THE PULSE OF LONG ISLAND IEEE

Chairperson's Message by Santo Mazzola, chairman@IEEE.LI

The Long Island IEEE Section has three major events in the next few months that are very important and vital to the section. I ask all of our members to look these over and support them as they are worthwhile endeavors.

The IEEE Long Island Section is also holding our Annual Awards Banquet on Thursday March 26, 2009 at the Hyatt Regency in Hauppauge. Details on attending are located in this issue of the Pulse. There is also a banner on our Long Island IEEE website at http://www.IEEE.LI with further details. Come and check in with some of your colleagues whom you may not have seen in years. We have all gotten a little heavier and have less hair but the memories and old war stories will be worth it.

The IEEE Long Island Section is sponsoring ***A Forum on Globalization – Where do outsourcing and off shoring fit.*** Do they provide any long term benefits for the United States? How about developed and undeveloped countries? How about here, on Long Island? The Forum will be held on Friday April 24th from 7:00 PM to 9:00 PM in the Little Theater in Roosevelt Hall at Farmingdale State College, Broadhollow Road, Farmingdale NY. More information about the meeting included in this Pulse. This is obviously a hot button topic that will generate much interest.

The IEEE Long Island Section is presenting the fifth annual **2009 *Long Island Systems, Applications and Technology (LISAT)Conference*** on Friday May 1st, at Farmingdale State College. More information about the conference is included in this issue. There is also more information on our website under the LISAT banner link. Many interesting presentations on applications, systems, and technology are given. I have seen the conference grow over the five years and recommend it as a worthwhile learning experience. The inquisitive engineering nature of ours is definitely addressed in spades.

With all of the negative news we keep hearing these days I thought I would end with lighter things. I would like to bring to your attention two pop culture items that might be of interest to you. The first is a television show I am enjoying now and the second is a movie that is coming out soon that I am really looking forward to.

The television show that I am enjoying now is called "***The Big Bang Theory***" it is a situation comedy shown on CBS on Monday nights at 8:00 PM. It concerns two male prodigies in their twenties, one an experimental physicist and the other a theoretical physicist who work at Caltech and live across the hall from a blonde waitress with show-biz aspirations. The physicist's geekiness and intellect are contrasted with the waitress's social skills and common sense for comedic effect. Many of the references are to Star Wars, Star Trek, comic books. etc. Knowing the wit of engineers I think many in this audience would enjoy the show.

The second thing I am really looking forward to is the upcoming movie adaptation of the Watchmen graphic novel. As someone who enjoyed the *Watchmen Graphic Novel* immensely in the 1980's I hope that the movie can do the graphic novel justice. While some of the material is dark and violent it may not be everybody's cup of tea, with the computer generated imagery available today it should look terrific on the screen. If the movie is really good I intend on seeing it in an IMAX theatre.

Be Well!

Santo Mazzola, Chair IEEE Long Island Section
chairman@IEEE.LI

CALENDAR OF IEEE EVENTS

MARCH 2009

5 Instrumentation and Measurement Meeting
The LabVIEW Style Templates by: Peter Blume
LabVIEW Application by Terry Stratoudakis
Location: Telephonics, Farmingdale L.I.
Refreshments 5:30 PM, lecture 6:00 PM

18 MTT Society
Flexible Volterra-based Digital Pre-distortion for RF Power Amplifier Linearization
Speaker: Steve Taranovich
Location: Telephonics, Farmingdale L.I.
Refreshments 6:00 PM, lecture 6:30 PM

19 Communication Society Meeting
Cooperative Wireless Communications
Speaker: Shivendra Panwar
Location: BAE Systems, Greenlawn L.I.
Refreshments 6:00 PM, lecture 6:30 PM

23 EXCOM Meeting - Telephonics, Farmingdale L.I.
Dinner 6:00 PM, meeting 6:30 PM

26 Long Island Section 2009 Awards Banquet
Hyatt Regency, Hauppauge L.I., 6:00 – 10:00 pm

APRIL 2009

1 Long Island Consultants Network Meeting
Location: Briarcliffe College, Bethpage L.I.
7:00 pm, The Great Room

14 Computer Society Meeting
Service-Oriented Computing by M. Brian Blake
Location: Telephonics, Farmingdale L.I.
Refreshments 6:00 PM, lecture 6:30 PM

27 EXCOM Meeting - Telephonics, Farmingdale L.I.
Dinner 6:00 PM, meeting 6:30 PM

MAY 2009

1 LISAT - Long Island Systems Applications and Technology Conference, SUNY Farmingdale, LI
8:30 am – 5:00 pm

6 Long Island Consultants Network Meeting
Location: Briarcliffe College, Bethpage L.I.
7:00 pm, The Great Room

18 EXCOM Meeting - Telephonics, Farmingdale L.I.
Dinner 6:00 PM, meeting 6:30 PM

20 MTT Society Meeting
X-Parameters: A new Paradigm for Interoperable Measurement, Modeling, and Simulation
Speaker: *Loren Betts*
L-3 Hauppauge NY
Refreshments 6:00 PM, lecture 6:30 PM

JUNE 2009

2 Long Island Tech Days: Technical Design Seminars and Technology Exhibits
Location: Melville Marriott, Melville L.I.

3 Long Island Consultants Network Meeting
Location: Briarcliffe College, Bethpage L.I.
7:00 pm, The Great Room

4 Instrumentation and Measurement Meeting
Topic: TBD
Location: Telephonics, Farmingdale

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THE PULSE OF LONG ISLAND

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PULSE CONTACTS
David W. Sterner, Editor
Nikolaos Golas, Associate Editor

LET US HEAR FROM YOU

The PULSE encourages letters to the editor. Members of the IEEE Long Island Section are encouraged to write in about Pulse articles or about other topics of interest to Long Island engineers. While the IEEE Long Island Section greatly appreciates feedback, we cannot guarantee that all letters will be answered or published. Please direct comments to pulse@IEEE.LI, or to a section officer.

