



# THE SCHOOL OF TECHNOLOGY

## THE NEWS

### CITY COLLEGE OF NEW YORK

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222

BY STUDENT FEES

## How We Talk

This is the first of a series of articles on communication. In this first article the writer brings forth some frustrations that he has found and after a short history of semanticism proceeds to build an idea of communication with other people.

### The Tongue Is Mightier Than the Pen

Have you ever felt strongly about something yet were unable to express your feelings in words? Have you ever lost an argument because you couldn't say what your mind was thinking? And worse, have you lost when you were right? These things have happened to me and still do, and I am sure that I am not alone in my plight. I have so often been plagued by a loss of words that it has become a frustrating fear which has frequently caused me to say nothing when I have wanted to speak.

A short time ago I decided to find out how to help myself. After a little research and a few hints from friends, I have been able to gain a deeper understanding of the problem. In the following paragraphs I will attempt to pass the technical aspects of this knowledge on to you. Of course, the method I am about to use, writing, will be more reliable for me than my larynx, as I can easily erase. First, a little semantic history.

### Semantics

We learned to talk by a gradual process in which we first

became aware of the meaning of words, and later put them together to form sentences. We didn't look into a dictionary for definitions but found them by means of contexts. Contexts can be separated into "verbal contexts" and "physical contexts." We learn by verbal context when we hear a word in a few different sentences, and in this manner get a relatively clear idea of its meaning. When we hear an unfamiliar word used about some physical phenomena which we can observe, we learn it by physical context. For example, when a football player carries the ball over the goal line we call it a "touchdown." After seeing this occur a few times and hearing "touchdown" associated with it, we have added a new word to our vocabulary. Thru constant exposure to verbal and physical contexts we have built up our vocabularies and learned to talk. Now let us use this knowledge correctly.

### Putting Words Together

All right, what's the big problem? We know the meanings of words. We know all about nouns, verbs and adjectives. Let us put them all together in sentences and speak! But we find this is not such an easy task. Language is not that simple and a word does not always have the same meaning. Words usually have a "connotation" attached to them. Connotation is that part of a

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## Summer Jobs

The new enlarged 1961 annual Summer Placement Directory, the largest and most comprehensive listing of actual summer jobs, projects, awards, and fellowships is now available. This is the same Directory used each year by over 1500 college placement offices and copies can be examined at most University Placement or Deans' offices, college and public libraries, and school superintendents' offices.

This unique Directory completely revised and brought up to date each year, is particularly prepared for college students, teachers, professors, and librarians.

Some of the over 14,000 unusual summer earning opportunities listed throughout the United States and many foreign countries include citizenship projects to study the U.S. government, scholarships for studying archaeology in Greece, baking bread and pastries in Alaska, theatrical apprenticeships in summer play houses, conducting tours to Europe, summer newspaper fellowships for journalism teachers, internships in social agencies and hospitals, on-the-spot studies of business firms by college professors, secretarial work at the United Nations, church caravans, trainees

on a cruise ship, and a concert tour to Europe for singers with the All-American Chorus.

This year's Directory offers many special student training programs or openings of a permanent nature in hundreds of firms such as Eli-Lilly Co., Vick Chemical Co., Litton Systems, Kroger Co., Addressograph-Multigraph Corp., Ingersoll-Rand, Hughes Aircraft, Cincinnati Gas and Electric Co., Aerojet-General Corp., Singer Sewing Machine Co., etc.

Study projects camp positions, jobs and apprenticeships with summer play houses and music theatres, and work at inns, resorts, restaurants, hotels, motels, lodges, and dude ranches are some of the other varied offers made to students and educators. Many branches of the U.S. Government in Washington and throughout the country have also requested their openings to be included.

All openings have been submitted directly to the Institute and include job descriptions, dates of employment, necessary qualifications, number of openings, salaries, and the names and the addresses of the employers. Helpful information is given on how to apply for positions and

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### WATCH FOR: SPECIAL 25th ANNIVERSARY

Issue of  
**VECTOR**  
Many More Pages of  
Features

- Including:
- New Methods of Power Generation
  - Space Medicine
  - Disposal of Nuclear Wastes
  - The Best of Stolen Stuff and much more

ON SALE MARCH 13-15

## Rocket

This Thursday a sleek 37-foot trailer will park between Harris and Goethals-Compton Halls, plug into the College's power supply and open its doors to the students of the College.

The students will enter the trailer to find before them a liquid Oxygen-Hydrogen rocket engine which has been cut apart, a nuclear test loop, and a Material Test System. Two engineers will answer their every question.

This exhibit is being presented by the Pratt and Whitney Aircraft Company of East Hartford, Conn., which contacted the College during January and asked Dean Allen for a satisfactory date for the exhibit which would allow the engineering students at the college to get familiar with the company's role in the engineering sciences and the aero-space fields.

The engineers that will be present are on the engineering staff of Pratt and Whitney and are visiting five municipal colleges this week.

The exhibit will be open from 9:00 A.M. to 4:00 P.M. and all students are invited.

## Awards

The David B. Steinman Foundation established the David B. Steinman Awards to provide grants in the School of Technology

- to undergraduates who need financial assistance to complete their engineering studies; and
- to graduating seniors who need financial assistance to pursue full time graduate work in engineering.

Awards will be made to deserving students selected on the basis of character, scholarship, range of knowledge and interests, well-rounded performance, and leadership potentiality. The grants will range from \$100 to \$500.

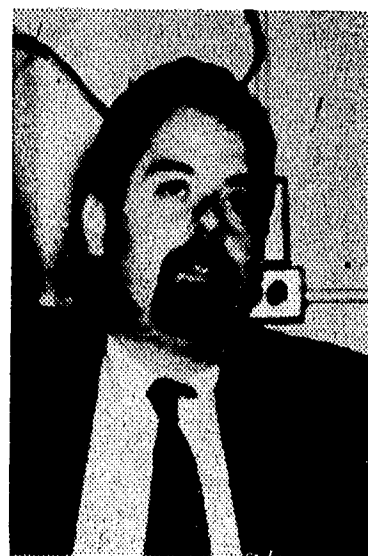
The degree of financial need and the candidate's potential professional earning power will be primary considerations in de-

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## Physics Professor Gets N.S.F. Grant

By RONALD MOSKOWITZ

The national Science Foundation has awarded Prof. Harry Lustig of the Physics Department an \$8400 grant for research into the theory of nuclear reactions. The grant covers a one year period from September 1960 to August 1961.



PROF. H. LUSTIG

### Registrar Calls IBM Registration A Great Success

The introduction of an electronic system of registration at City College has cut registration time in half for students, it was announced by Professor Robert L. Taylor, Registrar of the college.

The new system involved the use of IBM machines for the first time at the College in the ten-day long spring registration period, which ended last week. The change-over was a complete success, according to Prof. Taylor.

The use of the new procedure, which is being adopted gradually in various parts of the college, affected only the day session student body at the Uptown Center. It involved two major revisions in the enrollment process for the almost 8,000 students. The process is similar to that used by other large universities throughout the country.

### How It Worked

First, pre-printed and -punched IBM address cards, registration cards and course cards were used. Second, a series of departmental desks were set up in the registration area at which students registered for their courses with representatives from each of the 28 academic departments.

According to Prof. Taylor, the change-over had been in the planning stage for some time. A bank of IBM machines, including a key punch, verifier, sorter, interpreter and transcriber were installed at the college last July.

The use of the IBM punch card method was described by Mr. Taylor as a "behind the scenes" aid which saved hundreds of man-hours. "It expe-

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The National Science Foundation was created by an act of Congress for the purpose of furthering research and education in the sciences (including the Social Sciences). The Foundation supports basic research as opposed to applied research sponsored by the military and other groups. In order to obtain a research grant an investigator must make a proposal to the Foundation and then wait while the referees sift through the thousands of requests made each year.

The proposal should contain the following: an argument for the project, a discussion of the present state of the art, a demonstration of the investigator's competence (list of publications, etc.) and a detailed request for money. The proposal is only an outline in that the grantee may modify his project after he receives the grant.

Professor Lustig temporarily switched his interest from theoretical investigations into the interpretation of nuclear data to an investigation into the theoretical aspects of "recoilless emission and absorption of gamma rays" also known as the Mossbauer Effect. When the term of the grant is completed the investigator is required to turn in a brief report; hence, bureaucratic interference is kept to a minimum.

Professor Lustig is an alumnus of City College. He was graduated Cum Laude with a Bachelor of Science degree in 1948. He obtained his Masters and PhD degrees from the University of Illinois. Since 1953 Prof. Lustig has taught at the College and in 1956 joined the Nuclear Development Corporation of America as its Principle Scientist.

