May 2004
(VOL 52, NO. 5)

The IEEE MONITOR

PUBLISHED BY THE NEW YORK SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

The next issue of *The IEEE Monitor* will be September 2004. Check our website for activities.

Visit our web page at:
http://www.ewh.ieee.org/r1/new_york/

PERIODICAL
TIME SENSITIVE MATERIAL

Chairman's Column

you@IEEE.org

The IEEE offers many services to its members. One of the most popular is the Email Alias. It helps you stay connected and keeps your computer communication safe — and it's free.

This exclusive member benefit identifies you as an IEEE member with an @ieee.org email address while forwarding all incoming mail to your real Internet account. All incoming attachments are automatically scanned for viruses with the latest antivirus software.

The IEEE Personal Email Alias also offers a new optional anti-spam feature – the Unsolicited Commercial Email (UCE) filter. Choose your own level of filtering sensitivity to have UCE tagged for your review or completely blocked from delivery.

The IEEE Email Alias is easy to sign up for, easy to update, and easy to cancel. No matter where you move or how many times you change careers, your email address will stay the same. To sign up – go to https://eleccomm.ieee.org/aliases/register.shtml.

New Chapters

If you are in the New York Section and belong to a Society which does not have a local Chapter, contact me to form a new Chapter. A Chapter organizer needs to obtain a Society Chapter petition and solicit the signature of 12 or more Society members (excluding students and affiliates). The Section and Society must also approve the petition.

Following the petition approval, a Chapter Chair (and other officers) is elected or appointed by the Section Chair. The requirements to maintain 'active' status are to have a minimum of 10 members and to hold a minimum of 2 technical sessions per year.

The Section supports the Chapters' activities. Some of the resources provided include financial assistance and publicity support such as articles on the Section website and Monitor newsletter. Chapter Chairs are invited to participate on the Section Executive Committee which meets once a month.

Regional and Society assistance is also available to the Chapters.

When you become active in local Chapter activities you help yourself and the IEEE to advance the goals of our professional careers!

Sincerely,

Benjamin Schall

The IEEE
MONITOR

Vol. 52 No. 5 May, 2004

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RECRUITING AND RETAINING VOLUNTEERS, PART VII

What volunteers need: "a reasonable deadline for completing the task*." It is important to set a specific due date, or end date, when assigning a job to a volunteer. This allows the individual to prioritize volunteer work with family and job commitments. It also lets them know that the job will eventually end.

The deadline should be confirmed in writing at the time you confirm the volunteer's commitment (email confirmation is fine). Follow up with the volunteer on progress and let them know they should contact you as soon as possible if they cannot complete the task.

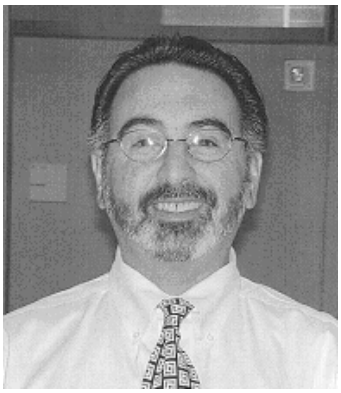
Section "tried and true solution": the IEEE Broward (Florida) Section officers noticed that many people do not want to volunteer for anything that involves a lengthy time commitment (6 months ? 1 year). So the officers decided to try a different approach and have had success in asking people to volunteer to take on short-term duties, for example, planning just one meeting. This allows the Section officers to take care of only administrative tasks and helps avoid burnout for long time volunteers.

(*from "Volunteers: How to Get Them, How to Keep Them" by Helen Little; page 44, Panacea Press, Inc. Naperville IL., 1999)

Editorial –

With the current issue going to press, this will mark the midpoint in this years publications. This time has been very special for me; I have gotten to know so many new friends, staff, and dedicated and generous volunteers, the talented and wonderful people who make up the IEEE, a multitude of behind-the-scenes production and engineers, and a world of community members, supporters, and audience members who care about the Monitor & the IEEE. Why do all these people care? I believe it is because they have experienced at the IEEE the ultimate power of an organization to involve, to move, to make us share, network, recognize ourselves and those we love, and, at the end of the day, to make us better people, to help us learn and grow. The experience of working in an organization, joining with others in creating, is incomparable and uniquely valuable. As a society, our strength increases when we come together, where we share what knowledge we have, when we can better understand those around us. This is the gift of working and helping others to maximize their potential.

