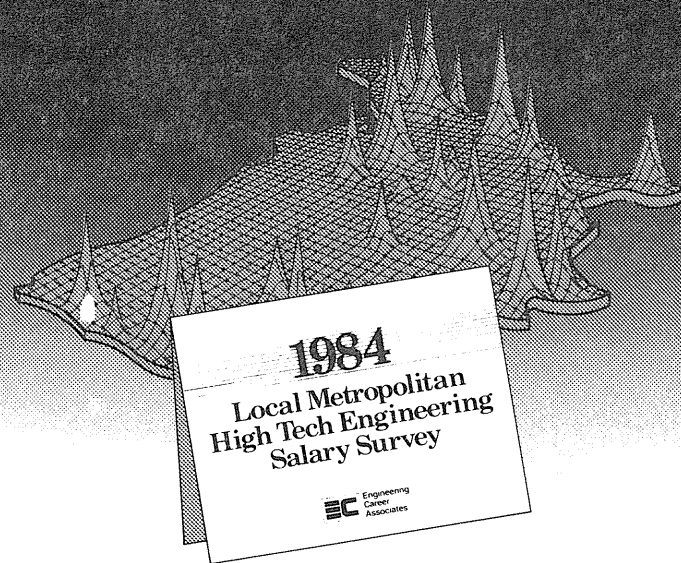



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Newsletter

SEPTEMBER, 1984

Volume 31, Number 3

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Transmission Lines

Professional Liability

Currently Mr. Berman is in private practice, specializing in product liability,

XX

Gen. Peter C. Sandretto

Born in Pont Canavese, Italy, he lived in Chicago before moving to Montclair 18 years ago. He is survived by his wife Mary.

812
NJ 07656
ESV 7

1241264 SM
RICHARD F TAX
51 HAMTHORNE ST
PARK RIDGE

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 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 13th, 1884 in NYC. Edison was elected one of six vice-presidents of the AIEE as also was Alexander Graham Bell. Furthermore, the first technical paper presented at the International Electrical Exhibition (1884) dealt with the Edison effect, the harbinger 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 1875, he created an electric typewriter using a revolving ball. Although it lacked sufficient electrical power for it to function, it was the forerunner of the IBM ‘bouncing ball’ Selectric typewriter.

When the depression hit in 1873, Edison

“Return Home” Lobbying Questioned

July 4, 1984

Dear Senator Lautenberg:

There have been letters written 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 on 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. The members of the Executive Committee of this section endorse this letter....”

As one of the members of the Executive Committee, I do not remember to have ever endorsed the above mentioned letters. Furthermore, I have reviewed the minutes of the Section, and have found no formal endorsement of the letters by the Executive

decided to move out of the Newark high rent district to Menlo Park where he invented the phonograph in 1878 and the electric filament light in 1879. After he remarried in 1886, his first wife died in 1884, he built the first modern research laboratory in West Orange which was ten times larger and better equipped than the one at Menlo Park.

Edison Laboratory

Edison’s laboratory, now known as the Edison National Historic Site, is administered by the National Park Service, U.S. Department of the Interior. The site is located on the corner of Main Street and Lakeside Avenue, West Orange, about one-half mile north of Route 280. When traveling west on 280, take exit 10; at the light turn right onto Northfield Avenue; at the next light and large intersection, turn left onto Main Street. When traveling east on 280, take exit 9; at light turn left onto Mount Pleasant Avenue; at the second light, turn left onto Main Street. Drive north on Main Street for about one-half mile, parking is available on the west side of Main Street just past Lakeside Avenue.

Meet in the site headquarters lobby — entrance is on Lakeside Avenue. The free tour will take about two hours and will be limited to 40 persons. Please call for reservations. Come and bring your family members.

Time: 9:30 AM, Saturday, September 29, 1984.
Place: Edison National Historic Site, Main Street and Lakeside Avenue, West Orange, N.J.
Reservations: Howard Leach (W) (201) 885-3530, (H) (201) 540-1283.

