Transmission Lines

The North Jersey MTT/AP Chapter will hold its first meeting after the summer recess on September 18, 1984.
Dr. Tatsuo Itoh, The University of Texas at Austin, Department of Electrical Engineering will discuss “Transmission Lines for Microwave and Millimeter-Wave Circuits.”

About The Talk

Characteristics of several transmission lines will be reviewed with circuit applications shown. Emphasis will be placed on printed lines—suspended strip lines, slotlines and E-plane structures. Microstrip and coplanar waveguides on a semiconductor substrate are to be covered.

Time: 8 PM, Tuesday, September 18, 1984.
Place: ITT Clubhouse, 417 River Road, Nutley, N.J.
Pre-Meeting Dinner: 6 PM, Ramada Inn, Rt. 3, Clifton, N.J.
Reservations: Dick Snyder (212) 492-1207, Wilhelm Schmidt (201) 294-2255.

Professional Liability

“The Professional Liability Of the Engineer” will be the topic of the September 18, 1984 meeting of the Engineering Management Society’s Metro New York/North Jersey Chapter. Mr. Robert A. Berman, Attorney at Law, will be the speaker.

About The Speaker

Currently Mr. Berman is in private practice, specializing in product liability, construction, and professional negligence. Mr. Berman has been practicing law for 10 years and previously was Managing Attorney for Julian, Schlesinger and Finz, New York City.

Time: 7:00 PM, Tuesday, September 18, 1984.
Place: Main Level, Willkie Memorial Building, 20 W. 40th St., N.Y.C.
Pre-Meeting Dinner: See Below For Reservations.

For Further Information and Reservations at Pre-Meeting Dinner: Elaine DiLusio (212) 564-6915, Barry Gourley (201) 783-5575, Harry Stokos (914) 696-6775.
Tour of Edison's Laboratory Planned
A tour of the Edison National Historic Site will be sponsored by the Centennial Committee of the North Jersey Section on Saturday, September 29th.

Thomas Alva Edison is one of the greatest inventors of all time, with 1,093 U.S. patents, was also instrumental in the founding of the American Institute of Electrical Engineers (AIEE), a forerunner of the IEEE, on May 12th, 1884 in NYC. Edison was elected one of six vice presidents of AIEE by Alexander Graham Bell. Furthermore, the first technical paper presented at the International Electrical Exhibition (1884) dealt with the effect the harpoon of electronics.

About Thomas Edison
Born in Milan, Ohio, on February 11th 1847, Edison arrived in New Jersey at the age of 22 as an unemployed telegrapher. Edison first worked in New Jersey in a small laboratory in Jersey City with a partner, Franklin Pope. This concern was bought out by Western Union. After making considerable improvements on Western Union's stock ticker, Edison's improvements were bought out for $40,000 which he used to start his own laboratory on Ward Street, Newark. Among many other inventions in 1876, he created an electric typewriter using a revolving ball. Although it lacked the mechanical power for its function, it was the forerunner of the IBM 'bouncing ball' electric typewriter.

When the depression hit in 1873, Edison "Returned Home" Lobbying Questioned
July 4, 1984
Dear Senator Lautenberg:

I am writing to you and the Congressmen of New Jersey on behalf of the North Jersey Section of the Institute of Electrical and Electronics Engineers. These letters lobby 100% return home provision for all foreign students studying in the U.S. at the conclusion of their studies.

The letters state that "Our North Jersey Sections of the Institute of Electrical and Electronics Engineers is one of the largest sections of the IEEE with more than 5000 members. Each member of the Executive Committee of this section endorses this letter…"

As one of the members of the Executive Committee, I do not wish to have my name associated with the above mentioned letter.
Furthermore, I have reviewed the minutes of the Section, and have found no formal endorsement of the letters by the Section.

Sincerely,

ABE ASHJAMI, Ph. D Chairman, Systems, Man, and Cybernetics Society North Jersey Section

Comparative Study Of Personal Computers
The September 19, 1984 meeting of the Personal Computer Group of the NJ Section will feature a "Comparative Study of IBM and Macintosh" by Richard H. Dhahary of "Electronic Engineering Times."

About The Talk
Mr. Dhahary will survey the type of personal computers available in the market. Specific focus will be given to the features of IBM PC and Apple's Macintosh, their applications and 3rd party software support.

About The Speaker
Mr. Richard Dhahary has been with "Electronic Engineering Times" as manager covering Computer Technology, Peripherals and Software the last five years. He worked in industry in the computer field for eight years prior to joining EET. He has been a member of IEEE since 1971.

