



The IEEE

Newsletter

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

NJ Communications & Signal Processing Societies:

TCP Over ATM

On April 2, 1998, the IEEE North Jersey Communications and Signal Processing Chapters together with NJIT's ECE Graduate Student Club will jointly sponsor a talk on "TCP Over ATM." The speaker will be Dr. Nirwan Ansari.

About the Talk

Transmission Control Protocol (TCP) has been the predominant choice in today's Local Area Networks (LANs), and is essentially the standard in data communications. While the industry is debating over several emerging technologies in providing various looming services, it is imminent that ATM must provide backward compatibility in accommodating TCP traffic efficiently in order to be considered as a viable competitive option in the LAN arena. During the pursuit for technical and marketing supremacy among various technologies, this talk attempts to shed some light on various issues in TCP over ATM: TCP over UBR, and TCP over ABR. Performance comparison of TCP traffic running on different rate based ABR flow control is also presented.

About the Speaker

Nirwan Ansari received the BSEE (summa cum laude) from NJIT in 1982, the MSEE from the University of Michigan in 1983, and the PhD degree from Purdue University in 1988 upon which he joined the ECE Department of NJIT, where he is a Professor and the Associate Chair for Graduate Studies.

His current research interests include broadband networks, distributed and adaptive detection in CDMA, computational intelligence, and nonlinear signal processing. He is the chair of the North Jersey Chapter of the IEEE Communications Society which received the 1996 Chapter of the Year Award. He is a Senior Member of the IEEE, a special feature editor and an associate technical editor of the IEEE Communications Magazine, and he serves in several IEEE committees. He authored with E. Hou

Computational Intelligence for Optimization, 1997, and edited with B. Yuhas Neural Networks in Telecommunications, 1994, both published by Kluwer Academic Publishers.

All Welcome

All are welcome to attend. Free pre-meeting pizza and refreshments will be provided at 6:45 PM.

Time: 7:15 PM, Thursday, April 2, 1998.

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

Information: Hongya Ge (973) 642-4990 or Yun Shi (973) 596-3501 (shi@tesla.njit.edu). Please check <http://megahertz.njit.edu/~ieeenj/comm.html> for latest updates.

NJ MTT/AP Chapter:

Microwave Propagation in Buildings and Urban Areas

The topic at the March 26, 1998 meeting of the MTT/S/AP-S Chapter will be "Microwave Propagation in Buildings and Urban Areas." The speaker will be Dr. George Liang.

About the Talk

This presentation will include a review of the current problems associated with propagation modeling and the characterization of the physical channel for mobile communications. The current need of system planners for accurate propagation prediction tools that can characterize the multipath environment will be addressed. Different modeling techniques that employ ray optics and the Uniform Theory of Diffraction (UTD) for site specific propagation prediction in the UHF band will be discussed. A number of different methods will be described which

includes: a two dimensional ray trace in the horizontal plane, a method employing two 2D ray traces in orthogonal planes, ray tracing in full three dimensional space and the Vertical Plane Launch (VPL) technique which approximates a full 3D ray trace. When employed for microcells with ranges that are less than one kilometer, these techniques can provide accurate predictions of the propagation characteristics in a cluttered urban environment. The strengths and weaknesses of each type of ray tracing implementations will be addressed along with direct comparisons between methods and with measurements in typical urban environments.

About the Speaker

Dr. George Liang received a Bachelors of Applied Science in Electrical Engineering from the University of British Columbia in 1991, a MS in Electrophysics in 1995 and a PhD in Electrical Engineering in 1997 from Polytechnic University. From 1991 to 1994 he was employed at Timber Hill, Inc. as a network engineer. In 1994 he joined the propagation prediction group at Polytechnic University as a research assistant.

Since 1997 he has been the President and Principle Researcher at Site Ware Technologies, Inc., a high technology research firm that he co founded. The focus of his work involves the development of a full function propagation prediction software tool for mobile and wireless communications.

Time: 6:30 PM, Thursday, March 26, 1998.

Place: NJIT, Room 202, ECE Building, Newark, NJ.

