THE SCHOOL OF ENGINEERING AND ARCHITECTURE

TECH NEWS

CITY COLLEGE OF NEW YORK

VOL. XIX — No. 3 | WEDNESDAY, OCTOBER 30, 1963 | BY STUDENT FEES

Israel's Scientific Progress Aided By C.C.N.Y. Profs.

By FRANK MARTINES

On Saturday and Sunday, Oct. 26 and 27, the 6th annual Conference on Science and Technology in Israel and the Middle East" convened. This conference was sponsored by e American Technion Society which is a philanthropic or-anization dedicated to and the direct outgrowth of, The echnion Israel's Institute of Technology. The primary pur-ose of this conference was to convey to American sponsors nd contributors the immense progress made by this institu-on in meeting the needs of a fledgling nation.

Prof. Abramowitz On the Planning Committee

Among the many notables con-cted with American Technion ciety from various engineering hools and industrial fields roughout the country, are Pres-nt Buell Gallagher, Dean Wil-m Allan (Engineering & Arch.) and Prof. Abraham Abramowitz (EE) of the City College of New York. Prof. Abramowitz in par-ticular, as a member of the so-ciety's planning committee, has been very instrumental in attain-ing many of the organization's goals.

At the meeting, authoritative guest speakers, discussed the technological and economic prob-lems of Israel and the progress made in overcoming them. In par-ticular, stress was laid on the in-tegral part The Techion has play-ed in this progress both as educa-tional institution and as a re-search and development center. At the Sunday offering, Prof. Morris Ettenberg (EE) of the City College, spoke on "The Microtron Accelerator Research Program." Other noteworthy topics were "To Feed a Nation — The Role of Food Technology," "The Applica-tion of American Technology to Israel's Industry" and, "The Turning Point in the Economy of

(*Continued on Page 2*)

Tech Students Irked By Store Decision

By WALLACE GOTTLIEB

"It's books before beermugs," demanded Herb Geller, esident of Tech Council; "Everything else would have to before engineering textbooks."

Mr. Geller's remarks are typical of the comments heard over North Campus last Friday afternoon, when tech dents learned of the College Bookstore's decision to dis-ntinue the sale of engineering and graduate textbooks.

According to a story in **Campus,** e decision was made because e Bookstore will have to carry larger number of liberal arts oks for next Fall's increased en-lment. Mr. Ronald Garretson, e Bookstore's Manager, was oted as saying that "the engi-ering and graduate students ll just have to go somewhere e." He claimed that the crea-n of a North Campus Bookstore uld be the best solution to the oblem but that he is "tired of ing" to get the Administration go along with him on this pro-sal. Mr. Garretson mentioned t strong student support might p to make a North Campus re a reality.

The **Campus** story unleashed a ve of tech school indignation engineering students poured th their verbal wrath on Mr. Garretson, the Administration, and even the School of Liberal Arts and Science. "We are just as important as they are," went their line of reasoning. Most students felt that the College's 2500 engi-neering students should not be slighted like this. They argued that the removal of the Book-store's Record Department would provide enough room for all the books that the store might have to sell. Others felt that this was a last-ditch effort by Bookstore officials to get an outlet on the North Campus.

As of Monday, the indignancy and anger were still there, but most tech students began hoping that a North Campus Bookstore would finally come into being. Either that, they thought, or get rid of the beer mugs.

BIG CONTEST

Do you have a pet question that you would like the INQUIR-ING TECHNOGRAPHER to pose to some of his thousands of read-ers? If you do, write it down on a postcard and mail it to the IN-QUIRING TECHNOGRAPHER, c/o TECH NEWS. The prize for any question that is used will be the satisfaction of seeing your name in print as the submitter of the question. All entries become the property of TECH NEWS and in the event of identical questions, duplicate prizes will be awarded.

EDITORIAL:
Jazz in the Bookstore

The harm that may result from poor, inaccurate news reporting was recently demonstrated by the Campus.

A story appearing in last Friday's issue stated that the City College store was going to stop carrying engineering texts. This is not so. Mr. Garretson actually said that there is a possibility that engineering graduate texts will no longer be sold there. He did not urge any student riots or pickets.

Apparently this story, which set the North Campus in an uproar, was never verified. The bookstore manager's re-marks were twisted so that they produced a lively story with a good headline. The editors of any college newspaper must above all be responsible and must use great care when bring-ing controversial issues to light.

Mistakes such as the one made by Campus happen, and are sometimes not any one person's fault. But it is hoped that in the future more care will be taken so as to prevent a recurrence of such an incident.

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The question uppermost in most people's minds is, "Why pick on the engineers?" A popular north campus myth thrives on the belief that there exists latent south campus prejudice towards the engineers. Maybe so, but we doubt if it has mani-fested itself in Mr. Garretson's announcement. Over the past year he has tried to obtain a north campus bookstore with

(*Continued on Page 4*)

Tech Dept. Heads Disagree About Enrollment Crisis

By RICHARD ROSENFIELD

The degree of seriousness of the coming enrollment crisis remains unresolved in the School of Engineering and Archtec-ture. The heads of the various departments take divergent views when discussing the problems presented by the crisis. Some feel that there is no crisis at all.

Professor Schmidt, Chairman of the Department of Chemical En-gineering pointed out in an inter-

Dean Allan Awaits Faculty Proposals

view that the additional number of student entering his depart-ment in 1966 will be nominal. Should 1000 addition freshmen enroll next fall, only about 45 students would reach the Chemi-cal Engineering Department in 1966. The cutdown is due to the high attrition rate during the first two years of study, and the divi-

(*Continued on Page 2*)

CONCERNED ?

