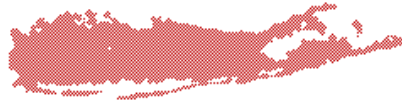


Long Island & Metro NY Chapter



Institute of Industrial Engineers

NEWS-LETTER

IIE-Vol.107 Issue 07

Gold Award Winner for 10 Straight Years (1997-2007)

Sept., 2008

Calendar of Events

Sept. 8th, 2008 (Monday)

IIE June Meeting

Topic: Details on right

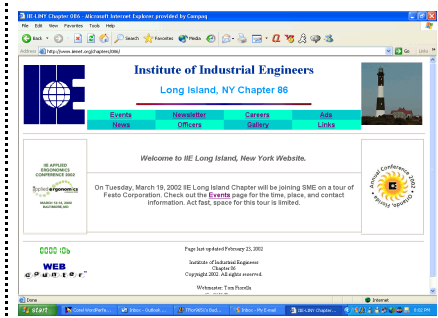
Oct., 13th, 2008 (Monday)

Topic: Energy Efficiency Incentives (tentative)

INSIDE THIS ISSUE

Page:1- Meeting Announcement
Page:2 - President's Message
Page:2 - Career Opportunities
Page:2 - Membership Information
Page 2 - Professional Events Calendar
Page:3 - Review of the June Tour

Visit IIE Long Island Chapter on the web at:
www.iienet.org/long_island



Boost Your Career & Stay Connected
Join IIE

(see Membership Information on page 2)

September MEETING

Monday, Sept. 8^h, 2008

Time: Networking/Refreshments - 6:00pm, 6:30pm Presentation/Tour

Place: Islandia, NY

Meeting Fee: no charge, A Lite buffet/dinner/refreshments will be provided by DIS

This is a joint event with the Long Island & NY Chapters of **IIE & SME**
Preregistration Required (see back page)

Topic: **Tour of DIS Inc. (Duetto Integrated Systems)**
Host: Anthony Faraci, President, DIS and Gary Sortino, Engineering Manager



DIS is a start-up company that built its first machine five years ago with a concept to improve the accuracy of multi-layer Printed Circuit boards. Since then they have created a family of machines that have been sold all over the world to top PC board manufacturers.

The quest in the electronics industry is to smaller platforms and high density packaging of components. This trend requires PC board manufacturers to build higher layer count boards and more accurate multi-layer boards. DIS's inner-layer alignment machine combines machine vision technology with advanced use of mechatronics and software to achieve the best layer to layer accuracy of any machine or system in the industry. Their product line includes a machine that enables their alignment system to further increase accuracy and cull out non-conforming product, a machine without the vision alignment capability that welds inner layers together, and a machine to handle completed PC boards.

Along the way DIS has learned and is still learning how to do business with small companies and large multi-national corporations. While the company is small its product lineup is gaining recognition and the company is poised to deliver the next generation of benchmark inner-layer processing equipment. For more information about DIS, Inc. and their product line visit www.disTechnology.com.

The Presentation / Tour will consist of the following:

- Overview of PC Board Market
- History of DIS
- DIS Product Line
- Doing Business Overseas
- Machine Demonstration
- Shop Tour



Registration is required. See back page for registration information.

Institute of Industrial Engineers - Long Island Chapter #86

Page 2

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PRESIDENT'S MESSAGE



In June we were treated to an excellent tour of the Engineering educational facilities of the U.S. Merchant Marine Academy in Kings Point. The presentation and tour was conducted by Lt. Commander John Tuttle, Associate Professor, and Tom Bussi, machine shop instructor who both did a fabulous job. Please read Carolyn Chen's review on page 3 and visit the Chapter's website to see the photos. (Note: The link is posted at the end of Carolyn's review.)

On August 4th the IIE - Chapter 86 Board met to discuss the upcoming season. The first item on the agenda was a review of the Chapter operation budget. One point that became perfectly clear is that the current income, which is generated mainly from the portion of the dues that we received from the active membership, will not provide enough funding to support the newsletter mailing to the close to 250 on the mailing list. Among the budget gap measures that were discussed is to cut the mailing to just the active membership, which is currently 64 and is expected to grow to about 120 once the Metro NY Chapter's membership merging process is completed. So far this has been a slow process since Metro Chapter members are only being added as their membership is renewed or a Metro Chapter member contacts IIE to request a change in Chapter affiliation before their annual membership is renewed. As of August only 3 Metro NY Chapter members have been added to the roster. The Board also discussed adding business advertisements on the website and in the newsletter. We are also reviewing the current cost of printing and mailing the newsletter and have also discussed a paperless distribution through email. I would appreciate your feedback on this issue.

To start off the new season of monthly presentations and tours on September 8 we will visit DIS Inc. (Duetto Integrated Systems). This will be a great opportunity to see how this newly startup company is competing in the global market of PC board machinery.