Information: Dr. Edip Niver (973) 596-3542 (NJIT), Willie Schmidt (973) 492-0371, or Dr. Chandra Gupta (973) 872-4605 (GEC-Marconi).

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Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at k.saracinello@ieee.org or to *The IEEE Newsletter*, c/o Keith Saracinello, 96 Everett Rd, Parsippany, NJ 07054-3164, (973) 515-8829.

IEEE NJ SECTION HOME PAGE

<http://megahertz.njit.edu/~ieeenj>

IEEE NJ SECTION NEWSLETTER HOME PAGE

<http://www.ece.stevens-tech.edu/~nar/inews>

REPORT ADDRESS CHANGES TO:

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m.lewis@ieee.org (914) 964-3820
Vice-Chairman-1.....Dr. Fred Chichester
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Vice-Chairman-2.....Dr. Chandra Gupta
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k.saracinello@ieee.org (973) 515-8829

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a.galarowicz@ieee.org

Dr. Timothy Chang

Dr. Nirwan Ansari

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 Secretary Keith Saracinello (973) 515-8829.

NJ Section GOLD/PACE:

What? Me Worry?

On March 12, 1998, the IEEE North Jersey Section Graduates of the Last Decade (GOLD) and Professional Activities Committee for Engineers (PACE) will present a talk titled "What? Me Worry?" The speaker will be Barbara Coburn

About the Talk

What? Me Worry? You bet. Not a single person or entity is more responsible for your career growth than YOU. Gone are the days of paternalistic, career-long employers with nice pensions and all. It's each man for himself. Are you ready to compete in this world? The good news is that the economy is strong and there's more and more means and tools available every day to 'help one help oneself.' Getting active in technical societies that carry your voice to Congress (like IEEE or AEA) is one way. Another tool, more personal and immediate, is coming to a doorstep near you soon! Start planning now for the March GOLD/PACE meeting.

The speaker will discuss the importance of career self-management for engineers in today's increasingly global and competitive environment. The Career Asset Manager (CAM) is a tool developed by IEEE's Educational Activities staff with the assistance of a volunteer working group. It is an exciting and effective way to help any technical person with record keeping and resume generation. CAM also adds insight to one's individual goals and aspirations. The speaker will go through a "hands-on" exercise from CAM at the meeting. We guarantee all attendees will learn something valuable from the experience. Additionally, samples of IEEE publications and services useful for career management and job hunting will be available.

About the Speaker

Barbara Coburn is the Manager of Career Development Programs for IEEE Educational Activities. She has worked for IEEE for 7 years and her staff is responsible for publishing continuing education self-study courses and books as well as career management tools. In addition, Barbara is managing the pre-college education activities and directs outreach and public relations efforts for Educational Activities. Before coming to IEEE Barbara was a school teacher for 13 years and worked as an instructional designer and editor of corporate training materials and K-8 textbooks.

All Welcome!

You need not be a member of the IEEE to attend and there is no charge for admission. Sandwiches, chips and soda will be served will be served prior to the meeting.

Time: 7:00PM, Thursday, March 12, 1998.

Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500 or see Newsletter web page.

Information: Contact Amy Galarowicz (201) 818-3740 (a.galarowicz@ieee.org).

Vehicular Technology Society: CDMA Evolution and System Performance

The IEEE North Jersey Chapter of the Vehicular Technology Society will host a talk by Dr. Wen-Yi Kuo on March 10, 1998. The topic will be "CDMA Evolution and System Performance."

About the Talk

The talk will cover CDMA evolution and IMT-2000 trends and status. CDMA system performance, with details on power control, soft handoff, etc. will also be described.

About the Speaker

Dr. Kuo is a member of the technical staff, CDMA Radio Performance Group, at Lucent Technologies, Bell Labs Innovations in Whippany.

All Welcome!

You need not be an IEEE member to attend. There is no charge for admission and registration is not necessary. Light refreshments will be provided.

Time: 7:00PM, Tuesday, March 10, 1998.

Place: Riverside Room, 4th Floor, Howe Center (tallest building), Stevens Institute of Technology.