SEND ADDRESS CHANGES TO

The PULSE of Long Island
P.O. Box 1331
Piscataway NJ 08855-1331

LONG ISLAND SECTION OFFICERS

Chair

SANTO MAZZOLA
BAE Systems
Office 631-262-8367
mazzolas@ieee.org

First Vice Chair

JON GARRUBA
Northrop Grumman Corporation
Office 631-704-4697
jon.garruba@ngc.com

Second Vice Chair

NIKOLAOS GOLAS
Telephonics Corporation
Office 631-755-7059
n.golas@ieee.org

Treasurer

BRIAN QUINN
Verizon
Office 212-856-1354
brian.j.quinn@verizon.com

Secretary

SUSAN FRANK, Ph.D.
SUNY Stony Brook
Office 631-361-8667
sfrank@ieee.org

Junior Past Chairman

WILLIAM C. DEAGRO
Northrop Grumman Corporation
Office (516) 575-6217
w.deagro@ieee.org

Senior Past Chairman

TED PAPPAS
National Grid
Office 516-545-4011
Theodore.Pappas@us.ngrid.com

Membership Development

For information on membership in the
Long Island Section of IEEE
NIKOLAOS GOLAS
Telephonics Corporation
Office 631-755-7059
n.golas@ieee.org

Consultant's Network of LI

The Consultants Network of LI maintains a referral service of Engineering, Computer, Managerial & Technical Professionals. Call or write for more information. There is no charge to the client for this service.

Voice Mail: 516-379-1678
IEEE Consultants Network of Long Island
PO Box 411,Malverne NY 11565-0411
www.consult-li.com

GOLD Long Island Section Affiliate and Student Development / Activities

MICHAEL J. CO
Parker Hannifin Corporation
Parker Aerospace – Electronic Systems Division
Office 631-231-3737 ext. 2123
michael.co@ieee.org

The IEEE is celebrating 125 years of Engineering the Future!!!

www.IEEE.LI

Celebrating 125 Years of Engineering the Future

Farmingdale State College

2009 IEEE Long Island Systems, Applications and Technology Conference - LISAT2009*
Friday, 1 May 2009 – Farmingdale State College
CEU/PDH Credit Courses

*Attaining the Next Edge in Reliability and Resiliency for Critical Electrical Infrastructure**

(Seminar Length: 2 Hours with Q & A: 0.2 CEUs; 2 PDHs)

Speaker: Mr. Peter Curtis, *Founder,* Power Management Concepts, LLC

Abstract: Recent events including blackouts, natural disasters, and terrorist activity have heightened concerns about the reliability of electrical power for critical operations (backup systems for data centers) systems in buildings with seven-day, 24-hour environments. Mr. Curtis uniquely blends engineering, operations, and maintenance procedures for the critical electrical equipment such as standby generators, UPS systems, battery systems, automatic transfer switches, and fuel cells. Mr. Curtis discusses the risks associated with these systems, the possible solutions to mitigate downtime, the legal implications of downtime, as well as ways to properly communicate system and project needs to boardrooms and building administration to improve uptime, as every business' financial bottom line is contingent upon its degree of power reliability.

*Electric Incident Cause and Origin**

(Seminar Length: 6 Hours with Q & A: 0.6 CEUs; 6 PDHs)

Speaker: Mr. George Ello, *Division Manager, System Operations,* National Grid Electric Services, LLC

Abstract: Statistics say that 11% of structure fires nationally are caused by building electric system failures. All of these buildings are supplied, in one fashion or another, by an electric utility system. This class explores electrical failures from a forensics perspective, taking into account the consequences of electric power system design, including the establishment of ground points and ground systems. Apparatus failure modes are discussed, as well as how known electrical laws define how electrical failures are caused and how they progress. At the conclusion of the class, the attendees will be able to describe many electrical fault modes and be better able to determine the origin and cause of an electrical incident or failure.

Coordinator for the classes: Theodore G. Pappas, P.E.

Registration for the LISAT2009 Conference is $125 (through April 1st) and $150 thereafter for IEEE Members and Registered PE's. The registration fee for non-members who are not PE's is $175 (through April 1st) and $200 thereafter. All those wishing to have their CEUs recorded will be charged an additional $25 (through April 1st) and $30 thereafter.

AUTHORIZED IACET PROVIDER

"The IEEE has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this approval, the IEEE has demonstrated that it complies with the ANSI/IACET Standards which are widely recognized as standards of good practice internationally. As a result of their Authorized Provider membership status, IEEE is authorized to offer IACET CEUS for its programs that qualify under the ANSI/IACET Standards."

IACET CEU Provider #1255

Long Island Section Forum-Solicitation

The Long Island Section will be holding a Forum this Spring to explore the impact of Globalization here on Long Island, relative to outsourcing and offshoring.

The Forum is scheduled to be held on **Friday, April 24th, 2009** at the Little Theater in Roosevelt Hall at the Farmingdale College campus from 7pm to 9pm. The Forum will revolve around the following topic:
In the context of globalization, think of where outsourcing and offshoring fit. Do they provide any long-term benefits for the United States? How about developed and undeveloped countries? How about here, on Long Island?
Several distinguished individuals have been invited to discuss the subject: Dr. Pearl M. Kamer, Chief Economist of Long Island, Dr. Ronil Hira, Assistant Professor of Public Policy at the Rochester Institute of Technology, author of the book "Outsourcing America", Mr. Russ Harrison, Senior Legislative Representative for Grassroots Affairs, IEEE-USA, and Gary Hutu, Principle Economist /Labor Market Analyst for the NY State Department of Labor. Mr. Peter Eckstein, Vice-President of Government Relations, IEEE-USA will act as host and moderator. Because of the nature of this presentation, we are not charging admission for this event, but look upon it as a public service to the engineering community, their families, and the people of Long Island.