Are you concerned with the myriad complexities of world and national tensions; with the peace-time cold war, disarmament is-sues, civil rights, federal foreign ad allocations, the defense budget, the national debt and gold drain, and presidential poltics? BIG DEAL ! Join TECH NEWS and get to know what the really im-portant issues are.

PRINTER'S FIT

All the news that is fit to print we try to print to fit the print. But if we print what is fit to print to fit the print, then the print we fit with that which is fit to print could not be printed to fit. If, however, we printed to fit what is fit to print then that which is fit to print and printed to fit would never fit the print.

UPTON SINCLAIR

Upton Sinclair, famous author and graduate of C.C.N.Y., will address students and faculty this afternon at 3 p.m. in Aranow Auditorium located in Finley Center. Mr. Sinclair is the author of "The Jungle" an expose on the meat packing industry.

Visiting Prof. To Begin Lectures Thurs.

Dr. Nicholas Kurti, of Oxford University, England, and currently Visiting Professor at City College, will deliver the first in a special series of lectures on low temperature physics before physicists from the metropolitan area tomorrow (Thursday, October 31) at 4 P.M. The lectures are being given under the auspices of the department of physics of City College.

Dr. Kurti is an authority in the field of cryogenics, the science of refrigeration concerned with methods of producing very low temperatures. He has been Sen-ior Research Fellow of Brasenose College, Oxford University, since 1947, and heads the magnetic division of the low temperature laboratory at the Clarendon Lab-oratories, Oxford. As Buell G. Gallagher Visiting Professor at City College, he is in charge of the college's cryogenics laboratory which began operations this se-mester.

The lectures will take place at 4 p.m. in Room 105 of the col-lege's Shepard Hall, 139th Street and Convent Avenue, New York 31. The first lecture will be fol-lowed by a reception and the re-maining talks will be preceded at 3:30 p.m. by informal receptions in Room 5, Shepard Hall.

The schedule of lectures fol-lows:

Recent Studies of Radioactive Decay Schemes and Hyperfine Coupling in Ferromagnets by Low Temperature Nuclear Orientation, Part I, October 31, 1963.
Part 2, November 7, 1963.

Nuclear Polarization, Nuclear Thermometry and Nuclear Cool-ing, Part 1, December 5, 1963, Part 2, December 12, 1963.

Some Technological Aspects of Cryogenics, January 9, 1963.

Cafeteria Controversy

Evidence that the ever-present cafeteria controversy is with us again this term was brought to the attention of TECH NEWS. The following letters, containing charges and counter-charges, define the issue quite well.

An Open Letter To All Students At The City College:

Although there are some groups at the College to which this might apply more than others, the following is of concern to all members of the College community.

During the past year, several instances of thoughtlessness, obstreperousness and infantile behavior on the part of a minority of student groups has caused unpleasant situations in the North Campus Cafeteria. The Cafeteria, which should have provided a pleasant atmosphere for seating and discussion, as befits a College, was at times faced with conditions which would have been tolerated by few private rathskellars. There is no excuse for this.

We recognize that the Cafeteria is crowded during peak periods, and that coatroom facilities and lounge area for a short respite from classes are inadequate. This is especially true because of the current increased enrollment. There is a Student-Faculty Cafeteria Committee, and there are organs of Student Government to which problems of this sort may be presented for solution. These existing problems cannot be used as ratiolanization for illegal hazing, rowdiness, or other disruptive behavior. Mrs. Schassberger, the Cafeteria's hostess, has, at best, a difficult job. She has been reluctant to report individuals because she realizes that most of those offensive acts, though immature, are not malicious; and she does not want an indiscretion to mar a student's otherwise acceptable record. We would urge students to keep this in mind and cooperate with her. Should conditions warrant, however, disciplinary action will be taken. Students are reminked that they are required to have their I.D. cards with them while on the campus, and to present them, when requested by proper College authorities.

We urge all students to use the Cafeteria solely for eating during peak periods, thereby permitting each student his RIGHT TO A SEAT, and to observe the regulations which are posted throughout the room. It is our sincere hope that you will cooperate with Cafeteria employees to ensure that during the coming year, the Cafeteria will have a pleasant atmosphere conducive to good digestion, good discussion, and good fellowship.

Willard W. Blaesser,
Dean of Students
Ira Bloom,
President,
Student Government
Girard Pessis,
Vice-President,
Student Government

* * *

An Open Letter To The Student Faculty Cafeteria Committee:

As noted by Dean Blaesser and SG president Ira Bloom in a recent announcement, the North Campus cafeteria is badly overcrowded during the lunch hours. Although there is a separate dining room for faculty, section of the dining room has been reserved for them only. It should be noted that this section is never filled to capacity.

In other schools, when faculty members desire to use the general cafeteria, rather than their own, they sit with the students. This encourages closer student faculty relations, which are sorely needed at the College.

We propose that the faculty section of the North Campus cafeteria be combined with the general dining area. We feel that this would be the more desirable condition from the point of view of both overcrowding and student faculty relations.

The Tech Council

Steven New Chi Epsilon Advisor

Professor James R. Steven (C.E.) has become the new faculty advisor to Chi Epsilon, the national honor civil engineering society, filling the post left vacant by the resignation of Professor Gerner A. Olsen (C.E.). Professor Steven is well liked by civil engineering students, because, as one of them puts it, he "seems to enjoy being acquainted with his students."

Professor Steven worked his way through City College, attending night classes for seven-and-a-half years, which he says must be "some kind of record." The College's evening session C.E. program was once quite different from what it is today; Professor Steven said that the course offerings resembled what one would find in a "country schoolhouse." Instead of the complete curriculum now available, courses would sometimes be offered only if requested by six or seven students.

