as they relate to the cafeteria and energy usage, are progressing at an excellent pace and to great effect. Our green team is led by Vice President of Operations, Leslie Johnson, and elementary faculty/green coordinator, Katie Daly. As an academy and an influential nourishing source on many levels, we are convinced that these initiatives are in the best interest of our students and community. These goals also mesh positively with our academy-wide Middle States project, *A Socially Just Community*, as well as the Academy's overall strategic plan. The green plans-in-action are about healthy eating, gardening, and energy. In line with the social justice teachings, we constantly remind ourselves of our responsibility to care for the earth.

A rooftop solar energy system was installed last summer and is both saving money and, as our faculty learns more about it, will be integrated into the curriculum. According to Solar Liberty (the company from whom Nardin is leasing the system), the use of solar energy is a great opportunity to "teach, lead, and inspire."

The flat roof of a school building is a perfect place for solar panels; Nardin is now using the space over the elementary wing to generate clean solar electricity. Our system includes 120 solar panels. The panels are part of what is known as a grid-tied photovoltaic solar energy system. The system allows us to harness the sun's energy to power our building and to send any excess electricity back to the power grid. With the system, we have the ability to monitor in real-time the activity that the system generates.

In addition, Nardin is working with our existing providers and new partners to make changes in our cafeteria offerings. We are in the process of creating a vision and comprehensive plan for the cafeteria. The school's goal is to offer nutritious and delicious food prepared in a way, and in a setting, that's in harmony with the environment. The school is engaging students, parents, teachers, administrators, alums and community members in this process.



"Our food service provider for the last 18 years, Personal Touch, has been working with us in this regard," said Johnson. "We have also newly partnered with Five Points Bakery, a local company that offers 100% whole grain products made from locally sourced ingredients. We are exploring menu options, and the response has been positive to that." Students have had the opportunity to sample a variety of "scratch-cooked" foods, and experience a visiting chef and a baker. Additional implementations include healthier options in the school's vending machines-the high school student council assisted in the evaluation of these decisions. Student and faculty response has also been positive.

All of the green and healthy aims support our students and community coming together. There is a spirit of working together and of innovating to make amazing things happen here—both for our own health and for future generations!

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TECHNICAL ARTICLE

An American Engineer's Observations in China By Emil Bandriwsky

Chinese computer programmers are skillful and plentiful. Yet our small North American company just completed a contract for a Chinese machine builder who paid premium rates to bring our team from the USA and Canada. Some factors related to this transaction clearly illustrate accelerating trends in engineering, manufacturing, and the global economy.

Specific technical expertise. Our company is among a small group that are experts in advanced Siemens Step 7 PLC programming for automotive powertrain (engine and transmission) manufacturing. Even though General Motors, Ford Motor, and numerous German automakers have standardized upon this platform, there has been no rush to develop a pipeline of skilled engineers. This skills shortage reflects America's disdain for both engineering and manufacturing.

<u>Rapid response and short life cycle.</u> Within a week of receiving the purchase order, our small company had a team in place literally half-way around the globe. The trend is clearly

toward faster, more flexible, and more nimble companies that can assemble ad-hoc teams combining long term core personnel supplemented with contractors, and other free agents or companies. Project based, and even virtual teams, are becoming more common.

Standardization. The continued expansion of giant multinational corporations has spread a common base of standardized work practices, terminology, metrics and attitudes around the world. The McDonalds, KFC, and Starbucks in Shanghai, China or Kiev, Ukraine are essentially the same as their counterparts in Buffalo, NY or Seattle, WA. A Ford Motor factory in China uses very similar specifications and equipment as they do in France or Brazil. And a Ford powertrain plant in China is almost identical to the GM powertrain plant in Tonawanda.

<u>Anglicization</u>. The English language is ubiquitous in Chinese advertising and public signage including transportation, airports, and street signs. Although the Chinese often translate

Continued on page 11



CALENDAR OF EVENTS

06-03-13 Emil Bandriwsky and Robin M Closs SE PE elected to Board of Directors	
	and the local division of the
07-01-13 6pm Ways and Means Meeting 979 Erie Avenue	
07-01-13 7pm Directors Meeting 979 Erie Avenue	
07-03-13 Noon OF Luncheon Royal Restaurant	
07-24-13 7pm Annual Scholarship Run NFTA Boat Harbor	
08-06-13 9am Annual Golf Tournament Chestnut Hills Country Club	
09-09-13 6pm Ways and Means Meeting To Be Determined	
09-09-13 7pm Directors Meeting To Be Determined	

ESB ADVERTISEMENT

Golf Raffle

Tuesday, August 6th marks ESB's first joint golf outing with BEAM (Buffalo-Area Engineering Awareness for Minorities) at Chestnut Hill Golf Course in Darien, NY. Although ESB has supported BEAM in the past, this is our first joint golf outing and we are excited to make it a great success! In addition to the golf outing we are also selling raffle tickets. All monies collected by ESB will stay with ESB. BEAM will be selling their own tickets. Being one of our largest fundraisers, we ask that you please buy/sell what you can to support ESB.