Time: 7:30 PM, Wednesday, September 19, 1984.
Place: Plant No. 3, Singer Auditorium, 1150 Avenue of the Americas, Little Falls, NJ.
Pre-Meeting Dinner: 6 PM, Holiday Inn, Rt. 46, Totowa.
Further Information and Dinner Reservations: H. Dayal (212) 785-7567, M. Shal (212) 583-4300, ext. 239.

NJIT Students Need Modem
The NJIT Student Branch of NJSection IEEE needs a 1200 baud modem computer. The ever increasing use of the EE curriculum along with increased demand on the Institutes computer systems, the NJIT Student Branch wants to upgrade and increase the speed of its present computer terminal system.

The current terminal and acoustic 300 baud modem now being used on campus by the IEEE members were donated by the NJ Section two years ago.

Anyone who can or knows someone who can help the NJIT Student Branch obtain a 1200 baud model should contact John Chan, NJIT Student Section Representative at (201) 472-6925.

Cellular Radio Seminar
The New York Chapter of the IEEE Communications Society has slated a one day Seminar on "Cellular Radio For Voice and Data Communications." At the November 8, 1984 event, experts from regulation, network planning, network firms and equipment manufacturers will present a comprehensive picture of cellular radio.

The Seminar will start at 9:00 AM at the United Engineering Center, 345 East 47th Street, NYC.
Registration information is available from Robert E. Putter (212) 320-8022, New York Telephone, 395 Flatbush Avenue Extension, Room 401A, Brooklyn, N.Y. 11201.

Power Society Elects
The Power Engineering Society, North Jersey Section, elected officers for 1984-85 at their meeting on May 30. Those who will be serving are:

Kenneth J. Oxlee, Chairman
Joseph L. Kane - Vice Chairman
Augie Franzoni - Secretary/Treasurer

Tentative topics have been identified for the remaining officer's upcoming year. They include: Resource Recovery; Advanced Energy Sources; and Energy Management.

The PES officers welcome response from our members regarding their interest and suggestions for presentations at future soc meetings. Also, if you are interested in communicating with your new chairman: Kenneth J. Oxlee, c/o Jersey Central Power & Light Co. to help with our program. Equipment manufacturers will present a comprehensive picture of cellular radio.

NYC Wants Consultants
The New York City Department of Personnel is interested in hiring consultants on a part-time per diem basis. The consultants should have experience in installing, modifying and maintaining power distribution system (high and low voltage) and electrically powered equipment in any of the following: residential, commercial and office buildings, factories, utilities, vehicle tunnels, water supply plants, or rapid transit systems. The work would be in preparing and rating civil service examinations and skilled trades licensing examinations (both written and practical demonstrations). Familiarity with New York City Electrical Code is desirable.

Minimum requirements are a bachelor's degree in engineering and 5 years of appropriate industrial experience. A Professional Engineer's license is desirable but not required.

Inquiries and resumes can be mailed to: Leon Mirovok, P.E., Assistant Personnel Officer for Technical Directions, Personnel Dept., Room 214, 220 Church Street, New York, N.Y. 10013.
ADA Or “C”
On September 25, 1984, the NJ Com- puter/Communications Chapter will have Dr. Robert B. Dewar of NYU speak on two important programming languages: ADA and “C”.
About The Talk
Dr. Dewar will discuss the merits and applications of each language and their potential. The question of which language, or both, will succeed in the commercial marketplace, in addition to DOD applica- tions, will be discussed. The talk will include both technical and non-technical issues.
About The Speaker
Dr. Robert B. Dewar is Professor of Computer Science at the Courant Institute of Mathematics Sciences at New York University. He is a member of the ADA Board of Executive Committee as well as a Distinguished Reviewer. He is also a mem- ber of the ISO Expert Panel on Ada. The NYU-Ada project resulted in an Ada trans- lator and Interpreter. Dr. Dewar has numer- ous publications to his credit covering a variety of computer science topics.
All Welcome!
IEEE membership is not required to attend the meeting. Refreshments will be served.
Time: 8:00 PM, Tuesday, September 25, 1984.
Place: Vartiyper, 11 Mt. Pleasant Avenue, Clifton. However, go 3 miles on Route 10 East from 287. Turn onto Okner Blvd. from Route 10. Vartiyper is on the south side of Route 10/Okner.
Additional Information and Reservation:
Norman Joelhini (201) 785-7291.
George Pick (201) 884-0400.

