Chairman’s Column

This is my last column as Chair of the IEEE NY Section. I’d like to take this opportunity to thank all the members of my Executive Committee and the various chapter and committee volunteers for all their hard work and effort in making this a very successful year.

I’d especially like to thank Mike Miller, Monitor Editor and Hal Ruchelman, Webmaster for the excellent job in preparing our newsletter (The Monitor) and maintaining the New York Section website; Vice Chairs Ben Schall & Stan Karoly for their help in managing executive committee meetings; Treasurer Bob Noberini for a great job keeping our financial records in order; Paul Sartori our Secretary for preparing the minutes of our meetings and tying all the loose ends together; our Historian, Mel Olken for his excellent articles published in the Monitor; and all the Section Committee Chairs and Chapter Chairs for conducting the business of the Section in offering all the interesting seminars and presentations to our New York City, Westchester and Rockland County engineers.

In my first column published in the January 2003 issue of The Monitor, I set a few goals for the Section. With the hard work and dedication of the members of the executive committee we not only met all our goals but exceeded them. The first goal was to continue providing the best seminars, educational and technical programs to our membership. This was accomplished through the efforts of Brad Craig and the Vehicular Technology Society Chapter forums, Dr. George Hacken and the Computer Society Chapter meetings, Alan Osborne and Mike Miller with the Power Engineering Society & Industrial Applications Society Chapter seminars and Bernie Gollomp and the Tappan Zee Subsection presentations.

Our second goal was to increase volunteerism for Chapter and Section activities. Several new volunteers have stepped forward to accept responsible positions within the organization. Dr. Shu-Ping Chang of IBM’s Integrated Content Management Solution is doing an excellent job as Secretary for the Tappan Zee Subsection. Warner W. Johnston of ABC TV is the Treasurer of the Tappan Zee Subsection and has recently volunteered to Chair our Broadcast Technology Society Chapter. Warren D. Dyckman of IBM’s Microelectronics Division, was a guest speaker at the October 15th Tappan Zee Subsection meeting and has volunteered to conduct a tutorial at the October 18, 2004 Lightwave Technology Conference. Balvinder Blah of the Con Edison Co. of NY has joined the PES / IAS Chapter and Nils Hoivik of IBM’s T.J. Watson Research Center has volunteered to help organize the 2004 Lightwave Technology Conference.

The third goal was to strengthen the executive committee of the New York Section. This was accomplished by filling the following key executive positions during the course of the year and by revitalizing several inactive Chapters:

1) Stan Karoly of the NYC Transit Authority was appointed as Acting Vice-Chair Section Activities after Vice Chair, Ken Vought, accepted a position with D.O.T. in Washington, D.C. Stan is also Chair of the Engineering Management Society (EMS) Chapter and was instrumental in getting the NY EMS Chapter separated from the North Jersey Section EMS Chapter.

2) Bernard Gollomp, IEEE Life Fellow, was appointed Chair of the former Westchester Subsection, which was inactive for many years. The Subsection was re-named Tappan Zee at the first meeting on May 27, 2003. The Tappan Zee Subsection has scheduled five meetings this year and has been a co-sponsor and supporting contributor at two energy conferences. The last meeting of the Tappan Zee Subsection is scheduled for December 17, 2003 at the IBM Palisades Conference Center.

3) Another key appointment was Warner W. Johnston as Chair of the...
Broadcast Technology Chapter. Warner has a full schedule of Broadcast Technology meetings planned for 2004. Warner is also the Treasurer of the Tappan Zee Subsection. In addition to filling executive positions and reactivating chapters, executive committee meetings are more structured with specific time slots allocated to agenda items, which allows business to be conducted in a more productive manner.

Summary Report of Activities
The New York Section Executive Committee has taken a number of initiatives this year to further advance the services to our members, to provide opportunities and activities for our Westchester and Rockland County members, to increase volunteerism in Section Chapters and Committees and to enhance the Executive Committee. The following are the major initiatives:

Tappan Zee Subsection –
The NY Sections' Westchester Subsection was formally re-activated on May 27, 2003 and re-named the Tappan Zee Subsection. There are approximately 1,200 Westchester and Rockland County Associate and higher-grade members in the Subsection. The following officers were appointed:

- Bernard P. Gollomp (IEEE Fellow) – Chairman
- Dr. Laurent Balmelli – Vice Chair
- Warner W. Johnston – Treasurer
- Dr. Shu-Ping Chang – Secretary

The NY Section and Tappan Zee Subsection co-sponsored an energy conference on May 3, 2003. The conference, Energy Independence: Real-World Solutions for Homes & Businesses, was hosted by the Federated Conservationists of Westchester County, & designed to provide residents of Westchester County and the surrounding areas an opportunity to learn more about available alternative energy and energy reducing technologies.

The Tappan Zee Subsection was a “supporting contributor” and exhibitor at the first annual Recharge Energy Expo and Conference on September 12th & 13th, 2003. This was a unique opportunity for energy consumers to see and learn about the newest, cutting-edge technologies and clean energy applications. This conference allowed the NY Section and Tappan Zee Subsection to network with engineers and consumers from Westchester, Rockland and surrounding counties. The Pace Energy Project hosted the conference at Bear Mountain New York. The purpose of the conference was to promote energy efficiency and renewable energy sources to the region.