Globalization is a term which is used today to define the process of increasing the connectivity and interdependence of the world markets and businesses. It is the economic integration of the entire world through the removal of barriers of free trade and capital mobility, as well as through the diffusion of knowledge and information.

Consider our position as an international power, one half century ago. We were the richest country in the world. Since then, we've sold our factories, we've sold our resources, we now buy other countries products because we cannot afford to manufacture and sell them ourselves. We are now economically "poor".

The problems associated with the outsourcing and offshoring of jobs and manufacturing is not just a local problem…..it affects us all. Will the Forum be successful? How will we know if we succeed in reaching people? We want to find out how you, the people react to the information presented, what your opinions are, and how much you are willing to stand up and help put an end to these practices that are draining the economic life of the Island.

We want to motivate you to write to their congressional representative, local newspapers, express their opinions……our goal in putting on this Forum is to create a groundswell among the people of Long Island. We want your feedback as to your opinions, reactions, and commitments to action. We want to continue the legacy of Long Island as an innovator of ideas and causes.
Lou Luceri, Forum Committee l.a.luceri@ieee.org

Long Island's Early Electronics History

by Jesse Taub

This is the first of a series of articles designed to give the history of the many companies, laboratories and academic institutions that have contributed so much to Long Island's technical stature in electronics. It is particularly appropriate since 2009 is the 125'th anniversary of the IEEE. This article stresses the early history. Subsequent articles will focus on a single organization or a particular technology.. We invite members who have an in-depth knowledge about the history of an organization for which they worked to contribute a 300-500 word article to be published in The Pulse. Please send any material to Rod Lowman rodlowman@ieee.org and Jesse Taub jjtaub@aol.com

The IEEE Long Island Section has had a rich history since its inception in 1947. However, its electronic roots go back to 1902 when the second and third permanent wireless telegraphy stations were established in Sagaponack and Babylon*. These stations processed important messages, including those from the sinking Titanic.

Long Island continued to be a coveted location for transatlantic wireless communications as evidenced by Telefunken's installation in West Sayville in 1912; it was the most powerful commercial station in the US. It was taken over by the US Navy during World War I. Its 500 foot antenna was the tallest structure on Long Island.

Perhaps the most famous stations were RCA's "Radio Central" transmitter, which opened in 1921 at Rocky Point, and its receiver located in Riverhead. Other stations were subsequently opened by Mackay Radio and Press Wireless. Many of the engineers employed by these companies made important contributions of radio.

It was a natural evolution for Long Island to build on this background and continue to contribute to radio and early television developments in companies such as the Hazeltine Corporation in the late 20's and 30's.

During World War II, Hazeltine became the major supplier of IFF equipment. Sperry Gyroscope made important contributions to analog-computer-controlled bomb sights and airborne radar.

The end of World War II signaled an expansion of electronics activity. Sperry and Hazeltine continued to thrive. Airborne Instruments Lab, founded by personnel from the MIT Radiation Lab and Harvard's Radio Research Lab; Wheeler Labs, a spin-off from Hazeltine; and Brookhaven National Lab are just a few examples of the diversity of electronics activity on Long Island at that time.

Local aerospace companies, such as Grumman, Republic and Fairchild also became active in avionics. Many other local companies became prominent in the 50's and 60's. Future articles will highlight the history of several of the companies that have contributed to Long Island's technical stature.

*For further details contact the L.I Wireless Historical Society, 43 Sayville Boulevard, Sayville, NY; phone 631-589-2700.

Membership News

by Nikolaos Golas, Pulse Associate Editor

The IEEE Long Island Section would like to welcome all the new members that just joined us and the members that moved to our section. The new members should familiarize themselves with what the Section has to offer by visiting the Long Island Section website at: www.IEEE.LI

New Members

Robert Benward - A	Hui Kang - S
Peter Buttner - M	Michael Kreisberg - M
Xavier Calderon - G	Angelo Ligorio - S
Wei Chen - M	George Los - M
Robert Christian - M	C. Pedullo - G
Lon Mae Chu - A	Michael Petraitis - M
Jay Chudasama - A	Edward Petry - M
John Ciacia Jr. - S	Edwin Rosario - S
Michael Ciardullo - M	Brian Shaw - S
David Cohn - S	Marc Wegel - M
Stephen Como - S	Simran Willemann - S
Philip Flaxman - A	Keith Yu - S
Anne Galante - G	Dengpan Zhou - G
M. Georgievski - G	M. Zimmermann - S
M. Geselowitz - M	Frederick Zito - A

Members Moved into Section

Syed Ahmed - M	Christopher Marvin - M
Andrew Bach - M	Sidharth Misra - G
Tom Behling - M	Eric Moon - M
David Cohn - S	Robert Muratore - M
Laurence D'Agati - M	Sukesh Shah - G
Eric Faragi - M	Brian Shaw - S
Daniel Furie - M	Wesley Sherwood - A
A. Jushchenko - AF	G Steinitz - LM
Michael Keber - S	Terry Stratoudakis - M
Kihyun Kim - M	Clemens Wan - G
T. Kobayashi - M	Xi Yong - G
Casio Marshall - M	Rong Zhang - M

Membership Legend

A=Associate Member, AF=Affiliate F=Fellow, G=Graduate Student Member, LM= Life Member, LS= Life Senior, M=Member, S=Student Member, SM=Senior Member

Message from Legal Affairs Chairman

Patent protection is available to inventions that are new to the world. A complex statute defines how "new" an invention must be. For example, if the invention was described in a printed publication a year prior to the filing of a patent application with the Patent Office, that publication would preclude patentability. The publication is said to "anticipate" the invention.

I recently came across an interesting case defining the term "printed publication". The term, in accordance with the statute, relates to whether the invention was accessible to the portion of the public that is interested in its teachings. Prior cases have held that when a document is indexable in a catalog, that indexing would be sufficient to call the document a printed publication.