Committee members. Additionally, the Executive Committee membership is a selective process. Propter hoc, its members are not elected officials. Consequently, they do not represent the opinions of the 5000 members of the Section!

in fact, about 50% of the members of the Section are foreign students or former foreign students! About 60% of the contributions in the entire IEEE technical and professional journals are by foreign students or former foreign students. There has never been a poll taken on the “return home” issue in our Section! Neither has there been any formal consensus in the IEEE on this matter. However, an informal consensus has been reached in the publications of the IEEE and its unified monthly, The Institute, by debating the “return home” amendment through pro/con articles written by IEEE members during 1981-1983. A clear majority of American and Foreign engineers indicated that they were against the amendment.

Sincerely,
BEN ASHJARI, 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 Doharty of “Electronic Engineering Times.”

About The Talk

Mr. Doharty 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 Doharty 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 McBride Ave., Little Falls, N.J.
Pre-Meeting Dinner: 6 PM, Holiday Inn, Rt. 46, Totowa.
Further Information and Dinner Reservations: H. Dayal (201) 785-7561, M. Skal (201) 589-4300, Ext. 235.

for you in handling practical engineering problems. It can even be FUN!

Your Branch can receive up to \$500 to fund imaginative projects, likely to contribute to the professional development of Student members and the strength of the Student Branch.

Past winning proposals have included an “Amateur Radio Station,” “Versatile Telephone Communicator for the Hearing and Speech Impaired,” “Videographic Display System” and “Grain Moisture Analyzer.”

Each IEEE Student Branch may submit one proposal each year. Joint proposals (two or more branches) are also permitted. Proposals must be approved by the Student Branch Counselor. Proposals must be received at IEEE headquarters by the deadline date approximately November 15th (tentative).

Proposals should be sufficiently informative to enable the judges to determine that the proposed project will adequately meet the following characteristics: Be imaginative, be likely to strengthen the

NJIT Students Need Modem

The NJIT Student Branch of NJ Section IEEE needs a 1200 Baud computer modem. The ever increasing use of computers in the EE curriculum along with increased demand on the Institutes computer system, 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) 472-5925.

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 regulatory agencies, systems network firms and equipment manufacturers will present a comprehensive picture of cellular radio.

“The IEEE Newsletter” - September, 1984 - Page 7

students’ professional development and feeling of professional identity and be likely to contribute to the strength of the Branches program.

The goals of the proposals should be stated clearly and there should be good evidence in the proposal that a major number of Student Branch members will be involved in a useful, imaginative project.

To meet the above objectives the proposal should state at minimum, exactly what is proposed; exactly how it will be carried out; what has been done with any previous support which may have been granted the project; and if the grant of the requested fund would enable other support for the project.

For additional details write to the Manager of Student Services at IEEE Headquarters, 345 E. 47th Street, New York, N.Y. 10017.

AROUND THE BRANCHES COLLEGE OF STATEN ISLAND

The College of Staten Island IEEE Engineering Society has recently sponsored

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. Puttre (212) 330-8922, 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. Oexle - Chairman
Joseph L. Kane - Vice Chairman
Augie Franzoni - Secretary/Treasurer

Tentative topics have been identified for three meetings during the forthcoming 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 society meetings. You are encouraged to communicate with your new chairman: Kenneth J. Oexle, c/o Jersey Central Power & Light Company, Madison Ave., at Punch Bowl Rd., Morristown, N.J. 07960, (201) 455-8481.

an eight part film series. It featured various topics: frequency modulation, power plant operation, transistor circuits, etc. A special presentation was also devoted to the great physicist Albert Einstein.

The activities of the past academic year, under the guidance of President Peter Izzo and Vice-President Brian Bobryk, have also included guest and faculty lectures. The Student Branch has recently acquired a spacious office, which it is using for tutoring sessions and academic advisement.

In addition, the Branch has started a Branch Library, which includes periodicals on computers, communications, and engineering management.

John Makoravic and Mike Christadoulou served as Branch Treasurer and Secretary respectively. Prof. Erlan Feria is the Branch Counselor.

Please send information regarding Branch elections and Branch activities to your Student Activities Editor, Prof. Stella Lawrence, Bronx Community College, W 181 St. and University Ave., Bronx, N.Y. 10453, (212) 220-6044.

