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Newsletter

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Business Manager ..... A.M. Beattie

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It is not necessary to inform the North Jersey Section when you change your mailing address. The 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.

Debugging MOS Using AI Tools

The Joint Reliability and Systems, Man & Cybernetics Societies will meet February 17, 1987 to discuss "AI Tools For Debugging MOS Circuit Designs." Dr. Donald E. Smith will be the keynote speaker.

About The Talk

The design of an MOS circuit, especially a VLSI circuit, is of such complexity that designers are forced to "compile" the physical properties of such designs into sets of compact and easy to apply rules. These rules, while invaluable to the designer, provide inadequate information about faulted designs and often are the source of problems when debugging a faulted design. Dr. Smith will discuss an attempt to apply AI techniques to modeling designed artifacts (including faulted ones) while making the relationship between design and debugging more explicit. Issues discussed will include constraint propagation techniques for simulation and explanation, and the use of hierarchy for debugging a design.

About The Speaker

Dr. Smith is an Assistant Professor of Computer Science at Rutgers University. He is currently working on applying AI techniques to the problem of debugging MOS circuit designs. His interests include Knowledge Based systems, algorithm design and analysis, and knowledge acquisition tasks.

Free Buffet

A free buffet will be provided on a first-come-first-served basis. The dinner/meeting will be held at the ITT Auditorium, 500 Washington Ave., Nutley, N.J. The buffet will be available at 6 PM, while the talk will begin at approximately 7 PM.

Time: 7:00 PM, Tuesday, February 17, 1987. (Buffet starting 6 PM.)
Place: ITT Auditorium, 500 Washington Avenue, Nutley, N.J.
Further Information: Mallik Arjunan (201) 284-3475.

Advances In Biomedical NMR

"Advances In Biomedical NMR" will be the topic of discussion at the February 11, 1987 meeting of the Metropolitan Chapter of Engineering in Medicine and Biology Society. R. James R. Knowles PhD. Assistant Professor of Radiology and Senior Medical Physicist at the Cornell Medical Center will be the featured speaker.

About The Talk

During the last year substantial progress in imaging algorithms were achieved. The lecture will address recent advances in rapid scan methods and spectroscopy and discuss the system being used at the New York Hospital.

There will be an informal pre-lecture dinner (optional) in the Tower cafeteria at 6:30 PM.

Time: 7:30 PM, Wednesday, February 11, 1987.
Place: Rockefeller University, Room 305, Tower Bldg., York Ave. at 66th St., NYC.
Further Information: Mark Restivo (718) 836-6600, ext. 318 or 160; Ben Caref (718) 270-1568.

New 1987 Survey explores the latest trends in engineering salaries, technology and career opportunities

You know how quickly technology can change. But, do you know how much salaries change...or how much difference there is in compensation levels for engineering professionals who perform comparable functions...or how much salaries vary by industry or geographic location?

Comprehensive review of salaries, trends and demand

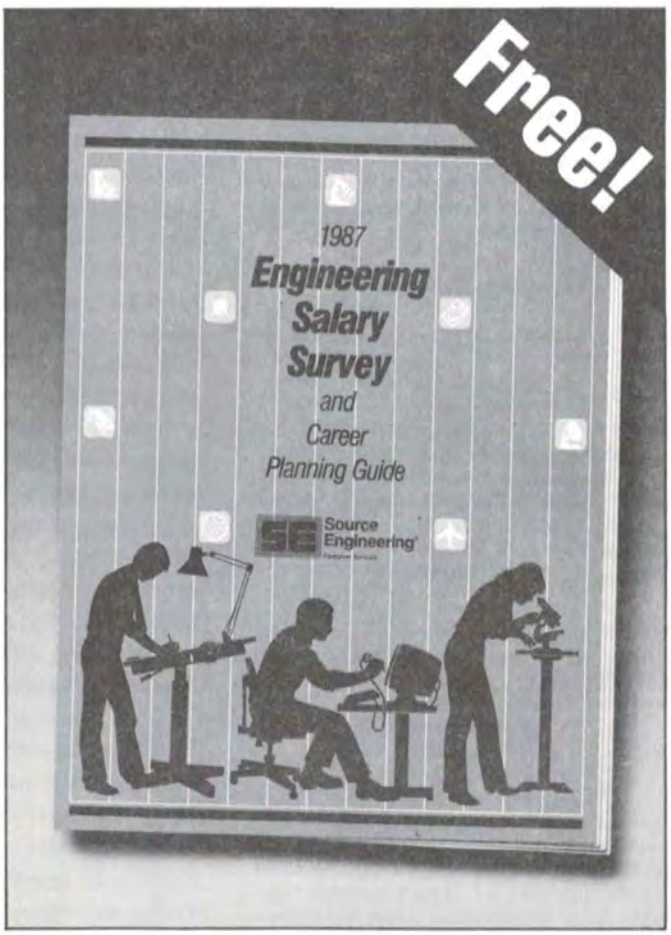
The new **1987 Engineering Salary Survey and Career Planning Guide** is based on information from thousands of engineers and firms that hire them from coast to coast. Salaries for twenty-seven position titles are reviewed including those in design and development, manufacturing, test, quality control, technical support and engineering sales and marketing. You'll learn if your compensation is keeping pace with your peers and what you can expect to earn as you advance in your career.