Information: Mel Lewis (201) 337-4767 (m.lewis@ieee.org) or Art Greenberg (973) 492-1207 (a.h.greenberg@ieee.org).

So You Qualify to be a Senior Member?

Senior member is the highest IEEE membership grade which may be obtained by application.

Why apply?

- For recognition of accomplishments by peers
- For professional advancement
- For personal satisfaction

Who should apply?

Engineers, scientists, educators, technical executives or those in IEEE designated fields who have

- at least 10 years active professional practice, with 5 or more years of significant performance
- accomplishments in engineering, publications, management, education or professional contributions.

Get information on advancing to Senior Member grade by contacting Don Weinstein, Kulite Semiconductor, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900 ext. 234 mornings or Amy Galarowicz, Glatt Air Techniques Inc., 20 Spear Road, Ramsey, NJ 07446-1288, (201) 818-3740, FAX (201) 825-0389, e-mail: a.galarowicz@ieee.org.



North Jersey Section Activities March 1998

Mar. 4–“NJ Section Executive Committee Meeting” – 7:00PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.

Mar. 10–“CDMA Evolution and System Performance” – NJ Chapter VTS, 7:00 PM, Riverside Room, 4th Floor, Howe Center, Stevens Institute of Technology. Mel Lewis (201) 337-4767 (m.lewis@ieee.org) or Art Greenberg (973) 492-1207 (a.h.greenberg@ieee.org).

Mar. 12–“What? Me Worry?” – NJ Section PACE and GOLD, 7:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Amy Galarowicz (201) 818-3740 (a.galarowicz@ieee.org).

Mar. 19–“Protecting Sensitive Electronic Equipment” – NJ IAS/PES Chapters, 7:00 PM, PSE&G Edison Training and Development Center, 234 Pierson Ave (intersection of Rt. 1 and Rt. 287), Edison, NJ. Ken Oexle (973) 386-1156 or for directions call Tom Piascik (973) 430-6692.

Mar. 19–“Engineering Neural Tissue”– NY/NJ/LI EMBS, 7:30–9:30 PM, Rockefeller University, Weiss Building, Room 305, 1200 York Ave, NY, NY. Joel H. Levitt (212) 479-7805 (24 hr voice mail), Edna Feher (212) 757-0610, or Joe Bogovic (212) 241-8032.

Mar. 26–“Microwave Propagation in Buildings and Urban Areas” – MTT/S/AP-S Chapter, 6:30 PM, NJIT, Room 202, ECE Building, Newark, NJ. Dr. Edip Niver (973) 596-3542 (NJIT), Willie Schmidt (973) 492-0371, or Dr. Chandra Gupta (973) 872-4605 (GEC-Marconi).

Upcoming Meetings

Apr. 1–“NJ Section Executive Committee Meeting” – 7:00PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.

Apr. 2–“TCP Over ATM” – NJ Communications and Signal Processing Chapters, 7:15 PM, NJIT, 202 ECE Center, Newark, NJ. Hongya Ge (973) 642-4990 or Yun Shi (973) 596-3501 (shi@tesla.njit.edu). Please check <http://megahertz.njit.edu/~ieeenj/comm.html> for latest updates.

Apr. 15–“Signal Processing in Multimedia” – NJ Signal Processing and Communications Chapters, 4:45 PM, NJIT, 202 ECE Center, Newark, NJ. Yun Shi (973) 596-3501 (shi@tesla.njit.edu) or Nirwan Ansari (973) 596-3670 (ang@njit.edu).

Apr. 22–“Limits - Some Are More Fundamental Than Others” – NJ EDS/C&S Chapters, 7:00 PM (Buffet 6:00 PM), NJIT, Room 202, ECE Center, Newark, NJ. Dr. Richard Synder (973) 492-1207 (RS Microwave) or Dr. Edip Niver (973) 596-3542 (NJIT).

May 3–“NJ Section Awards Reception”–3:00 to 5:00 PM at the Birchwood Manor, 111 North Jefferson Road, Whippany, NJ. Anne Giedlinski (973) 377-3175.