Among the presentations and tours that are in the works are: Energy Efficiency Incentives, a tour of a MTA facility, Reducing Cost in the Supply Chain, and A Lean Tool-set component - Value Stream Mapping, which we are planning as a webcast meeting in January, 2009. We also plan to conduct 1 to 2 presentations in Manhattan.

Chapter 86, President

Tom Fiorella

CAREER OPPORTUNITY

Local job positions that may be of interest to IIE members are posted on the Chapter's website at www.iienet.org/long_island.

Current Postings include:

- Enterprise Systems Engineer - Cisco - NY, NY
- Industrial Engineering Mgr. - Port Authority of NY & NJ
- Retail Industrial Engineer - Wakefern Food Corporation, Edison, NJ

MEMBERSHIP

**Current Active Membership
Long Island Chapter & Metro Chapters
Combined = 120**

About IIE

Founded in 1948, IIE is the premier society dedicated to serving the professional needs of industrial engineers and all individuals involved with improving quality and productivity. IIE has over 15,000 members and more than 280 chapters worldwide

Who benefits from membership?

There are hundreds of job titles given to people, who manage, design, install, or maintain integrated systems of people, machinery, and information. No matter what your job title, if you are the person called upon for solutions when there is an issue that requires your attention, you belong in IIE.

To become a member of IIE call

1-800-494-0460

or log onto to

**www.iienet.org & click on Membership
then on Join IIE**

Professional Events Calendar

AIAA/ASME JOINT MEETING

Thursday, September 11, 2008 - 6pm
Topic: Strategic Reconnaissance - Spy Planes, Speaker: Frank Hayes
Location: Bethpage Public Library
Auditorium, First Floor 47
Powell Avenue
Bethpage, NY 11714

Details are posted at iienet.org/long_island

APICS - Professional Development Meeting

Tuesday, September 23, 2008
5:30pm Networking, 6:15pm Dinner,
7:15pm President's Welcome &
Announcements, 7:30pm Presentation
Topic: Practical Issues in Measuring Supply Chain Performance
Location: Panama Hatties - 872 Jericho Tpke, Huntington Sta, NY 11746
For complete details and fees go to:
www.li-apics.org

Institute of Industrial Engineers - Long Island Chapter #86

Page 3

Review of June Tour of Merchant Marine Academy

By: Carolyn Chen

The June meeting was held at the Merchant Marine Academy in Kings Point, NY. Our hosts were Lt. Commander John Tuttle, Associate Professor, and Tom Bussi, machine shop instructor. The program covered the educational programs at the academy, the merchant marine training programs and hands on equipment.



Tom Bussi (USMMA Machine Shop Instructor)

The Merchant Marine Academy is a Federal service academy with the intention of educating professions to support transportation; it is not specifically to support the military. 95% of the world's trade takes place by sea transport. The academy offers Engineering programs to train midshipmen for Marine Engineering (operating a ship), Marine Engineering Systems (ship design, operations and building) and Marine Engineering & Shipyard Management (Life cycle management, Design, Operation, Maintenance, Production and Planning). There are about 900 midshipmen, evenly

divided between the engineering majors and the transportation majors. The program is accredited for ABET and STCW (Standards of Training Certification & Watchkeeping) and is ISO 9000 certified. Graduates must navigate through an industry with new types of problems.

One can look at the end of the cold war to see its impact on the merchant marine industry. Fewer ships were needed, and there is a loss of experience and training. These are some of the different problems that face today's graduates. The frequency of new-ship building has decreased. The longer program life means those ship builders have a narrower experience base. The fleet used to provide feedback to systems engineers. Now, there is less feedback. Operational structures have changed. The structure is flatter, resulting in less mentoring. Downsizing has led to managing a bigger group, with less time for individual communication and information exchange. The current climate has changed the roles of marine engineers. The industry demands cradle-to-grave responsibility which calls for a spectrum of talent representing R&D, concept and Early Stage Design, Construction / Industrial Engineering, Testing, Operations, Field Engineering and Management.

These are some of the future priorities in the industry:

- Top down engineering of the entire enterprise
- Product Design
- More Collaboration
- Concurrent processes
- Computer Network Intensive
- Create widely dispersed, Multi-disciplinary teams
- Complex Engineering and Business environment

There is a responsibility to provide the industry with professionals with desired skill sets. The industry was surveyed for experience needed in midshipmen. The following skills were judged to be essential: Good work ethic, knowledge of fundamentals, understanding the fundamentals of software used in education, and introduction to marine standards, and good communication skills. These skills are highly

desirable: some work experience, application software experience, willing to travel, introduction to business concepts and certifications.