Charts, exhibits and graphs to assess your progress

Included in the new Survey are a series of charts, exhibits and graphs to help you get a clearer picture of the profession and how to advance. Proven methods for setting your career objectives, implementing strategies, monitoring your progress and then taking corrective action (when and if needed) are defined. Five documented case studies on professional growth are also provided to point out typical mistakes so that you can avoid them to stay in the mainstream of your career.

Free to engineering professionals

This valuable 16-page Survey is available without charge. You owe it to yourself to be informed. Call us today.



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Current Topics In Signal Processing

On March 11, 1987, the IEEE Acoustics Speech and Signal Processing Society will continue its series of technical talks related to current topics in signal processing. The speaker will be Professor Rashid Ansari of the University of Pennsylvania.

About The Talk

The discussion will cover one-dimensional multirate signal processing and a class of rate conversion IIR filters consisting of all-pass building blocks. The use of these filters and one-dimensional FIR filters can be used to construct novel two-dimensional filters. Implementation of these 2-D filters using generalized separable filtering, rate reduction using line quincunx undersampling, properties of these filters, design examples and applications will also be described.

About The Speaker

Dr. Rashid Ansari received the B.Tech and M.Tech degrees in Electrical Engineering from the Indian Institute of Technology, Kanpur, India, and PhD degree in EECS from Princeton University. He is now Assistant Professor of Electrical Engineering in the Moore School of Electrical Engineering at the University of Pennsylvania. His research interests are mainly in digital and statistical signal processing.

Free Buffet

A free buffet will be provided on a first-come-first-served basis starting at 6:30 PM.

Time: 7:30 PM, Wednesday, March 11, 1987. (Buffet starting at 6:30 PM.)
Place: ITT Auditorium,500 Washington Avenue, Nutley, N.J.
Further Information: Marc Beacken (201) 386-3757; John Namovic (201) 386-5490; Joseph Rothweiler (201) 284-2722.

****

The North Jersey Section Executive Committee meets the first Wednesday (except holidays) of each month at 7 PM. These meetings (held at ITT, 500 Washington Ave., Nutley, N.J.) are open to all members. Information on each meeting agenda is available from George Graul, Section Secretary at (201) 798-4403.

Elected Section Officers are listed on Page 1.

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Recruit Members To Win Gifts

YOU ARE INVITED TO JOIN THE METSAC COUNCIL GIFT CREDIT PLAN

You can get "Gift Credits" towards a gift of your choice.

Your METSAC Council has initiated a membership drive which can benefit you. For each new IEEE Member or Student Member that you bring in and is assigned to one of the METSAC Sections, you will get "Gift Credits." Two "Gift Credits" for each Member and one credit for each Student Member will be awarded to recruiters. Each "Gift Credit" is worth $3.00 and will be accumulated in your account for the duration of the drive, December 31, 1987. At that time you will be notified of the number of credits you have and you will be given a catalog of gifts from which to select your gift(s).

Below is a METSAC Council Gift Credit Form. Just cut it out and reproduce it as many times as necessary. Fill in your name (recruiter) and send it to IEEE Service Center along with your new member's application and dues payment. Or ask your recruit to attach it to his/her application. When the applicant is accepted by IEEE as a new Member or Student Member, you will be notified of your accrued gift credit.

If you have any questions on the drive please contact Mr. Robert E. Mendoza, METSAC Membership Drive Coordinator at (201) 430-7678.

THIS MEMBERSHIP DRIVE IS WORTH $$$$$$ TO YOU!

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LONG ISLAND, NEW YORK, NORTH JERSEY AND PRINCETON SECTIONS METSAC COUNCIL GIFT CREDIT PLAN*

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Project Managing

"Productivity Through People: Participative Project Management" is the subject of the February 19, 1987 meeting of the New York/North Jersey Chapter of the Engineering Management Society. The featured speaker will be Deborah S. Kezsbom, PhD, President of Management Resources Associates, a Manhattan consulting firm.

About The Talk

Effective project management involves the planning, organizing, directing and controlling of the resources involved in accomplishing a unique organizational objective. Unfortunately, the most crucial resource of all--the project team--is often sorely neglected. People, not tools or software systems, coordinate, solve problems and carry out the plans necessary to "bring a project home." Difficulties encountered in a project can often be prevented or overcome by the interactions of a well blended project team.

In this discussion, Dr. Kezsbom through relating her own experiences as a consultant to ATT, Motorola, the Department of Defense and others, will explain how projects can be successfully completed by focusing on the often neglected "people side" of project management. The discussion will focus on the issues of leadership, influence and power, as well as viewing inevitable conflict as a positive and change-provoking force.

About The Speaker

Deborah S. Kezsbom, PhD is President of Management Resources Associates, a Manhattan-based consulting firm specializing in Engineering Management and Organizational Development. Dr. Kezsbom advises management teams in both the public and private sectors. She has designed and implemented a variety of programs for all levels including Project Management for High Technology, Managing Conflicts, and Negotiation and Team Building. Dr. Kezsbom earned her PhD degree in Motivational Psychology from Fordham University.