Those of us who deal with business depend on people like you to realize that society, as a rule, needs help in understanding the role played by engineers. We need an ever-widening network, who will spread our message.



Stanley Karoly our newly elected treasurer assumed this position after serving as Vice Chairman in 2003. He's held jobs ranging from engineer, designer, lead engineer, business developer, project manager, to chief electrical engineer. By the time Stanley stepped into the role of treasurer he was already a seasoned member of the executive committee. His work has earned him a perennial spot as a top performer, especially for his role in assuming a task made more difficult by of the absence of our previous treasurer, Bob Noberini. His accurate record keeping and prompt payments receive a top rating throughout the organization. Stanley threw all of his considerable resources into the section and since has become known as an individual as big and bold as his majestic larger-than-life image. Stan was born in New York, is married, and has two children. He graduated from Pratt Institute, Brooklyn, New York, with a BEE and earned an MS in Management from Polytechnic Institute of New York. He is a registered Professional Engineer and a member of the Institute of Electrical and Electronics Engineers. At present he works for the New York City Transit Authority as their Chief Electrical Engineer a position he has held since 1996. There are 250 personnel in his division. He is the senior technical authority for electrical engineering which includes Electrical (non-traction power), Power (sub-stations, d-c, traction, etc.) and Instrumentation & Control. Stan is accountable for the quality of work and staffing for scope development, engineering design, construction support and field inspection for the multi-billion dollar Capital Program. Mr. Karoly oversees the development of electrical standards and guidelines for design, inspection and testing for all phases of engineering and construction. He directs the administration and assignment of personnel for design and construction including hiring, promotion, training, career development and counseling. Stan provides electrical engineering support to the Operating Departments and has approval authority for design and construction inspection budgets. He is responsible for payroll and the capital and operating budgets for the electrical engineering staff.

His previous assignment was that of division engineer in the electrical engineering and design group with approximately 70 personnel. He directed the electrical and instrumentation & control engineering design supporting the multi-billion dollar Five Year Capital Programs and Outside Projects Program. Stan orchestrated the development of engineering standards, guidelines and design criteria. He coordinated capital program implementation and construction design planning with senior management and establish budgets and manpower allocations.

During this time he successfully integrated I&C Engineering into Electrical Engineering. Mr. Karoly actively participated in establishing a Project Engineering Management organization move into the design area, within a matrix organizational framework and a fully developed Construction Support group. He developed corporate standards and design criteria for Tunnel Lighting, Electrical Distribution and Fan Plant Electrical Services. Project expenditures were reduced and accelerated project completions accomplished through implementation of design standards and division reorganization; eliminating duplicity of efforts. His ability to achieve energy conservation in electrical design was done through participation with NYPA. He is a member of NYCTA/NYPA energy conservation and tunnel lighting task forces.

Stan was also the "Mentor" for the Empowered Design Team initiative formulated by the DVP-DDES. He is responsible for coordinating empowerment training with ED&T, providing guidance and direction to the empowered teams for team function, purpose, intent, operation and problem resolution. We are truly fortunate to have his services as our treasurer.

Professional Activities Information Page

This page dedicated to member professional activities information

New York Section PACE Calendar of Upcoming Events: The following are proposed Section activities. Dates and locations will be announced in future issues when they become available. Please plan to attend a meeting or seminar.

May 12: General Meeting
June 9: General Meeting
Oct TBD: Financial Seminar

If you have suggestions on areas of professional activities that interest you please contact me.