Statistics On Foreign Students
August 1, 1984
Dear Senator Lautenberg:
Please refer to my letter of July 4, 1984 on “return home” issue. I would like to present some statistics primarily compiled by the Institute of International Education (IEI news release October 19, 1982) and by the National Research Council:
The total number of foreign students was 298,350 in the United States.
They were enrolled on 2,454 campuses last year.
3. The total number of foreign students is 2.6% of a total U.S. enrollment in higher Education (total U.S. enrollment = 12.4 million).
4. 4OEPC Nationals (having a lot of oil money) are 33% of the foreign students population.
5. Of the total of the foreign student population are sup- ported by the U.S. government scholarships and funding.
6. Engineering has attracted 23% of the total number of foreign students in this country.
7. The majority of the foreign students are graduate students.
8. FOREIGN STUDENTS RECEIVED 50% OF ALL DOCTOR- RATES IN ENGINEERING, 32% IN MATH, 26% IN COM- PUTER SCIENCE, and 22% IN PHYSICAL SCIENCES IN 1981. FROM EACH DEGREE, SEVERAL SCIENTIFIC PAPERS ARE USUALLY PUBLISHED.
9. Up to and including 1981, 15% of the foreign student popu- lation had the same percentage of all degrees earned by foreign students belonged to Iranians. But, despite their contributions, Iranian nationals went through a great deal of unassumptions all over the United States during the hostage crisis.
Considering the above statistics, and noting that there are over 12,000,000 illiterate and poor illegal aliens in this country – who are subject to the same sort of xenophobia, who are doing nothing to improve our economy; who are not paying for their education and who are subject to the same sort of ill treatment as poor and illegal aliens, I think the immigration issue of legal foreign students who have been having poured into the U.S. ought to be regarded as a non matter. Obsession with this issue indicates detachment from reality.

Engineers Need Bylaws Changes
Dear Editor:
IEEE is considered to be an Engineer’s Institute and not only a Professional Engineers Association. Therefore, all Engineers should be addressed first. To do this, bylaws must be changed to bring broad- er engineering participation. The following suggestions may bring changes in right direction:
1. All Members of the Board of Directors and other high-level decision making bodies should be PAID! This payment should be at a mid-level engineer’s salary, so that the active engi- nier can take a leave of absence from his job.
2. Working Engineers – the issues of his job – Tech- nical improvement, Pensions, Insurance and other Benefi- t – should be addressed and implemented from Engineer’s viewpoint and not to the benefit of Academics.
3. Academics – The IEEE should assist in the drive for better education and better engineering schools but not be dominated by engineering deans and academics. The IEEE should welcome the participation of these professionals but should not be over- whelmed by them.
4. General Welfare Issues – IEEE must look at general welfare issues, such as soap, Nutrition, Pollution, etc., – from the general point-of-view to make contributions toward the nation/ society as a whole and not for engineers only.
5. Engineer’s Problems – Problems involving a specific engineer must be handled by a committee of engineers and by a high- placed IEEE office holder, who may have vested interest in the particular matter. (Example: Mr. Jack Doyle and the RCA em- ploye pension plan).