NY Section Eng. Management Soc. Chapter –
NY Section EMS Chapter Chair, Stan Karoly initiated the request to separate the NY Section EMS Chapter from the North Jersey Section to better serve NY Section members and to allow the Section to receive recognition for Chapter activities and events. The New York Section Chair received approval for the separation from the North Jersey Executive Committee and subsequent approvals were received from the Region 1 Director, RAB (Regional Activities Board) and the Engineering Management Society President and Executive Board. The NY EMS Chapter is now officially a separate chapter.

NY Section Broadcast Technology Chapter –
The New York Section took the necessary steps to re-activate the NY Broadcast Technology Society Chapter by appointing a new Chair, Warner W. Johnston. A full schedule of meetings / presentations has been planned for 2004.

NY Section Consultants’ Network –
The New York Section took the initiative and necessary steps to establish our Consultants’ Network as an official Affinity Group. The required number of signatures on the petition form was obtained and submitted to IEEE headquarters for approval.

NY Section Women in Engineering –
The New York Section has also taken the necessary steps and is working on establishing an official “Women in Engineering” Affinity Group. The required number of signatures on the petition form was obtained and submitted to IEEE headquarters for approval.

Robert M. Pellegrino
Chair, IEEE NY Section
The election meeting was held on Wednesday, November 12, 2003 at 5:30 PM and the following people were elected for the 2004 year.

**Elected Committee Chairs**

- By Laws: William N. Coyne
- Managing Editor: Michael A. Miller
- L. R. Planning: William L. Perlman
- Special Events: Ralph Tapino

**Tappan Zee Subsection**

- Chairman: Bernard Gollomp
- Vice Chair: Dr. Laurent Balmelli
- Treasurer: Warner Johnston
- Secretary: Dr. Shu-Ping Chang

**PES / IAS New York & Long Island Chapter**

- Chairman: Michael A. Miller
- Vice Chair: Neil Weisenfeld
- Treasurer: Ralph A. Mazzatto
- Secretary: Bill Montgomery
- Sr. Member at Large: John Pascu
- Jr. Member at Large: John Michelsen

**Officers**

- Chairman: Benjamin Schall
- Vice Chair Chapter Operations: Robert P. Noberini
- Vice Chair section activities: Paul J. Sartori
- Treasurer: Stanley Karoly
- Secretary: Neil Weisenfeld

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**Editorial** – A special note of thanks to our Historian, Melvin I. Olken, P. E. for writing the past five articles on various historical events. Mel is currently the Editor-in-Chief of the IEEE Power & Energy Magazine. He recently retired from his post as Executive Director of the Power Engineering Society. He earned a BS and MS in Electrical Engineering from City College in 1956. He holds P. E. licenses in NY and several other states. Mel spent the bulk of his career with the American Electric Power Company (a privately owned electric utility) rising to the position of Manager of Electrical Generation. He was responsible for the design, construction, operation, and maintenance of some of the worlds largest fossil, nuclear, and hydro-electric power producing facilities. He is a long time member of the Power Engineering and Industrial Applications Society. Author of a number of papers published in the Transactions of the IEEE Power Engineering Society. An active IEEE volunteer, Chairman of the Power Generation Committee and Chairman of the PES Technical Council. Mel joined the IEEE staff in 1984 as Manager of Committees and Special Projects in the Technical Activities Department. He was promoted to the position of Society Services Director in 1988, the same year he was elected an IEEE Fellow for “contributions to the innovative design of reliable generating stations”. In 1990 Mel was appointed Staff Director for Regional Activates. He was responsible for servicing the world-wide entities of the IEEE and for membership development and services. He served as Secretary of the Regional Activities Board and the Life Members Committee. Today he will talk to us on the past, present, and future of the Winter Power Meeting.
Calendar of Upcoming Events

December 16, 2003 (Tuesday) Program Committee Meeting is scheduled to being at 5:30 PM at the Con Edison Executive, 19th floor, Dining Room, 4 Irving Place, NYC. Presenting: Phase Matching System using GPS. The speakers at our December 16, 2003 meeting will be Paul Stergiou and David Kalokitis, who will discuss the planning, coordination, development, and operation of the new GPS-clocked intermesh solution used to transfer Manhattan’s power supply grid to the newly constructed Seaport #1 substation in the aftermath of the 9/11 attack. The process uses GPS (Global Positioning Satellites) linked to the electrical distribution system in a novel and technically intuitive method measuring geographically separated sine waves, comparing them as to phase-angle displacement and voltage magnitude in real time. A difference greater than 3 degrees could activate relays causing circuit breakers to trip, bringing down the Substation and multiple networks. RSVP to John Michelsen at (914) 968-8400 or Alan Osborne at (212) 460-6690 or OsborneA@ConEd.Com.