In *In re Klopfenstein*, decided in 2004, the patent appellate court ruled on whether an oral presentation qualifies as a printed publication. In that case, the invention was disclosed in a set of slides displayed at a conference. No handouts were given and the presentation was not indexed or catalogued.

Focusing on the accessibility policy, the court looked at a few factors including: the length of time the display was exhibited, the expertise of the target audience, the existence of reasonable expectations that the material displayed would not be copied, and the simplicity or ease in which the material displayed could be copied. Weighing those factors, the court concluded that the set of displayed slides was a "printed publication" and, as it was published more than a year prior to the filing of the pertinent patent application, the patent was held invalid.

As always, before you make any non-confidential disclosure of materials which may be considered an invention, even an oral disclosure or a presentation, make sure you have a patent application on file with the Patent Office.

Steven Rubin srubin@dilworthbarrese.com

The Global Engineer

by Donald Christiansen

Here's how globalization is supposed to work. All jobs that can be done sitting at a keyboard will move to the global location where those competent to do the job at the lowest going wage reside. Then, eventually, wages will equalize and so will the global standard of living. Everyone will benefit.

If such a utopia is achievable, even in part, the road will be long and tortuous.

Diane Farrell, director of the McKinsey Global Institute, in 2004 cited the positive advantages to U.S. firms from using Indian software developers at $6 an hour as opposed to those in the United States who earn ten times that. Jarad Pincin, of Freedom Works, wrote that restricting offshoring will cut American jobs and economic growth, and will raise operating costs for U.S. businesses struggling to compete in a global marketplace. Jagdish Bhagivati, author of *In Defense of Globalization,* stated that "...firms that forego cheaper suppliers of services are doomed to lose markets, and hence production. And companies that die out, of course, do not employ people."

Fortune's David Kirkpatrick concluded that displaced workers have legitimate gripes. "What they ought to be demanding," he said, "is not an end to offshoring but better education and retraining to compete in a global marketplace, as well as social programs to cushion the blow of inevitable job losses." That was not enough to forestall a flood of unhappy responses, including one from a network engineer who wrote "I have worked as hard as I could to gain my education and to earn my certification. Now, due to outsourcing, I have lost my job..." He now cannot provide for his family.

U.S. corporations have accepted the outsourcing of information technology infrastructure as appropriate and necessary to remain competitive. Engineers are wondering whether the same attitude will prevail with respect to their own jobs. Some insist it already does. Boeing hired hundreds of engineers and scientists in Russia, in part because the Russian pay scale for aeronautical engineers was one-third that of U.S. engineers.

Not long ago, a career counselor writing online at carreerplanners.com suggested those hoping to safeguard their careers from offshoring might choose from a list that included bartender, dentist, security guard, plumber, and roofer. Stay away from the following, he advised: automotive engineer, computer systems analyst, hardware engineer, network engineer, reliability engineer, software developer, and reverse-engineering specialist.

While politicians and pundits are giving more attention than ever to the topic of globalization, little is devoted to its effects on individual engineers, the engineering profession itself, and the role that engineers play in the technological leadership of the nation. There is also the fundamental issue of national defense, as technology traditionally exclusive to the U.S. is rapidly dispersed to and developed by potentially unfriendly countries.

Since the consequences of ill-considered actions will be far-reaching, elected officials and others charged with making difficult decisions need to be sensitive and well-informed. And so must engineers.

(Christiansen is an IEEE Fellow and was editor and publisher of *IEEE Spectrum* from 1971 to 1993. He can be reached at donchristiansen@ieee.org. This article was excerpted from *IEEE-USA Today's Engineer*, where the full text is available at: http://www.todaysengineer.org/2008/Dec/backscatter.asp. It includes an extensive list of suggested further reading on the topic). Don is also a member of the ad hoc committee that prepared the groundwork for the Forum on Globalization.

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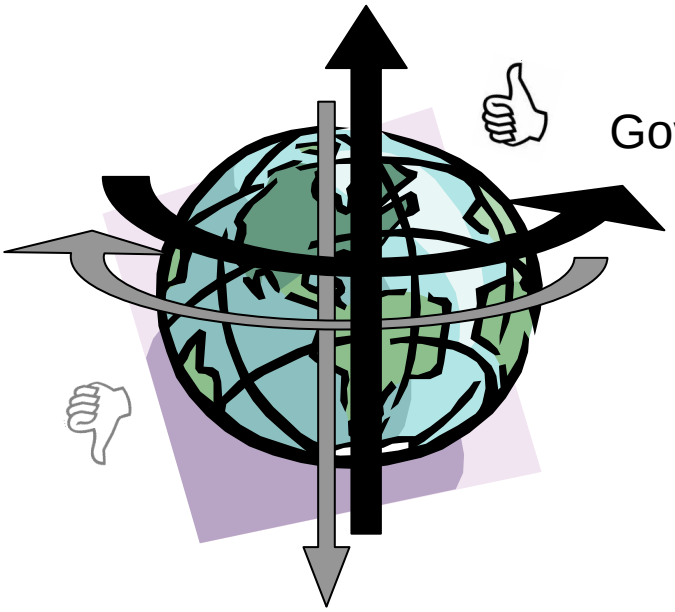
IEEE Presents

GLOBALIZATION FORUM 2009

Outsourcing & Offshoring Impact: Reversing the Flux of Technical Leadership and Engineering Jobs on LI

Where do you stand?