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 electrical power distribution systems (high and low voltage) and electrically powered equipment in any of the following: residential and office buildings, factories, utilities, vehicle tunnels, water supply plants, or rapid transit systems. The work involved 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 highly desirable.

Minimum requirements are a bachelors 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 Mironov, P.E., Assistant Personnel Director for Technical Examinations, NYC Department of Personnel - Room 214, 220 Church Street, New York, N.Y. 10013.

ADA Or “C”

On September 25, 1984, the NJ Computer/Communications Chapter will have Dr. Robert B.K. Dewar of NYU speak on two important programming languages: ADA and “C”.

About The Talk

Dr. Dewar will discuss the merits and applications for each language and their potentials. The question of which language, or both, will succeed in the commercial marketplace, in addition to DOD applications, will be discussed. The talk will include both technical and non-technical issues.

About The Speaker

Dr. Robert B.K. 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 Executive Committee as well as a Distinguished Reviewer. He is also a member of the ISO Expert Panel on Ada. The NYU-Ada project resulted in an Ada translator and Interpreter; Dr. Dewar has numerous 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 PM, Tuesday, September 25, 1984.
Place: Varityper, 11 Mt. Pleasant Avenue, E. Hanover, N.J. (Go 3½ miles on Route 10 East from Route 287. Turn onto Okner Blvd. from Route 10. Varityper is on the south side of Route 10/Okner.)
Additional Information and Dinner Reservations: Norman Joehlin (201) 785-7291, George Pick (201) 884-6040.

Student Activities
By STELLA LAWRENCE

METROPOLITAN STUDENT COUNCIL (MSC METSAC)

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 which it discusses the interests 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 best served, if you wish the Council activities to be truly representative of your needs, make sure that your Branch sends delegates to the Council 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 MSC meetings. You will find it a truly worthwhile experience! Your Branch might be interested in sponsoring a Professional Awareness Conference! Get in there and start pitching!

For further information regarding the MSC ask your Branch Chairman, your Branch Counselor, or your METSAC Student Activities Chairman, Dr. Charles Rubenstein, (212) 677-7420.

ANNUAL STUDENT PRIZE PAPER CONTEST (MSC METSAC)

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:
First Prize: \$250 - “An Automatic Television Antenna Rotation System,” John E. Zborowski, Trenton State College.

Second Prize: \$200 - “A Robotic Drill Press Design,” Robert Ropes, Trenton State College.

Third Prize: \$150 - “Corona Enhanced Heat Exchange,” Trenton State College.

Fourth Prize: \$100 - (\$50 each) - “Robotic Back Massage,” Barry Bruun and Subrata Data, Cooper Union.

Fifth Prize: \$50 - “Digital Storage Oscilloscope,” Paul Mathers, New Jersey Institute of Technology.

Honorable Mentions:
\$25 - Chaz Ubell, Pratt Institute.
\$25 - Ramon Guevera, Jr., and Clarence Jones, Jr., Trenton State College, (prize split evenly in half).

\$25 - Kent Bushey, Hartford State Technical College.

In addition \$25 prizes were presented to the author of the paper judged best in each local Student Branch (that is a member of the Metropolitan Student Council).

The contest was financed by METSAC. In addition Frank Relotto, METSAC Chairman, presented the prize winners

with Centennial Mugs and all contestants with Festival T-Shirts.

Robert Rioja, Ed Denlinger, and George Hass, IEEE members, served as judges.

Dr. Charles Rubenstein, METSAC Student Activities Chairman, did a superb job as Contest Coordinator.

The papers covered technical and engineering aspects of a subject reasonably within or related to the areas with which the IEEE is concerned, and with which the author was familiar, either from his courses, his hobbies, his summer work, etc. The work was not necessarily original in engineering content, but was original in treatment and concise in coverage of the author’s contribution to that subject.

Now your summer activities are still fresh in your mind, why not start work on that Student Prize Paper? You too can win! The hardest part is the beginning. Once you start you will be surprised how easy it can be. Do no delay! Start NOW! STUDENT ACTIVITIES DAY AT ELECTRO/84

This year, ELECTRO returned to Boston bigger and better than ever with all the latest developments in computers and electronics.

