

A ONE-DAY IEEE SEMINAR ON
**GETTING THE MOST OUT OF YOUR
ELECTRIC POWER SYSTEM**

**How to Obtain Higher Productivity, Lower Costs,
and Better Profitability from Your Existing System**

Presented by the IAS and PES Chapters, North Jersey Section

Thursday, October 17, 1996, 8:30 AM to 3:30 PM

GPU Energy

300 Madison Ave., Morristown, NJ 07962

Topics

- **Introduction**
 - Seminar overview
 - Basic concepts
 - Costs of power problems
 - Factors that affect system productivity
 - Reliability, availability, maintainability
 - Preventive maintenance
 - Life extension
- **System productivity evaluation**
 - Single-line diagram
 - Walkdown inspection
 - Capacity and expandability evaluation
 - Power quality assessment
 - Energy efficiency evaluation
 - Reliability and availability assessment
 - Techniques and tools
 - FMEA and other hazards analyses
 - Reliability block diagrams
 - Fault trees
 - Computer tools
 - Reliability and availability data
 - Collecting and analyzing plant data
 - Generic data
- **System productivity improvement**
 - Identifying and upgrading critical items
 - Productivity-centered maintenance
 - The PCM concept
 - Benefits of PCM
 - Database development
 - Procedures review
 - "Smart" databases and AI resources
 - Maintenance tracking and closeout
 - Inspection and testing
 - Trending maintenance and test results
 - Managing a living PCM program
 - Improving energy efficiency
 - Improving power quality
 - System life extension
- **Justifying investments in power system hardware or maintenance upgrades**
 - Life-cycle costing
 - Investment analysis concepts
 - Probabilistic cost-benefit analysis
- **Final overview and discussion**

Seminar Leaders

Richard H. McFadden, P.E., Fellow, IEEE. Chief Electrical Engineer, Advanced Technology Division, Science Applications International Corp.

Kenneth J. Oexle, P.E., Senior Member, IEEE. Director of T&D Engineering, Jersey Central Power and Light Company

R. Vittal Rebbapragada, P.E., Senior Member, IEEE. Senior Consulting Engineer - Electrical Power Systems, Raytheon Engineers and Constructors

Cost - including materials, morning refreshments, and luncheon:

IEEE members	\$100.00
Non-members	\$150.00
Students with valid ID	\$50.00

Reserve your place by mailing a check payable to "IEEE Jersey Section" to R.H. McFadden, SAIC, 7 West 36th St., New York, NY 10018. **\$25.00 DISCOUNT ON FULL (NON-STUDENT) REGISTRATIONS RECEIVED BY OCT. 1!**

For information or late registration, call Vittal Rebbapragada, (201) 460-6327; Ken Oexle, (201) 455-8481, or Dick McFadden, (212) 239-8510



The IEEE

Newsletter

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

NJ Communications Soc.:

Wireless Communications: Past, Present, And Future

On October 3, 1996, the IEEE Communications Society NJ Chapter together with NJIT's Center for Communications and Signal Processing will present a talk on "Wireless Communications: Where It's Been And Where It's Going," as part of the IEEE Distinguished Lecture Series 1996-1997. The IEEE distinguished speaker will be Professor Theodore S. Rappaport.

About The Talk

This talk provides a glimpse into the past, present, and future of wireless communications. Beginning with the basic concepts of cellular radio and Personal Communications Systems (PCS), this talk explores some of the technical challenges now facing the wireless industry, and the promising solutions of the future that will enable over half of the world's information to travel via wireless by the year 2010. Specific emphasis is placed on the growth of the industry, the challenges involved with deploying PCS in the US, the emergence of wireless local loop and indoor wireless systems, and the impact that the global positioning system (GPS) and digital signal processing (DSP) architectures will play in offering revolutionary services and systems.