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

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

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! IEEE-USA in cooperation with Resume-Link has established a members-only Resume Referral Service which IEEE members may register, FREE of charge via web registration or by hard copy. Your resume will stay on file for six months (with an option to renew the listing up to a year). Make sure you check out this great new service to promote your credentials! For hard copy registration forms, contact Resume-Link at 614-923-0600 or **<socmember@resume-link.com>.**

EMPLOYMENT AND CAREER ENHANCEMENT PUBLICATIONS

The Engineers Guide to Lifelong Employability
This is a practical complete resource book on locating and obtaining good jobs throughout your career. Features over 200 pages of in-depth text that will allow you to master the engineering job search.
IEEE Members: $19.95

Engineering Careers into the 21st Century
Offers strategies and insights for engineers working in today's dynamic professional environment **IEEE Members: $20.00**

Calendar of Upcoming Events

May 11, 2004 (Tuesday**)** IEEE New York Section Computer Society presents: The Communication Based Train Control Project beginning at 5:30 PM in the Con Edison 19th floor, Executive Dining Room, 4 Irving Place, NYC. The speaker will be Dr. Nabil Ghaly, PhD, PE, and IEEE Senior Member. RSVP to Mr. Wilson Milian at (212) 883-7448 or Wmilian@IEEE.Org.

May 12, 2004 (Wednesday) IEEE New York Section – Tappen Zee Subsection meeting will be held at 6:30 p.m. at Polytechnic University Westchester Campus, Room 23, 40 Saw Mill River Road, Hawthorne, NY 10532 (914-323-2000). Our speaker is Carl Giordano, Special Counsel at the law firm of Duane Morris LLP. His presentation will be: "The Patent Process – Law in the Electrical and Mechanical Arts".

May 20, 2004 (Thursday) PES / IAS Technical Discussion Group and the Edison Engineering Society – Present: General Electric discussing Transient Voltage Surge Suppression in the Con Edison Room 1425, 4 Irving Place, 14th Floor, New York, NY For information or Reservation call : Sukumar Alampur Sukumar@JRLA.comn or (646) 674-6351 / Jim Nucito J.R.Nucito@IEEE.org or (732) 380-1100 Ext. 4149

May 26, 2004 (Wednesday**)** IEEE New York Section Computer Society presents: Ethnography and Computer System Design beginning at 5:30 PM in the Con Edison 19th floor, Executive Dining Room, 4 Irving Place, NYC. The speaker will be Dr. Susan L. Anderson and Dr. William L. Anderson, PhDs, and cofounders of PRAXIS101. RSVP to Mr. Wilson Milian at (212) 883-7448 or Wmilian@IEEE.Org.

October 10-13, 2004 (Sunday – Wednesday) IEEE PES Power Systems Conference & Exposition at the Grand Hyatt Hotel, New York, NY ➔ See Page 16, back cover for details.

October 19 & 20, 2004 (Tuesday & Wednesday) IEEE Lightwave Technologies in Instrumentation & Measurement Conference, IBM Palisades Executive Conference Center.

IEEE Lightwave Technologies in Instrumentation & Measurement Conference
October 19 & 20, 2004
Sponsored By
IEEE Metropolitan Sections Activities Council, IEEE Region 1, IEEE Lasers & Electro-Optics Society, IEEE Instrumentation & Measurement Society AND
Optical Society of America

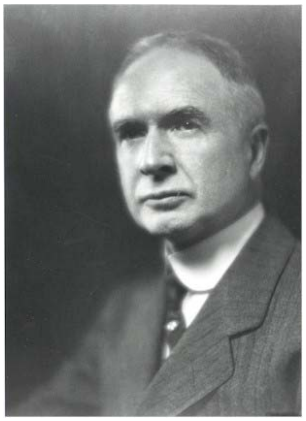
At
The IBM Palisades Executive Conference Center in Palisades, NY (near New York City)

An application-oriented Lightwave Technologies Conference devoted to applying and developing instrumentation and applications for improving quality and productivity. Lightwave technologies implemented with hardware or in conjunction with software are increasingly becoming the primary, sole and/or economic means for monitoring, understanding and controlling industrial, biomedical, and natural events and processes. The conference field of interest and related topics include: instrumentation employed in research and development, applications, related software and concepts.

Recently, the IEEE Regional Activities Department contacted me and advised that they had uncovered an original copy of the minutes of the meeting where the New York Section was founded that had been buried deep in warehouse files. These minutes were sent to me and, before donating them to the IEEE History Center for safekeeping, I thought it would be of interest to the New York Section to share the actual words, as recorded, of the 1919 AIEE President who presided at the opening of that meeting ..MIO

American Institute of Electrical Engineers

New York Section
Minutes of Meeting for Organization
New York, December 10, 1919



Calvert Townley, AIEE President presiding

"This is a meeting called for the purpose of taking action upon the question whether the members of the American Institute of Electrical Engineers in this neighborhood wish to organize a Section.