December 23, 2003 (Tuesday) Medicine and Biology Society to hold non-technical program on the relationship between the common type of hypoglycemia (low blood sugar) and anxiety (ranging from “free-floating” to “panic”) at the Con Edison Executive, 19th floor, Dining Room, 4 Irving Place, NYC. The speaker will be Professor Joel Levitt. Professor Levitt holds four degrees from Columbia and has been teaching this subject for some 25 years at Pratt Institute. The presentation will begin at 7:30 PM, refreshments at 7:15 PM, RSVP to Professor Levitt at (212) 479-7805 or by email at Jlevitt@Pratt.Edu.

January 20, 2004 (Tuesday) Medicine and Biology Society will host a program on “Sound Cancellation Treatment of Monofrequency Tinnitus” at the NY Academy of Medicine, 5th Avenue and 103rd Street, NYC, beginning at 6:30 PM (reception) 7:30 PM (program). The speakers will be Drs. Daniel Choy, Sujana Chandrasekhar, Cheuk Tang, and Jack Vernon. Reservation to Professor Levitt at (212) 479-7805 or by email at Jlevitt@Pratt.Edu.

February 10, 2004 (Tuesday) LI Chapter – Electromagnetic Compatibility Society is presenting a lecture titled RF Safety Analysis versus EMC (call or email for location on LI). The Speaker is Mr. Richard Strickland, Founder of RF Safety Solutions LLC. The presentation will begin at 6:30 PM, refreshments at 6 PM, RSVP to Richard Mohr or Sandy Mazzola at (631) 262-8367 or at http://www.ieee.li/emc.htm.

February 21, 2004 (Saturday Evening) 2004 Awards Dinner Dance, Trianon Ballroom, New York Hilton Hotel and Towers at Rockefeller Center, 1335 Avenue of the Americas (between 53rd and 54th Streets) Contact: William Perlman (908) 810-8555 W.Perlman@IEEE.Org.

The following New York Section members have been elevated to Senior Member.

Vikram Kapila
Pia N. Sanda
This page dedicated to member professional activities information

Many of you may have read, or are aware of the US employment situation of engineers and engineering managers. Some recent statistics that I have read stated that there are about a quarter-million of these engineers unemployed and that unemployment rates range from 4% to 8%. This compares unfavorably with the rates of 1.2% in the early 1990’s. In addition, engineering salaries have not increased in terms of real purchasing power in the last 20 years. Many articles have been written about the causes of this, from the H1-B issues to farming out services overseas. There is an enormous amount of engineering talent in this country being unutilized. IEEE-USA has been active in trying to address some of issues such as the lobbying in congress for limiting the H1-B Visas. There is also support for programs to help our unemployed and maybe to be unemployed members. The New York Section wants to help through our PACE programs. I need to know what the situation is in our section. If you are one of the engineers mentioned above please contact me. This will help me identify the programs to run that are most beneficial to our section members.

Peter Greco  PACE Chairman
Tel.: 212-614-3357  Fax: 212-529 5237
email: p.j.greco@ieee.org

February 11, 2004: General Meeting

IEEE EMPLOYMENT ASSISTANCE WEB SITE: <www.ieeeusa.org>

IEEE-USA’s and IEEE Job Site:
This highly rated job listing service was replaced by a new internet-based job site, and is sponsored by IEEE-USA and IEEE Spectrum. The site allows the active and passive job seeker more control over the recruiting process. For more details go to www.ieee.org/jobs.
The Employment Assistance Web Site brings together dozens of job-search resources in a single location. The site includes the following:

Entry-Level Employment Assistance Site:
If you are an engineering graduate, recent graduate, of IEEE Student Member looking for the first job this is one of the best places to begin your career. Special entry-level employment services include job listings, links to company sites and job-search tips and techniques:
<www.ieeeusa.org/EMPLOYMENT/entry.html>

IEE-USA’s New Resume Referral Service:
Put your resume for maximum exposure! Resume Referral Service which IEEE members may register, FREE of charge via web registration or by hard copy. Make sure you check out this great new service. For hard copy registration forms, contact Resume-Link at 614-923-0600 or <socmember@resume-link.com>.
Edwin Howard Armstrong
By Melvin Olken, Historian

Edwin Howard Armstrong (Dec. 18, 1890 -- Jan. 31, 1954) was born in New York City and lived all of his life in these environs where he invented three of the basic electronic circuits underlying modern radio, radar, and television.

Armstrong decided to become an inventor when he was fourteen and began filling his bedroom with a clutter of homemade wireless gear. His imagination was fired by Guglielmo Marconi, who a few years before had sent the first wireless signals across the Atlantic. But wireless telegraphy was still in a primitive state. Its crude spark-gap transmitters produced electromagnetic wave signals so weak that sunlight washed them out through most daytime hours, while its iron-filing or magnetic receivers were cruder still, requiring tight earphones and quiet rooms to catch the faint Morse code signals that were all the early wireless was capable of transmitting. He worked with every new device that came along, among them the so-called audion tube invented in 1906 by Lee deForest. But none of the instruments were able to amplify weak signals at the receiver, nor yet to provide stronger, more reliable power at the transmitter. On graduating from high school, Armstrong began to commute to Columbia University's school of engineering.