Friday April 24, 2009
7 – 9 PM
Farmingdale
State College
SUNY



Hosted by
Peter Eckstein
Vice President,
Government Relations,
IEEE-USA

"*I do not accept a future where the jobs and industries of tomorrow take root beyond our borders - and I know you don't either.*
It is time for America to lead again."
President Obama, 24 Feb 2009

Keynote Speakers:

Pearl Kamer, PhD, Chief Economist of Long Island
Ron Hira, PhD, Asst. Prof. Public Policy, RIT, Author of *Outsourcing America*
Russ Harrison, Sr. Legislative Representative, Grassroots Affairs, IEEE-USA
Gary Huth, Principal Economist / Labor Market Analyst, NYS Dept. of Labor

Key to YOUR Benefits

IEEE

Discover the Benefits of Membership

A monthly column by Nikolaos Golas, Membership Development Chairman

IEEE Personal e-Mail Alias

Last month we published our '**Top Ten IEEE Benefits**' survey and the IEEE Personal e-Mail Alias was the second most popular choice selected by our members. Most of our members are not taken advantage of this great benefit. IEEE offers the personal e-mail alias service through which IEEE members can register or instantly update a personal alias of their choice. The e-Mail Alias is easy to sign-up and easy to update. It will forward all incoming mail to your real Internet account. No matter where you move or how many times you change jobs, your email address will stay the same.

The e-Mail Alias also offers the optional anti-spam feature called the Unsolicited Commercial Email (UCE) filter. Choose your own level of filtering.

Advantages of a Personal IEEE e-Mail Alias

- If you change your internet service provider and hence your e-mail address, you only have to send one correction an update to IEEE.
- If you change your employer or your location within the company which results in a different e-mail address, you only have to send one update to IEEE.
- An e-mail address which is independent of your service provider or employer.
- Only one place to make changes to your e-mail address.
- IEEE aliases are usually easier to remember and simpler to use than the real address.
- An e-mail address which associates you with IEEE.

How to obtain an IEEE e-Mail Alias

Start by selecting the way you want your e-Mail Alias to appear

<first name initial> dot <last name>@ieee.org is the preferred method of picking an email name similar to: **j.brown@ieee.org**

To obtain your IEEE Personal Email Alias go to the following page:

http://eleccomm.ieee.org/

Click on the **'Register For An IEEE Alias'** link and enter your IEEE Username & Password. Fill-in the **Preferred IEEE Alias** & the **Forward E-Mail To** entries and then click on the **Submit Alias Registration Application** button. That's it. You will receive an Alias Registration Confirmation email on your forwarding email account.

It should take you less than 2 minutes to accomplish this!

2009 AWARDS BANQUET

Thursday, March 26

The IEEE Long Island Section 2009 Awards Banquet will be held this year at the Hyatt Regency on Thursday March 26 from 6:30 PM to 10:00 PM. We will be honoring the recipients of the Long Island Section awards, as well as the recipients of the Region 1 awards.

The Hyatt Regency is located at 1717 Motor Parkway, Hauppauge, NY. 11788. As is tradition, the Long Island Section will be subsidizing the cost of admission, allowing us to offer this memorable commemorative affair to our members and their guests for a minimum cost. So mark your calendars and set aside Thursday Evening March 26th, and join us for good food, good talk, and good friends.

.....

Registration Form
2009 Awards Banquet
(Member and Member's guests - $30 each, Non-Members - $60 each)
Make checks payable to "IEEE Long Island Section"
Send form to:

Jon Garruba
IEEE Awards Banquet
292 S. Country Road
Brookhaven, NY 11719-9764

Name:
_____
Guest Name:
_____
Guest Name:
_____
Guest Name:
_____
Company:
_____
Address:
_____
City and Zip:
_____

Home Phone: _____

Business Phone: _____

Fax:_____ _____

Email: _____

Amount enclosed: _____

Northrop Grumman Begins Study Of Electronic Warfare System Of The Future Engineer

BETHPAGE, N.Y. - Feb. 23, 2009 - Northrop Grumman Corporation (NYSE:NOC) has been awarded a study contract by the U.S. Navy to investigate a Next Generation Jammer to replace its aging ALQ-99 airborne electronic attack system. The Navy is seeking to counter the diverse electronic weapons, communications and enemy air defenses that our warfighters may face in the future.

The six-month Next Generation Jammer study is valued at approximately $6 million. It is the first major step toward the development and production of a modular, scalable jamming system for multiplatform, multiservice use. When developed and in production, the Next Generation Jammer program could potentially be worth several hundred million dollars.

"Northrop Grumman defined airborne radar jamming with its Intruder aircraft in the early 1960s and successfully expanded the concept with its Prowlers, Ravens and the latest system for the EA-18G

Growler. Our new ICAP III system in Navy EA-6B Prowlers is performing a critical troop protection mission in the electronic battlefield over Iraq every day," said Patricia McMahon, vice president of the

Information Operations and Electronic Attack integrated product team.

"No company can match the combat-proven airborne electronic attack system design and operational experience of Northrop Grumman," McMahon said. "That experience gives us great confidence that we can significantly reduce the risk of the Next Generation Jammer development efforts and maximize the investment the Navy will make in this critical capability."

Today, Northrop Grumman is delivering ICAP (Improved Capability) III systems for incorporation into Marine Corps EA-6B Prowlers and a derivative of that system for the EA-18G Growlers. The Growler is now in production and undergoing operational evaluation by the Navy, which plans to stand up the first two fleet Growler squadrons later this year.

Northrop Grumman Corporation is a leading global security company whose 120,000 employees provide innovative systems, products, and solutions in aerospace, electronics, information systems, shipbuilding and technical services to government and commercial customers worldwide.

Telephonics Awarded Multi-Year Contract By Boeing For CH-47F Chinook Helicopter Intercommunication System

FARMINGDALE, NEW YORK, February 12, 2009 – Telephonics Corporation, a wholly owned subsidiary of the Griffon Corporation (NYSE:GFF); announced today that it has been awarded a Multi-year contract from the Boeing Company for the Intercommunication System (ICS) for the CH-47F Chinook helicopter.

Telephonics will supply its advanced Secure Digital Intercommunications (SDI) system. SDI is a TEMPEST-qualified ICS that manages all of the crew audio communication and radio/navigation resources aboard the aircraft. Telephonics has been supplying the SDI ICS to Boeing since the first CH-47F was built.