The Regional Student Conference was held on Tuesday, May 15, 1984. In addition to the Region 1 Prize Paper Contest, the Conference featured a Mini-Student Professional Awareness Conference, an SPAC, a MSC meeting, and many other interesting events. It was well worth attending.

REGION 1 PRIZE PAPER CONTEST

The Region 1 Prize Paper Contest was held in Boston, during ELECTRO/84 on May 15, 1984 at the Boston Sheraton in the Prudential 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 BENDIX AWARD

In cooperation with the Bendix Corporation, the IEEE administers an annual Student Branch Award program known as the Vincent Bendix Awards. Awards in amounts not exceeding \$500 are made to individual Branches to finance an undergraduate Student Branch project.

The Bendix Award Competition can be many things. It can be a source of cash for your Branch. It can be great EXPERIENCE

Statistics On Foreign Students

August 1, 1984

Dear Senator Lautenberg:

Pursuant 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 (IIE news release October 19, 1982) and by the National Research Council:

1. There are 326,299 foreign students in the United States.
2. 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. OPEC Nationals (having a lot of oil money!) are 33% of the foreign students population.
5. Only 2% of the total foreign student population are supported by the U.S. government scholarships and funding.
6. Engineering has attracted 23% of the total number of foreign students in this country.
7. There are 106,000 foreign graduate students.
8. FOREIGN STUDENTS RECEIVED 50% OF ALL DOCTORATES IN ENGINEERING, 32% IN MATH, 26% IN COMPUTER 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 population and 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 unconstitutionally imposed discrimination and hardships in the U.S. 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 exploitation and becoming public charges -- I think the immigration issue of legal foreign students who have been pouring money into the U.S. ought to be regarded as a non matter. Obsession with this issue indicates detachment from reality.

The two year “return home” provision adds only a loophole to the existing immense shortage of Engineers in the United States. Head hunting agencies will set up offices overseas to recruit alien engineers whose two years stay-at-home have come up. The cost will be passed to the client companies who, in turn, will pass it along to their consumers. The result is more expensive products.

Japan with half of the population produces five times as many engineers annually as the United States. The only solution for the shortage of engineers here is to form an AMA-like professional society for engineers and raise their income by 300%. The result will be attracting more native students to engineering fields. But, before moving in that direction, a more important two-step process is appropriate:

1. There are many engineering colleges with foreign students comprising 90% of their student body! There are large American schools with offices in foreign countries, issuing I-20’s on premises! Such practices must be stopped by the Congress. The education offered by these institutions is worthless and will ultimately hurt the prestige of the American educational system. The standards of foreign students admission must be raised and schools must be given ceiling quotas for their international students’ enrollment. It seems more reasonable to me if, instead of easily admitting stu-

dents into the U.S. and then forcing them out at the end, there be a limit on admittance at the beginning, but giving the choice of staying or leaving (upon graduation) to the individual!

11. There has been a restriction on foreign engineering students for participation in industrial programs during their education. Since engineering is a practical field, the student needs real-world, hands-on experience, other than the school’s lab for his or her engineering education to make better sense. Such restrictions are basically discriminatory and unconstitutional! It is within the power of the Law Makers to rule against second-class citizen status of foreign students.

What should be done in regard to foreigners is to closely regulate businesses to prevent exploitation of U.S. educated foreign engineers by hiring them at lower than Americans’ salaries; and then let the market decide on how much the foreign student/engineer is welcome to work here. At the moment, the market indicates a severe shortage of highly skilled engineers. Even though American Companies by the requirement of law must (and do) advertise three times in a national newspaper before hiring a foreign candidate, to make sure that there is no American citizen who can do the same job; there is rarely any competition for the foreign skills, and therefore, the applicant is immediately grabbed for employment.

The graduated foreign engineer would not stay and compete if there were no demand for his skills and training. Those who deny the above facts have lost their confidence in the fairness of free enterprise.