As a junior at Columbia, Armstrong produced his first major invention. His analysis of the action within the audion tube suggested that it might be used to greater effect. The tube was based upon Thomas Edison's 1883 discovery in his early lamp of a tiny anomalous electric current that flowed across a gap from the filament to a metal plate. In 1904 it was shown that this effect could be used as a wireless receive and two years later deForest had added a vital element, a wire grid between the filament and plate. But in the usual receiver circuit the tube did no more than detect weak signals. In the summer of 1912 Armstrong devised a new regenerative circuit in which part of the current at the plate was fed back to the grid to strengthen incoming signals. Testing this concept, he began getting distant stations so loudly that they could be heard without earphones. He later found that when feedback was pushed to a high level the tube produced rapid oscillations acting as a transmitter and putting out electromagnetic waves. This single circuit yielded not only the first radio amplifier but also the key to the continuous-wave transmitter that is still at the heart of all radio operations.

Armstrong received his engineering degree in 1913, filed for a patent, and returned to Columbia as an instructor and as assistant to the professor and inventor, Michael Pupin. Before his new circuit could gain wide use however, the United States was plunged into World War I and Armstrong was commissioned an officer in the U.S. Army Signal Corps and sent to Paris. He was assigned to detect possibly inaudible shortwave enemy communications that allowed the creation of his second major invention. Adapting a technique called heterodyning found in early wireless, but little used, he designed a complex eight-tube receiver that, in tests from the Eiffel Tower, amplified weak signals to a degree previously unknown.

He called this the superheterodyne circuit, and although it detected no enemy transmissions, it is today the basic circuit used in radio and television receivers.

After the war Armstrong returned to Columbia. By then, wireless was ready to erupt into radio broadcasting. In 1920, on a bid from Westinghouse Electric and Manufacturing Company, he sold the rights to his two major circuits for $335,000. Later he sold a lesser invention, the superregenerative circuit, to the newly organized Radio Corporation of America (RCA) for a large block of stock. With the success of early radio broadcasting, he became a millionaire, but he continued at Columbia University as a professor and eventual successor to Pupin.

As the 1920's wore on, Armstrong found himself
enmeshed in a corporate war to control radio patents. His basic feedback patent had been issued in 1914. Nearly a year later deForest filed for a patent on the same invention, which he sold with all audion rights to the American Telephone and Telegraph Company (AT & T). As radio began to boom, AT & T mounted a broad attack to overturn Armstrong's patent in favor of deForest's. The battle went through a dozen courts between 1922 and 1934. Armstrong, backed by Westinghouse and RCA, won the first round, lost a second, was stalemated in a third, and finally, in a last-ditch stand before the Supreme Court, lost again through what has been deemed a judicial misunderstanding of the technical facts.

The technical fraternity refused to accept the final verdict. The Institute of Radio Engineers (IRE), which in 1918 had awarded Armstrong its first Medal of Honor for the invention, refused in a dramatic meeting to take back the medal. And the action was reaffirmed in 1941 when the Franklin Institute, weighing all the evidence, gave Armstrong the highest honor in U.S. science, the Franklin Medal.

Throughout this period Armstrong continued to pursue his research. Early on he set out to eliminate the last big problems of radio -- static. Radio then carried the sound patterns by varying, or modulating, the amplitude (power) of its carrier wave at a fixed frequency (wavelength) -- a system easily and noisily broken into by such amplitude phenomena as electrical storms. By the late 1920's Armstrong had decided that the only solution was to design an entirely new system, in which the carrier-wave frequency would be modulated, while its amplitude was held constant. Undeterred by current opinion -- which held that this method was useless for communications -- Armstrong in 1933 brought forth a wide-band frequency modulation (FM) system that gave clear reception through the most violent storms and, as a dividend, offered the highest fidelity sound yet heard in radio.

But in the depressed 1930's the radio industry was in no mood to take on a new system requiring basic changes in both transmitters and receivers. Armstrong found himself blocked on almost every side. It took him until 1940 to get a permit for the first FM station, erected at his own expense, on the Hudson River Palisades at Alpine, N.J. It would be another two years before the Federal Communications Commission granted him a few frequency allocations. It is worth noting that the tower at Alpine, New Jersey which is still standing, was utilized for transmission purposes in the immediate aftermath of the destruction of the World Trade Center on September 11, 2001.

After World War II FM broadcasting began to expand. Armstrong again found himself impeded by the FCC, which ordered FM into a new frequency band at limited power, and challenged by a number of corporations on the basic rights to his invention. Facing another long legal battle, ill and nearly drained of his resources, Armstrong committed suicide on the night of Jan. 31, 1954, by jumping from his apartment window high on New York's west side. Ultimately his widow, pressing twenty-one infringement suits against as many companies, won some $10 million in damages. By the late 1960's, FM was clearly established as the superior system. Nearly 2,000 FM stations are operated across the country, a majority of all radio sets sold are FM, all microwave relay links are FM, and FM is the accepted system in all space communications.