The grant to Professor Lustig is unusual in two ways: first the Foundation gave the College an appropriation to pay part of Professor Lustig's salary during the research period and secondly the Foundation granted more money than was requested — a very unusual practice.

For those interested, the following is an abstract of the proposed research as taken out of the text of the proposal.

"It is proposed to adapt and to extend the existing theory of nuclear reactions, in particular the "R" matrix formulation, to facilitate the analysis and interpretation of nuclear reaction data. The following investigations are planned:

- (1) Parametrization of the collision matrix for treatment of partially overlapping resonances.

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# TIIC Alumni Meet

By LINDA GROSS

The Technology Alumni Association had its monthly meeting on Wednesday, December 14, 1960, and they discussed problems concerning both the Alumni Association and the under graduates of the City College.

One of their main topics was the Heald Report. The Tech Alumni in general are opposed to many of the conditions set forth by the report and are receiving backing from many important political figures in New York State. The points with which they mainly disagree are the three hundred dollar tuition that students will be asked to pay, the changes that are to be made in the membership of the Board of Higher Education, and the recommendation that a graduate school be built at Stonybrook, Long Island. Bernard Baruch has also volunteered his services to their fight against the report.

Due to the appearance of the Heald Report membership in the Alumni Association has increased greatly, but the Alumni Association is also suffering from the loss of eight hundred and fifty old members. These non-renewals present a problem and Association is making plans to win back their membership.

The School of Technology has received some opposition to their plans for decorating the walls of their only lounge. This problem was brought to the Alumni Association, and we would like to thank them for the support which they have promised to lend us on this issue.

## Steinman...

(Continued from Page 1)  
termining the amount of the grant.

Applications for an award should be submitted as soon as possible. Each qualified applicant will be asked to appear for an interview.

It is anticipated that recipients of grants will earnestly wish to replenish the fund when in a position to do so, thereby making it possible for future students to be assisted. To this end, grants should be considered as non-interest bearing loans and voluntary debts of honor. It is expected that shortly after completion or cessation of studies for which a grant is made, the recipient will complete arrangements for its repayment.

Should a student for any reason discontinue his studies during the period for which an award was made, he will be expected to arrange repayment of a suitable portion thereof.

Application forms may be secured in Room 126A Shepard. Address applications and requests for information to Prof. Arthur Taft, Financial Aid Officer, The City College of New York, New York 31, N. Y.

All those students who are interested in starting a day session photography club should contact Daniel Letzt, at JE 8-8899 after 8 p.m.

# Computers Discussed

By DAVE TUTELMAN

With the coming of the new digital computer at the college, many students have shown some interest in the working of the computer in general. In this short paper the basic theory of computers and binary numbers is enumerated.

Digital (as opposed to analog) machines work with discrete numbers represented by a finite number of digits, each of which can be one of a finite number of figures. For this reason, irrational numbers and repeating decimals must be approximated on the machine. Most computers perform their operations on numbers in the binary system, a number system based on two the way our system is based on ten. (Counting in the binary system follows the sequence: 1, 10, 11, 100, 101, 110, 111, 1000, etc.) In this way, any number can be represented as a combination of ones and zeros or, in the computer, the presence or absence of a voltage. The operations of a computer can perform include addition, subtraction, multiplication, division, squaring, cubing, comparing two numbers as to size, and storing, for immediate access any data it is given. By breaking other operations down into combinations of these processes, the machine can perform such exotic chores as the extraction of square roots, integration, differentiation, and the solution of differential equations.

It was mentioned that computers store information in binary code. Thus it must have a "memory." Despite amazing miniaturization techniques, the memory of a computer usually takes up more space than any other part of the installation. Data is stored as pulses on a magnetic tape (the same as in a tape recorder), as the direction of magnetization of ferrite cores (some which we saw being manufactured were only .01" across), or as the presence of magnetization on whirling drums and discs. Today most computers have a "random-access" core memory and auxiliary tape recording memories. In actual use, punched cards would transfer their data to magnetic tape, from which it would be read into the core memory, operated upon, and the answer to the problem transferred back to the tape. IBM also makes printers which will type (in English, believe it or not) information fed to it on tape or punched cards.

## Programming

Computers receive their problems in the form of a program of punch-marked cards or taped magnetic pulses. The program is a series of instructions, describing each operation the machine must perform on each piece of data. Experienced programmers command good salaries and do nothing but translate business and scientific problems into "computer language."

# Name New Tech Leaders

The new officers of Tau Beta Pi, the national Eng'r honor society, for the Spring term, 1961 are:

Joseph DiStefano III  
Michael Rukin  
David Leung  
Guenther Wilhelm  
Sidney Goldlust  
Louis Weiner  
John George  
Gabriel Epstein  
Irwin Goldblatt  
Maurice Bluestein

President  
Vice-President  
Recording Secretary  
Corresponding Secretary  
Treasurer  
Pledge Master  
TIIC Representative  
TIIC Representative  
Co-Cataloguer  
Co-Cataloguer

The news officers of Eta Kappa Nu, the National Electrical Engineering honor society, for the Spring term, 1961 are:

Ronald B. Schilling  
John T. Benton  
Albert Waxman  
Edward Holmes  
Michael Rukin  
Warren Wolff  
Sol Gems  
Harry Heffes  
Thomas Picunko  
John Silverstein

President  
Vice-President  
Recording Secretary  
Copresiding Secretary  
Treasurer  
Pledge Master  
TIIC Representative  
TIIC Representative  
Co-Cataloguer  
Co-Cataloguer

This term's officers for the following organizations are as follows:

## CHI EPSILON

Thomas Stringas, Pres.  
Alan Ebner, Vice-Pres.  
George Zachos, Secy.  
Guenther Wilhelm, Treas.

## PI TAU SIGMA

Ira Grinberg, Pres.  
Dick Bocchicchio, Vice-Pres.  
Sydney Goldlust, Rec. Secy.  
Joel Newberger, Cor. Secy.  
Gerald Grimaldi, Treas.

## ASME

Stan Wiecek, Pres.  
Joel Newberger, Vice-Pres.  
William Wu, Secy.

## Al Zeisler, Treas.

## ASCE

Lewis Sunderland, Pres.  
James White, Vice-Pres.  
Ronald Brown, Cor. Secy.  
Stanley Posnack, Rec. Secy.  
Edward Petrou, Treas.

## SAE

Herbert Schneider, Pres.  
Dave Hirschfeld, Vice-Pres.  
Jerome Kohn, Treas.  
William Wu, Secy.

Pi Tau Sigma also wishes to announce and welcome its new faculty advisor, Professor Baldo.



Impala V8 Convertible



Impala V8 Sport Sedan



Impala V8 Sport Coupe



Impala V8 2-Door Sedan



Bel Air V8 2-Door Sedan



Biscayne V8 2-Door Sedan



Nomad Six 4-Door 9-Passenger Station Wagon



Nomad V8 4-Door 6-Passenger Station Wagon



Parkwood Six 4-Door 6-Passenger Station Wagon



Parkwood V8 4-Door 6-Passenger Station Wagon



Brookwood Six 4-Door 6-Passenger Station Wagon



Brookwood V8 4-Door 6-Passenger Station Wagon



Bel Air V8 4-Door Sedan



Biscayne V8 4-Door Sedan



Nomad V8 4-Door 9-Passenger Station Wagon



Nomad Six 4-Door 6-Passenger Station Wagon



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# AIEE-IRE Techman Chemistry Prof. Honored

The past term AIEE-IRE presented a program to the entire student body which has been lauded by many people. By presenting to the student body an excellent lecture series which included demonstrations by various well known industrial firms such as the Radio Corporation of America, Western Union, Tektronix, AIEE-IRE won the respect of the students. The organization found that because of its size it could obtain many various items for the members and the entire student body. The organization donated a 600 page volume on Indium to the Technology library and has received much material which is of use to the engineering student such as calculators for frequency response and Smith charts which were donated by FXR Microwave Corporation.

By sponsoring trips to various industrial firms the organization brought to the student body a chance to see what it is like after you leave school.

The establishment of the Officers Training Program has helped to tap the potential leadership of the student body for future officers of the organization. This program has helped to train 20 students to be able to take over the reins of the organization when the present officers leave.

When the organization was visited by members of the parent national organization the visitors found that at City College there was one of the most active student chapters in the entire country. Ronald Moskowitz, now the president of the AIEE has said that the branch will be written up in the national record of the AIEE and there is a possibility that the student branch may host the first convention of student branch presidents from all over the country from the AIEE student branches.