ALL WELCOME

Everyone is welcome and no reservations are necessary for the meeting.

Time: 8 PM, Thursday, February 19, 1987.
Place: New York Academy of Sciences, 2 East 63rd Street, NYC.
Further Information: Al Bottani (212) 319-7444; Alan Berlinsky (201) 386-4614; or Jay Gilbert (914) 478-2713.

NJ IEEE Seminar
TELEPHONE SWITCHING SYSTEMS

The North Jersey Section is offering an evening course titled "Telephone Switching Systems." The course is designed for technical personnel and will deal with many aspects of telephone switching systems.

Students will be given short exercises to do on their own. These exercises will be designed to elaborate on the topics covered in the lectures. Upon completion of the course, the student will have acquired an understanding of telephone system operations.

The instructor is Mr. Richard A. Thompson, Member of Technical Staff of AT&T Bell Laboratories.

The course outline follows:

(1) March 26, 1987 - Introduction and Definitions; History; Organization by industry, numbering plan, office hierarchy; System Functions.

(2) April 2 - Telephone operation and signaling; Dialing and Touch-Tone; Supervision; Lines and Trunks.

(3) April 9 - Traffic computations and charts; Economy of scale. The Step-By-Step System.

(4) April 16 - Connection Fabrics. The Crossbar System. Toll Calls and billing systems; Operator systems.

(5) April 23 - Electronic Switching.

(6) April 30 - Centrex and the PBX; Beginnings of deregulation. Digital transmission; Facility switching.

(7) May 7 - Space/Time switching; Synergy; Digital Switching.

(8) May 14 - Loop plant architecture; Integrated Services Digital Network; Seven-Layer OSI concept. Discussion of divestiture.

(9) May 21 - Start/Rings/Buses; Packet switching. Syntran; Photonic switching.

WHERE: AT&T Bell Laboratories, 600 Mountain Avenue, Murray Hill, N.J. 07974.
DIRECTIONS: From G.S. Parkway or N.J. Turnpike: in Newark area, exit for Rt. 24 or I-78 West, follow I-78 west to exit 43. From I-287 or western N.J.: in Somerville area, take I-78 east to exit 44. From either direction, turn right from I-78 exit ramp and make first right, at light, onto McMane Ave.; turn at next light into Bell Labs; Make first left, at next light, and bear right into parking lot. Park and follow path at other end of lot to auditorium.
WHEN: Nine sessions, Thursday nights, starting March 26, 1987 from 6:45 PM to 9:15 PM. One extra date for bad weather or other reasons for cancellation is included.
COST: IEEE Members $75.00; non-IEEE Members $140.00. A text book is included in this pricing and will be provided.
CONTACT: Mr. John A. Baka at (201) 455-8534 (Business).

REGISTRATION - "TELEPHONE SWITCHING SYSTEMS"

TO: Mr. John Baka, Distribution Engineering, Jersey Central Power & Light Company, Madison Avenue at Punch Bowl Road, Morristown, N.J. 07960.

Name _____ IEEE No. _____

Affiliation _____ Phone No. _____

Address _____

_____

☐ $75 Fee - IEEE Member ☐ $140 Fee - Non Member

Please enclose required fee made payable to **"NJ IEEE"**

Local Area Nets

The North Jersey Joint Chapter of Computer & Communications Society will meet on February 25, 1987 to hear a talk on "Metropolitan Local Area Networks." The speaker will be Dr. Andres Albanese of Bell Communications Research.

About The Talk

This talk will show how high-speed lightwave links can be shared with a multitude of users and how use can be made of advanced integrated circuits to implement this.

About The Speaker

Dr. Andres Albanese is a member of the Technical Staff of Bell Communications Research (Bell Core) and has a PhD in Electrical Engineering from Stanford University. Since January 1984 he has been District Manager of Local Communications Research in the applied research area. His current research interests are in the design and implementation of gigabit packet communications networks combining the techniques of fiber optics electronics and software to provide integrated services such as telephony data and video services for local communications.

Time: 8 PM, Wednesday, February 25, 1987.
Place: ITT Auditorium, 500 Washington Avenue, Nutley, N.J.
Further Information/Dinner Reservations: David Perry (201) 325-8415; Elliot Gruenberg (201) 864-2055.

Future Of LANs

At the February 18, 1987 meeting of the North Jersey Joint Chapter of Computer & Communications Society Dr. David J. Farber of the University of Delaware will discuss "The Future Of LAN's."

About The Talk

The field of LAN's is expanding rapidly bringing with it a host of new problems as well as new opportunities especially in the transmission of wideband data. Dr. Farber will address these in a very topical and understandable way.

About The Speaker

Dr. Farber is presently Director of the Center for Advanced Network and Distributed Architecture at the University of Delaware. He brings 30 years of experience in data processing, 13 years of which were at Bell Labs, and was an early worker in the field of local area networks.