Armstrong was posthumously elected to the roster of electrical "greats" to stand beside such figures as Alexander Graham Bell, Marconi, and Pupin, by the International Telecommunications Union in Geneva.
YOU ARE INVITED TO A JOINT MEETING
of the IEEE with Edison Engineering Society
Tuesday, December 16, 2003

PRESENTING: Phase Matching System using GPS

The speakers at our December 16, 2003 * Edison Engineering Holiday Meeting * meeting will be Paul Stergiou and David Kalokitis, who will discuss the planning, coordination, development, and operation of the new GPS-clocked intermesh solution used to transfer Manhattan’s power supply grid to the newly constructed Seaport #1 substation in the aftermath of the 9/11 attack. The process uses GPS (Global Positioning Satellites) linked to the electrical distribution system in a novel and technically intuitive method measuring geographically separated sine waves, comparing them as to phase-angle displacement and voltage magnitude in real time. A difference greater than 3 degrees could activate relays causing circuit breakers to trip, bringing down the Substation and multiple networks.

Paul V. Stergiou is a graduate of City College (BE, EE), IEEE member, manager of Power Quality, and employed at Con Edison for the past 16 years. He has worked on Unit Substation Automation, Secondary Underground Network Distribution Automation System, and designed and developed power-line carrier test equipment.

David Kalokitis holds a BSEET and MSEE degree and is a member of the technical staff at Sarnoff Corporation, Princeton. In the past 20 years he has worked on a variety of microwave and communication systems including telemetry, superconductor, and satellite systems. His recent work focuses on radio frequency identification and location systems. He holds three US patents.

All activities are posted on the PES Chapter Web Site: [http://ewh.ieee.org/soc/pes/newyork/](http://ewh.ieee.org/soc/pes/newyork/)

Refreshments: 5:15 pm
Program: Starting at 5:45 pm
Location: Con Edison Executive Dining Room, 19th Floor
4 Irving Place, NY 10003
Nearest Subway: Union Square

Reservation to:
Michael A. Miller @ 212 460 4911
or Email at MillerM@ConEd.Com

All Invited!
New Technologies for a New Grid

The speaker at our Wednesday, October 8, 2003 meeting Patrick M. Duggan, P. E. was introduced by the Program Chairman, John Michelsen.

John Michelsen making the introduction.

Pat, provided his personal perspectives on the past and evolutionary changing Power Grid, based on his many years of experience and regulatory interfaces for Con Edison.

Patrick M. Duggan, P. E.

He began by expressing the problem:

“The Problem”

And the DOE vision:

DOE National Electric System Vision and Roadmap Process

Participation is Paramount!

DOE National Electric System Roadmap Meeting

June 8-9, 2003 (Washington, DC)

www.doe.gov/energy/natsystems

Resulting in a National Grid:

Resulting in a National Grid

Plus integrated communications and controls architecture

By effectively sharing resources:

Sharing Assets Effectively

- UCA (Utility Communication Architecture)
- CIM (Common Information Model/GID (Generic Interface Definitions)
- From Data Driven to Model driven
  - EMS, Training, Simulation
  - PRA Model
  - Future Asset Management Models

How it could work...

- Transmission System
  - “Master” Model part of EMS
- Read Only transfer to Transmission PRA model, Contingency model, Training model, Planning model, Asset Management model, etc.
- Other models add attributes to support their own functionalities

Pat has been in various positions of responsibility in Electrical Generation and Controls, Project Management, Electrical Construction, Nuclear Power and most recently Research and Development. Pat's presentation delved into the new technologies that will be needed to plan, design, manage, operate and maintain what will likely be a very different
power grid in the future. How did we get to where we are, The Blackout of 8/14/03? What might be different in the future? Who are some of the major players and decision makers? How can we predict what will happen and design an evolutionary path?

These topics proved very absorbing for a memorized audience.

Pat Duggan has been working for Con Edison in September 1968. He is now with the Research and Development Department as a Project Manager for Substations and Transmission. Pat graduated from Manhattan College in 1986 with BSEE. He is a Professional Engineer in NY and a Senior Member of the IEEE since 1996.

RECRUITING AND RETAINING VOLUNTEERS, PART II: Your section needs volunteers to help with tasks such as planning meetings, creating newsletters and web pages, tracking finances and producing reports, etc. But does your section find recruiting and retaining volunteers to be difficult? You know what the section needs, but what are the needs of a volunteer? According to one expert*, there are 12 basic needs that all volunteers share:

1. A specific manageable task with a beginning and an end.
2. A task that matches the interests and reasons for volunteering.
3. A good reason for doing the task.
4. Written instructions.
5. A reasonable deadline for doing the task.
6. Freedom to complete the task when and where it is most convenient for the volunteer.
7. Everything necessary to complete the task without interruption.
8. Adequate training.
10. Follow-up to see that the task is completed.
11. An opportunity to provide feedback when the task is finished.
12. Appreciation, recognition, and rewards that match the reasons for volunteering.