Members and Non-Members Welcome
PLEASE POST

NJ EDS, C&S Chapters:

Limits - Some Are More Fundamental Than Others

The IEEE NJ Section Electron Devices, and Circuits and Systems Chapters will host a talk April 22, 1998 on "Limits - Some Are More Fundamental Than Others." The speaker will be Dr. Lewis Terman.

About the Talk

The semiconductor industry has had over three decades of spectacular technical advancement and growth, driven by the continuing progress in device miniaturization. There is now concern that fundamental limits, such as the speed of light, breakdown fields, tunneling, sub-threshold conduction, etc., will begin to materially slow down or even halt further device miniaturization, and with it profoundly change the industry. However, it is concluded that while there are many practical considerations, there appears to be no fundamental limits to device design to well below 0.1 μ m, and that even if progress in devices were to dramatically slow or stop, major improvement in system performance will continue through further optimization in such areas as design tools, circuit and chip design, and systems configuration.

About the Speaker

Lewis M. Terman received the BS, MS, and PhD degrees from Stanford University in 1956, 1958, and 1961 respectively. In 1961 he joined the IBM Research Division, working first on system logic design, and then on magnetic film memory development. In 1964 he began working on MOS memory, participating in the program which resulted in the initial IBM NMOS memory products. In the 70's he worked on MOS and CCD memory, MOS logic and MOS analog circuits. During 1979-80 he was on the Technical Planning Staff of the Director of Research. From 1981 to 1991 he directed groups doing research on circuits, devices, and technology for advanced MOS memory and logic. In 1991-1993 he was a Senior Member of the Technical Plans and Controls staff of the IBM Research Division, and he is currently a Program Manager in the VLSI Design area.

Dr. Terman is president of the IEEE Solid-State Circuits Society, and treasurer of the IEEE Technical Activities Board. He was president of the IEEE Electron Devices Society in 1990-1991, editor of the Journal of Solid-State Circuits 1974-77, chairman of the 1983 International Solid-State Circuits Conference, and chairman/co-chairman of the Symposium on VLSI Technology and the Symposium

on VLSI Circuits.

Dr. Terman is a Fellow of the IEEE and the American Association for the Advancement of Science, and was elected to the IBM Academy of Technology in 1991. He was the recipient of the 1995 IEEE Solid-State Circuits Technical Field Award, and was elected to the National Academy of Engineering in 1996.

All Welcome

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

Time: 7:00 PM, Wednesday, April 22, 1998. Free buffet will be starting at 6:00 PM.

Place: NJIT, Room 202, ECE Building, Newark, NJ.

Information: Dr. Richard Synder (973) 492-1207 (RS Microwave) or Dr. Edip Niver (973) 596-3542 (NJIT).

NY/NJ/LI EMBS:

Engineering Neural Tissue

On Thursday, March 19, 1998, the Metropolitan Chapter of the Engineering in Medicine and Biology Society of the Institute of Electrical and Electronics Engineers announce "Engineering Neural Tissue." The speaker will be Dr. Ravi Bellamkonda.

About the Talk

Tissue engineering is an exciting multi-disciplinary venture that aims to augment, replace or regenerate compromised tissues. Tissue Engineers combine techniques from biomaterials and bioengineering, molecular and cellular biology, and medicine to 'engineer' solutions that address compromised tissue function.

Our laboratory uses 3D hydrogel scaffolds to engineer neural tissue to enable nerve regeneration. Our research is based on two main hypotheses: a) recreation of a permissive fetal environment at the site of nerve lesion is critical for the regeneration of adult nerves and b) permissive 3D scaffolds and drug delivery vehicles can be used to 'tailor' the environment at the site of lesion to favor regeneration.

The basic science aimed at determining the 'rules' for peripheral and central neuron differentiation in 3D scaffolds will be discussed along with strategies for spatially controlled axon guidance in 3D biomaterials. The potential of using these novel 3D scaffolds as 'bridge materials' for peripheral and central nerve regeneration will also be discussed.