About The Speaker

Theodore S. Rappaport received his BSEE, MSEE and Ph.D degrees from Pur-

due University in 1982, 1984, and 1987, respectively. Since 1988, he has been on the faculty of Virginia Tech, where he is a professor of electrical engineering and the director of the Mobile & Portable Radio Research Group (MPRG), which he founded in 1990. In 1990, he also founded TSR Technologies, Inc., a cellular radio/ PCS manufacturing company that was purchased by Grayson Electronics (a subsidiary of Allen Telecom) in 1993. He was awarded the Marconi Young Scientist Award in 1990 and the NSF Presidential Faculty Fellowship in 1992. He has authored and edited technical papers and books in the field of wireless communications, including the textbook "Wireless Communications: Principles and Practice" (Prentice-Hall). He serves on the editorial boards of the *Journal on Selected Areas in Communications*, *IEEE Personal Communications Magazine* and the *International Journal on Wireless Information Networks* (Plenum Press: NY). Dr. Rappaport is a registered P.E. in the state of Virginia and is a Fellow and member of the board of directors of the Radio Club of America.

Time: Refreshments at 3:45 PM, talk begins at 4:00 PM, Thursday, October 3, 1996.

Place: NJIT, 202 ECE Center, Newark, NJ.

Information: Nirwan Ansari (201) 596-3670 or Zoran Siveski (201) 596-5710. Please check <http://hertz.njit.edu/~ieeenj> for latest update.

NJ Section PACE: Roadblocks To Financial Independence

At the October 10, 1996 meeting of the NJ Section's Professional Activities Committee for Engineers, the topic will be "Roadblocks To Financial Independence." The speaker will be Edward Landau, CFP.

About The Talk

Mr. Landau will discuss the necessary steps to reach your financial goals and how to overcome the obstacles that lie in the way. These steps include setting realistic goals, along with developing strategies to deal with roadblocks such as taxes, and inflation. Also, how to deal with managing risk, estate planning and the development of an investment strategy. These important topics, plus others, will be outlined and discussed.

About The Speaker

Edward Landau is a Personal Financial Advisor with American Express, holds the designation of Certified Financial Planner and is licensed by the National Association of Securities Dealers. Mr. Landau specializes in personal financial planning, including retirement and investment planning. Before becoming a Financial Advisor, he spent over twenty years as an RF Design Engineer, Consultant and Engineering Manager.

Time: 7:30 PM, Thursday, October 10, 1996.

Place: GPU Energy, 300 Madison Ave. and Punch Bowl Road, Morristown, NJ.

Information: Dr. Robert Sinusas (201) 228-3941.

RICHARD F. TAX
630 MONTVIEW PL
RIVERVALE, NJ 07675

OCTOBER, 1996

OCTOBER, 1996
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NEWSLETTER STAFF
Editor.....M.M. Perugini
Business Manager..... A.M. Beattie

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IEEE NJ SECTION HOME PAGE
WWW at <http://hertz.njit.edu/~ieeenj>

REPORT ADDRESS CHANGES TO:
IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, (908) 981-0060. It is not necessary to inform the North Jersey Section when you change your mailing address. "The IEEE Newsletter" and other section mailings use a list provided by IEEE's national headquarters in New York. This means the Section has no need to maintain a mailing list or addressing plates. Section membership records are changed when Headquarters notifies us.

SECTION OFFICERS
Chairman.....Vittal Rebbapragada
(201) 568-5849
Vice-Chairman-1.....Arthur Greenberg
a.h.greenberg@ieee.org (201) 492-1207
Vice-Chairman-2.....Melvin Lewis
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(201) 744-7340
Secretary.....Sergei Bogaenko
(201) 785-3673
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Ted Byrne COMPUSERVE 70302-25

The North Jersey Section Executive Committee usually meets the first Wednesday (except holidays and December) of each month at 7:00 PM. Meetings are open to all members. For information on meeting agenda call Sergei Bogaenko (201) 785-3673 (H).

**No. Jersey SMC Society:
Internet/World Wide
Web Dynamic Tutorial**

At the October 15, 1996 meeting, the IEEE North Jersey Section Systems, Man & Cybernetics Society will host a talk and demonstrations by Mike Liechenstein, Mel Lewis, and The Video Professor® on accessing, navigating, and information retrieval/exchange (including E-Mail and the evolving voice/video communication facilities) of Internet and the Worldwide Web. The implications for cyber-job searching, tele-commuting, tele-education and potential entrepreneurial activities will be discussed. This presentation assumes no prior knowledge re Internet usage and is therefore especially oriented to novices. Experienced computer users will also profit from discussion about prospective trends in this rapidly advancing technology.