(* from “Volunteers: How to Get Them, How to Keep Them” by Helen Little; page 19, Panacea Press, Inc. Naperville IL., 1999)

In upcoming issues of The Monitor, these needs will be addressed individually and in more detail.
YOU ARE INVITED TO A MEETING
of the IEEE Medicine and Biology Society on
Tuesday, December 23, 2003

PRESENTING: "ANXIETY and SUGAR
METABOLISM - WHAT'S THE CONNECTION?"

The speaker at our December 23, 2003 meeting will be Professor Joel Levitt. Professor Levitt holds four degrees from Columbia University and has been a member of the faculty of Pratt Institute for over 25 years. He is serving his 11th year as Chairman of this EMBS chapter. He is the Director of the Anxiety & Hypoglycemia Relief Institute in NYC and teaches a health related course for the Brooklyn College IRPE (senior citizen) group. He has lectured at Rockefeller University on sugar metabolism issues: "Domestic Violence and Sugar Metabolism- What's the Connection" (May 25, 1995), "Fighting Anxiety, Depression, and Fatigue, Without Drugs" (Jan. 20, 1994) and "Panic Attacks and Sugar Metabolism- What's the Connection?" (Oct. 17, 1990).

► Learn about, in non-technical terms, the relation between the common type hypoglycemia (low blood sugar) and anxiety (from “free-floating” to “panic”).

Some of the things that will be discussed:
1. Why a person with periodic bouts of low blood sugar must AVOID sugar.
2. Symptoms of hypoglycemia.
3. The Feedback Control System Concept.
4. The Fight or Flight response and the role of adrenaline as related to anxiety.
5. Hypoglycemia vs. Diabetes.
6. Dietary manipulation and supplementation benefits, including high-level vitamin C.
7. Why people who react badly to chromium supplementation may be the ones who need it the most.

This lecture is especially recommended for MD's and RN's as this material is normally not covered in the standard medical school curriculum.

All activities are posted on the IEEE Section Web Site: http://www.ewh.ieee.org/r1/new_york/

Tuesday, December 23, 2003

Refreshments: 7:15 pm                                          Program: Starting at 7:30 pm

Location: Con Edison Executive Dining Room, 19th Floor                           Nearest Subway: Union Square
4 Irving Place, NY 10003

Reservation to :
Prof. J. H. Levitt @ 212 479-7805
or Email at Jlevitt@Pratt.Edu

All Invited!
Lightwave Technologies in Instrumentation & Measurement Conference
Author’s Guide

Dear Author(s) and Conference Attendee(s),

Important Dates
1. Abstract Due Date – April 15, 2004 - 250 word Abstracts must be received by April 15, 2004.

Conditions For Acceptance and Publication
1. No paper will be accepted or published without a pre-paid conference registration
2. Author is expected to deliver their papers and participate in the conference and its sessions and activities.

The Conference Program Committee goal is to help authors produce quality conference manuscripts. The Conference Program Committee has many decades of experience as editors, conference program chairs, reviewers, authors and most important, senior technologists at the corporate headquarters of major international corporations.

The perceived eminence and value of a technical paper and its content are determined by the quality of information and the logic of its presentation. Quality papers and articles are expected to relate new, novel, and/or contemporarily applicable information. Poor and illogical presentation often mask novelty, applicability, inventiveness and results. We offer the following guidelines to help in presenting your work.

Manuscript Length - The long accepted norm for articles and papers published in archival publications is 6 pages. Editors, on occasions and where recognized appropriate, allow this norm to be moderately exceeded. A paper or article is never intended to be a lengthy project or laboratory report. Papers should not include lengthy step-by-step laboratory procedures. Invariably such procedures are found in equipment manuals or other known documents. Such procedures are practices of the work of others and should be referenced. Overly long articles invariably mask significance. A well-received article is well organized and most important, facilitates reader understanding as reading progresses.

References – Project and laboratory reports may be cited when readers have simple and low cost access. Public availability must be completely and properly noticed. If these reports may not be placed in the public domain, they cannot and should not be referenced. Patents and patent applications are legal tender, undergone governmental vetting, in the public domain, and considered for citation. These official documents include much substantial information, particularly as to prior practice, novelty and implementation. Citing many references for any precedence, prior proof or whatever is unnecessarily distracting. A most recent reference, which cites other appropriate references, is the encouraged and accepted practice.

Manuscript Presentation – Presentation of 1) Abstract, 2) Key Words, 3) Introduction, 4) Body and 5) Summary or Conclusion contribute to reader interest. Lengthy and multiple-phrase sentences are often sources of misconception and lose of reader interest.
1. Abstracts should succinctly summarize the paper and equally concisely summarize results and/or conclusions. An abstract should encourage a potential reader to read the complete manuscript.
2. People searching to find papers relative to their interests use Key Words. Key Words require careful thought. Poorly conceived key words are inhibitors. Too many key words are poorly perceived.
3. Introduction is the means for telling readers about the Manuscript content – logic of a manuscript and is, in many respects an extension of the Abstract.
4. A manuscript body should be a logical presentation of accomplishments. The manuscript body should logically lead from the introduction to the summary or conclusion. Each paragraph should usually be limited to one subject, topic, issue or whatever. Long paragraphs that wander into many different subjects and in general cause reader loss of interest and confusion. Each paragraph requires careful consideration when constructing the body.
5. Summary or Conclusion should concisely present results promised in the Abstract and Introduction.
SOUND CANCELLATION TREATMENT OF MONOFREQUENCY TINNITUS