This term's plans again find the AIEE-IRE still pushing ahead to be probably the most active organization on campus. They are planning to sponsor a student-faculty tea and will field a basketball team if the slide rule league comes into being.

## Taylor...

(Continued from Page 1)

dictates the sorting, tabulating and record keeping of the registrar's office, and the preparation of rosters," he said.

The 28 departmental desks were manned by a staff of 55 faculty members, who acted in the double capacity of advisor and registrar. Prof. Taylor pointed out that "this procedure is an attempt to give students more personal and individual attention."

The presence of faculty advisors on the spot cut registration time for most students in half, in many cases from two or three hours to a maximum of one.

It is expected that the new procedure will be introduced into Evening Session registration next year.

The electronic equipment is also being used for statistical reports and analyses of registration figures and trends, Prof. Taylor said. In the future, it will be made available to the college's Departments of Psychology, Sociology, Economics, and others, as well as the Division of Testing and guidance for use in research projects and statistical analyses.

This is the first of a series of articles portraying the presidents of the various technology societies. The first of the tech school leaders is Ronald Moskowitz who is now the president of the American Institute of Electrical Engineers student chapter on campus.

### RONALD MOSKOWITZ

Ronald Moskowitz came here from Bayside High School where he had excelled in the mathematics and the physical sciences.

He has spent the last few summers at a servo components manufacturer where he learned a great deal about these precision units. It is this background when enabled him to contribute several articles to TECH NEWS and VECTOR.

Up at school Mr. Moskowitz is very active. He presently is the President of the Institute of Radio Engineers, a contributing editor to TECH NEWS, a staff member of VECTOR, a member of the College's honorary leader-

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### By MELVYN PELL

Professor Salzberg of the Chemistry Department has received a one year extension of a \$7,000 grant from the American Chemical Society. Professor Salzberg, a City College graduate who earned his doctorate at N.Y.U., has been working in the area of reactions of organic radicals for a year in a cramped laboratory on the third floor of the chemistry building.

The nature of Professor Salzberg's work is off the beaten track. It must be; teachers usually cannot obtain the time, money, or facilities to compete with foundations or private industry in research on pressing problems. He is presently delving into the area of reactions of organic radicals which he produces electrochemically in glacial acetic acid.

### Results

So far Professor Salzberg has verified the electrolytic reversibility of certain reactions and has identified the end products of some reactions. He has de-

termined that the Kolbe reaction which was thought to proceed  $2\text{RCOO}^- \rightarrow (\text{anode}) 2\text{e}^- + 2\text{CO} + \text{R-R}$  contains an end product,  $\text{RCOOR}'$ . R stands for a hydrocarbon residue. He is now trying to find what short-lived intermediaries are formed before the end products in various reactions. His methods are sampling and spectroscopic an-



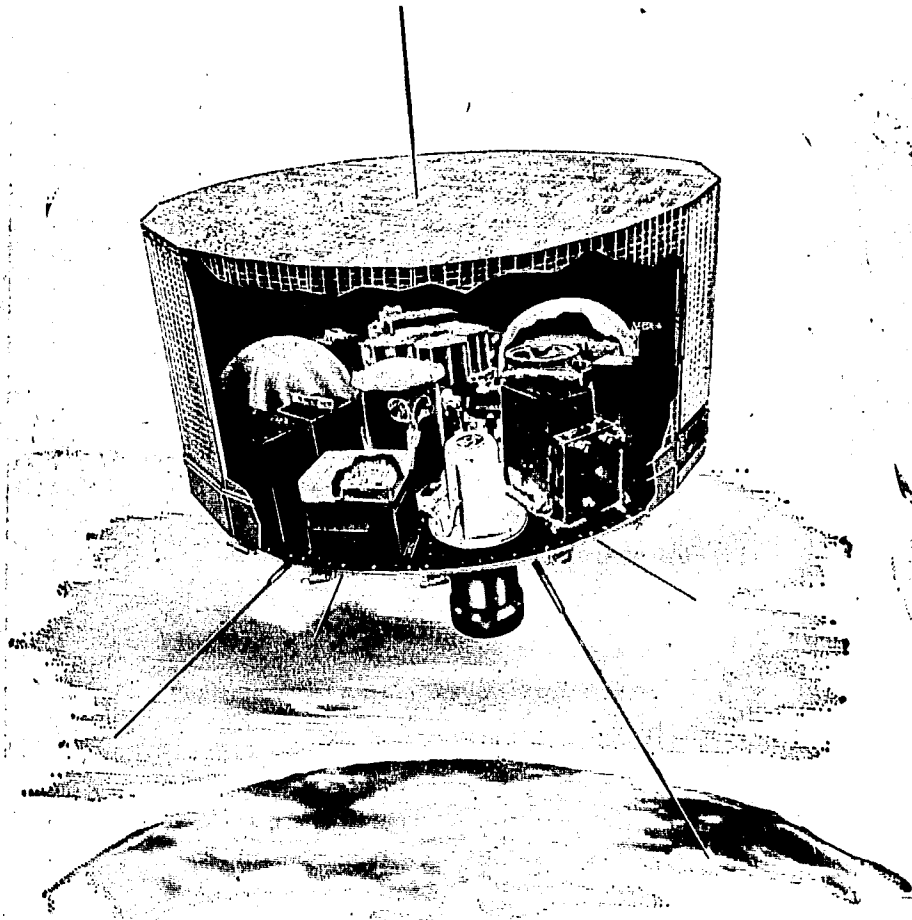
Prof. Salzberg

alysis (if his spectroscope ever gets fixed).

Research work is tedious and no full time teacher can devote large amounts of time to it. However, it is a waste to have a man with a Ph.D. washing glassware on time that should be devoted to research as Professor Salzberg must often do. Then, too, City College facilities are not of the best kind and researchers may find they are using grant funds to buy equipment for the school. "Do you see that frame?" said Professor Salzberg, pointing to a network of metal extending toward the ceiling, "I had to buy and build that myself."

When asked about the effects of poor research facilities on new teachers coming to City, Professor Salzberg said that we are not getting those brilliant men who wish to engage in research with their teaching. Although City College pays higher than average salaries, he said it was not enough to offset the

(Continued on Page 6)



## RCA, builder of Tiros Satellite, needs young engineers today for spectacular achievements tomorrow

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Editorial Policy of TECH NEWS is determined by a majority vote of the Editorial Board

# \$4,000

A \$4,000 Fellowship for the first year of graduate study at Cornell University will be awarded this spring to some outstanding young man from one of America's colleges or universities. It is the Hannibal C. Ford fellowship and is open to American citizens of sound character and of scholastic standing and initiative.

The Hannibal C. Ford Fellowship for advanced study in the Graduate School at Cornell University has been established by the Ford Instrument Company to provide an annual fund to enable an outstanding graduate from any engineering college to pursue full-time study in mechanical engineering, electrical engineering, engineering physics, or mechanics and materials to proceed toward a higher degree. The \$4,000 Fellowship will pay the university expenses for tuition, fees and similar cost and give the recipient a cash stipend of \$2,500. He will have complete freedom of investigation into any branch of these fields of study in the Graduate School of Cornell. It is hoped by this Fellowship to encourage, in the first year of study at graduate level, talents and abilities in original scientific works so well exemplified by Hannibal C. Ford, Cornell, 1903, inventor, scientist, designer and electro-mechanical genius, one of the nation's pioneers in the development of ordnance and navigational controls and computers, and founder of the company which bears his name.

Ford Instrument Company, Division of Sperry Rand Corporation, which set up the Hannibal C. Ford Fellowship in 1953, is one of the foremost companies in missile guidance, digital and analog computers, electronics, thermionics and similar work in aerospace and other government activities. Winners of the Fellowship are not obligated in any way to work for the company.

Previous winners of the Hannibal C. Ford Fellowship were graduates from Rutgers, Brown, Purdue and Cornell Universities and the Missouri School of Mines and Metallurgy. Applicants for the Fellowship should write to the Dean of the Graduate School, Cornell University, Ithaca, N.Y. for application forms and full instructions as to what information the University requires concerning their qualifications. Applications should be filed with the University by February 10 of this year.

# HAMS!

By HAZEL GINSBERG

Throughout the United States today there are approximately 200,000 amateur radio operators. One such group of these hams is found here at City College. They belong to the club which is one of the oldest amateur radio stations in the country, and probably the oldest student organization on the campus.

The station is located on the top floor of the belltower in Shepard Hall. Here the club members have designed and built their own transmitter which uses the maximum legal power output for amateur radio stations which is 1,000 watts. Transmissions are broadcast on 7 and 14 megacycles using both voice and telegraphy.

