THE SCHOOL OF TECHNOLOGY

TECH NEWS

CITY COLLEGE OF NEW YORK

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ARS Coliseum Show Rockets To Stardom

By ANTHONY GENNA

The Space Flight Report to the Nation held at the Coliseum from October 9th to the 15th was attended daily by thousands of professional and non-professional people who wanted to see the 167 exhibitions sponsored by manufacturers, in all technical fields. These exhibitions occupying the first three floors of the Coliseum were colorful, fascinating, and in many instances, unbelievable; technical discussions for authorized persons were held on the fourth floor.

Monday through Friday between the hours of 8 A.M. and 5 P.M. the Coliseum received members of the American Rocket Society (ARS) free of charge. During these hours, technical papers were presented for members of the ARS in six meeting rooms on the fourth floor. After 5 P.M. the public was admitted to the Coliseum for $1.50. On Saturday, October 14, at 10 A.M. the Coliseum was open to the public all day. At 2 P.M. three programs dedicated to education were held, simultaneously, in different rooms on the fourth floor — the first pre-college, the second college, and the third on graduate education.

Some of the topics covered by the professional people during the day were: Robot Exploration, Astrodynamics, Nuclear Instrumentation, Environment of Space, Missiles and Space Vehicles, Hypersonics, and some 48 other topics. The main objective of this type of convention is to let one manufacturer know what the other manufacturers are doing.

Exhibits ranged from a miniature mock-up of a future moon base to remote control devices moving among the spectators. Telememeter devices, incorporating a micro-wave system, transmitted live spectator participation from one end of the floor to the other. It was demonstrated that a metal object in the wave path would prevent the picture from being telecast. Every type of rocket propulsion system was illustrated or mocked-up, ion, plasma, nuclear and chemical systems were just a few of those displayed.

The general atmosphere was calm and orderly; neatly dressed manufacturer representatives, undoubtedly specialists in

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Vector To Have Fly, Hi Fi And Tick

The November issue of the CCNY VECTOR, the school's award-winning engineering publication, will be on sale Monday through Wednesday, November 13-15th.

The November issue, which marks the start of VECTOR's twenty-sixth year of publication, features a new look in layout and typography, designed to keep pace with the consistently fine level of the magazines articles.

The feature articles in this issue, number four:

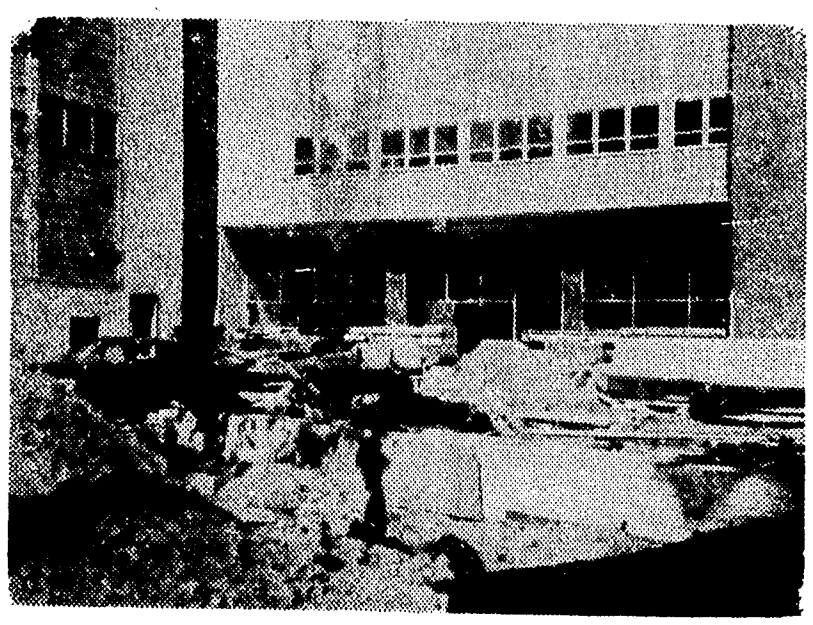
Ultrasonics—the silent servant—discusses the nature of high-frequency signals and their applications to industrial problems. The cavitation process, which underlies all of "ultrasonic cleaning," is studied, and in addition, the recent application of ultrasonics to non-destructive testing is also examined.