Time: 8 PM, Wednesday, February 18, 1987.
Place: AT&T Bell Laboratory Auditorium, Mountain Avenue, Summit, N.J.
Further Information/Dinner Reservations: David Perry (201) 325-8415; Elliot Gruenberg (201) 864-2055.

Why Procrastinate Advance In Grade

Advance to Senior Member grade. Get the information by contacting Don Weinstein, Kulite Semiconductor, 1039 Hoyt Avenue, Ridgefield, N.J. 07657, (201) 945-3000.

INTRODUCTION TO OPTOELECTRONICS — Wednesday February 4, 3–6 P.M.

APPLICATIONS OF OPTOELECTRONICS TECHNOLOGY

Eugene I. Gordon
Lytel Inc.
Somerville, N.J.

Abstract: Optoelectronics, in the context of this seminar series, is the use of optical devices, especially sources and detectors, in performing electronic functions. This talk will be an outline and introduction to the various applications of optoelectronics, e.g. transmission of electronic signals on optical fiber, optical memory, sensors, military ranging, printing, and industrial processing. Some of the features of the relevant technology will be described. An attempt will be made to project where the technology is going. ■ Eugene I. Gordon received the B.S. degree from City College of New York in 1952, and the Ph D from M.I.T. in 1957, both in physics. Dr. Gordon is founder and Chairman and Chief Executive Officer of Lytel Inc., Somerville, a new company manufacturing semiconductor, optoelectronic devices. In 1983, he retired from Bell Laboratories, where he was Director of the Lightwave Devices Laboratory. He has worked in the field of gas-discharge physics, microwave traveling wave tubes, gas and semiconductor, injection lasers, acousto-opto modulation and deflection devices, and image and display devices. Dr. Gordon is a member of Phi Beta Kappa and Sigma Xi and a Fellow of IEEE (1968). In 1975, he received the IEEE Vladimir K. Zworykin Award and in 1978 was elected member of the National Academy of Engineering. In 1984, he received the IEEE Edison Medal and the IEEE Centennial Medal. He is the author of more than 50 articles published in peer reviewed journals. He holds 40 patents.

FIBER OPTIC COMMUNICATIONS

Peter Kaiser
Bell Communications Research
Red Bank, N.J.

Abstract: Fiber optic communications has evolved dramatically over the past ten years from short-distance, low-bit-rate multimode systems trials operating in the 800 nm wavelength region, to today's 1300 and 1550 nm single-mode transmission systems operating up to several Gb/s rates without regeneration over 100 kilometers and beyond. Applications today range from simple data links, local-area networks, and telecommunication trunk and feeder systems, to trans-oceanic submarine cable installations. Present trends are to build a universal fiber-based Broadband Integrated Services Digital Network (BISDN) right to the customer premises. After first introducing the basic components of fiber optical communication systems, namely fibers, sources, and detectors, this talk will describe the key features of some of the communication systems mentioned above. ■ Peter Kaiser received his Ph.D. degree in electrical engineering from U.C. Berkeley in 1966. From 1966 to 1983 he was with Bell Laboratories, Holmdel, where he was first engaged in guided wave and optical fiber and cable research, and later was responsible for the development of optical components for single-mode lightwave systems. Presently, Dr. Kaiser is Division Manager for Lightwave and Cable Systems Research at Bell Communications Research in Red Bank, where he is responsible for research in optical fiber, component, and high-speed and coherent systems technologies with emphasis on applications in future broadband subscriber loop networks. Dr. Kaiser is a senior member of IEEE, and a Fellow of OSA.

NEW OPTOELECTRONIC SYSTEMS

Michael Ettenberg
RCA Laboratories
Princeton, N.J.

Abstract: Just as the transistor created the electronics industry, the laser diode is beginning to create an optoelectronics industry even beyond fiber optics. The first mass-produced solid-state optoelectronic system is the digital audio disc player. This system, as well as optical disc mass memories and disc recording systems, will be discussed. Intersatellite communications, optical processing and optical computing systems will be described. The lecture will concentrate on overviews and use simple optical and physical concepts for description. ■ Michael Ettenberg received the B.S. degree in metallurgy from the Polytechnic Institute of Brooklyn in 1964 and the M.S. and Ph.D. degrees from New York University in 1967 and 1969, respectively. Dr. Ettenberg joined RCA Laboratories, Princeton, in 1969, and has made major contributions in the area of III-V compounds and devices. In 1979 he was appointed head of the Optoelectronic Devices Research Group. In 1984 Dr. Ettenberg received a David Sarnoff Award for Outstanding Technical Achievement. He has authored or co-authored more than 100 papers and several book chapters. He holds 27 U.S. patents, all dealing with properties of III-V compounds and with laser diodes and LED's. Dr. Ettenberg is a Fellow of IEEE and a member of OSA, APS and Alpha Sigma Mu Metallurgical Honor Society.

OPTICAL COMMUNICATION — Wednesday March 11, 3–6 P.M.

LIGHTWAVE COMMUNICATION SYSTEMS

Tingye Li
AT&T Bell Laboratories
Holmdel, N.J.