The contract covers the delivery of production aircraft to the U.S. Army from 2009 to 2013 and options for systems for spares. U.S. Government or direct commercial sales are also included in the contract.

Telephonics' SDI has been selected by the U.S. Army as the Common Digital Intercommunication System. In addition to its use in the Chinook cockpit, it is being installed on all U.S. Army UH-60M Black Hawks, the UH-60M COMHAWK

Command and Control helicopter and the MH-47's and MH-60's of the 160th Special Operations Aviation Regiment (Airborne). The U.S. Coast Guard is also participating in the program and is having SDI incorporated into all of its MH-60T Jay Hawk helicopters. Use of the common ICS will lead to savings in logistics and training and an improvement in aircraft readiness.

LISAT2009

Exhibitor Thumbnails

Steve Taranovich will demonstrate Texas Instruments' Low Power Wireless Technology/Zigbee as well as Green Power Supply Techniques (In particular Digital Power Supply advantages) in keeping with Medical Electronics and Green Building Technologies Themes.

Brain Teaser Challenge 2009-2

I am on an astrophysics blog site, and occasionally am asked to add a little extra physics expertise to the discussion. In one discussion a blogger asked about the possibility of having a hollow earth. Let's discuss a few things about the real earth first. Most of the heaviest elements that are found on the earth are concentrated toward the center of our planet, due to their higher density. These heavier elements also happen to be the ones that are radioactive.

Most scientists today believe that the heat that keeps the center of the earth molten is generated by the nuclear decay of these heavy elements and probably a slow rate of nuclear fission too. So the center of the planet is quite hot and has a deadly level of ionizing radiation. It is actually a much more hostile environment than outer space. Even if we could open up an empty sphere, it would be a very uncomfortable place to sit.

The question I was asked to comment on in this blog thread was, what kind of gravitational forces would one feel in this hollow earth scenario? Imagine the sphere is relatively small, say eight feet in diameter. Don't forget your lead underwear and a high power air conditioner.

Reply to Butch Shadwell at:

b.shadwell@ieee.org (email),

904-223-4510 (fax), 904-223-4465 (v), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328.
http://www.shadtechserv.com

The names of correct respondents may be mentioned in the solution column.

Tektronix Donates Communications Equipment to Farmingdale State

Industry Support Crucial to Preparing Students for Employment

As a result of a fortuitous meeting last May, the international electronics firm Tektronix has donated communications equipment to the Farmingdale State College Department of Electrical/Computer Engineering Technology.

Zeke Nesteruk, Tektronix account manager, and college officials met at the LISAT2008 conference at Farmingdale. The equipment donated, a Tektronix CSA 7404B Communications Signal Analyzer, will provide hands-on experience and knowledge of equipment important to the communications industry for Farmingdale State students. In addition, the state-of-the-art instrumentation will provide important support for a new degree currently in development by the college - a BS degree in Telecommunications Technology.

LISAT2008 (Long Island Systems, Applications and Technology Conference), has been held by the IEEE Long Island Section in cooperation with its technical society Chapters and IEEE Region 1 for the past four years at Farmingdale State College. Of great benefit to FSC students, the conference traditionally features presentations and demonstrations highlighting new developments as well as emerging technologies important to Long Island-based company initiatives and international activities. The IEEE Long Island Section and IEEE Region 1 will hold its fifth annual conference, LISAT2009, at the College on Friday May 1, 2009.

During the conference, Nesteruk discussed the possibility of creating a new laboratory for the department with Vice President for Academic Affairs\Provost-Dr. Beverly Kahn, School of Engineering Technologies Dean, Dr. Kamal Shahrabi, Dr. John Fiorillo – Professor Electrical\Computer Engineering Technology: LISAT2008 Facilities Chair, and Dr. Charles Rubenstein, LISAT2008 Conference Chair. Based upon these discussions, Nesteruk arranged with William Etheredge, vice president of Americas Sales for Tektronix Instrument Business, to approve the donation.

As an example of their support, Tektronix has provided CSA7404B training for faculty and staff of the department. The CSA7404B Communications Signal Analyzer is used in the design, development and compliance testing of optical and electrical signals, physical layer characterization of communication signals in backplane, mid-plane and embedded designs as well as optical and electrical signal integrity, margin verification, jitter and timing analysis.

Zeke Nesteruk Tektronix Account Manager and Farmingdale State College Faculty during CSA7404B Training

IEEE COMMUNICATIONS SOCIETY

THE LONG ISLAND CHAPTER OF THE IEEE COMMUNICATIONS SOCIETY
is pleased to present a lecture on

Cooperative Wireless Communications

Presented by **Shivendra S. Panwar,**
Professor in the Electrical and Computer Engineering Department at Polytechnic Institute of New York University

Time and place March 19, 2009, at BAE Systems, 450 Pulaski Road, Greenlawn, New York
Pizza served at 6 PM. The TWO credit hour lecture will start at 6:30 PM. Q&A will follow.

Background: With the advent of WiFi devices using MIMO (Multiple Input Multiple Output) technologies, there is considerable interest in understanding how this technology works and its future evolution. A very promising variation is "virtual MIMO" or cooperative communications, which promises MIMO like performance from small single antenna wireless devices (MIMO typically requires larger devices that can accommodate multiple antennas). There is considerable interest in using cooperative communications in the next generation of cellular technologies, i.e. WiMAX and LTE, as well as WiFi. This course will provide an introduction to these technologies as well as ongoing research, and how they could be incorporated into next generation systems.

The Goals Of This Lecture: This course will start with a quick review of communication basics(an exposure to a course in communication theory is assumed). It will move on to MIMO basics and introduce virtual MIMO. Practical issues in its incorporation in infrastructure-based wireless systems like WiFi, WiMAX and LTE Advanced will be discussed. In particular there will be a focus on the medium access protocols needed to exploit this enhancement at the physical layer. System level performance enhancements that point to the promise of this technology will be discussed, as well as some possible limitations.