It is not a meeting of the Institute, and I have only taken the liberty of calling you together, and after I have made a statement as to the purpose of this meeting, I will ask you to appoint a Chairman to preside over your deliberations.

As you probably know, the question of organizing a New York Section has been discussed for a great many years, but no action was ever taken, principally I think because New York is the home of the Institute, and our headquarters are here, and a great many members thought it was no place for a Section, as the New York members had all the advantages of the Institute meetings which it has been the custom to hold in this city without being under the extra burden of handling the work of a Section, and the Institute meetings were probably better than the Section meetings might be, etc.

Now, that situation has been gradually changing for some time past, until at the present time the schedule of Institute meetings calls for holding quite a number of them elsewhere than in New York City. As you know, from seeing the announcements in our Proceedings, one meeting this year has already been held in Philadelphia, another is scheduled for Chicago, one for Pittsburgh, and one for Boston, so that New York members, instead of having their proper number of meetings, are being deprived of them. The New York members have not a monthly meeting any more, and it looks as though with such a large and scattered membership all over the United States that unless the New York members do so organize, they will have fewer and fewer opportunities of getting together.

We have more members in the New York district than in any other district. We have more members in number, and more who have taken a prominent part in Institute affairs, and if there is any one Section of the country entitled to the New York Section.

The By-Laws of the Institute provide that a section is not confined to the city in which it is organized. Those of you who have looked at the revision of the By-Laws will remember there is considerable flexibility—in general, the distance from the meeting place is limited to sixty miles, with the additional provision that no two sections shall overlap. The only section that we might interfere with, would be Philadelphia, if we went beyond our 60 miles, but I do not expect any trouble in that direction, so that every member present who is not in the territory of some other section, and who lives within 60 miles or less from our present place of meeting, is eligible to vote on this question. If there are any here from more remote points, they are welcome to be present, but I will ask them to refrain from any participation in voting which may come up with respect to the New York Section.

When you call a meeting of this kind together, there are always two questions which come up: shall you do anything to get ready for it and be

accused possibly of framing up something on your friends, or shall you just call the men together and let nature take its course.

I thought it was desirable to ascertain as well as I could the sentiment of the New York members with respect to this matter of a New York section, so at my request 25 members, more or less at random, all of whom had taken part in Institute affairs, and all who lived in this vicinity, and I asked these gentlemen to meet me at luncheon so that we could informally talk over the question of the organization of the New York Section and see what they thought about it.

There were 17 who came, and everyone of those 17 were unanimous that so far as they knew, the membership at large, residents hereabouts, would favor the creation of a section. Then the question arose as to what we ought to do about it, and I thought it would be wise and courteous to the members of this district in calling them together, to pave the way so if they should decide to proceed with the section, we would not have to waste time. Therefore, I took the liberty of suggesting to some of those present, that the the necessary formalities to be gone through with, that is, that a petition with the requisite number of names signed to it, should be presented to the Board of Directors, asking for the authorization of a New York section.

That was done, and at its last meeting the Board authorized the creation of a New York section, and so now the matter is in your hands. If you do not decide to create a section no harm will be done, and if you should decide to create a section, you have the authority from the Board to do so and can proceed to organize at once.

I might say one other thing, and that is, it is my firm conviction and the firm conviction of others to whom I have spoken, that the officers of the Institute, the President, the vice president, managers, etc., should not be officers of this Section, and should not participate officially in its organization. It is strictly and solely a section of the New York district men. With that explanation, will someone nominate a chairman?"

And, as they say, "the rest is history"……

By Mel Olken - Historian

Broadcast Technology Society NY Chapter
May 4 2004
6:00 PM - 8:00 PM
47 West 66th ST.
New York, NY 10023

Satellite Usage in Broadcasting

Michael Chiarulii speaking

RSVP is required as there is limited seating.