After graduating from the College in 1942, the Professor worked as a civil engineer for an insurance company. He also was associated with a consulting firm. He served with the U.S. Army for two years, arriving at both the European and Pacific fronts just too late to see action. In Japan, Professor Steven trained men in surveying and photogrammetry. This was part of a plan whereby the United States was to help Chiang Kai-shek survey western China.

(Continued on Page 6)

Israel . . .

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Israel." The Conference was brought to a close on Sunday afternoon with luncheon speeches given by Gustave Rosenberg (Chairman, Board of Higher Ed., City of New York), and David Rose (Chairman of the Board of Directors, American Technion Society).

The Technion, it might be noted, is the oldest institution of higher learning in Israel, and has gained world wide reputation for its advancement of science and education. As Israel's only institute for the training of engineers, architects, and technicians, it is contributing the life-blood to the economic development of the country.

Presently located about five miles outside of Haifa, overlooking the Zebulo nValley atop Mt. Carmel, are the new buildings of the Technion City, which now consist of a preparatory high school, junior college and research development center in addition to the engineering school. Due to increased facilities at this new site, Technion now has an enrollment of more than three thousand students. The courses now available to these students include Civil Engineering, Architecture, Chemistry, Agricultural Engineering, Science, Aeronautical Engineering, Food Technology, Electrical Engineering, Metalurgy, and Business-Management Engineering. In speaking to Dean Allan about the scholastic standards maintained by Technion, he expressed his opinion that they were very good and that they had "a little bit more applied slant to education."

Enrollment

(Continued from Page 1)

sion of remaining juniors into the four different areas of engineering. The Chemical Engineering Department can easily accommodate such an increase.

Prof. Schmidt stated that while not indifferent to the enrollment problems he "can afford the luxury of not being critically involved in the situation." What he is most concerned with is the Ph.D. program, which will require an increase in funds. He noted that Ph.D. students take up more laboratory space and time.

In contrast, Prof. Updegrove, Chairman of the Mechanical engineering Department is very much concerned with the increase. He stated that he "is in agreement with President Gallagher's objective, but not his method." He feels that there will be a shortage of classroom space in Harris and Shepard Halls. "This shortage can be eased by the institution of more 2 year colleges which will decrease the number of lower classmen. The space provided can be used for upperclassmen."

The M. E. Dept. is adamantly against Saturday classes but "can live with an extended day." Another proposal set forth by Prof. Updegrove is the use of block programming to enable greater utilization of available classroom space. Block programming would mean having the choice of several pre-prepared programs rather than the random choice system now in effect. Use of block programming will also allow greater use of mass lectures.

Professor Hartman, Chairman of the Civil 300 engineering department is most concerned with the lack of office space and its consequences. "With the office situation as crowded as it is, it will be extremely difficult to find room for students in the Ph.D. program." He stated "There will be no increase in the number of mass lecture sections because only CE 110 and CE 112 have enough sections to require large lecture classes. Prof. Hartman feels that there is no real crisis in his department.

The Electrical Engineering Department feels that it can measure up to any student increase and prevent a crisis situation from arising. Prof. Taub, Chairman of the E.E. Dept. stated that he was in favor of using the extended day and week and also mass lecture sections to handle additional enrollment, "but we will be careful to insure that high standards of instruction are maintained."

The proposals of the departments must still be formalized and then submitted to Dean Allan and President Gallagher before any definite action can be taken.

Computer Expert Joins Ph.D. Staff

Graduate Study at The City University of New York is being strengthened by the appointment of forty-one faculty members to university lines. Dr. Albert H. Bowker, chancellor of the university has announced. The new staff members come to the university from posts in more than twenty colleges and universities, from business, research institutes, and government agencies.

Four visiting professors will serve the university as a whole; the remaining new faculty members have been assigned to teach at the four senior colleges, City, Hunter, Brooklyn, and Queens. Named to the post of university visiting professor in engineering is Dr. Richard W. Hamming of the Bell Telephone Laboratories, an authority on computer system organization, who has been president of the Association for Computer Machinery and editor of two journals in the field.

When questioned about the purpose of having visiting professors, Dean Allan said that experts in the various fields of engineering and mathematics were "invited to join our staff to bring to our students and faculty members some of their specialized knowledge." He also stated that "the appointments may be made on a full-time basis or a part-time basis as in the case of Dr. Hamming."

Dr. Hamming, who is by education a mathematician, was previously an instructor at the University of Illinois and later an Assistant Professor at the University of Louisville. He later worked in research at Los Alamos Proving Grounds and then the Bell Research Labs in 1946. At present as a member of the Civil Engineering Dept., he is in conference with teachers and graduate students involved in the computer program at the City College. While he is not teaching any courses on computer technology this semester, he has given two informal lectures. It is hoped that the vast new complex and Dr. Hamming's considerable background will be forged into a graduate course next semester.

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S.G. Election Talks Begin

Student Government elections, heduled for early December, e already starting an uproar ong inhabitants of the South mpus Student Government of-e. Rumors are circulating about o is going to run for President S.G. Most of the people rumor-to be running may be running t they are not talking.

Current S.G. President Ira ooms only comment when ask-if he would run again was, "No mment.' Samuel S. Eiferman s quoted as saying that he finitely would seek the office S.G. President although he has mitted that he is ineligible. an Blume, former S. G. Presi-dent, was unavailable for comment on rumors that he may run again.

Robert Levine has announced that he definitely is running for the S.G. presidency. He said that he will run on the University Party Ticket (U.) Levine, an unsuccessful candidate in this term's special election has thrice been elected to Student Council and was an Associate Vice President of Student Government. He is considered a middle of the roader in S.G. politics and among other things in his platform are promises to "expand campus facilities" and for "year 'round activity for a free City University."