On Tuesday, January 20, 2004, the New York Academy of Medicine's Sections on Biomedical Engineering and Otolaryngology together with the Engineering in Medicine and Biology Society (New York/LI/North Jersey chapter) of the Institute of Electrical and Electronic Engineers will host a program on "Sound Cancellation Treatment of Monofrequency Tinnitus." The speakers will be Drs. Daniel Choy, Sujana Chandrasekhar, Cheuk Tang, and Jack Vernon.

About The Program - Tinnitus (hearing of endogenous sounds) is a poorly understood disorder that affects an estimated 50 million Americans. It is not well understood and has been associated with conditions ranging from cardiovascular valvular lesions to auditory and central nervous system tumors to post-infectious and traumatic events. It can be quite debilitating. VanGogh is thought to have suffered tinnitus and cut off his ear as a consequence. Treatments to date have included lidocane injection, acupuncture, behavior modification, sound habituation, dietary control of insulin, and exogenous “broad-band” white noise masking. All have met with limited success. The program will present a brief overview of tinnitus and current treatment regimens. The principles underlying a new method of treatment for monofrequency tinnitus employing sound cancellation techniques will be discussed, and results from initial clinical tests using sound cancellation will be presented.

About the Speakers - Dr. Daniel Choy received his MD degree from Columbia University College of Physicians and Surgeons, New York, NY in 1949. He completed his residency in Internal Medicine and Oncology in 1954 at Columbia. He is currently an Assistant Professor of Medicine at Columbia University College of Physicians and Surgeons, and is Director of the Laser Spine Center in New York, NY. He is an attending physician at the Lenox Hill Hospital and formerly Director of the Laser Laboratory at St. Luke’s-Roosevelt Medical Center, and a founding member of the American Board of Laser Surgery. He has a diverse background in biomedical research and application of innovative technologies in Medicine and Bioengineering. He is a Fellow of the NY Academy of Medicine and is secretary of the Bioengineering Section.

Dr. Sujana Chandrasekhar received her MD degree from Mount Sinai School of Medicine, New York, NY in 1986. She completed her residency in Otolaryngology and Head and Neck Surgery at New York University Medical Center. She is currently an Associate Professor of Otolaryngology and Director of Otology-Neurotology at Mount Sinai School of Medicine. She is widely published and is a recognized expert on otologic oncology and the otologic effects of HIV.

Dr. Cheuk Ying Tang received his PhD in Radiological Sciences from the University of California at Irvine, Irvine, CA in 1999. He is an Assistant Professor of Radiology and Psychiatry, and Director of Neurovascular Imaging Research at the Mount Sinai School of Medicine. He is actively involved in research and clinical application of functional and high resolution magnetic resonance imaging of the brain.

Dr. Jack Vernon received his PhD in Psychology from the University of Virginia in 1952. He is a former Professor of Psychology at Princeton University, and Professor Emeritus of Otolaryngology and Director of the Hearing Research Center at the Oregon Health Sciences University in Portland, OR. He is on the Board of Directors, and is a founding member of the American Tinnitus Association. He is also a member of the American Academy of Otolaryngology, Head and Neck Surgery. He is a recipient of the Robert W. Hocks Award for Outstanding Research in the Field of Tinnitus. He has written several books and numerous articles on tinnitus, and is the inventor of several wearable tinnitus and hyperacusis masking systems.

Pre-Meeting Reception
A reception prior to the meeting will be held at the New York Academy of Medicine starting at 6:30 PM.

Time: Program 7:30 PM, Tuesday, January 20, 2004. (6:30 PM reception)
Place: New York Academy of Medicine, Fifth Avenue at 103rd Street, New York, NY. (Limited free parking in NYAM enclosed lot at 2 East 103rd Street. By subway, #6 to 96th, walk to 5th Ave., walk to 103rd is easier than via 103rd St. station.)

Further Information: Office of Medical Education, New York Academy of Medicine (212) 822-7272, email: dmorcone@nyam.org; IEEE EMBS: Prof. Joel Levitt (212) 479-7805, email: jlevitt@pratt.edu.
Michael A. Miller receives the IEEE New York Section Distinguished Service Award for 2004

At its November 12 meeting, the New York Section Executive Committee confirmed the recommendation of the Section’s Special Awards Subcommittee to give the Section’s 2004 Distinguished Service Award to Michael A. Miller.

Mr. Miller has also served as Secretary, Treasurer, and Vice Chairman of the New York Chapter of the IEEE Power Engineering Society. He is currently its Awards Chairman.

His award is “For leadership, professionalism, and distinguished and dedicated service to the New York Section of the IEEE and the IEEE Power Engineering Society.”