RSVP to:
warner.w.johnston@abc.com

Good evening everybody:
On Saturday Sherry and I drove into the city to visit Bob. I'm sure most of you know that Bob is now in room 925 at the Neurology Section of the Hospital for Joint Diseases @ 301 E17th Street, NYC, NY 10003 (212-598-6000; on the northeast corner at the intersection of 2nd avenue & 17th Street).
Bob is currently getting voice therapy and physical therapy 2 hours every morning and Occupation Therapy in the afternoon. It's a busy schedule 5 days a week, with a lighter schedule on Saturday and Sunday until the end of April.
We got there a little after 5 PM and he was resting in a chair, wearing leisure clothes. He recognized us immediately and was glad to see us. He was tired and tried to talk and if you listen close you can understand him. (We were told that he was speaking in sentences earlier in the day.) We also met one of the nurses who take care of him (a very nice man named Travis who drives a motorcycle) and he said "the program is very intensive, they've had a lot of success with patients and they're going to do their best to get him up and about."
I held his right hand as we talked and we reminisced about *ye olde days.* (It's hard to believe that some of us go back to 1968+/-.) When I mentioned an "interesting point in our lives", his eyes lit up and he squeezed my hand. (I made a specific point to mention those of you who live far away and cannot get here.) If you guys decide to visit, remember the above schedule and please try to see him; this type of therapy "works wonders". Let's keep him in our thoughts and prayers because there has been an improvement since we last saw him.
Fred and Sherry Breier

COMPUTER SOCIETY

YOU ARE INVITED TO A MEETING

of the IEEE - Computer Society, New York Section.

Tuesday, May 11, 2004

PRESENTING:

The Communication Based Train Control Project:

A System Engineering Overview.

The speaker will be Dr. Nabil Ghaly, PhD, PE, and IEEE Senior Member. Dr. Ghaly is a recognized leader in the field of railroad signal and systems engineering and is currently working on several new technology implementation projects for New York City Transit (NYCT).

As Program Manager of the Signals and Systems Department at NYCT, Dr. Ghaly is leading the effort to develop and implement a new Communications Based Train Control (CBTC) system for the Canarsie subway line.

CBTC is a complex system involving the development of new hardware and software components which would provide greater safety and service for millions of subway riders in New York City by providing constant speed monitoring and control as well safe and efficient spacing between trains allowing more trains to run on the line thereby increasing service to riders.

Dr. Ghaly has in the past chaired the IEEE Rail Transit Vehicle Interface Standards Working Group working on interoperability of wayside and carborne systems and had been awarded the "Engineer of the Year" award by the NY Chapter of the IEEE Vehicular Technology Society in 2001.

Tuesday, May 11, 2004

Refreshments: 5:30 pm

Program: Starting at 6:00 pm

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

Nearest Subway: Union Square

RSVP by 5/10/04 to:
Mr. Wilson Milian, at wmilian@ieee.org
Due to heightened security no walk-ins allowed

Please Post

Please Post

All Invited !

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

COMPUTER SOCIETY

YOU ARE INVITED TO A MEETING

of the IEEE - Computer Society, New York Section.

Wednesday, May 26, 2004

PRESENTING:

Ethnography and Computer System Design:

Looking at Users and Use.

Ethnography is the output of anthropological study; literally it means "writing people" or "writing culture" and it is usually a detailed description of a particular people, organization or type of work. What, you might ask, does this have to do with computer system design?

For the past 30 years, methods from traditional anthropology have been used to study people and their work and apply what is learned to designing computer systems. This presentation describes these methods and their application to system design and development. Our contention is that observing technology in use is an important capability that software system architects, designers, and developers can use to insure successful design, development and deployment.

The speakers will be Dr. Susan L. Anderson and Dr. William L. Anderson, PhDs, co-founders of PRAXIS101 Consulting. Their consulting practice focuses on user-centered systems architecture, participatory design, software development practice innovation, and organizational learning.

Wednesday, May 26, 2004

Refreshments: 5:30 pm

Program: Starting at 6:00 pm

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

Nearest Subway: Union Square

Please Post

RSVP by 5/25/04 to: Mr. Wilson Milian,
at (212) 883-7448 or wmilian@ieee.org
Due to heightened security no walk-ins allowed

Please Post

All Invited !