All Welcome
You need not be a member of IEEE to attend and there is no charge for admission. Light refreshments will be served.

Time: 7:00 PM, Tuesday, Oct. 15, 1996.
Place: Fairleigh Dickinson University, Muscarelle Bldg., (call for room number, Teaneck campus (1000 River Rd., just off Route 4)).
Information:
Dr. Mike Liechenstein (201) 471-0721,
E-mail ITSMIKESJU@AOL.COM;
Melvin Lewis (914) 968-2500, ext. 2304,
E-mail M.LEWIS@IEEE.ORG.

**NJ Control Systems Soc.:
Motor Drive
Control Strategies**

At the October 16, 1996 meeting of the NJ Section IEEE Control Systems Society, the talk will be on "Embedded Real-time Control Of Motor Drives." The speaker will be Dr. Maria Zamfira Ciulin.

About The Topic
In this talk, state-of-the-art motor drive control strategies will be presented with application areas including automotive, and various domestic systems such as variable speed drives. The speaker will report on her recent work and results on fully embedded digital control of motor current, speed, and position. Simulation of the special time varying filters and motor dynamics will also be addressed.
About The Speaker

Maria Zamfira Ciulin received the electronic engineer degree in 1959 and Dr. Eng. degree in 1974 from Polytechnical

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Web: <http://www.crestron.com>

School of Bucharest. Since 1988 she has been with the Electromechanical Laboratory of the Swiss Federal Institute of Technology, Lausanne, Switzerland. Her research interests include real-time systems, motor drives, and numerical methods.

Time: 5:00-6:00 PM, Wed., October 16, 1996.
Place: NJIT, 202 ECEC, Dept. of EE., Newark, NJ.
Information: Prof. Timothy Chang (201) 596-3519 or changtn@admin1.njit.edu

**1997 Section
Election Notice**

The Nominations Committee has nominated the following to serve as 1997 officers of the North Jersey Section Administrative Committee (ADCOM):

Chairman:	Arthur Greenberg
Vice Chairman-1:	Mel Lewis
Vice Chairman-2:	Dr. Fred Chichester
Treasurer:	Dr. Chandra Gupta
Secretary:	Alan Stolpen
Member-At-Large:	Amy Galarowicz
	Dr. Haim Grebel
	Nirwan Ansari

All have indicated that they will serve in the positions nominated.

The official election of officers will take place in December. IEEE members in good standing may nominate an IEEE member or themselves for any of these positions. The term of office is: 1 January 1997 to 31 December 1997 (1 year term).

Petition Nominations

Nominations in addition to those made by the Nominating Committee may be made by petition from the membership. Such nominations must be signed by not fewer than 25 voting members of the North Jersey Section and transmitted to the Section Secretary for submission to the Executive Committee not later than October 18, 1996. The petition must certify that the person(s) nominated have agreed to serve, if elected.

GOLDen Opportunity

A GOLD kick-off meeting is planned for Tuesday, October 22nd. (Recognizing that location is important, we want input in the future on where it is convenient for folks to meet.) Our first meeting will be held at the Robin Hood Inn, in Montclair. From the city, take Rt. 3 West. Right as it turns into Rt. 46, take the Valley Road Exit. If coming from Rt. 46 East, take the Valley Road Exit. Go South for about a mile, it will be on your left.

Come right after work, at 6 PM, and we'll start with (pay your own) dinner and conversation, then move into our meeting about 7:30 PM. There will be an overview of "IEEE Benefits for Today's Young Engineering Professionals." Specific ideas will be solicited for future meetings as well. Please come one and all! We do encourage you to bring along any colleagues from work, whether IEEE members or not.

Want details? Please respond to North Jersey GOLD Chair, Ms. Amy Galarowicz (Class of '89) at a.e.galarowicz@ieee.org or work phone (201) 742-2381, ext. 24, or fax 742-1452.

**IEEE LEO Chapter:
Tunable Photonic
Crystals**

On October 31 1996, the IEEE Laser and Electro Optics Chapter will present a talk on "Tunable Photonic Crystals." Speaker at this meeting will be Anvar A. Zakhidov

About The Talk

Photonic crystals (PC), a new type of matter, in which the regular arrays of nanoscale size particles control the propagation of light, making it forbidden in so called "photonic band gaps" (PBG), have recently attracted significant attention both from fundamental and application points of view.