About the Speaker

Ravi V. Bellamkonda obtained his Bachelors degree in Biomedical Engineering from the College of

Engineering, Osmania University, India, in 1989. In 1994, he completed his doctorate in Medical Science from the Section of Artificial Organs, Biomaterials and Cellular Technologies, Brown University. He spent the last year and a half of his doctoral work as a 'traveling scholar' at the Lausanne University Medical School, Switzerland, working under the guidance of Dr. Patrick Aebischer. After obtaining his doctoral degree, he spent a year in the Department of Brain and Cognitive Sciences at MIT conducting post-doctoral research in developmental neurobiology with Dr. G.E. Schneider and Dr. S. Jhaveri. In 1995, he joined the faculty of Case Western Reserve University as the Elmer L Lindseth Assistant Professor of Biomedical Engineering.

Time: 7:30-9:30 PM, Thursday, March 19, 1998.

Place: Rockefeller University, Weiss Building, Room 305, 1200 York Ave, NY, NY. Free parking available - entrance gate at 66th St.

Information: Joel H. Levitt (212) 479-7805 (24 hr voice mail), Edna Feher (212) 757-0610 or Joe Bogovic (212) 241-8032.

Signal Processing in Multimedia

On April 15, 1998, the IEEE North Jersey Signal Processing Chapter and Communications Chapter will present a talk on "Signal Processing in Multimedia." The speaker will be Ahmed Tewfik.

About the Talk

The past few years have seen an explosion in the use of digital media. Industry is making significant investments to deliver digital audio, image and video information to consumers and customers. A new infrastructure of digital audio, image and video recorders and players, on-line services and electronic commerce is rapidly being deployed. These changes, coupled with a merging of technologies and blurring of differences between several industries, have created new paradigms in almost all areas of human activity including information exchange, entertainment, education, commerce and research.

In this talk, an overview will be presented of some of the benefits that have resulted from these paradigm shifts as well as the new challenges created by the new technologies. In particular, the discussion will focus on the role of signal processing in making the promises of the new technologies a reality and in solving the problems associated with the deployment of these new technologies.

About the Speaker

Ahmed H Tewfik received his BSc degree from Cairo University in 1982, MSc, EE and ScD degrees from the MIT in 1984, 1985 and 1987 respectively. Dr. Tewfik has worked at Alphatech, Inc., Burlington, MA in 1987. He is currently the E.F. Johnson professor of Electronic Communications with the department of Electrical Engineering at the University of Minnesota. He served as a consultant to MTS Systems, Inc., Eden Prairie, MN and is a regular consultant to Rosemount, Inc., Eden Prairie, MN. His current research interests are in signal processing for multimedia (in particular watermarking, data hiding and content-based retrieval), low power multimedia communications, adaptive search and data acquisition strategies for world wide web applications, radar and dental/medical imaging and industrial measurements.

Professor Tewfik is a Fellow of the IEEE. He is currently a Distinguished Lecturer of the IEEE Signal Processing Society. He was a principal lecturer at the 1995 IEEE EMBS summer school. He was awarded the E.F. Johnson professorship of Electronic Communications in 1993. He received a Taylor faculty

development award from the Taylor foundation in 1992 and an NSF research initiation award in 1990. He gave a plenary lecture at the 1994 IEEE International Conference on Acoustic Speech and Signal Processing (ICASSP'94) and an invited tutorial on wavelets at the 1994 IEEE workshop on Time-Frequency and Time-Scale Analysis. He was selected to be the first Editor-in-Chief of the IEEE Signal Processing Letters in 1993. He is a past associate editor of the IEEE Transactions on Signal Processing and was a guest editor of two special issue of that journal on wavelets and their applications.

All Welcome

All are welcome to attend. Free pre-meeting pizza and refreshments will be provided at 4:45 PM and the meeting will start 5:00 PM.

Time: 4:45 PM, Wednesday, April 15, 1998.

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

Information: Yun Shi (973) 596-3501 (shi@tesla.njit.edu) or Nirwan Ansari (973) 596-3670 (ang@megahertz.njit.edu).

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 at (973) 515-8829.

Calling all Associate Members!

Of the roughly 4,700 people in the North Jersey Section about 10% are Associate Members. It is not unusual for folks to be admitted as an Associate if, on their application, they don't have a member's signature for a recommendation, or if education credentials are unclear. Associate Membership is typically meant to be a stepping stone to full membership.