Ira Bloom

Bob Levine

SAME: Dedicated To Nation's Defense

From 1956 through 1962, the ty College Student Post of the ciety of American Military En-neers has won the SAME Na-nal's award for the best stu-nt post in the country.

SAME was started after World ar I for the purpose of coordi-ting civilian and military en-neers for national defense. The udent Post carries out this aim having many engineers, de-gners and representatives from fferent firms talk on their fields om both the military and civil-n viewpoint. A recent visitor as a representative from the ell Telephone Company who oke about the laying of the At-ntic cable and transcontinental aling system. Another visitor as a partner in the construction m which built the Throgs Neck idge and is now building the errazano-Narrows Bridge. These ctures are free and are open to . The time and place of these ctures are listed in the SAME's lletin board near the Military ience Dept. in Harris Hall.

Following the program set wn by National SAME, the udent Post organizes field trips roughout the year. In previous ars members have visited White nds Proving Grounds in New exico, Saint Lawrence Seaway Canada, and New Orleans via verboat along the Mississippi. e next field trip will be to pe Canaveral. These trips are ee to members.

If you are at all interested in joining a collegiate-fraternal society which will enlarge your viewpoint in the field of your choice, why don't you drop in to Harris Hall and take in a lecture. Any questions you have will be answered at that time.

—Senft

E. S. Lacks Tech Groups

By KENNETH SANDLER

Evening Session Student Government President Robert Crogan told TECH NEWS Friday that Evening Session now more than ever needs Tech groups to satisfy the extra-curricular needs of its Tech students. With a large increase in enrollment expected the lack of any Tech societies which are affiliated with Evening Session, will be severely felt.

"We would like to see the organized Tech clubs and societies expand and become joint Day and Evening Session organizations fill the void that now exists for E.S. Tech students," said Crogan. "The Tech Student now has a very limited opportunity to participate in extra-curricular activities.

"Evening Session Student Government would encourage the formation of such groups and would cooperate by supplying free publicity, assistance, and institute a drive on North Campus to get initial membership for these groups.

"Currently the major difficulty faced by E.S. Tech students in joining any Day Session organization is that the groups meet during the Thursday afternoon

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Book Review

NUMERICAL CONTROL IN MANUFACTURING. Prepared under the supervision of the National Technical Publications Committee, American Society of Tool and Manufacturing Engineers. Editor-in-chief: Frank W. Wilson. 496 pages plus index; 204 illustrations; 6 x 9; McGraw-Hill; $15.00. Publication date: October, 1963.

"Numerical Control in Manufacturing" is, according to the authors, the first book to be published on the automatic regulation of machine by numerically coded instruction. Numerical control (N/C), they explain, affects every element on the total spectrum of manufacturing. Through the lata processing and control permitted by this procedure, in conjunction with the very definite production improvements it brings, management can set up an integrated system of operation, from product design to final inspection, that will more directly and effectively achieve its goals.

The book, which is aimed at management and the manufacturing engineer, adopts this concept by discussing N/C operations in terms of their use and effect. Both practical and technical, it is designed to satisfy management's need for economic and system information as well as the engineer's need for technical facts and know-how.

The 16 chapters of the book represent the collaboration of 31 authors and co-authors, each a specialist in his field. The material covered includes: the genesis of Numerical Control, N/C's management implications and advantages, manufacturing functions under N/C, positioning control systems, straight-cut control systems, and contouring control systems.

There are chapters devoted to the specialized manufacturing applications of N/C, inspection and testing, machine tools and their relation to N/C, N/C aspects in tooling, and manual programming. Computers and their role in N/C are thoroughly covered, and there is a separate chapter on information processing and storage. Two other chapters discuss the economic justification of N/C and the maximized use of N/C in manufacturing. The book concludes with a complete glossary of N/C terminology.

Frank W. Wilson, editor-in-chief, is Technical Director of the American Society of Tool and Manufacturing Engineers. Mr. Wilson has also been editor-in-chief of a number of other volaw-Hill, including the ASTME's umes recently published by McGraw-Hill, including the ASTME's "Machining with Carbides and Oxides," "Handbook of Fixtures Design," and "Manufacturing Planning and Estimating Handbook."

Further information on the ASTME's "Numerical Control in Manufacturing" may be obtained from the McGraw-Hill Book Information Service, 327 West 41st Street, New York, New York, 10036.

TECH NEWS

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Bookstore . . .

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little success. **Tech News** has supported Mr. Garretson's plan for expansion a number of times. No one, at least those charged with such matters, has found or given him room for the store.

If Mr. Garretson's pronouncement is an attempt, as we believe it is, to panic the planning department in to providing extra room, then we hope he has weighed all the consequences of his move carefully. The engineer is part of the college scene; he needs and wants the services provided a college bookstore.

Don't Sell Them Short

It seems as if the "enrollment problem" is no problem at all as far as the School of Engineering and Architecture is concerned. Not one of the engineering department chairmen expressed any real concern about the large number of freshmen that will enter the College next Fall. Unlike the deans and department heads in the School of Liberal Arts and Science, the tech administrators are not making any new curriculum proposals or devising any revolutionary schemes for accommodating the new freshmen. "We are ready for them," they say.

And ready they are! The increased enrollment will not affect the tech school directly for another two years, when next Fall's freshmen begin to take engineering courses. Even then we will be better prepared than the rest of the College. Steinman Hall was designed to accomodate a large student increase, and is presently functioning at only one-third of its capacity. Significant also is the fact that engineering enrollment is at a levelling off stage. Consequently, we may not get as large a proportionate increase as the liberal arts school.

So, it seems that there is no enrollment problem in the tech school. But engineering education does not begin with engineering courses taken in Steinman Hall. It begins with the basic mathematics, physics, and chemistry courses, and herein lies a problem; herein lies a problem which we think merits a good deal of concern.