The main topic of this talk is the totally new type of photonic crystal in which the position, the width of the PBG and other physical properties should be tunable due to the use of electro- and optically active polymeric materials, (particularly conjugated polymers, and photochromic polymers) as building blocks of PC. Up to now the photonic crystals have been fabricated in the optical domain only from the dielectric, transparent polymers, like polystyrene colloids in deionised water. The recent theoretical studies predict that PC composed of semiconducting quantum dots or from metallic spheres should have new interesting properties such as a dramatic increase in the optical non-linearity, localization of light, quantum solitons and highly selective optical absorbance.

About The Speaker

Dr. Anvar Zakhidov is a Visiting Scientist at Allied Signal from Tashkent, Uzbekistan. He is the head of Molecular System Laboratory at the Uzbek Academy of Sciences. Dr. Zkhidov received his PhD. degree in Physics (Optics) from the Institute of Spectroscopy of USSR Academy of Sciences. He has more than 130 publications on molecular physics, low-dimensional phenomena, optical spectroscopy of molecular crystals and microwave spectroscopy.

Time: 5:00 PM, Thursday, October 31, 1996. Pizza & Soda will be served free of charge at 4:45 PM.
Place: NJIT, Room 202, ECE Bldg., Newark, NJ.
Information: Haim Grebel (201) 596-3533.

**How To Become
A Senior Member**

You need at least 10 years experience. A Bachelors degree counts for three years of those years and Masters and Doctors degrees each count for one year.

Get an application and information on becoming a Senior member by contacting Don Weinstein, Kulite Semiconductor, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900, ext. 234 mornings or Amy Galarowicz, Videx Equipment Corp., 170 Railroad Avenue, Paterson, NJ 07501, (201) 742-2381, ext. 24.

**IT PAYS TO ADVERTISE IN
THE NEWSLETTER**

Almost 5000 readers who are influential in the electrical, electronics, and computer industry receive the IEEE Newsletter each month (except July).

These readers represent many companies in the North Jersey area.

Included are manufacturers, consultants, sales representatives, universities, and colleges.

You can reach this targeted professional audience with your advertisement in the Newsletter.

For information about advertising in the IEEE Newsletter, contact the North Jersey Section business office at (201) 398-5524.

**NJ PES/IAS:
Flywheel Energy
Storage**

The November 21, 1996 meeting of the NJ Section Industrial Applications and Power Engineering Society will present a program on the prospects of flywheel energy systems to store electric power. The speaker will be Steven B. Sanders, Product Development Specialist - Emerging Technologies for GPU Energy.

About The Talk
The program will focus on the role of large scale economic flywheel energy storage systems in the electric power industry. Due to recent advancements in technology, electro-mechanical flywheel energy storage devices could present exciting opportunities in the way electric power companies provide service in the future.

Time: 7:00 PM, Thursday, November 21, 1996.
Place: GPU Energy, 300 Madison Ave., Morristown, NJ.
Information/Reservation: Ken Oexle (201) 455-8481.

Calling All Students!

Now's the time to begin thinking about the next Student Paper contest.

The ability to communicate ideas well is a skill in demand for engineers more than ever before. Once again the North Jersey Section will host a meeting for area student members to present electrical engineering related papers. Our local night in late February will help prepare students for the long-running annual IEEE Region 1 Paper Contest. Any undergraduate student member of IEEE is eligible. Subject matter should cover technical, engineering, management, or social aspects of electrical engineering. No student should be discouraged from entering the contest due to a false requirement of technical sophistication, and in fact new this year are special awards for professional topics. The important thing is that students get the chance to practice presentation skills in front of an astute, supportive audience of local IEEE members from many fields and backgrounds. Start framing out your subject now!