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## CAMPUS INTERVIEWS

Wednesday, February 15

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## Presidents' Council

By CARYL SINGER

The Presidents of all student organizations in the School of Technology are invited to help inaugurate and advise a President's council for the School of Technology.

The present officers include Ron Moskowitz, President of AIEE; Ted Semegran, former Editor-in-Chief of TECH NEWS, and Warren Wolff, former TIIC President. The proposed aims of this new Council are stated as follows:

- 1—To increase the interest of the students in their Tech organizations and to find ways of encouraging the attendance and enthusiasm of the tech students.
- 2—To try to obtain rooms on North Campus to house the offices of: TECH NEWS, Vector and TIIC. This would make it more convenient for them to conduct their business.
- 3—To set up an elective

TIIC organization to elect the President, Vice President and other officers. (Instead of the present method of having only interested TIIC representatives and officers vote.) The proposed method is to have a special TIIC election with all the students of the School of Technology voting. This election would be separate, naturally, from Student Government elections.

It would be possible to start the ball rolling for this new organization if all the present and former presidents of the school organizations would cooperate. Please contact any of the above people or place a note, including your name, address and phone number on the TECH NEWS Bulletin Board. The Bulletin Board is on the first floor in Compton.

The Presidents' Council will try to hold its first meeting this week to commence its activities.

## Low Man...

There are still vacant seats left on Student Council. Council will meet today, Wednesday, February 15, in Finley 121. All tech students are urged to attend this meeting and to run for the seats which are not now yet filled. If Student Council is to truly represent the student body of the college it must have representatives from all the schools sitting on council. For a technology student to claim that the Student Council is for the Liberal Arts student only is to show that the technology student is not a master of his domain. Since there is no longer any guarantee that a Technology Student must sit on Council the Engineers must get up and fight to be heard on campus. He can no longer be lackadaisical about his position on campus. He is truly the "low man, on the totem pole" and he has put himself there by his own laziness. There has been talk of a Technology Student Party, the purpose of which will be to find those students who care enough about their own respect and are able to look above their texts and slide rules to think about it. If this party does what it has talked about, then the Tech School can look forward to a "Golden Age" in its relationship with the rest of the College. One of the fundamental aims of a college education is to try to make the student learn how to live better with his fellow man. If an engineer prefers to pass his undergraduate years with his nose in a textbook he is missing the fundamental reason for higher education. He is passing his tests on his Thermodynamics and Laplace Transforms, but is failing his test on how to live with his fellow man.

## Student Say

On October 30, 1959, *Observation Post* printed an article which quoted Dean Samuel Middlebrook on his views of student non-voting participation on the School of Liberal Arts' Committee on Curriculum. In this article Dean Middlebrook stated that he was happy to have students on the committee for even though the students had no vote their views could be expressed and this he said made for a better committee. There is presently no students, voting nor non-voting, on the School of Technology Curriculum Committee. We were wondering why this was so. If, as Dean Middlebrook says, students improve the committee for the view that they can give, it seems elementary that the technology committee should include students for the proverbial light that they may shine upon the committee's proceedings. Many times students have had ideas about how the curriculum could be improved but have had and still do not have any vehicle to bring the ideas to the committee's presence. We urge that the technology committee seriously think about student participation on the committee as a means of getting a better student viewpoint on which to base its decisions. Student-faculty committees have had a good record on the campus and

(Continued on Page 5)

# TECH LIFE

By IRA REISS

I have been informed that the writing of the Tech Life column involves the production of a one thousand word column every two weeks. The editor of TECH NEWS has given me a free hand in the writing of this column, the only limitation being that it must concern the City College and its student body. I hope that in some small way I may be able to make some contribution to benefit the college and its students thru this column.

Conditions in the North Campus Cafeteria are at present highly objectionable. Currently there are several hundred students per Burns guard. I have discussed this shocking situation with members of the administration and have been informed that no change in this inadequate ratio is contemplated at present. It seems that the students just are not throwing enough garbage around, having sufficient number of fights, starting an adequate number of fires on the table tops, breaking enough chairs, bending enough silverware, interfering enough with the cafeteria staff and in general exhibiting sufficiently bad manners to force the administration to contemplate increasing the number of Burns guards to the point where we will have an ideal ratio of one Burns guard per student. Of course no arrangement can be absolutely perfect and there may be a few exceptional students who may require the attention of two more Burns Guards.

As an initial step to alleviate this disgraceful situation and prod the administration into action I.F.C. could organize a contest to determine which fraternity can crowd more students around one table and cause the greatest congestion and disorder, the prize being private Burns guard for the winning fraternity.

Upon careful consideration of this matter we will all recognize that no "mature" group of college students should be expected to maintain any degree of order or show any evidence of good manners in a college cafeteria. The more that they act like savages the better. Here is hoping that we shall see a rapid rise in the number of mufti and uniformed Burns guards in the cafeteria.

I am sure that the entire student body of the School of Technology wishes to express its sincere congratulations to the Department of Mechanical Engineering for its progressive policies. An example of which is the highly applauded idea of refusing to post list of courses and instructors before registration. After all, the "reactionary" Civil, Chemical and Electrical Engineering Departments did post lists of the courses and instructors before registration. Congratulations again to the Mechanical Engineering Department for breaking what seemed to be a schoolwide policy and taking the lead in the formation of a new and enlightened policy which the students hope will quickly be taken up by the other departments. Civilized policies such as these can lead to nothing but open insurrection on the part of the grateful students.

I was glad to see the election of the able and dynamic Bob Saginaw as president of student government. However, the Tech students suffered a major setback in the passing of the referendum changing the representation on Student Council. In the future representation will be only by class, not class and school as in the past. Thus Tech students will run not only against other Tech students in their class but also against Liberal Arts students in their class. I guess the Tech School had it coming because of its failure to fully participate in Student government during the past several years, but there is the grave danger that this may cause the Tech student to further disassociate himself from Student government. To counteract this, several students have voiced an interest in the forming of a slate of Tech students to run in the spring Student Government elections. Any students interested in joining this movement should either leave a note on the Tech News or TIIC bulletin boards or contact me. My home phone number is PR 8-6249.

More immediate action can be taken by those interested students coming to the Student Council meetings (Wednesdays at 4:00 p.m. in 121F) and running for the present vacancies (Technology Seats) on the council. Remember that one must have served at least one term on council before being eligible to run for the Student Government executive positions.

The Tech School can look forward to a large number of activities sponsored by TIIC this semester. TIIC's new president, Ira Reiss, outlined an exciting program for the Tech School at the final President and meeting last semester. The success of this program is dependent upon the interest and cooperation of the student body. All students having only interest in working to make TIIC a success this semester should either come to the TIIC meetings (Thursdays at 5:00 p.m. in 121F) or leave their name on the TIIC bulletin boards either at Tech or a special TIIC Crossroads or opposite Knittle Lounge.

**LOOKING AHEAD:** Second TIIC meeting Thursday, Feb. 16, 1961 at 5:00 p.m. in room 121F, all new officers and representatives must attend.

"E" Day will be held on Saturday, April 15 from 10:00 a.m. to 4:00 p.m. Watch for "E"-Day recruiting forms soon to be issued.

"E" Day Ball, April 15 at 8:00 p.m. in the Grand Ballroom of the Student Center.

Attention all engineering organizations, start scouring the south campus for your entrants in the Miss "E" Day contest. More details on the contest to follow.

Tomorrow, February 16, Mr. Clarence B. Anderson of the Mechanical Engineering Department will speak of his engineering experiences in the field. The ME's will hold this meeting at 12:30 in Cohen 303. An "Early Bird" film, "Path of Venus" will be shown at 12:15.

Also tomorrow, ASCE will hold its New Member Meeting. It will be held at 12:30 in Cohen 301. All students registered in the School of Technology and are candidates for the degree of Bachelor of Civil Engineering are invited. The college's chapter of AIEE-IRE will hold its membership meeting tomorrow at 12:30 in S306. Students

## Echo 1

Echo I, the largest man made satellite ever launched, is still functioning, much to the chagrin of many astronomers. The satellite, a spherical balloon about a hundred feet in diameter, is presently performing two important tasks: first as a reflector of U.H.F. radio signals (from which it gets its name) and second, measuring the density of the Earth's atmosphere at the height of one thousand miles. Since Echo I has a large surface area compared with its small mass, the presence of an amount of gas equivalent to the amount present in a good vacuum on earth (as found in a television picture tube) would cause an appreciable change in Echo's orbit. Recently, due to such air resistance disturbances on Echo I's and other satellite's orbits, it was found that the earth's atmosphere pulsates in unison with variations in the amount of Ultra-Violet light emitted by the sun.