Before a student takes an engineering course, he must have thorough and adequate preparation in basic math and science. The word "adequate" is very relevant here. The importance of pre-engineering courses is great; the content of these courses is intimately linked with future technical work. Analytic methods discussed in Math 7 have proved to be essential to the solution of many engineering problems. Whole chapters of engineering texts follow directly from principles introduced in a physics course.

Success in engineering, then, is based on two years of study in the School of Liberal Arts and Science, two years in a school for which drastic revisions are now being proposed, two years which can make or break a prospective engineering student.

There is no doubt that if any of the proposed revisions are made next Fall, their effects will show up in the tech school in future years. We beg the Administration to take heed of this when they make their final decision. The effects of these changes might be terrible. We hope that they will not "break" too many rising engineers.

Inquiring Technographer

By HARVEY HOFFMAN

QUESTION: Among the recent proposals made by President Gallagher to increase enrollment are: 1. increasing the number of lecture classes, 2. establishing a six day week with hours from 8 A.M. to 7 P.M., and, 3. staggering elective courses. Do you favor these proposals?

WHERE ASKED: Steinman Hall.

SANFORD KRAUT, Bronx, Lower Senior majoring in mechanical engineering: "I object to increasing the number of students mainly due to the overcrowded conditions in the Tech Library and North Campus Cafeteria. The Tech Library is not solely used by engineers and is heavily crowded on Thursdays between 12 and 2 and on most afternoons. The North Campus Cafeteria is always jam-packed between the hours of 10 and 2 and it sometimes requires 20 minutes just to get a cup of coffee. Elimination of the 12 to 2 Thursday break would be hazardous. This break is the only common hours where students can engage in athletic competition or attend society meetings. In general, unless the library and cafeteria facilities can be greatly expanded and the break can be kept, I am opposed to this proposal."

Sanford Kraut

Joel M. Nesson

JOEL M. NESSON, Bronx, Lower Senior majoring in mechanical engineering: "It is my feeling that the present facilities will be sorely taxed, in particular the cafeteria and the Tech Library, with the increased enrollment that is to be expected. It is, in my opinion, impossible for both students and instructors to make lecture sections for most classes and still keep a high degree of scholastic rating and learning especially in any technical subject such as math, physics and engineering subjects in general. Rather than extend classes to a six day week and include more hours in a day, I would suggest a three term school year which would enable the present day and week schedule to be kept along with appropriate club hours, not to mention smaller classes."

DENNIS YOUNG, Bronx, Upper Senior majoring in electrical engineering: "In view of the increasing number of students entering college, every college and in particular the City University has a responsibility to try to accomodate as many worthy students as possible. City College has a special responsibility because it must try to provide a higher education to the many students who will not be able to afford good college education elsewhere. A solution to the problem must be found in expansion of facilities and an attempt to increase the efficiency of using the present facilities.

"Some of President Gallagher's proposals such as expanding the number of available hours per

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IEEE

The IEEE announces a lecture on "Analog Computers" to be given by a speaker from Electronic Associates. The lecture will be delivered on Thursday, October 31, at 12:15 p.m. in the Steinman auditorium.

HKN

H.K.N. invites students and faculty to hear a speaker from General Precision Aerospace speak on "Space Navigation" in Room 424 Finley on Wednesday, October 30, at 5:15 P.M.

NTROSPECTION

The following appeared in the "April Fool" issue of TECH WS in 1961. It was in the form of a Letter to the Editor, in which uthor wished to comment on ". . . some of the incredible, inde- pable, and indifferent attitudes and ideas which have come to attention while a student at the School of Technology for ly three and one half years." His comments live on.

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Concerning students: Did you ever notice how many es the guy next to you in class glances at notes, hoping, between your notes and his he'll be able to transcribe ry morsel that the instrutor utters; in how many classes you have one or two students who constantly ask questions, ch rightfully would be answered by the instructor's next tence; the method's right, the answer's wrong; maybe answer in the book is wrong; how many in your classes abor the instructor for the make-up of the next test; forget theory, memorize the formulas; how many in your class- bargain for that extra point; who asks all the questions ing an exam; ya put the seven on the D scale . . . who tes up the lab experiment today; use large diagrams, four r offset, he likes it that way; where does this plug go; I k in here; don't forget the conversion factors; have you an extra T square; how many times has the bell rung to e your neck; a penny for your thoughts concerning the guy gets a 95 when the class average is 40; maybe next time on't go out on Friday night and Saturday night when I've three exams on Monday; let me have your address, maybe can study together; together we got an 85; diya do the nework; I'll give it back to ya lunchtime (full of coffee ns); the student bucking for an "A" calls him "sir"; how ny of your friends criticize the instructor's suits, but wish y had his grey matter; when was the last time you read ovel; they told you it was going to get easier, when; what s the name of your Math 7 instructor; remember they told that the guy sitting next to you wouldn't be an engineer long, look at him now, taking it easy down on the South mpus; when was the last time you were down South; what s Humanities have to do with being an engineer; remem- the famous words after the subway atmosphere around final grade boards; wadya get;. . . lust for the almighty rk has thrown knowledge out the door.

Concerning instructors: number 4875, answer my ques- n; now you take this little dy and you put it over that dx ; for the final you have to know the whole text; for sim- city, assume the cube to be a sphere; we're having a quiz morrow; the test will cover the term's work; there'll be ½ points on theory, 88½ points on problems, the rest is a us (I don't expect you to answer the first 90 points); read pters 6 through 17, not difficult to understand; I do not rk on a cerve, each student gets what he deserves; it's only first day of the term and we're 2½ periods behind al- dy; remember if you have a question raise your hand.