A One-Day IEEE Seminar on SHORT CIRCUIT ANALYSIS

presented by the IAS and PES Chapters,
North Jersey Section

Thursday, November 21, 1996
8:30 AM to 3:30 PM
GPU Energy
300 Madison Ave., Morristown, NJ 07962

Topics

- | | |
|------------------------------------|-------------------------------------|
| • Introduction | Calculations |
| Seminar overview | Manual |
| Reasons for a short circuit study | Computer |
| Basic concepts | • Interpreting and applying results |
| Types and causes of short circuits | Interrupter evaluation |
| Per-unit system | Circuit breaker application |
| Equivalent circuits | Fuse application |
| Symmetrical components | Protection coordination |
| Network analysis methods | Specifying bus bracing |
| • How to do a short circuit study | Inputs to other studies |
| Single-line diagram | Voltage regulation |
| Defining study requirements | Motor starting |
| Impedance diagram | Harmonics analysis |
| Determining system impedances | • Case studies |
| Typical impedance data | • Review of key concepts |
| | • Questions and answers |

Seminar Leaders

Richard H. McFadden, P.E., Fellow, IEEE. Chief Electrical Engineer, Advanced Technology Division, Science Applications International Corp.

Kenneth J. Oexle, P.E., Senior Member, IEEE. Director of T&D Engineering, Jersey Central Power and Light Company

R. Vittal Rebbapragada, P.E., Senior Member, IEEE. Senior Consulting Engineer - Electrical Power Systems, Raytheon Engineers and Constructors

Cost - including materials, morning refreshments, and luncheon:

IEEE members	\$100.00
Non-members	\$150.00
Students with valid ID	\$50.00

Reserve your place by mailing a check payable to "IEEE North Jersey Section" to R.H. McFadden, SAIC, 7 West 36th St., New York, NY 10018.

For information or late registration, call Vittal Rebbapragada, (201) 460-6327, Ken Oexle, (201) 455-8481, or Dick McFadden, (212) 239-8510.

\$25.00 discount on full (non-student) registrations received by November 1!



North Jersey Section Activities October 1996

Oct. 2—"NJ Section Executive Committee Meeting"—7:00 PM, Plant 11, GEC-Marconi, 164 Totowa Road, Totowa, NJ. Sergei Bogaenko (201) 785-3673 (H).

Oct. 3—"Wireless Communications: Where It's Been And Where It's Going"—NJ Communications Society & NJIT's Center for Communications and Signal Processing, 4:00 PM, NJIT, 202 ECE Center, Newark, NJ. Nirwan Ansari (201) 596-3670.

Oct. 10—"Roadblocks To Financial Independence"—NJ PACE, 7:30 PM, GPU Energy, 300 Madison Ave. & Punch Bowl Rd., Morristown, NJ. Robert Sinusas (201) 228-3941.

Oct. 15—"Internet/World Wide Web Dynamic Tutorial"—No. Jersey SMC Society, 7:00 PM, Fairleigh Dickinson Univ., Muscarelle Bldg., Teaneck campus, NJ. Dr. Mike Liechenstein (201) 471-0721.

Oct. 16—"Embedded Real-Time Control Of Motor Drives"—NJ Section IEEE Control Systems Society, 5:00-6:00 PM, NJIT, 202 ECE, Dept. of EE, Newark, NJ. Prof. Timothy Chang (201) 596-3519.

Oct. 17—"One-Day Seminar: Getting The Most Out Of Your Electric Power System"—NJ IAS/PES Chapters, 8:30 AM - 3:30 PM, GPU Energy, 300 Madison Ave., Morristown, NJ. Dick McFadden, (212) 239-8510.

Oct. 17—"Magnetically Levitated Trains (MAGLEV)"—NJ IAS/PES Chapters, 7:00 PM, GPU Energy, 300 Madison Avenue, Morristown, NJ. Dennis J. Hildenbrand (201) 984-1200.

Oct. 17—"High Altitude Medicine"—Metropolitan Section EMBS, 7:15 PM, Rockefeller Univ., Room 301 (Tower), 1200 York Ave., NYC. Joel Levitt (212) 479-7805 (24hr Voice-Mail).

Oct. 22—"GOLDen Opportunity"—No. Jersey G.O.L.D. (Graduates Of The Last Decade), 7:30 PM, Robin Hood Inn, Montclair, NJ. Amy Galarowicz (201) 742-2381, ext. 24, or fax 742-1452.

Oct. 24—"Promoting Your Business On The Internet"—Consultants' Network of No. NJ, 7:30 PM, Lucent Technologies, 67 Whippany Rd., Whippany, NJ. Merrill Rutman (201) 447-6041.