Midshipmen prepare themselves to meet industry's challenges by following these brief descriptions of the curriculum. (1) Traditional Engineering focuses on mathematics, thermodynamics, fluid mechanics, heat transfer, power plant analysis, gas turbines, diesel maintenance. These engineers must learn how things work, and when they break, how are they fixed. (2) Marine Engineering focuses on advanced engineering math, thermodynamics, heat transfer, controls, machine design. Midshipmen can choose options such as naval architecture, aeronautical, environmental, electrical, or mechanical systems. (3) Shipyard Management focuses on manufacturing processes, Ship Engineering Operations (business, inventory, repair), quantitative math, project management, production management / scheduling and cost analysis.

Internships play an important part of preparing the midshipmen for the industry. About 3 months of their second sea period is spent in an internship assignment. They are assigned an engineering activity where they must apply their skills and observe. This increases their experiences in organization, decision making, and reinforces their work ethic. They must write a major report on the experience, their observations and their recommendations.

Each midshipman will be assigned a Capstone project. They must apply their education to build important skill sets such as project management, design planning, synthesis and analysis, specification writing, cost analysis, scheduling, and information management. They will build expertise in systems integration, team building, and virtual engineering. Virtual ship building mimics the actual environment with software tools such as ship synthesis, Computer aided design, engineering analysis. This is an important skill since the industry has evolved to an integrated data environment. In other words, things are built in different places, then put together. Midshipmen must learn to manage e-commerce, smart production models, e-commerce documentation and electronic meetings. Industry leaders are invited for capstone presentations. They drill the midshipmen on the problems they've encountered, and ask for solutions. This has helped train midshipmen to improve their communication skills.

Specialized education is available in various types of directed studies. These are some examples of topics midshipmen can research. Commercial damage control, Office of Naval Research, Nuclear high speed systems, Life cycle costing studies, Alternate power programs, human powered crafts, and Design / Analysis / Prototyping.

In addition, the Merchant Marine Academy ensures that midshipmen get a hands-on education through the following: engineering labs with full scale equipment, simulations with real world problems, T/V Kings Pointer, and the year at sea. The Diesel Engineering lab has small and large training engines. Midshipmen learn to dismantle, inspect, and put the engine back together. The Steam lab trains midshipmen to run steam turbine generators and the flash evaporator that converts sea water to drinkable water. The machine shop and welding shop have equipment likely to be on a ship. The goal is to give midshipmen exposure to making a repair on the fly and knowledge of what's involved to make that repair.

The Situation Room mimics the Engine Operating Station. Midshipmen practice bringing a ship on line, starting and stopping systems, as well as dealing with emergencies. The Bridge has a simulator in a 3/4 surrounding movie screen. Instructors stay in an adjacent room and dial in real life scenarios. Cameras watch the students react to problems such as coolant losses, stack fires, casualties, etc.

Upon graduation, new officers are certified by passing oral exams, and getting practical experience on every task and they earn their licenses. On commercial ships, the captain's license is displayed on the ship. The opportunities in today's ship building market is primarily for the Navy and the government, drilling rigs, and coastal trade. Cruise ships are too expensive to build in the U.S. Recreational boats serve a more lucrative market, but all of the merchant marine education applies.

See all the photos from the tour online at www.iienet.org/long_island. Click on Gallery and then click on the link for IIE-LI Group Page on MSN and then select USMMA-Tour



Lt. Commander John Tuttle

Next IIE / SME Meeting - Monday, September 8th, 2008

Topic: Tour of DIS Inc. (Duetto Integrated Systems)

Time: Networking/Refreshments: 6:00PM, Presentation/Tour : 6:30PM

Place: Islandia, NY

(see page 1 for details)

Reservation must be received no later than **Friday, Sept. 5th** - *Fax to: Tom Fiorella, 516-740-4616, or Mail to: Bob Schroter, 423 Elm St, West Hempstead, NY 11552-3226, or email: Tom Fiorella at tfior9651@msn.com with: Name, Title, Company for yourself and each guest. For contact person please indicate: address, member affiliation (IIE / SME), phone, fax, and/or email address.* For inquiries call Tom at 516-214-5588

NAME	TITLE	COMPANY

Send Directions to: _____ Phone Day: _____ Member Affiliation (IIE/SME): _____

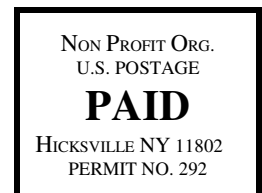
Address: _____ Phone Eve. _____ Include fax or email for a speedy reply.

Address: _____ Fax: _____ You will receive complete directions and instructions to DSI, Inc. once your reservation has been received.

City/State/Zip: _____ email: _____

Institute of Industrial Engineers
Local Chapter # 86
423 Elm Street
W. Hempstead, NY 11552-3226

Sept, 2008 Newsletter



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