In five months of orbiting, Echo I's orbiting time has only decreased about two minutes; at this rate it will remain in orbit for at least a few years. Astronomers at the large observatories are finding this satellite a nuisance. Since Echo I can be photographed with almost any camera, you could imagine an astronomer's reaction to find that he has a big black streak (Echo I's trail) on a 3 hour exposure of a star cluster. Observatories engaged in astronomical photography must now know when and where in the sky the satellite will appear so that they can avoid getting Echo I's trail on their photographs.

Many people who have seen Echo I pass through the sky have noticed that its motion seems to be irregular, and that its brightness sometimes fluctuates wildly. The explanation of both these phenomena would really be a puzzle except that both of these phenomena do not show up on photographs and are not visible with an optical aid. The erratic motion is caused by the atmosphere and is in effect identical with the twinkling of stars. The fluctuation of brightness is due in part to twinkling and in part to very high, almost transparent, clouds. Actually the whole satellite cannot be seen by any observer; all that one can see is a reflection of the sun's disk off the reflecting sphere.

## Summer...

(Continued from Page 1)

each Directory contains a sample resume to assist applicants.

The Summer Placement Directory can be obtained for \$3.00 directly from The Advancement and Placement Institute, Box 99P, Station G, Brooklyn 22, N.Y. Since 1952, the Institute has been a clearing house of occupational information and positions for the field of education.

Students will be given the opportunity to purchase memberships for the new term and will hear short speeches by Prof. Taub, Prof. Wolf and Prof. Abramowitz of the Electrical Engineering department.

On February 23, ASCE and ASME will hold a joint meeting. The meeting, to be held in Cohen 301 at 12:30, will hear speakers from the Civil Engineering Corps speak about opportunities in their organization.

As a closing note I would like to congratulate and thank Jerry Pitkowsky and the Finley Board of Managers for obtaining the fascinating exhibition of working models of Leonardo Da Vinci's inventions.

(Continued from Page 4)

the creation of a student-faculty committee for Technology curricula would also increase the student's knowledge about curriculum decisions.

## ChemE Honors

The College has four honor societies, Eta Kappa Nu for the electrical engineers, Pi Tau Sigma for the mechanical engineers, Chi Epsilon for the civil engineers and Tau Beta Pi for all of the engineers. The chemical engineers though, have no honor society, and we have long wondered why this is so. Phi Lambda Upsilon is a national chemical engineering honor fraternity. This seems not to be known by the ChemE's. It seems to us that it would be a simple matter for the chemical engineering students at the college to write to Phi Lambda, but it seems that it is too much trouble, and that the ChemE's do not want the honor that comes with belonging to an honor society.

## Thanks...

Recently we were reading the annual report of the Alumni Association of the City College. Many students of the college are not aware that such an association exists until they reach the year that they will be graduated and are approached for membership in the Association. The Association is the strongest pusher for the college outside of the college. Last year there was little hope of increasing the state's aid for the city colleges. It was then that the Alumni Association together with the Associations of the other city colleges and the Board of Higher Education concentrated their efforts and had passed in the legislature a bill which tripled the state aid provided by the Mitchell bill of 1959. Campaigns such as that above has enabled the city colleges to increase their enrollment by two thousand additional students, expand the guidance and counseling programs, accelerate the construction of new buildings and to raise faculty salaries. The Association is also active in athletics and in the placement of graduates.

We think that the entire student body owes a note of thanks to the Association for what it has done and for what it will do for the students in the future.

## EE...

(Continued from Page 3)

ship society — Lock and Key. Ronald also operates a successful tutoring service and he has been a demonstrator on E-Day.

At home he has established a laboratory stocked with equipment that he has built himself and stolen from various companies. He is presently using his home facilities for an investigation of harmonic phenomena in synchro devices used as low frequency generators. He hopes to formulate his conclusions in the form of an AIEE-IRE student paper.

Mr. Moskowitz was once a champion weightlifter and is an ex-member of the Beaver Barbell Club. As soon as he can spare the time he intends to rededicate to this activity.

## Grant...

(Continued from Page 1)

(2) Further exploitation of the symmetry and analytic properties of the collision matrix.

(3) Application of dispersion relations.

(4) Establishment of criteria for choosing between multiple phase shift equations."

All those students who are interested in being on the Student Government Social Functions Committee should contact either Linda Graber or Judy Mandelbaum at the Student Government office in Finley 152.

**Electrical Engineers-Physicists**

**NORDEN DIVISION UNITED AIRCRAFT CORPORATION WILL INTERVIEW ON**

career positions in Research, Development, Design and Manufacturing in such areas as

Fire Control Systems  
Radar Systems  
Data Processing Equipment  
Inertial Guidance Systems  
Television Systems  
Aircraft Instrumentation  
Navigation Systems and Components.



# AIEE Lecture

Last week the AIEE had a lecture concerning modern oscilloscope techniques. This lecture was delivered by two representatives from tektronix, which is the outstanding producer of oscilloscopes in the free world today.

There were three different models of scopes demonstrated. One of the scopes that was demonstrated is the relatively new transistor curve tracer which allows a designer to design a transistor circuit around an individual transistor and in this way match the circuit to the individual unit. This is often desirable due to the fact that transistors vary in characteristics much more than do tubes. One of the outstanding features of the curve tracer is the fact that the curves that are traced are calibrated and any element may be chosen as the common element so that the unit can be tested in the mode that it is likely to be used.

This new Transistor curve tracer is a very clever little device. Not only can it show the curve of both PNP and NPN transistors but it can and does distinguish between the two different types of units and demonstrates the curves of the two different types in the way that they should be shown. In addition to the transistors that this unit handles it also handles any other types of semiconductor device that is in existence and at the same time displays the curves the way that they should be shown. At the demonstration there were demonstrations of Tunnel Diodes as well as diodes demonstrated.

The latest model of the general purpose scope was shown. This new scope has built in features that make it a scope of the future. It has plug in units that allow the unit to be turned into a dual beam scope. Also there is an electric window that allows the user to look at any part of the input signal at the same time as the signal is being watched. This portion can be stretched to fill the entire screen. Many of the features of this new unit were really innovations in engineering with regards to scope capabilities.

The organization was particularly honored to have two very distinguished guests in the audience for the lecture. One of these was Professor Weil of Manhattan College and the other was John Morrison from National AIEE. The group was very gratified to learn that the two people were impressed by the functioning of our chapter and we were really praised for our work. It was very gratifying.

One last note was made with regards to the new scopes. There is now a new portable scope for the experimenter. It operates off a low voltage D.C. source and is just the thing to use for fixing the family car due to the fact that it will work from 12 volts D.C. Cost of the unit? A mere \$850. A perfect Christmas gift for a friend.

Clubs and organizations wishing to pose for group photographs for MICROCOSM, '61, the college yearbook, may obtain applications in the Senior Office, 223 Finley. The organization's history, activities, and officers should also be submitted. Seniors who have not yet taken pictures are requested to come to the Senior Office for an appointment. Those who have not yet ordered MICROCOSM may also do so there. Individuals wishing to be in the book may do so at no cost.

Applications for photographs will be accepted until Feb. 17.

## Chem Prof.

(Continued from Page 3)  
poor research facilities. The professor declared that research affords the extra stimulus and will always be more than a man challenge that assures a teacher who reads the book.

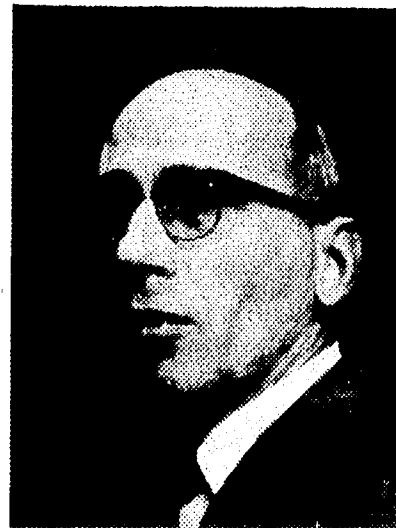
Professor Hartmen was born and raised in New York City. He attended Columbia University where he majored in Civil Engineering. In 1936 he began teaching at City College as an Instructor and worked his way up to the Head of the Department in Civil Engineering.

Professor Hartmen enjoys his work with the students and understands their whims and fancies, having two sons of his own.

He lives in New Jersey with his wife and sons. His older son attends Union College in Schenectady, New York, and the younger one attends Junior High School.

Professor Hartmen has two hobbies which are his forms of relaxation, they are electronics and hiking. To most people electronics are not exactly the kind of hobby one would relax with. Professor Hartmen has traveled much by hiking. He feels that the only way you can really see the country is by walking.

# CE Head



PROFESSOR HARTMEN  
Head of Civil Engineering Dept.