A picture and text story of the construction of the new TWA air-terminal under construction at Idlewild Airport.

In "The Science of Time Measurement," the author traces the development of timekeeping apparatus from earliest times to the present day. He then enters into an analysis of such modern mechanisms as the cesium beam, and ammonia atomic clocks. Their use as highly stable regulatory units is described in detail; and

The Heart-Lung Machine describes the union of technology and the biological sciences in keeping alive patients whose own hearts are inoperative.

Work Is Restarted On New Technology Building



New contractor starts soon.

Bonding Agent Is Contractor

In a meeting with the Board of Higher Education's Architecture and EnEngineering Unit, the bonding companies of the Frouge Construction Company informed the board that they would assume the job of a prime contractor for the building. Since the majority of the work to be done by Frouge has already been completed, most of the work remaining will be handled by subcontractors. It is expected that essentially the same sub-contractors will be called upon to complete the job.

On Monday, October 23, a meeting was arranged between the Frouge Construction Company and the Architecture and Engineering Unit of the Board in at attempt to resolve their differences. However, Frouge would not meet the Unit's demands, and vice versa and the talks collapsed.

The very first thing to be done on the building is a security survey of the building to determine what damage, if any, has been caused by weathering in the time general construction was stopped. The building must be temporarily enclosed for the winter so that heat can be supplied to protect workers and materials.

Representatives of the bonding company visited the tech building on Monday, and work on enclosure has already begun.

Mr. Arthur Schiller, Head of the Architecture and Engineering Unit of the BHE commenting on renewal of construction said, "I am glad to see it moving again so that we can start using the building."

General construction was stopped on September 8 when the Frouge Construction Company walked off the job and declared the BHE in default of contract. The BHE in return declared Frouge in default of contrtact on September 28. The bonding company was informed of the board's decision on October 4. According to the contract, the bonding company had to restart work within twenty days of receipt of notice (October 23). The bonding company must now also absorb all cost above the original contract appropriation. A final attempt at reconciliatiton was made last Monday. When this failed the bonding company took responsibility of being prime contractor.

The bonding company expects to be able to give the BHE a tentative date of completion at the beginning of next week.

Although the work stoppage is not expected to affect the fall opening date of the building to

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ChemE's Form New Tech Honor Society

By MARTIN MILLMAN

Chem.E's at the college will now have their own honor society. On October 18, 1961, after many months of hard work, thirteen students met to approve a constitution, vote for officers and choose a faculty advisor for the new organization, Alpha Chi Epsilon.

The minimum requirements of eligibility to Alpha Chi Epsilon are:

a) Not less than a 0.7 index in chemical engineering courses;

b) A standing not lower than the top quarter of the respective class;

c) The completion of not less than ten credits in chemical engineering subjects.

Alpha Chi Epsilon will seek affiliation with the national chemical engineering honor society, Omega Chi Epsilon, as soon as it is established at the college. Omega Chi Epsilon was founded at the University of Illinois in 1931 and now has branches throughout the country.

The faculty advisor of the organization is Professor Morris Kolodney of the chemical engineering department. The charter members are Richard Felder (President), Stanley Sandler (Vice-President), Alfred Baginski (Secretary), Martin Millman (Treasurer), Gabriel Epstein, Aaron Friedman, Louis Goldman, Stanley Hittman, Robert Manley, Martin Mayer, Mesrob Odian, Frank Princiotta, and Lance Ziering.

Chemical engineering students are the last group in the School of Technology to found an honor society.

SENIORS

All seniors are requested to come to the Senior Office, room 223 Finley, to make yearbook photo appointments. They are also requested to pay the $5.00 minimum deposit which is required before October 3 for purchase of the yearbook.