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All	Varies	s Online	Multiple at http://www.csemag.com/media-library/on-demand-webcasts.html	Free
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The Engineering Society of Buffalo's 2013 Annual Golf Tournament will be in conjunction with BEAM (Buffalo Engineering Awareness for Minorities) on August 6th



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ESB Water Station At The Buffalo Marathon By Matthew J Plizga PE

The Buffalo Marathon on Sunday May 26, 2013 saw a record turnout with more than 6,000 people in attendance. The conditions were perfect and the skies were sunny - a great day to run 26.2 miles through the historic neighborhoods of Buffalo.

ESB has been at the 15 mile mark on the Marathon course for many years. This year we had great participation with 16 people volunteering to set up the water station, hand out water, and clean up empty cups. The volunteering effort is headed up by Steve SanFilippo, with many other ESB members and past presidents participating.

Pat Conway and Brad Bassano were on hand to help out the effort. Brad even helped dispose of a dead squirrel who met his demise on the road. Like a good samaritan, Brad scooped up the squirrel and bagged it while the race was in motion!

By the time the runners got to the 15 mile mark, they were thirsty. The site was well stocked with twenty six water jugs, each filled with five gallons. ESB had two banquet tables of poured cups double stacked before the race started.

Zerihun Ambaye Etalema (2:23:05) came through the water stop first and never looked back. Close on his heels was Jason Lokwatom (2:31:18) and Steve Bohan (2:36:00), both of whom came through the water station in the order they finished.

By the time the seven minute milers were at the water stop, the team had gone through the pre-poured cups. Some volunteers were pouring and stacking more cups while other volunteers on "the line" handed out water and ran back to the table to get more.

"We've seen wonderful growth in the Buffalo Marathon as registrations are up more than 15 percent from last year," said John Beishline. "We'd like to thank the event's sponsors, approximately 1000 volunteers, and the Buffalo Marathon Race Committee. Without their support, we wouldn't have a race. Congratulations to all of our runners and we look forward to seeing them again at next year's Buffalo Marathon."

The volunteers that came to the ESB water stop were hard working and dedicated, putting in over four hours! The Engineering Society of Buffalo would like to thank all the volunteers who worked tirelessly to give the runners a great experience. Almost every single runner thanked the person who handed them water.

Jim Gill, Jim Gill Jr, Sam Gill, Chuck Cole,

Ellen Prieschel, Sarah Hooper, Emily Sullivan, Rebecca Wightman, Joe Kowalski, Geraldine Kowalski, Veronica Bassano, Matthew Plizga, and Henry Plizga also all worked tirelessly to make Buffalo look good! (See back page for more pictures.)

Matthew J. Plizga PE is ESB Vice President and can be reached at mplizga811@aol.com.



Advertising space is available. See page 7 for rates and contract. Contact us by email at ESB1894@gmail.com or by phone at 716-873-4455.



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Continued from page 2

English in rather amusing ways, it has been said that there are more English speakers both in China, and India, than there are in the USA. The Chinese have developed a "work-around" to fitting their unwieldy number of written characters onto a computer or smart phone keyboard; a phonetic system called "Pinyan" is typed in English and is automatically converted into one of the 20,000 Chinese characters. However, at the same time that the English language is elevated as the primary international business and diplomatic language, it highlights the narrower education, and less versatility, of Americans; as expressed by the old adage: A person that speaks two languages is called "bi-lingual"; a person that speaks three languages is called "tri-lingual"; and a person that only speaks one language is called "an American".

Internationalization. I was reminded of the cliché about "the world getting smaller and smaller everyday" as I sat in a Brazilian restaurant with Chinese, Canadian, American and Ukrainian engineers, who drank European beer while the American cartoon "Tom and Jerry" played on a Japanese flat screen TV in the background. Just last month, our small company, which employs Engineers from all over the world, worked in four separate countries. America is still a world leader in many ways but the era of American supremacy in everything under the sun is over. China is now the source of more international tourists than any other country and for the past two years, China has overtaken the top spot as the world's largest automotive market. China has moved past both Germany and Japan with the world's second largest economy and in all likelihood, will eclipse the total output (GDP) of the USA in just a few years.