So why bother with the paperwork to upgrade your IEEE membership? Often the answer is prestige. Your track toward elevating to more prestigious member grades is impeded. This may not do it for you, however, as the honor of eventually becoming an IEEE Fellow carries weight in certain circles-perhaps not yours. Consider this: remaining in your status as Associate, you miss out on voting in IEEE elections or holding IEEE office. Perhaps your reaction is "Who cares?" Well, we all should. There's big changes afoot in the IEEE and besides getting involved, voting is another way to help shape the future of the Institute.

This past November, we had a milestone election and voted for the first time for IEEE-USA leadership. This is quite a big deal. Basically, the American arm of IEEE has finally organized into a coherent group that can truly help American members without a conflict of interest with our international colleagues in IEEE. IEEE-USA will advance, formulate, and help lobby for policy that uniquely affects our American IEEE members. (By the way, those in the US now total about 220,000 and account for 2/3rds of all IEEE members.) For example, I enjoy supporting, by voting for, any candidates that I feel represent my own more industrial view of engineering life. For me, it comes down to feeling more in control of my career, and less of a reactionary (on some minute, personal level, perhaps, but still satisfying.) Voting is one more way IEEE helps me, to help myself, toward a rewarding life-long career. Try it, you might like it too!

If you're interested in upgrading your membership from Associate to Member, contact me, Amy Galarowicz at (201) 818-3740 or a.galarowicz@ieee.org.

IEEE North Jersey Section EXCOM Meeting Presenters

Approval of Minutes	Keith Saracinello
Correspondence	Mel Lewis, Keith Saracinello
Executive Report	Mel Lewis
Email/Web Sites	Mel Lewis
Treasurer's Report	Rodney Cole
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Circuits, Systems, Electron Devices	Richard Snyder, D. Misra
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Power Engineering	Vittal Rebbapragada, R. Natajaran, Tom Piascik
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Finance	Art Greenberg
GOLD	Amy Galarowicz
Group Coordinator/Chapter Activity	Nax Simonelli
Historian	Al Stolpen
Industry Liaison	Joe Nelson, Amy Galarowicz
Life Members	Wilhelm Schmidt
Membership	Don Weinstein
METSAC	Mike Perugini, Howard Leach
Newsletter	Keith Saracinello
Nominations	Art Greenberg
PACE	Rodney Cole, Mike Liechenstein
Planning	Fred Chichester, Chandra Gupta (alternate)
Programs Coordinator/Calendar	Al Stolpen
Publicity	Art Greenberg
Publications	Mike Perugini
Student Activities	Amit Patel

IEEE AWARDS RECEPTION

*North Jersey Section
May 3, 1998
Birchwood Manor, Whippany NJ*

*A time to relax, unwind and enjoy --
A time to pay tribute to our new Fellows --
A time to honor our Award Winners --
YES it's time for the Annual Section Reception*

The Annual Section IEEE Awards Reception will be held at the Birchwood Manor, 111 North Jefferson Road, Whippany again this year. The affair is scheduled for **Sunday, May 3, 1998** from 3 to 5 PM. Tickets are \$35.00 each and include a complete prepaid, two-hour open bar, hors d'oeuvres, buffet, and dessert. Spouses and guests are welcome. We are limited to 90 attendees, so please make your reservations early.

Reservations are required by April 28, 1998. Complete the reservation form and return it with your payment. If you would like tickets mailed back to you, please enclose a self-addressed **stamped** envelope. Otherwise, your tickets will be held at the door for you. If any additional information is required concerning the reception, contact Anne Giedlinski at (973) 377-3175.

Use this form for Reception reservations. **ENCLOSE A SELF-ADDRESSED STAMPED ENVELOPE to receive tickets in advance.** Reservations are required by April 28, 1998. Mail reservation request to:

Anne Giedlinski
299 Brooklake Road
Florham Park, NJ 07932

Enclosed is _____ for _____ ticket(s) at \$35.00 each (make check payable to **North Jersey Section IEEE**) for:

NAME: _____

ADDRESS: _____