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

IEEE TAPPAN ZEE SUBSECTION MEETING ANNOUNCEMENT

The next meeting of the Tappan Zee Subsection is scheduled for:
May 12, 2004 at 6:30 p.m.
The meeting will be held at:
the Westchester Graduate Center of Polytechnic University
located at: **40 Saw Mill River Road, Hawthorne, NY 10532.**
Our guest speaker will be*: Carl Giordano, *Special Counsel at the law firm of Duane Morris LLP, where he focuses his practice on patent law in the electrical and mechanical arts. An abstract of his talk is detailed below.

ABSTRACT

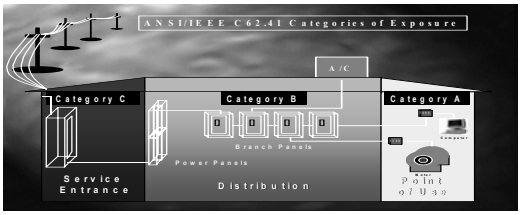
"[The Patent laws began] in this country with the adoption of our constitution. ... The patent system ... secured to the inventor, for a limited time, the exclusive use of his invention and thereby added the fuel of interest to the fire of genius." Abraham Lincoln.

Bell, Edison, Tesla, Marconi, Armstrong, Farnsworth, and Gould each protected their interest by securing patents on inventions that essentially created major industries of the 20th century. These inventors engaged their engineering talents, persistently, to bring their inventions, from the telephone to the Laser, to realization and obtain a just financial reward. But as these inventions entered the market, each inventor soon became embroiled in litigations to enforce the rights afforded by their patents against perceived imitators. Litigations that were both costly and time-consuming and studded with pitfalls and unexpected conclusions.

This presentation discusses the patent process and the inventors that, through their patents, essentially created the electrical and electronic field and the litigations that each had to endure to secure recognition of their achievement.

Carl Giordano currently is Special Counsel at the law firm of Duane Morris LLP where he focuses his practice on patent law in the electrical and mechanical arts. He is registered to practice before the U.S. Patent and Trademark Office and admitted to practice in New York, New Jersey and Connecticut. Prior to practicing law, he worked over 25 years as an engineer in the development of systems used in Radar detection and in optical and wireless communications. He is a graduate of Pace University School of Law and holds Bachelor and Master of Engineering (Electrical) degrees from The City College of New York.

POWER ENGINEERING SOCIETY AND INDUSTRIAL APPLICATIONS SOCIETY NEW YORK & LONG ISLAND CHAPTER YOU ARE INVITED TO A JOINT MEETING of the IEEE and Edison Engineering Society



PRESENTING: *T*ransient *V*oltage *S*urge *S*uppression

The May meeting guest speakers will be from the General Electric. ***Sam Frushour,*** TVSS Northeast / Midwest Area Manager, and ***Jerry Fink***, District Power Systems Engineer will discuss surge suppression design, theory and application. Their combined experience in Power Systems spans over fifty years. Commercial and industrial application at 'Service Entrance', 'Distribution' and 'Point of Use' locations will be reviewed.

The presentation will cover :

Sam Frushour

- **The Ratings Game – Clearing up the Smoke & Mirrors**
- **TVSS layout and application in ANSI/IEEE C, B & A locations**
- **The Importance of a fully rated - NEMA LS1 3rd Party Tested Device**
- **Latest Industry Standards UL, NEC, NEMA, ANSI/IEEE**
- **Proposed UL changes – Responding to Limited Fault Currents**
- **Typical TVSS Construction, Singular vs. Modular Construction**
- **Minimum Repetitive Surge Current Testing**
- **How to write a performance based TVSS specification**
- **Magnitudes of surges expected at the service entrance and distribution**
- **GE Tranquil Series High Exposure (HE), Medium Exposure (ME) and Low Exposure**

May 20, 2004

Refreshments: 5:15 pm **Program: Starting at 5:45 pm**

Location: Con Edison Room 1425, 14th Floor
4 Irving Place, NY 10003

Nearest Subway: Union Square

Reservation to : Sukumar Alampur Sukumar@JRLA.com or (646) 674-6135 / James R. Nucito J.R.Nuctio@IEEE.Org or (732) 380-1100

Please Post **Please Post**

All Invited !