Abstract: Twenty years have passed since the first serious proposal was made to employ a glass fiber waveguide as a telecommunications transmission medium. Vigorous research has led to widespread application of optical-fiber communication throughout the telecommunications industry. First-generation fiber systems introduced in the late 1970's operated at 0.85 μm wavelength over multimode fibers for interoffice trunking in metropolitan areas. Second-generation systems that began service in 1982 exploited the low-loss and low-dispersion 1.3-μm wavelength region of multimode fibers for interoffice as well as subscriber-loop applications. Present-day systems employing single-mode fibers at 1.3-μm are deployed for metropolitan-trunking and long-haul services. Soon, the North American continent and the Atlantic Ocean will be spanned by optical fiber cables. This talk will trace the historical development of lightwave systems, describe present commercial systems for various applications and look into future trends. ■ Tingye Li is head of the Lightwave Systems Research Department in AT&T Bell Laboratories. Since joining Bell Labs in 1957, he has worked in the areas of microwaves, lasers, and optical communications, and has contributed more than 75 publications and patents in these fields. Dr. Li is a Fellow of IEEE, OSA and AAAS and a member of the National Academy of Engineering.

COHERENT LIGHTWAVE COMMUNICATIONS

Paul S. Henry
AT&T Bell Laboratories
Holmdel, N.J.

Abstract: Coherent lightwave technology, though still in its infancy, might someday play a central role in light-wave communications. Both for long-haul and local-area applications, the superior sensitivity and wavelength selectivity of coherent receivers can yield important system performance improvements. This tutorial, which is aimed at the non-specialist, is an introduction to the underlying principles and potential advantages of coherent lightwave techniques. ■ Paul S. Henry received the A.B. (1965) and Ph.D. (1971) degrees in physics from Harvard and Princeton University, respectively. Since 1970, he has been with AT&T Bell Laboratories, engaged in research on radio and optical communication and radio astronomy instrumentation. He has published papers or patented inventions in several fields, including millimeter-wave techniques, cosmology, mobile radio systems, cryptography and lightwave communications. He received the 1979 Vehicular Technology Society Paper of the Year Award for

Systems Research Laboratory at Crawford Hill in Holmdel. He is a senior member of IEEE, a member of the OSA, and was the 1985 Traveling Lecturer for the IEEE Lasers and Electro-Optics Society.

HIGH SPEED FIBER OPTIC COMMUNICATIONS TRENDS

Richard A. Linke
AT&T Bell Laboratories
Holmdel, N.J.

Abstract: Advances in semiconductor lasers, guided wave modulators, avalanche photodetectors and high speed electronics, together with improvements in the optical fibers themselves, have resulted in a sustained factor-of-two per year growth in the performance of optical fiber communications systems. Transmission systems operating at 2 Gb/s are now commercial products and laboratory record 4 Gb/s systems reported only one year ago are now replaced by systems operating at 8 Gb/s. Even these advanced systems, however, make use of less than one tenth of one percent of the low-loss single mode fiber window between 1.3 and 1.5 μm. We discuss the fundamental limitations to this bitrate advance as well as the current technical obstacles which must be overcome along the way to reaching these limits. ■ Richard A. Linke, after receiving his Ph.D. in physics at Columbia University in 1972, joined Bell Laboratories, Holmdel, where his research involved low-noise cryogenic receivers for millimeter wavelength radio astronomy. In 1982 he moved to the Lightwave Systems Research Department where he studied high-speed single-frequency laser transmission systems. Currently, he is head of the Communications Methods Research Department where his interests include coherent lightwave and local communications systems.

OPTOELECTRONIC DEVICES — Wednesday April 22, 3–6 P.M.

OPTICAL PROCESSES IN COMPOUND SEMICONDUCTORS

Robert F. Leheny
Bell Communications Research
Red Bank, N.J.

Abstract: It is almost twenty-five years since the first demonstration (1962) of lasing in GaAs p-n junction devices. During this period a great deal of research has been directed at investigating the fundamental processes important for radiative recombination in semiconductors and at developing efficient laser diode devices. In this talk we review the subject of optical processes important for understanding optoelectronic applications of compound semiconductors, including absorption at the fundamental bandgap, radiative recombination and stimulated emission, and optical properties of heterostructures, including waveguiding and quantum-well effects. ■ Robert F. Leheny graduated from the University of Connecticut with a B.S.E.E. degree in 1960 and from Columbia University with an M.S.E.E. in 1964 and a D.E.S. degree in 1966. He was a member of the technical staff at Bell Laboratories from 1967–1983 and has been with Bell Communications Research since 1983. His research interest is in the area of optoelectronic applications of compound semiconductors. Dr. Leheny is a member of IEEE, APS, Sigma XI, AAS and the NY Academy of Science.

OPTOELECTRONIC DEVICES

Martin A. Pollack
AT&T Bell Laboratories
Holmdel, N.J.