BEN ASHJARI, Ph.D

Engineers Need Bylaws Changes

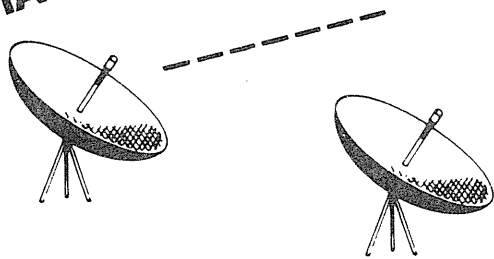
Dear Editor:

IEEE is considered to be an Engineer’s Institute and not only a Professional’s Institute, the working engineers problems must be addressed first. To do this, bylaws must be changed to bring broader engineering participation. The following suggestions may bring changes in right direction:

1. **Paid Officers** — 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 engineer can take a leave of absence from his job.
2. **Working Engineers** — The everyday issues of his job --Technical Improvement, Pensions, Insurance and other Benefits -- should be addressed and implemented from Engineer’s viewpoint and not from employers viewpoint.
3. **Academics** — The IEEE should assist in the drive for better education and better engineering schools but not be dominated by engineering deans and academicians. The IEEE should welcome the participation of these professionals but should not be overwhelmed by them.
4. **General Welfare Issues** — IEEE must look at general welfare issues -- Immigration, Nuclear Freeze, 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 addressed by a committee of engineers and not by a high-placed IEEE office holder, who may have vested interest in the particular matter. (Example: Mr. Jack Doyle and the RCA employees case).

HAR DAYAL, Wayne, N.J.

LIVE
VIDEOCONFERENCE
VIA SATELLITE



PROGRAM
OCTOBER 8, 1984
HEWLETT-PACKARD
Piscataway, N.J.

11 AM—4 PM — Videoconference “VLSI — Its Impact On Your Career”; Advance Registration Required, Use Registration Form On Facing Page.

6 PM — “North Jersey Section Buffet-Social” — Free to those attending VLSI Videoconference and/or “Second Century” Convocation. **Free Food & Refreshments!**

8:30 PM — IEEE — Franklin Institute Centennial Convocation “The Second Century Begins.”

On October 8, 1984 at Hewlett-Packard's Piscataway Facility the NJ Section in cooperation with the IEEE will host two live videoconferences via satellite.

From 11 AM thru 4 PM “VLSI — Its Impact On Your Career” a continuing education course for engineers will be held.

From 8:30 to 10:30 PM “The Second Century Begins”, a two-hour centennial technical convocation from the Franklin Institute in Philadelphia will be featured.

Between these two events the NJ Section will hold a free buffet-social for attendees of either event.

VLSI -- Its Impact On Your Career

The objective of the videoconference is to describe the technology of VLSI, its impact on how practicing engineers perform their jobs, and aid practitioners in preparing for the future. Details are shown on the facing page. **ADVANCE REGISTRATION FOR THIS EVENT IS REQUIRED.**

The Second Century Begins

In October 1884 the Franklin Institute was host to an International Electrical Exhibition that included a “National Conference of Electricians.” The American Institute of Electrical Engineers was formed in May of that year. The first technical meeting of the AIEE was held at the Franklin Institute on October 7 and 8 as part of the International Electrical Exhibition.

Now, 100 years later, the IEEE and the Franklin Institute are together again, co-sponsoring a Centennial Technical Convocation that will focus on the future to assess likely developments and their implications for society.

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

VIDEOCONFERENCE TRIPLEHEADER:

“VLSI -- Its Impact On Your Career”

“North Jersey Section Buffet/Social—FREE!

“The Second Century Begins”

Highlight of the Convocation will be the two-hour technical session “The Second Century Begins,” the session will feature Dr. Bernard Oliver as the principal speaker, with panelists Joshua Lederberg, Alvin Toffler, and Charles Townes, and Dr. Edward David as moderator.

Following the address and responses, the panel members will answer questions phoned in by the audiences in the various sections.

Bernard M. Oliver, recently retired Board Member and Vice President for Research and Development in the Hewlett-Packard Company, continues to serve HP as Technical Advisor.

Edward E. David, Jr. is President of Exxon Research and Engineering Company. Formerly he was Executive Director, Bell Telephone Laboratories Research Communication Principles Division and Executive Vice President of Gould, Inc.

Charles H. Townes is Professor of Physics at the University of California, Berkeley. Dr. Townes is the recipient of numerous awards, including the Nobel Prize for Physics in 1964.