Recipients of the New York Section Distinguished Service Award:

- 2004 Michael A. Miller
- 2003 Harold Ruchelman
- 2002 Kenneth E. Vought
- 2001 William N. Coyne
- 2000 George Gilmore
- 1999 Jalal Gohari
- 1998 Frank P. Farinella
- 1997 Frank E. Shink
- 1996 Roger K. Sullivan
- 1995 Amos E. Joel
- 1994 Philip M. Paterno
- 1993 William Terry
- 1992 Robert W. Gillette
- 1991 Anthony B. Giordano
- 1990 Jack L. Jatlow


The results of the IEEE's 2003 annual election have been tallied, and U.S. IEEE members have elected Gerard A. Alphonse to serve as IEEE-USA President in 2005. Alphonse, an engineering consultant and retired program manager at Sarnoff Corporation in Princeton, NJ, is an IEEE Fellow and currently serves as IEEE Region 1 Director. An accomplished innovator, Alphonse has co-authored more than 120 technical papers and holds 50 U.S. patents. Throughout his career in industry, he has made significant contributions to cryogenics, holographic storage, acousto-optics, ultrasonic transducers, optical recording, tiled displays, and photonics -- where he invented and led the development of the world's highest performance superluminescent diode, a key component in fiber optic gyroscopes, low coherence imaging and external cavity lasers. Alphonse is equally suited to the world of academia, having served as adjunct faculty in the Electronic Physics Department at LaSalle University's Evening Division for 16 years, four of which he spent as Department Head. During his term as IEEE-USA President-Elect and President, Alphonse hopes to:

- Enhance IEEE-USA's visibility and image among U.S. IEEE members, and its presence among government bodies
- Balance the expansion of the U.S. workforce with the protection of U.S. IEEE members through services, retraining and avoiding obsolescence
- Increase the role of young professionals, women and minorities in engineering and as IEEE leaders
- Continue to promote legislation that creates more U.S. jobs, maintains pension portability and workers' benefits, and gives engineers more rights to their intellectual property

Alphonse will assume the role of president-elect on 1 January 2004, and will work with 2004 President John W. Steadman and current President James V. Leonard. The IEEE's U.S. members also selected Gary E. Johnson to serve as IEEE-USA Member-at-Large, 2004-2005. Johnson, a licensing negotiator for Thomson Licensing S.A. in Austin, Texas, will also take office on 1 January 2004.

Congratulations and good luck to our new officers!

For more information, and complete results of the IEEE annual election, please visit:

http://www.ieee.org/organizations/corporate/candidates.htm

Please note that these election results, as tallied by the IEEE Tellers Committee on 6 Nov. 2003, are unofficial until the IEEE Board of Directors accepts the Report of the IEEE Tellers Committee at its 16 Nov. meeting. In 2003, there were no Constitutional Amendments, and there were two survey questions. A total of 246,731 ballots were mailed; 37,233 valid ballots were returned. The rate of return was 15.09 percent.
THE NEW YORK SECTION’S  
2004 AWARDS DINNER DANCE

The 2004 NY Section Awards Dinner Dance honoring the Section's Awardees will be held on Saturday evening, February 21, 2004.

This year, our dinner dance (black tie optional) will be held in the beautiful Trianon Ballroom, located on the third level (coat check is on the second) of the New York Hilton Hotel and Towers at Rockefeller Center, 1335 Avenue of the Americas (between 53rd and 54th Streets).

Festivities will begin at 6:30 P.M. with crudite and cocktails in the Petit Trianon. Here we will have a chance to relax, get acquainted and reacquainted.

You will have the opportunity to pamper your palate with a choice of either a succulent filet mignon or a delicious fresh salmon steak. Each gourmet entree will be accompanied by an appetizer, salad and dessert. There will be a brief awards ceremony after dinner and dancing to the sounds of the New Horizon Orchestra.

For those wishing to spend the night, hotel reservations can be made on-line at any web service provider or directly at 212-586-7000.

Reservations for the affair may be made by completing the coupon below and forwarding it to William Perlman at the address indicated before February 1, 2004. Corporate Sponsors: Table of 10 at $ 1,700.00

* A special non-transferable rate of $90 for each ticket is available to IEEE members. Note that this rate is for the attending IEEE member and a guest only.

Organizations wishing to be Industry Sponsors or non-IEEE members may obtain additional information and cost by contacting:
Ralph Tapino (718) 761-5104
William Perlman (908) 810-8555

RESERVATION FORM

| Send to: William Perlman |
| 267 Richmond Avenue    |
| South Orange, NJ 07079  |

Please indicate meal selections:
Filet Mignon ______
Salmon Steak ______

Name: _____________________________________________
Company: _____________________________________________
Address: _____________________________________________
City: _______________ State: ______
Zip Code: ____________ Telephone: ______________________

IEEE Member # ___________ * No. Of Tickets @ $90.00 1 or 2  Sponsor’s Table @ $ 1,700.00_____
Non – IEEE Member No. Of Tickets @ $170.00 ______
Amount Enclosed $______________

MAKE CHECK PAYABLE TO: IEEE, NY Section