Abstract: New lightwave systems are providing the driving force for modern optoelectronic device technology. This talk will outline the basic principles of contemporary lasers and photodetectors for use in high speed and coherent systems in the 1300 to 1600 nm spectral region, and detail their operating characteristics. ■ Martin A. Pollack received the B.E.E. (1958) and M.E.E. (1959) degrees from the Polytechnic Institute of Brooklyn and the Ph.D. degree in electrical engineering from the University of California, Berkeley (1963). Since 1963 he has been a member of the technical staff at AT&T Bell Laboratories. In 1980 he was appointed supervisor of the Photodetector Technology Group, and in 1982 became head of the Photonic Devices Research Department. Dr. Pollack is a member of Sigma Xi, Tau Beta Pi and Eta Kappa Nu, and is a Fellow of OSA and IEEE.

FIBER LIGHTGUIDES

Suzanne R. Nagel
AT&T Bell Laboratories
Murray Hill, N.J.

Abstract: Fiber lightguides offer a flexible, low optical loss, high bandwidth transmission media for transport of information such as voice, data and video. This talk will review fiber lightguide materials, designs and fabrication technology with special emphasis on silica-based lightguide technology currently used for optical transmission in the 0.6–1.6 μm spectral region. In addition, other specialty fibers such as plastics, polarization maintaining fibers, and longer wavelength fiber optic materials (2–12 μm) will be reviewed. ■ Suzanne R. Nagel is head of the Glass Research and Development Department, AT&T Bell Laboratories, Murray Hill, where she has worked since 1972 specializing in research on materials and methods for fabricating lightguides. She received her B.S. from Rutgers University in 1968 and her M.S. and Ph.D. from the University of Illinois in 1970 and 1973, respectively, all in ceramic engineering.

Wine and cheese reception follows each session, 6–7 p.m. / $5 per person, per evening / RSVP one week in advance.

CALL (201) 596-3512 FOR FURTHER INFORMATION.

LOCATION AND PARKING: Seminars – The Ballroom, Hazell Center, 2nd floor, behind Visitors' Parking Lot on Bleeker St. between Summit and Colden. Security officer there can provide directions for parking.

DIRECTIONS: Garden State Parkway to Exit 145E, Route 280 eastbound, or via the NJ Turnpike to Exit 15W, Route 280 westbound. From Route 280 eastbound take King Blvd. Exit 14-A and turn right at the traffic light. After 3 traffic lights the campus is on the right. From Route 280 westbound, take the King Blvd. Exit, make a left at the foot of the ramp, go one block and make a left at the stop sign onto King Blvd. After 4 traffic lights the campus is one block to the right.

CALL (201) 596-3512 FOR FURTHER INFORMATION.

Center for Microwave and Lightwave Engineering
Department of Electrical Engineering
New Jersey Institute of Technology
Newark, NJ 07102

I plan to attend the Seminar Series as follows:

Seminar _____ Feb. 4 _____ Mar. 11 _____ Apr. 22

Reception _____ Feb. 4 _____ Mar. 11 _____ Apr. 22

Check enclosed $_____ ($5 per person, per reception)

Name _____

Company _____

Address _____

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Co-sponsored By North Jersey Section IEEE

SECTION BANQUET - APRIL 29,1987

Date: April 29, 1987

Time: 7 PM—RECEPTION
8 PM—DINNER

Place: CHANTICLER, Millburn
376-2222

A time to relax, unwind and enjoy —
A time to pay tribute to our New Fellows —
A time to honor our new Senior Members —
YES it's time for the Annual Section Banquet

Following the enthusiastic response of those who attended the Banquet the past nine years, we are returning to the Chanticler in Millburn. The affair is scheduled for Wednesday evening, April 29, 1987. Each ticket is $25.00 and includes a complete prepaid Cocktail Hour preceding dinner. Spouses and guests are welcome.

Reservations required by April 21, 1987. Complete the reservation form below and return it with your payment. If any additional information is required concerning the Banquet, contact Robert Sinusas at 393-2829.

Inquire about corporate tables.

Use this form for Banquet reservations enclosing a stamped self-addressed envelope. Reservations required by April 21, 1987. Mail reservation request to:

Robert Sinusas
70 Westover Avenue
W. Caldwell, N.J. 07006

Enclosed is_____ Please forward _____ tickets (make checks payable to North Jersey Section IEEE) to:

Name:_____

Address: _____

_____ Zip:_____

I would like to share a table (seating_____) with the following:

_____

_____

_____

_____

_____

Banquet Menu

Reception - 7:00 PM
Tart Shells Portuguese
Stuffed Mushrooms Graham
Broiled Chicken Livers Monticello
Aubergine Supreme
Pastries Hors d'Oeuvres Assorte
Cantonese Egg Rolls - Sauce Anglaise
Frankfurter Puffs
Veal Souffles a la Oscar
Danish Liver and Potato Souffles
Quiche Lorraine
Shrimps Soto Mayer - Sauce Romanoff
Miniature Pizzas
Baked Clams Crosettie
Clams on Half Shell
Oysters on Half Shell
Veal Scallopini a la Tiberius
Chicken Hawaiian
Petite Stuffed Cabbage - Hungarian Style
Baked Stuffed Shells - Sauce Marinara
Rice Pilaf
Fresh Chinese Vegetables
Chinese Style Rice
Baked Sugar Cured Ham
Petite Party Breads
Unlimited Cocktails
Wine and Beer