Student Activities
By STELLA LAWRENCE
METROPOLITAN STUDENT COUNCIL, METSC, 1983-1984
The Metropolitan Student Council, has planned a very interesting program of activities for the Fall Semester and hopes that all Student Members will participate in as many activities as possible.
The Council holds monthly meetings at 3:00 pm on the first Monday of the Student Members and the Student Branches in the Metropolitan Area. During the last academic year, the Council sponsored several extremely successful and dynamic Professional Awareness Conferences. If you wish your interests to be better served, if you wish the Council activities to be truly representative of your needs, make sure that your Branch sends delegates to the Council’s monthly meetings. You could even serve as a delegate yourself! Any IEEE Student Member is eligible to be a Branch Delegate to the MSC or to attend meetings. You will find it a truly worth-while experience! Your Branch might be interested in sponsoring a Professional Awareness Conference! Get in the game and start pitching!
For further information regarding the MSC ask your Branch Chairman, your Student Counselor, or your METSC Student Activities Chairman, Dr. Charles Rubenstein, (1211) 677-7420.
ANNUAL STUDENT PRIZE PAPER CONTEST (MSC METSC)
Each year the Metropolitan Student Council hosts the Student Prize Paper Contest. For the Academic Year 1983-1984 the contest was held on April 15th on the beautiful campus of Trenton State College, in conjunction with the Trenton Computer Festival.
The prize winning papers were as follows:
Fourth Prize: $100 - (500 each):
“Robotic Back Massage,” Barry Bruun and Subrata Datta, Cooper Union.
Honorable Mentions:
$25 - Oraz Ubell, Student Institute.
$25 - Ramon Guerra, Jr., and Clarence Jones, Jr., Trenton State College, (prize split evenly in half).
$25 - Ken Bushby, Hartford State Technical College.
In addition $25 prizes were presented to the author of the paper judged best in content by all Student Branch Chairmen (a recom- mendation by the Metropolitan Student Council).
The contest was financed by METSC, in cooperation with the Student Council of USMTC. Dr. Charles Rubenstein, METSC Chairman, presented the prize winners with Centennial Mugs and all contestants with Festival T-Shirts.
Steroid Jasra, Ed Daninger, and George Has, IEEE members, served as judges.
Dr. Charles Rubenstein, METSC Student Activities Chairman, organized and ran a superb job as Contest Coordinator.
The papers covered technical and engineering problems both internal and within or related to the areas with which the IEEE is concerned, and with which the author was familiar, either from his course work, his own associated summer work, etc. The work was not necessarily original in engineering content, but was original in treatment and concise in coverage. The author’s contribution to the subject. Now your summer activities are still fresh in your mind, why not start work on that manuscript for your next big win! The hardest part is the beginning.
Once you start you will be surprised how easy it can be. Start NOW!
STUDENT ACTIVITIES DAY AT ELECTRO/'84
This year, ELECTRO returned to Boston, Massachusetts, and provided all the latest developments in computers and electronic. The Regional Student Conference was held on Tuesday, May 16, 1984, in conjunction with the Region 1 Prize Paper Contest, the Conference featured a Mini-Student Professional Panel, a Computer Applications SPAC, a MSC meeting, and many other interesting events. It was well worth attending.
REGION 1 PRIZE PAPER CONTEST
The winners of the regional Student Paper presentations held in Boston, during ELECTRO/84 on May 15, 1984 at the Boston Sheraton in the Professional Center.
John E. Zborowski, First Prize winner in the MSC Prize Paper Contest, won the Second Prize of $500 in the Region 1 Contest, and Robert Ropes, Second Prize winner in the MSC Prize Paper Contest, won the Third Prize of $300 in the Region 1 contest.
A feather in the cap of the Trenton State College.
ANNUAL VINCENT BENEDICT AWARD
In cooperation with the Bond Corporation, the IEEE administers an annual Student Branch Award program known as the Vincent Benedict Awards. Awards in amounts not exceeding $500 are made to individuals for their work to finance an undergraduate Student Branch project.
The Benedict Award Competition can be many things to many people. It is a source of information, education, and fun for your Branch. It can be great EXPERIENCE.
**“VLSI - Its Impact on Your Career”**

**PROGRAM**
**OCTOBER 8, 1984**
HEWLETT-PACKARD
PISCATAWAY, N.J.

**VIDEODISC TRIPLEHEADER:**
“VLSI – Its Impact On Your Career”

“North Jersey Section Buffet/Social—FREE!”

“The Second Century Begins”

**INTRODUCTION**

**VLSI**
- Description (What is it?)
- How is it created?
- What can be created
- What are the engineering markets
- What is a work station

**THE IMPACT OF VLSI ON ENGINEERING JOBS IN INDUSTRY**
- Product planning
- Research and development
- Engineering design for reliability
- Quality control and reliability
- Manufacturing
- Testing

**VLSI - THE REPERCUSSIONS TO EDUCATION**
Specific Applications of VLSI

**VLSI - LONG TERM PROSPECTS**

**OUTCOMES OF VLSI ON INDUSTRY**
Rundisable Discussion

**HOW CAN PRACTITIONERS PREPARE FOR THE VLSI DOMINATED ENVIRONMENT?**
- What will the VLSI provide
- What will be the future
- What will be available from corporations
- University Role
- How will VLSI change your professional career

**REGISTRATION FEES:**
Regular-IEEE Members $25.00; Non-IEEE Members $75.00; Full-Time Students—IEEE Members $10.00; Non-IEEE Members $25.00. Advance Registration required.

**ADDITIONAL INFORMATION:**

**REGISTRATION FOR “VLSI - Its Impact On Your Career”**
To: Fred Koblenz, 20 Campbell Lane, Berkeley Height's, N.J. 07922.
Name: ____________________________
Affiliation: ____________________________
Phone No.: ____________________________
Address: ____________________________

Please enclose required fee made payable to “NJ SECTION, IEEE”