Oct. 30—"12th Annual Symposium And Mini-Show"—MTT-S/AP-S/ED-S Chapters, 1:30 - 8:00 PM, Officers Club Fort Monmouth, Fort Monmouth, NJ. Dr. Chandra Gupta, (201) 633-4469 (GEC-Marconi).

Oct. 31—"Tunable Photonic Crystals"—IEEE LEO Chapter, 5:00 PM, NJIT, Rm. 202, ECE Bldg., Newark, NJ. Haim Grebel (201) 596-3533.

Upcoming Meetings

Nov. 6—"NJ Section Executive Committee Meeting"—7:00 PM, Plant 11, GEC-Marconi, 164 Totowa Road, Totowa, NJ. Sergei Bogaenko (201) 785-3673 (H).

Nov. 20—"Optics And Microwave Evening"—NJ MTT-S/AP-S Chapter, 4:00-6:00 PM NJIT, ECE C202, 2nd Floor Conference Room, (corner of Warren & Summer St., Newark, NJ). Dr. Chandra Gupta, (201) 633-4469 (GEC-Marconi). **Details in November issue.**

Nov. 21—"One-Day Seminar: Short Circuit Analysis"—NJ IAS/PES Chapters, 8:30 AM - 3:30 PM, GPU Energy, 300 Madison Ave., Morristown, NJ. Dick McFadden, (212) 239-8510.

Nov. 21—"Flywheel Energy Storage"—NJ IAS/PES Chapters, 7:00 PM, GPU Energy, 300 Madison Ave., Morristown, NJ. Ken Oexle (201) 455-8481.

Nov. 21—"Convergence Of Networks And Services"—NY Chapter IEEE Communications Society, 9:00 AM-4:30 PM, United Engineering Center, 345 E 47th Street, NYC. **Fee/registration: contact Jim Barbera** (718) 816-5222 (voice mail); fax (212) 465-8877; or e-mail j.p.barbera@ieee.org

Members and Non-Members Welcome

PLEASE POST

NJ Consultants' Network:
**Promoting Your
Business On
The Internet**

On October 24, 1996 the IEEE NJ Consultants' Network will present a talk on how to take advantage of the revenue building opportunities available through the Internet. The speaker at this meeting will be Ira Pasternack.

About The Talk

The mechanics of web page construction and network interfaces, which can be daunting to the non-technical business person, are taken in stride by engineers who make their livelihood in the hardware and software worlds. The greater challenge is in developing the right message and channeling it to where the customers are looking.

Mr. Pasternack will focus on the "how-tos" of doing business on the Internet. Topics will include: how to design and build a web site on which your potential customers will want to land; how to set up search criteria and register on the right search engines; how to identify links to your site in the right places; how you and your colleagues can band together on joint sites to broaden the client base; and how to follow through on web site "hits" to close on new business.

About The Speaker

Ira Pasternack is the founder and managing partner of 'Clearly Internet', a New York City-based training and consulting service that helps companies improve their performance by using the Internet as a business tool. An accomplished behavioral scientist, Ira has worked with the internet for ten years. He has an MS degree in industrial relations and a BA in psychology.

About The Consultants' Network

You do not have to be a member of the IEEE Consultants' Network of Northern NJ to attend the meeting, but if not, you must pre-register by calling David Greenspan at Montville Data Services (201) 882-8562 (voice mail) by 5 PM on Wednesday, October 23 and leaving your name and country of citizenship. Calls will not be returned.

Time: 7:30 PM, Thurs., Oct. 24, 1996.

Place: Lucent Technologies, (formerly AT&T Bell Labs), 67 Whippany Road, Whippany, NJ.

Information: Merrill Rutman (201) 447-6041.

NY/NJ/LI EMBS:

High Altitude Medicine

On October 17, 1996, the Metropolitan Section Engineering in Medicine and Biology Society will present a lecture on "High Altitude Medicine." The speaker will be Shirlee Cohen, M.S., MPH, CS, CCRN.