Dinner - 8:00 PM
Salad Valencia
Shredded Gorgonzola Cheese Passed
Imported Flat Breads
Roast Prime Ribs of Beef - Sauce Naturale
Broccoli Italienne
Glazed Belgian Carrots
Old Fashioned Potatoes
Petite Dinner Rolls/Butter
Coffee/Cream
Chocolate Mousse
(Liquor during and after dinner - individual responsibility)

IEEE Seminar
Metropolitan & Local Area Networks (MAN/LAN)

Wednesday, April 8, 1987

UNITED ENGINEERING CENTER

345 East 47th Street, New York, N.Y.

Sponsored by:
Computer Society, New York Chapter IEEE

9:00 AM	Welcome	Dr. Tarek N. Saadawi Chairman, Computer Society
9:05	Introduction	Mr. Bert Lindberg Program Chairman Independent Consultant
9:10	Keynote Speaker	Dr. Warren Gifford Bell Comm. Res.
9:50	Expectations Versus Reality; Experiences In Using LANs	Dr. Wen Hsieh DVI Communications
10:30	Coffee Break	
10:40	DATAKIT*VCS Applications To Local Data Networking	Dr. Robert Mercer AT&T Bell Lab
11:20	Managerial Issues For LAN	Dr. Ira Cotton Booze Allen & Hamilton
12:00	Lunch	
1:00 PM	IBM MAN/LAN View	Dr. Barry Goldstein IBM T.J. Watson
1:40	Use Of Fiber Distributed Data Interface (FDDI) Standards For Military Backbone LAN	Mr. Dan Dunn Senior Consultant BBN Communications
2:20	Coffee Break	
2:30	PC Work Group Computing Networks	Mr. Beck, GEE 3-COM
3:10	Integrating Networks; An Implementer's Perspective	Mr. Thomas Golway Independent Consultant
4:00	Panel Discussion	

*Trademark of AT&T

Fee: $125 for non-members, $115 for members and a $10 discount for early registration before March 8, 1987. (Fee includes lecture notes, lunch and coffee.)

Registration for "Metropolitan and Local Area Networks (MAN/LAN)"

To: Mr. Frank Kadien, NYNEX Service Co., 14th Floor, 21 Penn Plaza, N.Y., N.Y. 10001, (212) 967-3518. For inquiries call Mr. Jim Barbera at (212) 395-8765.

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Cogeneration Of Power In NJ

The March 24, 1987 meeting of the North Jersey Chapter of the IEEE Power Engineering Society will feature a presentation of "Cogeneration in New Jersey."

Cogeneration has become a "hot" topic nationally, and the climate for development here in New Jersey has encouraged some larger energy consumers to consider this energy supply alternative.

Mr. Stephen Gabel, Director-Electric Division for the New Jersey State Board of Public Utilities, will discuss some of the existing cogeneration activity within the State, State policies and regulations, and the future outlook for cogeneration.

Mr. Gabel's presentation will be of particular interest to potential cogenerators, consultants, utility engineers, and equipment manufacturers, alike.

Admission is free, and all are welcome. More details will be contained in next month's NEWSLETTER.

Time: 7:30 PM, Tuesday, March 24, 1987.
Place: Jersey Central Power & Light Co., Madison Avenue and Punch Bowl Road, Morristown, N.J.
Further Information: Dennis Sobieski (201) 430-6698.

PACE NEWS

Professional Activities Committee for Engineers

By RICHARD TAX

Members Making News

Our PACE NEWS column covers news of a professional interest to engineers. Usually this news covers events that occur in other locations. Today, I am happy to report, the news is being made by the members of the North Jersey Section.

Our December Newsletter's PACE column included a reprint of the Educational Activities Board's proposed position paper entitled "Engineering Education and Practice in the United States." As my 15-year old daughter might say, "I was totally grossed out" by the EAB's paper so I published it for our readers and requested their comments. At the same time, Ray Sears, our Reliability Chapter Chairman was to review the paper for North Jersey's Executive Committee. The letters and comments sent in by our members were also given to Ray for consideration. The issue of the EAB's proposed position paper on "Engineering Education and Practice in the United States" was discussed by our Executive Committee at our January 7th meeting.

This resulted in a motion to oppose the position paper in a letter to Michael Whitelaw, Director of Region 1 and Ronald G. Hoelzeman, V.P. of the Educational Activities Board. The letter will cite that there is no concensus for support of the EAB paper.

With only one abstention, the motion received the support of the remaining body of the Executive Committee.

Excerpts from some of the letters received, are printed below and we thank those that responded.

APPROACH IS WRONG:

The stated premise of this paper is to provide viable suggestions to business and academic institutions as to how to improve the practice of engineering in the United States and its engineering educational system. As a working engineer, I share this concern. However, I feel that the approach outlined in the paper will not facilitate the improvement of the Electrical Engineering profession.

My own personal feeling regarding this issue is that the two greatest threats to the field are the depression of engineering salaries and the under-utilization of engineers by assigning sub-professional work. The essay does not touch at all upon the first of my concerns.

Additionally, item (5) mentions the National Science Foundation as a potential source of sponsorship of basic research. Since the statement of Nam P. Suh, chairman of this organization, indicates that he feels "American Engineers are overpaid," I strongly question the credibility of any contribution the NSF makes to the field of engineering.