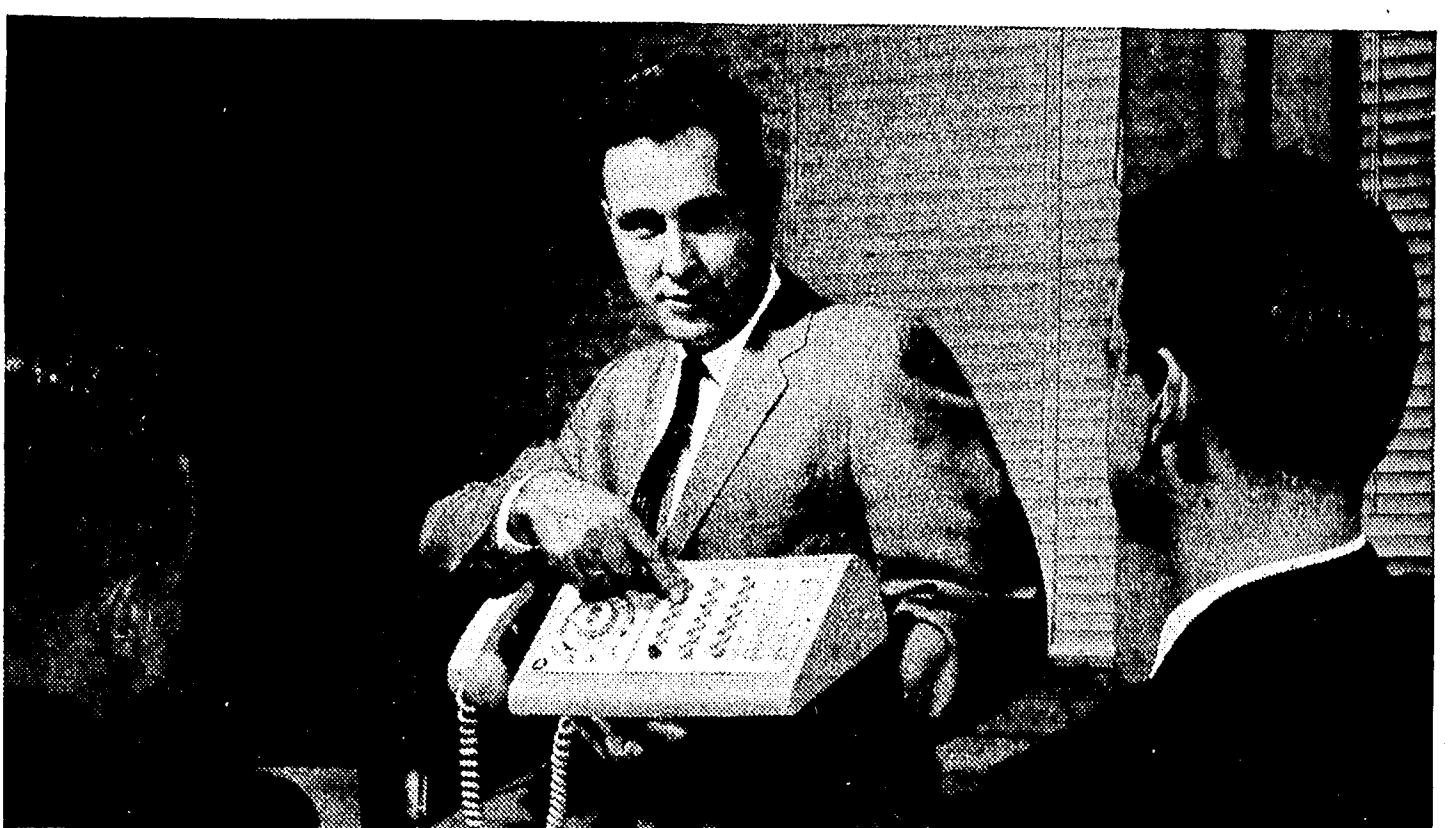
Aside from teaching, Professor Hartmen spent five years in the Army of which twenty months were spent in Europe. He enlisted for this length of time.

Professor Hartmen has only one grievance: that is more engineering students should write for TECH NEWS.

Tomorrow, Thursday, Feb. 16, there will be a general meeting of the staff of Tech News at 12:30. All members of the staff must be present to this meeting. Students are interested in becoming members of Tech News will be able to sign up for the classes at this meeting also.



ALL STUDENTS  
Applications for summer employment will be accepted December 12 through May 15 in room 438 Finley.



Loren Gergens briefs two of his salesmen on new telephone services for business customers.

## "I DIDN'T WANT TO BE STOCKPILED"

When Loren Gergens was working for his B.S. degree in Business Administration at the University of Denver, he had definite ideas about the kind of job he wanted to land. He was determined to profit from the experience of several of his friends who had accepted promising jobs only to find themselves in "manpower pools"—waiting to be pulled into a responsible position. "I didn't want to be stockpiled," Loren says. "That's no way to start."

As a senior, Loren talked to twelve companies and joined The Mountain States Telephone & Telegraph Company, an associated company of the Bell Telephone System.

From his first day challenges were thrown at him thick and fast. First, he supervised a group of service representatives who handle the communications needs of telephone customers. Then

he served as manager of several telephone business offices. In these jobs Loren had to prove himself on the firing line, make right decisions and carry them through. He knew his next jump depended on only one man—Loren Gergens.

In July, 1960, he was made Sales Manager in Boulder, Colorado.

"I'm on the ground floor of a newly created telephone marketing organization. And I can tell you things are going to move fast!" Loren says. "It's rough at times, but hard work is fun when you know you're going somewhere—in a business where there's somewhere to go."

*If you're interested in a job in which you can be your own prime mover—a job in which you're given a chance to show what you can do, right from the start—you'll want to visit your Placement Office for literature and additional information.*



"Our number one aim is to have in all management jobs the most vital, intelligent, positive and imaginative men we can possibly find."

FREDERICK R. KAPPEL, President  
American Telephone & Telegraph Co.



BELL TELEPHONE COMPANIES

Welcome  
Freshmen

# Now We Worry

that the college has the of the Royal-McBee LGP-30. We were wondering if it would eventually take the whole college since it is so smart. We were relieved, however, when we received the letter from the Spring-Mo. Sunday News & Leader, but even after reading Mr. Thomas's letter we still aren't sure.

By DALE FREEMAN

Monday Editor, The News and Leader

somewhere there should be an saw that says never play with your wife — or if I pardon the expression, — a moron.

supersonic moron that is.

you can't win.

he tried it last week at Drury with a \$40,000 machine and a stored program general purpose electronic digital computer.

and we lost, of course.

like a human, it beat us and lied. Once it told us to drop. We'd been cheating.

is an electronic phenomenon capable of solving a wide range of business, statistical, scientific and engineering problems of extreme complexity — of beating newspapermen at blackjack, tic-tac-toe and assorted games at which newspapermen, while not stopping the presses with stories that will shake the town wide open, excel.

at, emphasizes Dr. Garland Thomas, associate professor of physics and one of two Drury faculty members who went to a special school to learn how to beat the machine, it isn't a play on a brain.

There's no such thing as an electronic brain," says Thomas. These machines do exactly what they're told to do — no more, no less."

and, he admits, once in a while things go wrong.

actually, the compact, desk-machine must be fed—with previously worked-out programs perforated tape. A magnetic drum, a memory drum, is the link to the computer, storing up 4096 words or several thousand digits at one time.

When a particular problem is presented and instructions given, the memory drum goes to work, its flash on and off like a miniature Fourth of July display, and the answers come out in a fraction of a second.

Want to know what the square root of 269.67 is?

Just for kicks (because who knows what the square root of 269.67 is?) we asked Dr. Thomas to ask the machine.

he punched a bunch of buttons and in .510 of a second, out came the answer on a 150 word-per-minute electric typewriter. It's 16.0623, of course. Everybody knows that.

Dr. Thomas allows that it could have taken anybody — anybody else but us — at least two or three minutes to have figured out the same problem with pencil and paper. Frankly, we couldn't have done it in two hours.

When it isn't playing blackjack and tic-tac-toe or figuring square roots for nosy newspapermen, the computer will serve

three primary functions at Drury, Dr. Thomas explains.

First, it will be an educational tool for students. It will teach digital machines use to science, mathematics and business pupils, and already has been worked into a numerical analysis course to be offered qualified seniors next semester.

Secondly, it will be used on research projects on campus, although none has been programmed as yet.

And it will be made available to businesses, industries and laboratories in the Ozarks as a public service. For that work, Drury will charge a slight fee, and hopes to make enough to pay for the some \$4500 it will cost for annual maintenance to the computer.