Concerning student newspapers: why do we, term after m, waste three thousand to four thousand dollars, of stu- t funds, in setting up a laboratory for English and jour- ism majors. Sometimes I think that the "lists issue" was ceived by someone who thought that it might be am- assing if there was no copy for the paper. Their present fulness could be handled by a weekly mimeographed et. The rest of the money, a considerable sum, could be d for other important purposes: possibly a further aid to dy students, possibly establishing creative projects, a point ich is sorely missing in our school, with the money being cated to students who need money to continue a promising earch activity, or possibly just lowering student fees.

WUS Plans Big $ Year

he World University Service mmittee met for the first time term last Thursday. The mittee consists of members n such organizations as Beta bda Phi, Phi Tau Alpha, Per- g Rifles, Hillel, Newman, istian Assoc., Gamma Sigma ma, and Zeta Beta Tau. All se organizations expressed ingness in participating in S projects this year.

he committee, headed by Pete la, Alan Grimaldi, and Alan don, decided on some new projects, and so use some of the successful older projects. Beta Lambda Phi will again sponsor Pres. Buell Gallagher and faculty as waiters and waitresses in the cafeteria. The tips will go to WUS. Cake sales, flowers and lollypops have been popular at the College. Gamma Sigma Sigma will sponsor the cake sale next term.

IFC has told us they will do- nate **all** proceeds from their Greek week activities. Mike

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Vector On Sale Nov. 11

Vector, the City College Engi- neering Magazine, will make its initial appearance of the term the week of November 11. The tech- nical publication will feature stories on Cryogenics, Electrical Insulation, Concrete Repair and Technical Writing.

Cryogenics, the study of low temperature physics, was written by Israel Lieberman, and engi- neering undergradaute. His ar- ticle discusses the strange prop- erties exhibited by elements at temperature near absolute zero.

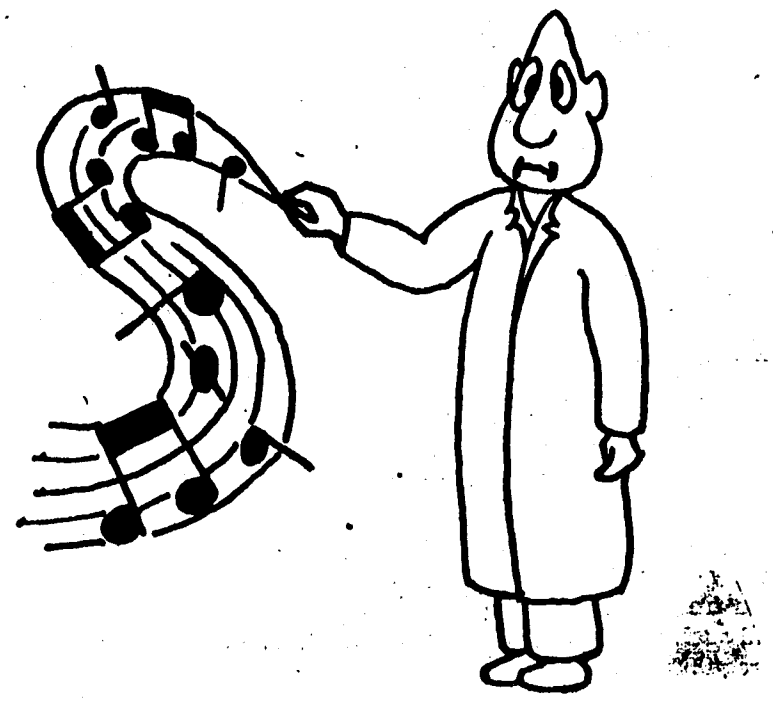
The story on Electrical Insula- tion is particularly timely because of recent development in the field. New innovations have revolution- ized the design and processing of equipment. Size, efficiency and power of electrician equipment have all been improved because of better insulators.

New Concrete Repaving tech- niques will be analyzed by Marty Wachs and Dave Amerliez, two graduate students, and Marty Gold will give advice on the writ- ing of technical manuals and technical writing in general. Vec- tor's regular features will also appear in this issue, Faculty pro- files, Vector Volts, crossword puz- zles, and an important editorial highlight will be included.

Vector is published by students at the college and is sold twice a term for a quarter an issue. Many of the students on the staff con- duct experiments in their spare time and these experiments are often the source of many of the stories.

—Grimaldi

Egghead Society



This is carrying subminiturization too far!

AIAA

The A.I.A.A. will present two films, "Exploring by Satellite" and "T-2 Hours," in Room 303, Cohen Library on Thursday, October 31, at 12:30 P.M.

Inquiring Technographer

(Continued from Page 4)

day and having Sat. classes may well have to be the present temporary answer. However, proposals such as increasing the size of classes and the number of lecture sections should not be executed in any large proportion because such action might well be detrimental to the effectiveness of the students' education and the high scholastic standards which City now enjoys. Lecture sections or large classes in mathematics or philosophy or many other subjects can frequently be absurd. A proposal such as lowering the average requirement for admission to City would aggravate the problem of overcrowding and would also tend to lower the scholastic standing of our school. The answer to "equal opportunity" for students who do not meet present City requirement is an expansion of the Community College and Evening School systems."

Dennis Young

Hy Schuchman

HY SCHUCHMAN, College Engineering Technician: "There can be no argument against permitting more students to attend one of the best free Universities in the nation. Extending the day an extra hour and eliminating the 12 to 2 break on Thursdays is reasonable. I'm dead set against working on Saturdays though. Saturday and Sunday should be family day. These two days are a must for a man's responsibility to his family and is more important than all the educational responsibilities. Those who don't have Saturday and Sunday off, miss out a great deal on home life.