Why You Should Attend This Lecture: You should attend this lecture if you wish to stay current with new developments in commercial wireless networks. For those working for defense contractors, it is possible that some of these technologies will be proposed for next generation tactical military networks. This course will give you some of the technical background you need to understand it and make decisions about how it will affect your company's plans in this area.

About the Presenter: Shivendra S. Panwar is a Professor in the Electrical and Computer Engineering Department at Polytechnic Institute of New York University. He is the Director of the New York State Center for Advanced Technology in Telecommunications (CATT). His research interests include performance analysis and design of networks and his current work includes cooperative wireless networks, switch performance and multimedia transport over networks. He has served as Secretary of the Technical Affairs Council of the IEEE Communications Society. He co-authored TCP/IP Essentials: A Lab based Approach, published by the Cambridge University Press. He was awarded, along with Shiwen Mao, Shunan Lin and Yao Wang, the IEEE Communication Society's Leonard G. Abraham Prize in the Field of Communication Systems for 2004.

Admission is free but registration is required. *0.2 CEU hours (equivalent to 2 PDH)* ***available for $20.*** For registration and directions go to www.ieee.li, click on the *Calendar* link, and then click on the registration link for this event.

Lecture coordinator: Dave Bomzer, IEEE Communications Society LI Chapter Chair; mailto:tdbomzer@ieee.org

The IEEE has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this approval, the IEEE has demonstrated that it complies with the ANSI/IACET Standards which are widely recognized as standards of good practice internationally. As a result of their Authorized Provider membership status, IEEE is authorized to offer IACET CEUS for its programs that qualify under the ANSI/IACET Standards."

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IEEE Long Island Section Annual Awards Banquet

Thursday March 26th, 2009 at 6:30 PM

Hyatt Regency Long Island at Wind Watch Golf Club, Hauppauge, NY

Keynote Speaker
Steve Levy
Suffolk County Executive

Dr. Ilan Ben-Zvi, Brookhaven National Laboratory, Fellow Award *for leadership in superconducting accelerators, high brightness electron sources and free electron lasers.*

Dr. Konstantin K. Likharev, Stony Brook University Fellow Award *for contributions to superconducting digital electronics and single-electron tunneling devices.*

Dr. Yuanyuan Yang, Stony Brook University, Fellow Award *for contributions to parallel and distributive computing systems*

Dr. Veljko Radeka, Brookhaven National Laboratory, Long Island Section Harold Wheeler Award *for outstanding leadership and accomplishments in detector development which enabled discoveries in many areas of science and technology in a career of sustained productivity spanning over 50 years.*

James Colotti, Telephonics Corporation, Long Island Section Alex Gruenwald Award *for development of the Long Island Section IEEE's outstanding website and for contributing to the growth of the Section's Microwave Theory and Techniques Society chapter.*

David Mesecher, Northrop Grumman Corp, Long Island Section Charles Hirsch Award *for innovative signal processing techniques applied to adaptive filtering, smart antennas and emitter location.*

Dr. Sina Rabbany, Hofstra University, Long Island Section Athanasios Papoulis Award *for noteworthy contributions to biomedical engineering education and Hofstra's Medical School Curriculum.*

Dr. Monica F. Bugallo, Stony Brook University, Long Island Section Outstanding Young Engineer Award *for development and application of computational methods for sequential signal processing.*

Craig Aarseth, Telephonics, Region 1 Award for Technical Innovations in Radar and Landing System Architecture Design.

Robert Barat, Telephonics, Region 1 Award *for Leadership in Radar Systems and Software Engineering.*

Dr. Babak Beheshti, New York Institute of Technology, Region 1 Award *for Providing Technical Leadership in the Development of State-of-the Art Reconfigurable Wireless Technologies.*

William DeAgro, Northrop Grumman Corp, Region 1 Award *for Dedicated Efforts in Technological Innovation in the Submission of Patent Ideas with Most Recent Patent on Multipath Height Finding.*

Dr. Frederick M. Kruger, Region 1 Award *for Contributions to the Profession Through Exemplary Service as the LISAT Conference Exhibits Chair.*

Dr. Stefan A. Robila, Montclair State University, Region 1 Award *for Contributions to the Engineering Profession in Exemplary Service as the LISAT Conference Proceedings Chair.*

Daniel A. Rogers, Telephonics Corporation, Region 1 Award *for Contributions to the Profession Through Exemplary Service as the LISAT Conference Technical Program Committee Co-Chair.*

Craig Romano, BAE Systems , Region Award 1 *for Technical Leadership in the Development of state-of-the-Art Low RCS Antennas.*

www.IEEE.LI

The IEEE Long Island Section Computer Society presents a seminar titled:

Service-Oriented Computing

Tuesday, April 14, 2009

WHO SHOULD ATTEND? Persons who are interested in the web services and service-oriented architecture. The seminar is free and open to all.

WHAT ARE THE KEY BENEFITS? Learn about how future networked organizations will be integrated via their web-based systems

HOW TO REGISTER: If you wish to attend, please register via internet in the calendar page of www.ieee.li.

Speaker: M. Brian Blake, Georgetown University

Abstract: Emerging technologies facilitate an environment where web-based software or web services have well-defined, open interfaces and are discoverable across the Internet. Service-oriented computing is an emerging approach to software engineering that suggests that new specialized business processes can be created, on-demand, simply by integrating the services provided by others. One might suggest that this is a virtual playground for software engineering researchers who focus on web-based software. However, in the real world, software developers tend to create applications that do not conform to consistent developmental practices even if they do use universal interface representations (e.g. the eXtensible Markup Language). Our research utilizes semantic approaches, enhanced syntactical methods, and contextual information to automate the integration of software services that are developed randomly from a wide array of diverse sources. In a sense, we attempt to tame web services from the wild. This talk discusses our lines of research and subsequent contributions in the areas of service discovery, composition, and evaluation. The talk will introduce the emerging concept of service mashup.