They expect it to be quite useful in such things as inventory and production control, labor distribution, sales forecasting, market research and linear programming. And it might be used for aerodynamic performance computations or electrical power schedule optimization, in case anybody is interested.

Basically, the machine does arithmetic operations, much faster and more accurately than human calculators.

One scientist, Dr. Thomas points out, calls it a "supersonic moron."

"They're as fast as they can be and they're accurate, but like a moron, they can do only what they're told to do."

Anybody who plays games with the machine isn't playing against the machine, Thomas repeated. "You're playing the guy who set up the program. If you're playing chess and he's a good chess player and programmer, then it would be difficult to beat him. If he's a poor chess player, then he'd be easy to beat."

Whoever set up the blackjack program — from personal experience — was no mechanical player.

He, or "it," beat us three out of five games for a mythical \$1 a game.

One of the no-contests unfortunately went like this:

The moron (the machine again, dear) shuffled, cut and then dealt us the four of clubs and the five of diamonds; gave itself the nine of clubs (all neatly typed out).

"Card?" it asked.

"Yes," we confidently typed back.

So we got 7h — the seven of hearts — asked for another "hit" and received the 10 of spades. Busted. That's exactly what the machine typed out.

The contraption, meanwhile, "dealt" itself the 10 of hearts and "held" on a total of 19 to win a dollar.

On this particular victory (after all, what's a lousy buck to a \$40,000 machine), it didn't gloat as some of our poker playing buddies and or wives are prone to do.

But another experiment was more disheartening.

We challenged it to Kayle's game, a kind of tic-tac-toe with a series of Xs placed in a line. Modestly, we admit we had become quite proficient at it over the years, having won several Big Oranges while playing the

game with matches on the soggy tops of neighborhood bars.

However, we shoulda stood among the amateurs.

The machine (known more formally as LGP-30) beat us in four moves. Then it typed — ha ha i win.

Naturally, this made us want to cheat.

So we made an illegal move in the next game.

The lights began to flash and we could have sworn we heard "Star's and Stripes Forever" in the distance.

Then it typed, sweetly — drop dead.

For a machine that wasn't built to play games, LGP-30 does a right fair, and a rather nasty, job of it.

But we figure we're still going to have the last laugh.

How is it ever going to collect that buck we owe it?

ha ha we win . . . after all.

## No Sex For Engineers Field Trip

By LANCE ARGAMBAU

Addressing a well-attended meeting of the Engineering Societies, Dr. Ross Putnam of the Institute of Creative Motivation, yesterday told his audience that the only way to foster progress in engineering was through the enforcement of strict celibacy among engineers. Basing his conclusions on the Freudian concepts of frustration, sublimation, and his own experimentation, Dr. Putnam told the society, "give an engineer no outlet for his basic drive and he will soon be forced to apply it to his engineering. Why just look at the wonderful work that is being done in monasteries." Dr. Putnam predicted a new era of American engineering greatness if his program of applied frustration were carried out.

Dr. Putnam appeared before the society as part of a panel discussion on the future of engineering.

Dr. Putnam added that much too much energy is today dissipated on such mundane matters as commuting, bowling and sex, especially bowling. Only if this energy is turned to more efficient use can we ever hope to compete in today's world. If we are to beat the Russians we must have more creative engineers and celibacy is the only means to accomplish this.

When asked by another member of the panel if he advocated complete abstention, Dr. Putnam replied that perhaps some activity every two or three years might prove beneficial. It would provide the necessary change, the stimulus to keep up any engineers who might have become used to their situation.

Dr. Putnam clarified his point further by stating that he was not against sex, as a matter of fact, the engineers would be constantly reminded of it, to sort of goad them on. It was just a

matter of keeping fulfillment of this drive impossible, so as to provide a great reservoir of frustrational energy which could be sublimated into useful work. By working an engineering squad up into a frenzy with suggestive literature he postulated it might be possible to get anywhere between 18 and 20 hours a day of useful work from them.

The other member of the panel, Professor Charles Klung of the C.E. department was not available for comment.

## EE Trip

Because of the unprecedented popularity and student response to last term's trip the officers of the College's chapter of AIEE-IRE have again planned a trip to the Consolidated Edison Nuclear Power Station at Indian Point, New York.

The officers stated that this trip was planned because of the request of many students who were unable to go on the last trip to the power plant. The officers then noted that many students who have already signed up for the trip are those who went on the last trip and want to see how the construction is progressing. One of the officers stated that he thought that it was the free luncheon given to the students rather than the students' enthusiasm to see the power plant that induced many of the students to register for the trip.

For those who have not already registered, a final registration will take place at this week's meeting of the AIEE-IRE which will be held at 12:30 in Shepard 306.

Also at the meeting there will be a chance for those who have not already joined the student chapter to join then.

Lost in Van Cortlandt Park! A true live civil engineering saga with our two surveying scouts Bart and Slim.

"Looks bad," said Bart, as the last car of the 242 Street Van Cortlandt Park-Broadway local came to a dramatic stop in the 242 St. subway station.

"Yeah," replied Slim, as he glanced at the ominous clouds gathering over nearby Yonkers, "might be snowed in by night-fall."

"Sure hate to be trapped out on polygon 3Kw 4X 11 when it starts to come down," retorted Bart.

"Yeah," replied Slim.

Little did our two civil engineering scout friends, Bart and Slim, realize that they were embarking on real true life civil engineering adventure.

Ten minutes later they arrived at the instrument house.

"Sure looks like nobody's here," exclaimed Bart.

"Yeah," countered Slim, "let's go home."

"Let's try the door," suggested Bart.

"Yeah," responded Slim, with a far away look in his eye, "let's go home." The door was stuck.

"Sure looks like nobody's here," exclaimed Bart as he tried the door.

"Yeah," replied Slim in a barely audible voice, with a still further away look in his eyes, "let's go home."

"Look," shouted Bart unexpectedly, "there are some people around back trying to climb in through a window."

"No," responded Slim, slightly startled, "let's go home anyway. But what do they look like?"

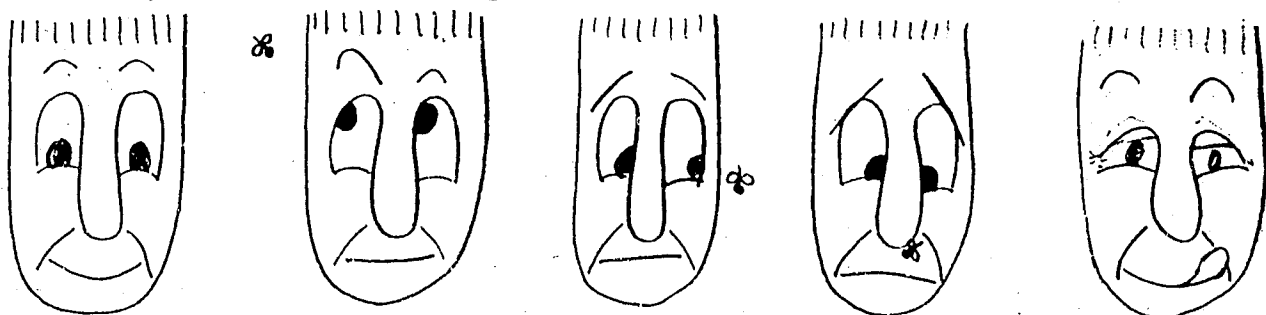
"A real ugly looking group, with two tough looking leaders. One of the leaders is standing on top of a garbage can."

"What are they doing now?"

"They just took the garbage can out from under their leader."

"Now what?"

(Continued on Page 8)



DAVE TULEMAN

# Talk...

(Continued from Page 1)

meaning which cannot be expressed in words because it is that which words stand for. It is the "intended" meaning of a word. A good synonym is **suggestion**. I believe that "connotation" is one of the few words in our language which does not have any connotation attached to it and is one of the most important affective elements of our linguistic communication.

Our ability to understand and use language depends on our awareness of connotations. When we speak we wish to create a response in our audience. We may want to arouse personal feelings or express our own emotions. Connotation is our linguistic tool to this end. We can readily see that without it proper communication by the use of language would be virtually impossible.

## What We Have Learned?

Let us summarize. We have learned word meanings by associations or contexts, and also know how to give words a strength or personality by using connotation. What else is necessary for effective communication?

A verbal communication can be said to proceed in two steps. First, the information, feelings and desires are gathered together. Then these are physically transmitted by the communicator, the former necessarily preceding the latter. Many people try to speak without thinking first and find themselves not saying what they mean. It should be remembered that man's cogitation, which distinguishes him from all other species, can be better trusted than his impulses.