"As for the extended lecture system, its only merit will be if used for the bright student. It will be sheer waste of time for the average student (82% to 81%) and these are precisely the ones whom Pres. Gallagher wants the College doors opened to."

GEORGE GOTTLIEB, Queens, Lower Freshman majoring in chemistry: "I am definitely against most of President Gallagher's method for expanding facilities. I feel that Saturday classes are discriminatory because regardless of special adjustments the Jewish students and faculty would suffer. Also classes are too large for ideal learning conditions already. I feel that more selectivity would simply limit enrollment of those students who would drop out in their freshman year anyway. Expansion of the college such as the new planned building on Jasper field and running the school at 100% use of available facilities would be good positive steps."

PHIL SCHWARTZ, Brooklyn, Lower Senior majoring in mechanical engineering: "There are two points of view to the question. One must realize that more students will get an education, but one must also realize that the school is working at capacity now and any attempts to increase the school day will definitely harm the caliber of the student body. At present, people travel on the average for about two hours on the subway and if they have to stay in school for eight to ten hours to get three or four actual class hours, their incentive will definitely decline. The whole secret to success in college is their incentive and willingness to work and increasing the school day will be a major cause in diminishing the students' incentive."

NAT TILLMAN, College Engineering Technician: "The laboratories can handle more students, but it will put more strain on the equipment. If the lab hours go from 8 A.M. to 7 P.M. and there are four classes a day it would mean that all the equipment will be used to the hilt. When classes meet for the same lab simultaneously, what will happen when the equipment comes in for preventative maintenance? If two classes meet simultaneously, the equipment needed will go up by a factor of two. In short, space is available, but in order to increase the number of sections, our equipment would have to be almost doubled."

Nat Tillman

Robert Gebhardt

ROBERT GEBHARDT, Lecturer, Department of Electrical Engineering: "In view of the pressing needs, some change is required. The proposal is the best suggestion I've heard of, and its disadvantages do not seem to outweigh its benefits. It appears "radical" to have many Saturday classes, and "day session" classes into the early evening, but these aren't necessarily bad. Whether the quality of the education given at City deteriorates depends upon the staff, who would not let it happen intentionally. The net result just might be very good, to the benefit of the many more students."

George Gottlieb

Phil Schwartz

EE Student Is No. Two On Dean's List

A total of 135 City College students have been named to the Dean's List for second year honors, Dr. Buell G. Gallagher, president of the College, has announced.

Robert H. Krambeck, an electricial engineering student, ranked second on the list of students who have completed their first two years with superior grades. His average of 92.99 percent topped the list for the School of Engineering and Architecture.

WUS . . .

(Continued from Page 5)

Schweitzer, Pres. of IFC, said he expects a big turnout from the fraternities and sororities. The committee is waiting for HPA to donate proceeds from some of their activities. In the past, HPA has donated with IFC the proceeds from the HPA-IFC basketball game. This accounted for almost half of the $500 collected last term.

All possible help is needed and those interested should contact Dr. McCann in F214.

Steven . . .

(Continued from Page 2)

Professor Steven returned to City College in 1945 to join the civil engineering faculty. He received his graduate degree from Columbia in 1949. Eight years ago the Professor designed the C.E. Department's Fluids Laboratory. He was elected an honorary member of Chi Epsilon in 1951.

When asked about the fact that his interests in fluid mechanics and teaching both had developed after the completion of his undergraduate study, Professor Steven answered that "rarely is the goal of a student of absolute importance in his future profession, but that teaching, rather, requires a keen interest in the subject matter and a natural enjoyment of people."

— Carol Winter

ARCHITECTURE

In this second in a series of columns devoted to architectu Secundino Fernandez, of SCAIA discusses Gothic Architecture.

Architecture has progressed as civilization has progressed and decayed when civilization decayed. Such was the fate of Classical architecture when the Roman Empire declined — Architecture declined with it. But as centuries passed, new styles developed during the Middle Ages. But here little was known of Classical architecture and the people began another cycle starting from bare rock with little knowledge of construction. These people had to experiment as Romans and Greeks had done. And slowly, but surely, a style flourished above all — a style which was to dominate for nearly four hundred years the architecture of Western Europe — the Gothic style. But it was in the service of the Church that it achieved its fullest and most meaningful expression.

The Gothic Cathedral was the embodiment of the medieval idea of God — its most majestic realization towering above the land and pointing toward heaven. Although the best of Gothic architecture emerged in Europe, we have here, in New York City, some good examples of the same in the Cathedrals of St. Patrick and St. John the Divine.