In summation, Electrical Engineering is my chosen career. It is my opinion that the IEEE, has a responsibility to help protect the interests of electrical engineers like myself. I feel that the paper was written with the intent of benefiting American universities, which have a need to maintain large numbers of students. I feel that it is extremely important that professional societies, such as the IEEE, do their best to maintain and improve the profession they represent.

C.B., Rochelle Park, N.J.

NOTHING OF VALUE:

I find that, despite its length, this position paper says nothing of value, and some things that are downright disagreeable.

For example, item (1) says "faculty careers must be made more attractive" and "major increases in fellowship support and... research support are needed." As with the rest of this position paper, just what the IEEE is to do about these problems is left unclear. However, I oppose any expenditure for fellowships or research funding by the IEEE, especially when restricted to a college context.

The position paper is dangerously vague. The lack of specifics allows too broad an interpretation in many cases. In others, even though foggy, it's plain that the guidelines are wrong-headed.

J.B., New Providence, N.J.

LACK OF SALARY PREMIUMS:

Graduate engineering enrollment is limited by the lack of salary premiums paid for graduate degrees. While, for example, an MBA degree has been a key to opening doors to a lucrative long-term career, there is generally no such wealth in store for engineers with graduate degrees.

Increasing the numbers of engineers can best be accomplished by working to show that engineers are valuable employees. Thus, medical, law, accounting and business programs have flourished because of the status of their graduates.

If engineering schools can make the public more aware that engineering degrees (undergraduate and graduate) are keys to long-term, well-paid careers that are worth the effort put in, then these programs will grow. However, the well-known cyclical layoffs have shown the public that there is substantial risk for engineers with proven experience.

In sum, if we make engineering a rewarding profession, funds and personnel for education will follow.

D.W., New York City

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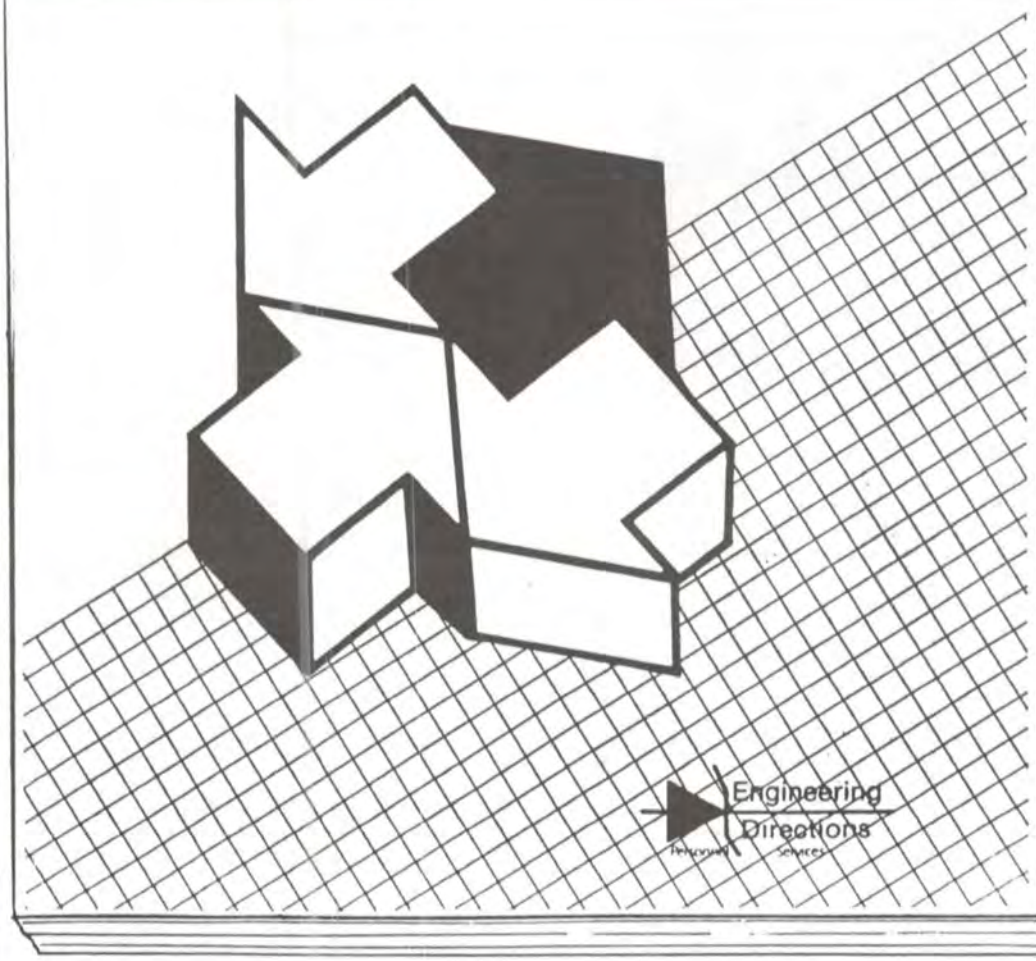

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