About The Lecture

Many people enjoy sports activities that will take them to high altitudes. Hiking, skiing, and mountain climbing to name a few, commonly occur at altitudes greater than 8000 ft. Many travelers, unaware of the threats of high altitude, may not be able to recognize the signs and symptoms of illness in themselves or in others. Acute Mountain Sickness (AMS) is the common name for the syndrome that occurs when one is unable to acclimatize to high altitude. AMS commonly occurs in any age group, irrespective of physical ability, physique, or history of previous exposure. Those afflicted with pulmonary or cardiac disorders may be at greater risk, or have more severe symptoms at lower altitudes. Moderate and severe mountain sickness may cause morbidity and mortality in both direct and indirect ways. High altitude medicine involves the study of AMS and its more severe states High Altitude Pulmonary Edema (HAPE) and High Altitude Cerebral Edema (HACE) including management and prevention of these conditions. This lecture will discuss these disorders, signs and symptoms of these conditions, first aid treatment and medical management.

About The Speaker

Shirlee Cohen is a Nurse Practitioner with seventeen years of experience in Health Care. She currently works at Mount Sinai Medical Center within the Department of Surgery. She is also a Clinical Adjunct Instructor in the School of Nursing at New York University, where she teaches in the Graduate School Nurse Practitioner program. Shirlee received both a Masters in Nursing and a Masters in Public Health at Columbia University. Ms. Cohen regularly lectures throughout the city on topics related to Health Care and the Nurse Practitioner role. (Nurse Practitioners may legally prescribe medications).

Time: 7:15 PM registration (no charge), 7:30 Lecture, Thursday, Oct. 17, 1996.

Place: Rockefeller Univ., Room 305 Weiss (Tower), 1200 York Avenue, NYC.

Information: Joel Levitt (212) 479-7805 (24 hr. Voice-mail).

NJ PES/IAS:

**Magnetically
Levitated Trains**

The October 17, 1996 meeting of the NJ Section Industrial Applications and Power Engineering Society will feature a talk on the state-of-the-art in research and development efforts of MAGLEV transit systems. The speakers will be Dr. Kent Davey and Mr. Tony Morris of American Maglev Technology (AMT) Corporation. The presentation will cover both the technical and market analysis of the technology.

About The Talk

Mr. Morris will speak on the status of two of the AMT technologies; Magnetic Levitation (Maglev) and Flywheel Energy Storage. The engineering and technology program, technology advantages and innovations, test results, grants received, technology partners and marketing/project efforts to date will be presented. Also discussed will be the present proposal to the State of Florida and the more recent demonstration project proposal submitted to the US DOT. Current theoretical work on Flywheel Energy Storage, the technical partners and recent proposals will also be presented.

About the Speakers

The AMT and associated family of technologies have arisen from the collaboration of two individuals: Dr. Kent Davey and Mr. Tony Morris. Together, Mr. Morris and Dr. Davey have developed a revolutionary new form of magnetic levitation transportation technology, secured substantial public and private funding and constructed the only full-scale maglev demonstration vehicle and test track. Mr. Morris is an Atlanta-based engineering graduate of Georgia Tech who has run a highly successful construction management and scheduling consulting firm for the past 15 years.

Time: 7:00 PM, Thursday, October 17, 1996.

Place: GPU Energy, 300 Madison Ave., Punchbowl Room, Morristown, NJ.

Information/Reservation: Dennis J. Hildenbrand (201) 784-1200, Email: djhpkdnj@gti.net

**IEEE
North Jersey Section & New Jersey Coast Section
MTT-S/AP-S/ED-S Chapters**

present

12th ANNUAL SYMPOSIUM AND MINI-SHOW

Lectures and Booth Exhibits

FOCUS:

Industrial & Commercial Applications of Microwaves

Wednesday, October 30, 1996

Hours: 1:30 PM to 8:00 PM

**Place: Officers Club Fort Monmouth
Fort Monmouth, NJ**

**Refreshments and free dinner
to all attending the Symposium and Mini-Show**

ALL WELCOME!

**Engineers, Technicians, Purchasers
And Administrators.**

You do not have to be an IEEE member to attend.

**For more information, reservations, directions
or questions call:**

Dr. Chandra Gupta (201) 633-4469 (GEC-Marconi)

Willie Schmidt (201) 492-0371

Dr. Edip Niver (201) 596-3542 (NJIT)

Note: At last year's Symposium we had four lectures, 30+ exhibitors and over 300 attendees. A similar arrangement is planned for this year.