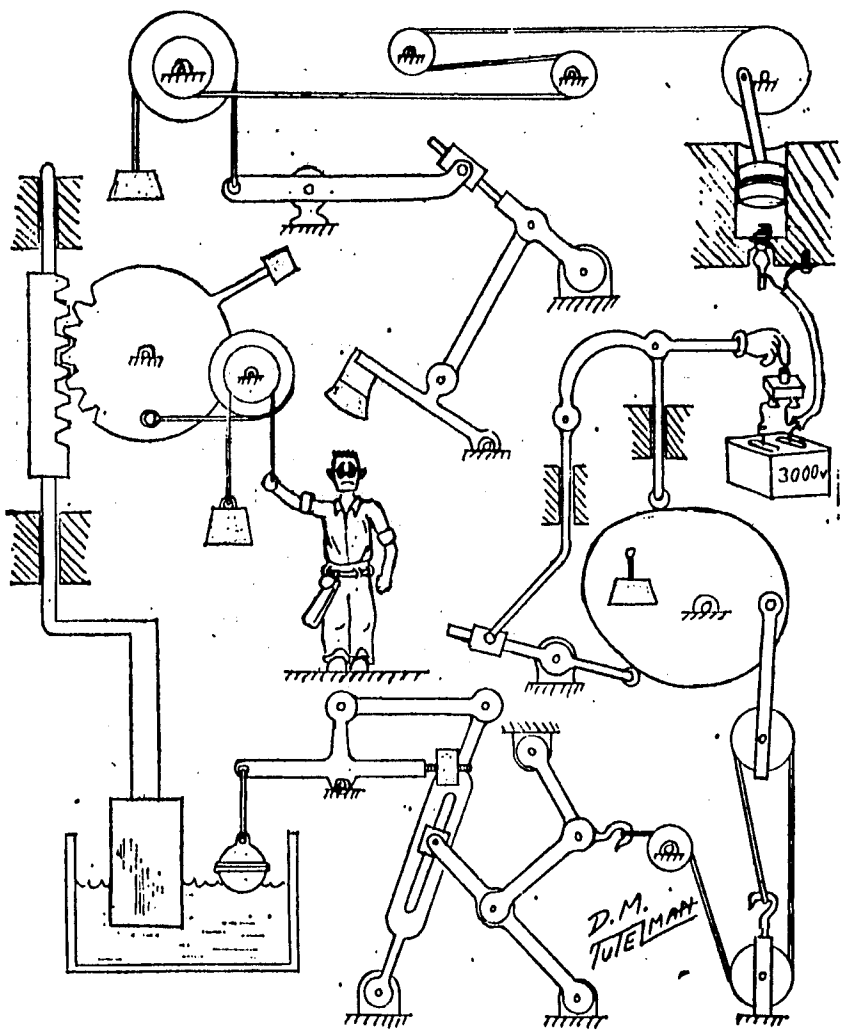
In America, the Industrial Revolution and the rise of big cities brought about a "revival" as buildings soared the heights for more living space. But due to a lack of expression in the steel skyscraper, which the architects at the turn of the century failed to develop, tall structures were embellished with the ornamentations familiar to the classical style and to the Gothic style as well.

New York is crowded with modern buildings ornamented in the Gothic tradition. One such structure is the Woolworth Buil ing, at one time the tallest stru ture in the world. It is located Broadway in front of City Ha Park. Sixty stories in height, it one of the landmarks of our ci But unfortunate is the fact th the steel which makes its stru ture is completely denied by t false veener of Gothic sto ornamentation which covers completely giving the illusion stone masonry construction.

But no further than our o Shephard Hall need we go to s one of the better examples Gothic ornamentation in the ci Needless to say, the exterior just a cover for the steel frami that exists underneath its sk and, as the Woolworth Buildi it is just a denial of the structu But the building, at least, has o good virtue —it is strictly Goth in design.

In general, New York City rich in examples from the styles of architecture as well the new. True is the fact that all of them are good and most them are simply make belie copies of the real thing. But can certainly say that all been tried in New York for t Gothic style can be found a where in the city in a gr variety of structures.

Egghead Society



Picture of student taking an M.E. Kinematics final.

Evening . . .

(Continued from Page 3)

break, making it impossible for most E.S. students to attend meetings. Rarely does an organization have anyone available during the evening hours to discuss membership with interested students."

Crogan believes that there are many E.S. Tech students who would join Tech groups if there were any to join. The Evening Session S.G. President lamented the fact that there are currently no Tech groups in Evening Session.

Book Review

Manufacturing Planning and Estimating Handbook: A Comprehensive Work on the Technique for Analyzing the Methods of Manufacturing a Product and Estimating Its Manufacturing Cost. Prepared under the supervision of the National Technical Publications Committee, American Society of Tool and Manufacturing Engineers. Editor-in-Chief: Frank W. Wilson; Editor: Philip D. Harvey. 840 pages plus index; 339 illustrations; 6 x 9; McGraw-Hill Handbook Series; $22.50. Publication date: March, 1963.

"Manufacturing Planning and Estimating Handbook" is a comprehensive work on the technique for analyzing the methods of manufacturing a product and estimating its manufacturing cost. It describes in detail the functions of manufacturing, and also deals with its relationship to other functions in a manufacturing plant, emphasizing the required cooperation of sales and product engineering.

The engineering approach to manufacturing planning and cost estimating is presented by listing and discussing in detail the steps required in making such analyses. Several examples illustrate clearly how each step is utilized in the planning for manufacture of a part or the estimating of the cost of manufacturing. There are also discussions of methods engineering, tool design and plant layout, and subfunctions of manufacturing engineering. Chapters on standards and production control show how they contribute to planning for the manufacture of a product.

Detailed explanations of line balancing, nomograms, manufacturing-time forecasting (learning) curves, linear programming, machine and tool replacement practices, manufacturing tolerances, and tolerence charts enable the young inexperienced engineer as well as the older experienced engineer to become acquainted with and apply these tools to his daily work.

Among the special features of "Manufacturing Planning and Estimating Handbook" are its step-by-step presentation of procedures, its numerous examples showing appications of the procedures, and the tabular form used to present data on manufacturing processes so that the reader can readily make comparisons. A method of evaluating the effectiveness of manufacturing processing is given so that the errors in planning can be found and corrected.

Frank W. Wilson, editor-in-chief, is Technical Director of the American Society of Tool and Manufacturing Engineers. In 1962, McGraw-Hill published the ASTME's "Machining with Carbides and Oxides" and "Handbook of Fixture Design" for both of which Mr. Wilson was also editor-in-chief. Philip D. Harvey, editor, is Assistant Technical Director of the ASTME. Other McGraw-Hill books prepared by the ASTME include "Tool Engineer's H book," "Die Design Handbo and Tooling for Metal Po Parts."