Alvin Toffler is a scholar, author, and futurist best known for his analysis of contemporary social change. His books “Future Shock” and “The Third Wave” have been published in more than 30 languages; his most recent book “Previews & Premises,” is now in translation in many countries.

Joshua Lederberg has been President of Rockefeller University, New York, since 1978. Dr. Lederberg was the 1958 recipient of the Nobel Prize in Physiology and Medicine for research in genetics.

This live, via satellite, convocation and the preceding Buffet/Social at 6 PM is free to IEEE Members and their guests.

HOW TO GET THERE:

The entire program will be held at Hewlett-Packard, 20 North England Ave., Piscataway, N.J. off Route 287.

Heading South on Route 287, exit at Possumtown Road. At the first light turn left onto Centennial Ave.; at next light turn left onto Old New Brunswick Road. Proceed approximately three blocks (to Hitachi Metals) making a right onto Springfield Ave. Proceed one block to Hewlett-Packard.

Going North on Route 287, exit at South Randolphville Rd. Proceed south for approximately 1.5 miles to traffic light. At this intersection turn right onto Hoes Lane which eventually changes name to Old New Brunswick Road at the Centennial traffic light intersection. Proceed approximately three blocks (to Hitachi Metals) making right onto Springfield Ave. Proceed one block to Hewlett-Packard.

“VLSI - Its Impact on Your Career”

COURSE FACULTY

Technical Consultant — ROY H. MATTSON

Roy H. Mattson received his B.S. and M.S. from the University of Minnesota and his Ph.D. from Iowa State University.

He was a member of the technical staff of the Bell Telephone Laboratories from 1952-56. Since that time he has been in the academic world joining the University of Arizona in 1966 where he is now Professor of the Electrical and Computer Engineering Department.

Dr. Mattson, an IEEE Fellow, has been active in IEEE educational matters, serving as Editor of the IEEE Transactions on Education, General Chairman of the 1971 Frontiers in Education Conference and a member of the IEEE Educational Activities Board. He developed the IEEE Validation of Education Achievement Program. His research has been in solid state electronics.

Presenter — KENNETH A. PICKAR

Dr. Kenneth A. Pickar received his B.S. in physics from City University of New York in 1961 and his M.S. and Ph.D. in physics from the University of Pennsylvania in 1963 and 1966.

Upon graduation, he joined the technical staff of Bell Laboratories. In 1972, he took a leave of absence to serve at the Israel Institute of Technology. In 1974, he joined Bell Northern Research Ltd., in Ottawa, heading a group exploring silicon processing and input-output technologies. In 1979, he joined the Signetics Corporation as Director of its Advanced Technology Center and joined the Thomas Consulting Group in 1982 as a Senior Partner. He joined General Electric Co. in 1983 in his present position.

Presenter — MICHAEL J. WOZNY

Dr. Michael J. Wozny joined Rensselaer Polytechnic Institute in 1977 to establish the Center for Interactive Computer Graphics. Previous appointments included Purdue University, Oakland University (Michigan), GM Research Labs, NASA Electronics Research Center (Cambridge, MA) and NSF.

He is an active consultant to industry, government, and universities and a director of two companies. He has served on a number of advisory boards (OTA, CAD/CAM ALERT, Who's Who in Computer Graphics), was chairman of an NAS panel which prepared a briefing document “Research Opportunities for Design and Manufacturing,” and is a former director of NCGA.

He is currently Editor-in-Chief of IEEE Computer Graphics and Applications.

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: Fred Koblenz (201) 665-1525 (nights), Eugene Niemiec (201) 239-4389.

REGISTRATION FOR “VLSI - Its Impact On Your Career”

To: Fred Koblenz, 20 Campbell Lane, Berkeley Heights, N.J. 07922.

Name_____IEEE No._____

Affiliation_____Phone No._____

Address_____

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

COURSE OUTLINE

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 -

Roundtable Discussion

HOW CAN PRACTITIONERS PREPARE FOR THE VLSI DOMINATED ENVIRONMENT?

- *What will the IEEE provide
- *What will be the future
- *What will be available from corporations
- *University Role
- *How will VLSI change your professional career