Higher Quality Goods and Services. My first surprise in visiting a Chinese shopping mall was that many common consumer and electronic goods (televisions, iPads, Smart Phones) cost 10% to 15% more in China than they do in the USA even though the vast majority of those items are made in China. This was explained as the result of trade finance peculiarities and also the Chinese government's encouragement and financial incentives for its export driven economy. The second surprise was that China's crowded shopping malls are filled with premium priced,

name brand, imported goods; and a large number of Chinese consumers prefer higher priced imported goods (especially name brands) rather than cheaper, domestically manufactured goods. Smart American consumers know that paying a premium price, strictly to cover brand marketing, does not translate to choosing the best value goods. However, the easy movement of manufactured goods to or from any point in the world and the instantaneous transfer of product information means that essentially anyone on earth can tell the difference between a high quality product and a shoddy product. Chinese teenagers greatly prefer authentic Apple iPhones to knock-offs and luxury hotels being built in formerly god forsaken corners of the globe are a sure sign that quality standards are becoming universal.

What Does it Mean for Us?

China's phenomenal growth over the past generation has been fueled by cheap labor, export mania, free market capitalism supported by a one-party Communist state and an artificially low currency exchange rate. But due to rising wages in China and high transportation and transaction costs, there are predictions that China's "low wage manufacturing advantage" versus the USA will disappear by 2015. Does this mean that America will shortly thereafter regain its hegemony over the world economy? Almost definitely not. New low wage countries will fill the vacuum at the bottom of the economic totem pole. But more importantly, there will be global competitors using every other advantage available to them: technology, raw materials, education, proximity to markets and so on. Ultimately for the American consumer, these global economic trends will produce an even broader array of more and cheaper goods...as long as the American consumer can afford them. And that is the problem. For American workers, producers, and manufacturers, these economic trends point to an even faster and fiercer battle for the consumer's dollars and ultimately for the survival of our domestic companies, jobs, and the prosperity of future generations.

Emil Bandriwsky is the newest member of ESB's Board of Directors and can be reached at Emil.Bandriwsky@jfautomation.ca.



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Party With Us On July 24th

Our Scholarship Run date has been set for July 24th. After the run, all participants are allowed to eat as many hotdogs and oranges as they want. Did you know that you can join the runners at the after race party for only \$5 per person? You don't have to run and you get to celebrate with us!

So come and bring a friend to the festivities and help us celebrate the fastest runner under 14, the fastest runner over age 80, the fastest engineer, and many more! Those 21 and over are also welcome to enjoy all the beer they can drink. Sorry, but those under 21 will have to stick to drinking water...or perhaps eating yogurt.



Newsletter Information

All submissions to be included in the newsletter are due by the 15th of each month. Do you have anything you would like to write about? Submit your noteworthy, newsworthy blurb!

Corporate members, submit a recent corporate bio for future inclusion in the newsletter.

Does someone try to steal your copy of the newsletter? Do you know someone who might like to read our newsletter? Send their home or business address to ESB1894@gmail.com and we will send them a future edition! Do you know of any other ways we could contact future ESB members?







Liquid Robotics Launches New Generation of Wave Glider Ocean Robots By Dean Takahashi

Liquid Robotics is revolutionizing our understanding of the oceans with its unmanned sensor robots. And today, the company is announcing a new version, dubbed the Wave Glider SV3, with advanced capabilities such as a hybrid propulsion system.

Roger Hine, chief technology officer at Liquid Robotics, told VentureBeat the new model can use solar power for propulsion. The earlier models used wave energy for propulsion and solar power for sensors and communications. The new solar cells for the robot are 50 percent more efficient, allowing them to power the propulsion system.

Sunnyvale, Calif.-based Liquid Robotics gained a spot in history when it announced in December that Papa Mau, one of its datacollecting second-generation Wave Gliders, had floated more than 9,000 miles across the Pacific Ocean.

Wave Gliders can collect data on weather in remote locations. They can be used to monitor hurricanes, predict tsunamis, and monitor rare marine life. Wave Gliders collect data on temperature, winds, humidity, wind gusts, water temperature, water color, and water composition. They can also take pictures. These robots are gathering a Hine said the new robots weigh less and have adaptable modular lot of observational data about climate change, ocean acidification, fisheries management, hurricane and tsunami warnings, and exploration - but in a green way.