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

The 2nd Avenue Subway – Is On Again

The PES / IAS Meeting of March 30th, 2004 was a meaningful and informative session. Our speaker was Geoffrey A. Fosbrook, PE., VP DMJM+HARRIS, Inc., Project Manager for Preliminary Design. It will entail unbelievable changes for all the residents of New York City.

Early Plans

New York Transit Museum Archives, Brooklyn

Since the early 1940s, the number of people traveling in and through the East Side of Manhattan has steadily grown, severely straining the capacity of the area's streets, highways, buses, and subway lines. With the conversion of neighborhoods from industrial to corporate, commercial and high-rise residential buildings have dramatically increased the population density of the East Side.

To make way for development, two subway lines were removed. The Second Avenue "El" was taken down in 1942, followed by the Third Avenue "El" in 1956. This left the Lexington Avenue Line (4 5 6) to accommodate the growing East Side population. No new transit facilities were provided to serve the new residential and office buildings that sprung up.

Proposals to build a north-south subway line along Second Avenue date back to 1929, preceding the demolition of the elevated trains. Several detailed plans were proposed in the following decades. The plan developed in the 1960s proposed a two-track subway line from the Bronx to Lower Manhattan. This plan culminated in the actual construction of several tunnel segments. However, construction was suspended in the 1970s due to the city's financial crisis.

Planning and design for the long-awaited Second Avenue Subway is underway. As the result of a campaign led by Manhattan Borough President C. Virginia Fields and others, the Metropolitan Transportation Authority (MTA) has funding for planning, engineering and initial construction. Although it will still be a battle to obtain full funding for the project, the MTA is proceeding with project planning and hopes to begin construction in 2004.

A $ 160 Billion project. Presently $ 1.5 billion has already been funded. The project is to be built in sections. The first section, 96th Street to 63rd Street is estimated to cost $ 4 Billion. Construction is expected to begin in December 2004. The construction initially consists of three new stations with a completion date of Phase 1 of 2011.

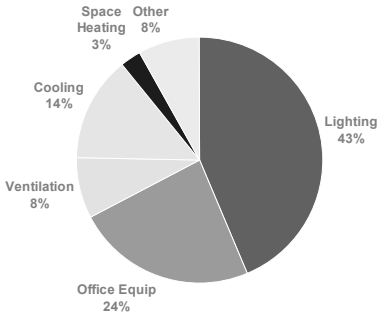
Programmable Lighting Control Solutions

The March 18th, meeting featured John Berry, Business Development Specialist for Square D Company. John has been with Square D for 2 ½ years, the parent of which is Schneider Electric. John works in the area of power management, specializing in PowerLink intelligent lighting control panels. With territorial responsibility from New York to Virginia, he interfaces with consultants, contractors, and end-users from a wide variety of industries to help them with their lighting control interests. He is a graduate of Drexel University.

John Berry

Why focus on lighting control

Typical energy profile: Office Building



Source: Energy Information Administration, 1995 Commercial Energy Buildings Energy Consumption Survey

Operational savings from the installation of an intelligent lighting control system frequently exceeds 15% of the total electrical bill.

The presentation covered:

- **Changes in building codes driving energy awareness.**
- **Alternative methods of controlling loads**
- **Integration into building automation systems**
- **Networking and software solutions**
- **Programming options with various sensors and controls**

Demand control

An intelligent lighting control can assure non-critical loads are shed during peak-power conditions when utility rates are at their highest.

- Respond to pre-set energy demand limits.
- Coordinate with on-site generation to assure proper loading for equipment.
- Schedule critical periods based on occupancy requirements.
- Sequence restoration of loads at the end of a demand period.