## Adjusting Our Language

In making this communication we must make certain our recipient is able to understand us. We must "speak his language." We should be able to adjust our own to suit every situation or conversation. Also, we must think beforehand of what our communication is supposed to accomplish. The proper words to this end cannot be intuitively chosen if the purpose of the communication is not clearly understood. Also, having an insight into the nature of what is to be said, as distinguished from its technical contexts, should solve our major problem. Let us also remember that self-awareness is all-important to effective communication. Know what your message means at both ends.

## Let Us Summarize

There is certainly more to be said on this subject than I have mentioned. Effective communication is fraught with difficulties. Of course, in writing, these difficulties are more easily overcome than in speaking. But speak we must. Our human and social existence demands it as a matter of necessity. From past and present history we have learned that the ability to speak effectively can help make a person a success. I want to be a success, how about you?

## The Brothers of

## PHI LAMBDA DELTA

will hold their semi-annual smoker on Feb. 24 in their house at 23 E. 95 St., Brooklyn at 8:30 p.m.

# TIIC Plans For Term

This term TIIC will try to bring the engineers down to South Campus. At the first meeting of the term on Thursday, Feb. 9, TIIC established a new policy in order to get the tech students to use the Student Center. TIIC would like all of the engineering societies to hold their executive and planning meetings in the new TIIC office in Finley 207. TIIC's President, Ira Reiss, said that since Council was given the new and larger office in Finley that the organizations could now have a convenient meeting place on South Campus. The facilities of the office (typing equipment, etc.) will be at the disposal of the organizations. Ira noted that the organization presidents should contact him for the details of the use of the office and for key permits.

Also discussed at the first council meeting was an idea to reorganize the Evening Session Engineering Society which, though active the last few years, has dropped into oblivion this year.

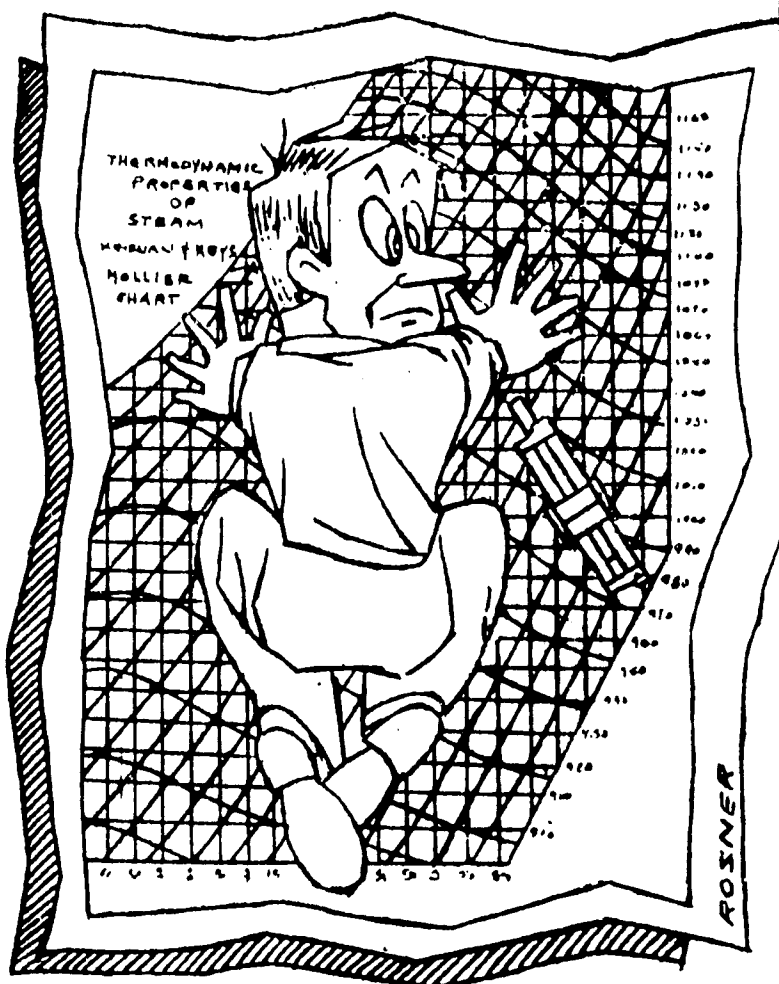
The council's organizations were told to write to Microcosm (The senior Yearbook) to ensure their representation in the yearbook. A short history of the organization and its fundamental aims and a picture of the organization in action will suffice.

In order to help the tech organizations to comply with the Department of Student Life's request for organization constitutions, Council has asked that its member organizations submit their constitutions to Council which will then submit all of the constitutions at the same time. Three copies of the constitution are necessary.

The TIIC tea for the Spring term will take place on Friday, April 14, in Knittle Lounge. All those students who are interested in helping to make the tea a success should contact Morris Liss, TIIC's corresponding secretary.

On April 15, E-Day will take place and of course E-Day is not complete without the E-Day Ball and the E-Day Ball Queen contest. Linda Gross, E-Day Ball chairman has advised the engineers to lift their eyes from their C and D scales and to look for pleasing curves with a nice face to match which can be found on many of the coeds on South Campus anytime. The name of the contestee with a clear photograph should be submitted together with her pertinent information to Linda Gross, in the Tech News office in F335 by Wednesday, March 28.

The next TIIC meeting will take place Thursday, February 16, at 5 p.m. in Finley 121.



DAMN THAT FRENCHMAN

## CE Trip

(Continued from Page 7)

"Their leader just fell off and they're standing there laughing and slapping each other."

Just then they noticed a message scrawled on the instrument house door, "DO NOT OPEN 'TILL XMAS."

"Yeah," replied Slim, with that far away look returning to his eyes, "let's go home."

"Let's get the hell out of here

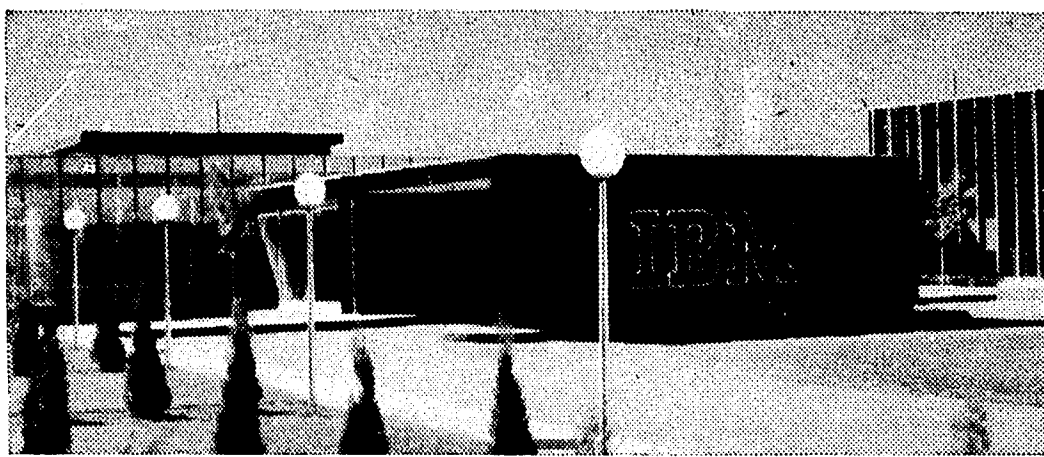
before we freeze like the rest of those idiots," suggests Bart.

"Yeah," replied Slim as he cast a far away look at the building on Broadway just beside 242 St.-Van Cortlandt Park Subway Station. "Let's have a few beers and go home."

"Yeah," agreed Bart.

After three hours in the building our two heroes returned on more to Van Cortlandt Park heading in the general direction of BM. XX47c and were never seen again.

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# Vect 25

The upcoming VECTOR will be a special twenty-five year anniversary issue of one of the finest science and technology magazines.

In this spirit, the magazine will be a special issue, more pages than ever before, expected that all the only tech people will be of great interest.

There will be a special section on the last twenty years of scientific discovery by VECTOR. A search for new power generating techniques. These involve no moving parts, represent a direct of fuel to electricity. The current world has new problems, the physiologic problems encountered in space travel. A familiar one is that of how to produce and how to treat problems in the space will be an article on "Bio in Space Travel." Radiation has other problems that of the distribution of material from plants. The vast power of these fluids must be of or stored that they will

# Teac Lect

Students through the session to attend computer program disappointed to instructor, Mr. the Electrical department, had could not teach Eitzer has already started a series, and a third. The will be given March 15, 22 Shepard from no advance registration enrollment.

The lectures enable students members to problems for LGP-30 computer has recently to handle a new language and be taught during the program only be used