The new model will cost \$300,000, while the earlier one (the Wave Glider SV2 launched in 2009) cost \$175,000. With the additional horsepower, the new Wave Glider models will be able to stay in one place better, despite strong ocean currents. Or they will be able to travel to a destination faster in any weather condition. "It is still primarily a wave-guided vehicle, but when the waves are low, that is usually when it is sunny," Hine said.

The company was started in 2007. It has raised \$85 million to date from investors including VantagePoint Capital Partners, Riverwood Capital, and oilfield services firm Schlumberger. The company is

headed by Bill Vass, a former Sun Microsystems executive. He made headlines last year when he recruited Java programming language creator James Gosling as chief software architect. The company has more than 120 employees and has a test facility on the Big Island of Hawaii in Kamuela.

"The SV3 is a tremendous step forward in terms of what we can accomplish in the ocean and gives customers a competitive advantage to capture data in the most challenging ocean conditions," said Vass in a statement. "By providing the ability to deploy Wave Gliders across most of the planet and deliver ocean data in a new and costeffective way, we're enabling broad access to affordable ocean exploration."

The earlier SV2 robots have now traveled more than 300,000 nautical miles around the globe. More than 200 have been deployed from the Arctic to Australia, from the Canary Islands to Loch Ness. To date, none have been lost at sea, but the robots have been through a total of 10 hurricanes. The SV3 series will be available in the third quarter.

power systems that can accommodate power-hungry payloads such as sonar, bathymetry, and image analysis. The devices also feature the Regulus operating system for autonomous vehicles, which allows for coordinated fleet operations. The OS is built around an open, cloudbased architecture for massive scalability and secure multi-tenancy. It can dynamically download software changes or new apps while at sea. It can also transmit data to satellites or via cellular or Wi-Fi. The new Wave Gliders use ARM-based processors running on Linux. The software is written in Java. The devices use lithium-ion batteries

Dean Takahashi can be reached at dean@venturebeat.com and you can read more at http://venturebeat.com/2013/04/08/liquid-roboticslaunches-new-generation-of-wave-glider-ocean-robots/

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MEETING MINUTES

Attendees:	Officers - Closs, Plizga, SanFilippo, Taboni Directors - Masse, Mooney, Owens, Sargeant, Scofidio, Wach Ex Officio - Executive Director - Beishline Members - Glynn, Kossuth Excused - Bassano, Papaj, SanFilippo, Absent - Wightman
Call to Order:	President Robin Closs called the meeting to order at approximately 6:10 pm.
Minutes:	The Minutes of May were reviewed and approved.
Committee Reports Advertising: Audit:	Don Owens stated that he is working on an additional advertiser, need information by June 15th to include in next newsletter. No Report
Bowling:	Jeff Mooney stated that the bowling league presented Tom Glynn with an award for Dedicated Service to the ESB Bowling League. Jeff said that there are openings for new teams, season will start August 28th at 6:15 pm
Education: Entertainment:	No Report Possible tours of An-Cor and BOCES in October, Sheas Theater November (Matt Plizga working on possible PDH for tour).
Fundraising: Golf:	No Report Jeff Wach presented golf fundraiser tickets to coincide with BEAM / ESB golf outing. 1st Prize -\$500 American Express Gift Card 2nd Prize - Salvatore's Diamond Package 3rd Prize - Theatre/Dinner Package 4th Prize – Round of Golf for 4 at Chestnut Hill. Jeff to send email to all members, include in newsletter. Anyone who needs tickets should contact Jeff Wach. Robin to send a list of registered golfers to Jeff prior to the outing.
Media:	Minor modifications to web site. Robin inquired about updating PDH information on the website. Marco to experiment to try to streamline edits.
Newsletter: Nominating:	Add golf raffle info. Employment ad (1/4 page) free to corporate member twice per year. No Report
Scholarship: Scholarship Run:	Twenty-one applications received. Scholarship committee to rate applications and select individuals to interview. John stated that he is continuing to line up sponsors, NFTA coordination is set, need help distributing race applications at other races. Race committee meeting June 17th, 6:00. Water stop for marathon ran smoothly. Water from marathon will be used for
Sunshine:	ESB Race. No Report
Adjournment:	The meeting adjourned at approximately 7:00 pm.
Next Meeting:	July 1st at ESB office