Seminar Coordinator: Daniel Rogers, Computer Society Chair of the IEEE Long Island Section.

Speaker Bio: **M. Brian Blake** is currently an Associate Professor and Chair in the Department of Computer Science at Georgetown University. *Starting July 2009, Dr. Blake will be Full Professor of Computer Science and Associate Dean for Strategic Initiatives in the College of Engineering at the University of Notre Dame*. Dr. Blake conducts applied research in the development of automated approaches for the sharing of information and capabilities across organizational boundaries, sometimes referred to as enterprise integration. With respect to this area of interest, his investigations cover the spectrum of software engineering: design, specification, proof of correctness, implementation/experimentation, performance evaluation, and application. He has published over 85 journal articles and refereed conference papers in the areas of service-oriented computing, intelligent agents and workflow, enterprise systems integration, component-based software engineering, distributed data management, and software engineering education. Over the past 8 years, his research lab has been awarded over $5.5 million in sponsored research from the National Science Foundation, DARPA, Federal Aviation Administration, the MITRE Corporation, Air Force Research Lab, SAIC, and the National Institute of Health. Dr. Blake received a Bachelor of Electrical Engineering from Georgia Institute of Technology and PhD in Information and Software Engineering from George Mason University. More information about Dr. Blake can be found at http://www.cs.georgetown.edu/~blakeb/

Location and Time: The seminar will be presented from 6:00 to 8:30 PM Tuesday, April 14 2009 located at Telephonics Corporation on Route 110 in Farmingdale, New York. Pizza will be provided. The seminar is free and open to all. If you wish to attend, please register via internet in the calendar page of www.ieee.li. You can contact the coordinator Daniel Rogers by email at drogers@ieee.org. A confirmation email will be sent by April 13. The seminar is wholly the responsibility of IEEE Long Island Section and the speaker.

Science Fair Help Needed!

We need your help! Please join your fellow professionals and give back to the children and show the spark of science we all have!! And have fun, too!

JUDGES WANTED for the 15th Annual Tri-County Science & Technology Fair (Westchester, Rockland & Putnam Counties)

Date: **Saturday, April 25, 2009**

Time: **9:30 AM until approximately 1 PM (light breakfast and lunch are included!)**

Where: **White Plains High School, 550 North Street (Route 127), White Plains, NY**
From the south or east, take the Hutchinson River Pkwy north.
Exit at EXIT 25 (Route 127).
Take a left at the top of the exit ramp. Go about 1 mile. It's on the right side.
From the north or west, take the Sprain or the Saw Mill R. Pkwy south.
Exit at Cross Westchester (I-287 East). Take exit for and follow signs to Route 127.
White Plains HS will be approximately 1 mile on the left.

Grades: **Elementary through High School**

Categories: **Biology; Chemistry; Mathematics/Computers; Engineering/Technology; Environment; Earth/Space Science; Physics; Psychology**

Register online at: http://www.discoveryctr.org/tcsfjudges_app%20form.htm

Please tell your colleagues and science friends about this great event and forward or post this note for others to see.

Thank you again for helping the children, and we look forward to another successful Fair!

Tri County Science & Technology Fair
c/o Putnam Children's Discovery Center, Inc.
PO Box 222
Carmel, NY 10512

As a backup, for any judge's inquiries, please contact by e-mail Marc.Karell@ERM.com .
Please Post & Distribute

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Friday, May 1, 2009

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Technical Track A

- RFID for Personal Asset Tracking
- Enhancing User Experience at Museums Using Smart Phones with RFID
- RFID Wrist Band for Children in Elementary Schools
- Image Sensor Requirements for 2D Barcode Scanning
- Quo Vadis Face Recognition: Spectral Considerations
- Parallel Computation Methods for Enhanced MoM and MLFMM Performance
- Efficient Spectrum Sensing in Cognitive Radio Networks
- Data Detection for MIMO WCDMA-HSDPA Systems
- Natural ELF Electric Oscillations in Human Life
- Use of Marine Current Turbines to Reduce Hurricane Intensity in the Gulf of Mexico
- TDR-Inspection of Vast Tracts of Forests or Plants
- Health Monitoring Systems for Massive Emergency Situations

Techncial Track B

- IEEE 802.11N WLAN Migration - Impact On System Capacity & Terminal Design
- Resource Scheduling Heuristics for Data Intensive Networks
- Improving Elevator Call Time Responsiveness via an Artificial Neural Network Control Mechanism
- Implications of Microsoft Vista File Systems for Computer Forensics Investigators
- Strong Security Solutions for Low-resource Devices - the Algebraic Eraser
- MIL-STD-461: The Basic Military EMC Specification and It's Evolution Over The Years
- Tuki: A Voice-Activated Information Browser
- Aperture Modeling & Simulation for Enhanced Performance
- Characterization of CZT Materials for X-ray and Gamma-ray Detectors
- CZT Virtual Frisch-grid Detector: Principles and Applications
- Lunar Regolith Control and Resource Utilization

LISAT2009 Business Program presented by the Project Management Institute Long Island Chapter

- Project Management Foundations
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- Electric Incident Cause and Origin

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Registration

Member Type	Through April 1	After April 1
IEEE Members	$125	$150
Non-Members	$175	$200
IEEE Student & Life Members	$50	$75
CEU Credit Fee (0.8 CEUs)	$25	$30

Make checks payable to "IEEE Long Island Section".
Send form (not later than 17 April 2009*) to:
Dr. Charles Rubenstein, LISAT Conference Chair
90 County Line Road, Massapequa, NY 11758-5501

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< c.rubenstein@ieee.org >
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