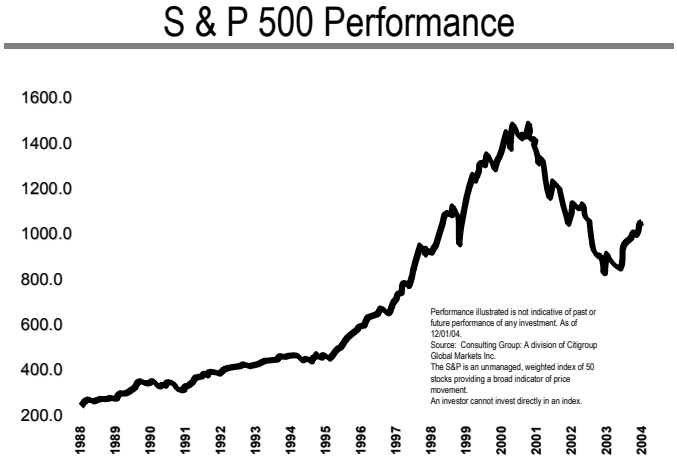
Demand control is just one of the control parameters used for energy savings; Square D tries to match the energy (lighting) profile with the occupancy via scheduling, switching, and sensing.

"The Market Outlook for 2004"

The March 24th, meeting of the IEEE / PACE committee chaired by Peter Greco featured Jeremy A. O'Brien of Smith Barney / Citigroup, Financial Consultant discussing the market and giving financial insights for strategic investing. Jeremy and his associated Steve Calabua covered a wide range of topics from market fluctuations to estate planning.

Jeremy A. O'Brien began the session with an introduction to retirement savings with a view of the current 2003 tax act and what you should be thinking regarding your savings and ways in which to lower your tax burden and increase capital. Since ordinary income tax rates are lower now and will be at least until 2011, unless Congress makes substantial changes, when they will revert to pre-2001 rates you have a unique opportunity establish and or maximize a long term investment program. Being that interest rates are at an all time low, there are other vehicles for savings you might consider. For example it might be a good time to consider refinancing a mortgage if you have not done so already. Assisting Jeremy was his associate Steve Calabua. Steve presented alternate ways to examine the rate of saving and the effect of compound interest. Together they spoke about estate planning for married couples and who inherits what, the best way to insure that your children will get the maximum, avoiding estate taxes and increasing tax exemptions while not forfeiting control. Many at the seminar were interested in "hot" tips, and while the team from SmithBarney / Citigroup, did not point at individual issues they did sight groups that were possible market leaders. The uncertainty of the times makes it almost impossible to target unique performers. This year the market trend has been positive and they clearly indicated that our economy is on a strong footing.

In the last three years of the 90s, stocks averaged 27 percent annual gains. Most analysts now believe that average was artificially high--more than double the 11% compound annual growth rate since 1925.



After the market reached it's all-time high in March 2000, it continued to fall for about three years. Since March of 2003, the market has regained some of it value but still has not reached peak levels. Finally for those who are not experts, they suggested a financial planner to help with the decisions.

2004 IEEE PES Power Systems Conference & Exposition

October 10 - 13, 2004
New York, NY, USA

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New Solutions for New Challenges

2004 IEEE PES Power Systems Conference & Exposition: This inaugural power systems event will provide an exceptional venue for discussing issues and developments in the multifaceted field of electrical power systems. It will bring together an international group of practicing power systems engineers, operators, planners, policy makers, economists, academics and others with interest in the profession. The meeting will begin with a timely and valuable plenary session entitled "Balancing the Needs of the Competitive Markets with Confidentiality and System Security," and will also address the lessons learned from the August 14, 2003 blackout in North America. The conference will comprise an outstanding combination of technical sessions, panel sessions and tutorials focusing on the following tracks:

- *Track 1: Planning and Operation*
- *Track 2: Markets, Policies, and Economics*
- *Track 3: Dynamic Performance of Power Systems*
- *Track 4: Real-Time Applications*
- *Educational Track: Understanding Power Systems*

The Exposition - A Highlight of the Event

The exposition will showcase state-of-the-art software and hardware systems as well as consulting services for those involved in the power systems area. There will be times devoted exclusively to the exhibits--with no parallel technical sessions scheduled--so attendees can focus on the displays and have a chance to speak directly with vendors on the latest technologies, systems, software, hardware, and services as well as give exhibitors the opportunity to interact with many potential customers.

For more information on your company's opportunities to exhibit at PSCE 2004, access the meeting website through the PES homepage at www.ieee.org/power

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