TIIC Starts Amending As Three Lose Voting Rights

By SAMUAL EIFERMAN

During the last two meetings of the Technology Intersociety Interfraternity Council, October 19 and October 26, amendments to the present constitution of TIIC were considered. Amendments to the present constitution were thought a faster way to get a working constitution for TIIC than proposing a totally new constitution which would take a lot of time to write. The proceedure followed at the October 19 meeting for amending the constitution was to read each article of the present constitution section by section and to talk over any changes that may be necessary in the section under consideration. If the council members felt that any change was necessary they would propose an amendment which would then receive consideration by the other council members. Amendments to article I (objects of TIIC), article II (membership), article III (voting), and article VI (committees) were proposed at the October 19 meeting but because of article IX section 3, which states "The vote on proposed amendments shall take place no sooner than one week after they have been read at a general meeting", no vote on the proposed amendments could be taken at this meeting. At the October 26 meeting when the vote on the proposed amendments could be taken most of the proposed amendments were voted down.

A change in the number of times TIIC will meet during a term is under consideration. Some members want TIIC to meet every two weeks while others want TIIC to meet once a month; nothing definite has been decided yet. An amendment to give the major societies one vote on council instead of the two they presently hold was voted down and an amendment to have the committees of TIIC consist of whole member organizations instead of individuals from the different organizations was defeated also.

ASCE representative to TIIC, Jim White, announced that the Slide Rule Basketball League,

(*Continued on Page 2*)

Bowlers Bomb Into 2nd Place

On Sunday the bowling club moved into a tie for second position in the Manhattan division of the Eastern Intercollegiate Bowling Conference. City took two out of three sets from Pace College to put them into a second place tie with LIU. Both schools have 9-3 records and trail NYU which has an 11-1 record.

On a basis of five games played per set, the scores were 839-910, 890-784, and 817-810. High scorer of the match was Jim Newman of CCNY with an individual score of 236 and a total score of 577.

This is only City's first year in the conference and the bowling club does not yet have the status of a varsity team. Sid Lerner, captain of the club's team said that "The team has displayed excellent potential and is making a very fine showing in the league."

TIIC . . .

(Continued from Page 1)

which at present is made up of four teams, will be playing on December 20 in Goethels gym and December 21, January 4, and January 11 in Wingate gym. Mr. White invites any Technology organization to form a team and join the league. He can be contacted through ASCE.

An announcement made by TIIC's president, Judy Goldburg, stated that AIEE, ASME, IRE, PTS, ASCE, SPO, Chi Epsilon, and Vector have not as yet submitted three copies of their constitutions to the Department of Student Life. These organizations should file their constitutions in room 119 Finley Center. Another announcement was stated that ENG, IRE, and SPO have lost their votes on TIIC for the rest of this term. These organizations lost their vote because they did not attend the last three meetings of TIIC and any organization that does not attend three meetings in a row automatically loses its voting privillages on the council for the rest of the term.

At the October 26 meeting a motion to protest the speaker ban at the college was discussed. There were arguments for and against the speaker ban but nothing was settled due to the fact that Susan Alexion, secretary of TIIC, decided to leave in the middle of the discussion and about one third of the council members present at this meeting decided to follow her. Since the council then found itself without a quorum the meeting had to be adjourned right in the middle of discussion on the speaker ban.

A problem which was brought up at both meetings is the problem of lack of participation of technology students in extra curricular activities. Every year there is less and less participation in extra curricular activities on the part of the Technology student. Just last year, in the general election of Fall '60, voting by school was discontinued because of the lack of people in the School of Technology running for office. At the present time participation by Technology students in extra curricular activities is next to nothing.

The Speaker Ban
The Larger Issues

By MARC TRIEBWASSER

As far as the speaker ban is concerned, it would be repetitious, at this time, to argue the point on either a legal or moral basis; such aspects of the problem have already been adequately and completely covered by the college press and by the speakers at the protest rally. Let us simply reiterate at this point that we stand firmly against the ban and would in almost every case condemn any action which would deprive any individual or group of individuals of their civil liberties or civil rights.

But there is a far greater issue to be dealt with than the speaker ban itself and that deals with the effect that a speaker ban and other such actions have on the individual student.

There seems to be a force at work in American society, and not in American government per se, which tends to be destructive of democracy, of the ideas and ideals upon which this nation was founded, and of the American Idea itself. America used to be characterized by rugged individualism, today it is characterized by meek conformity. There is in America today an unquestionable fear and prohibition of the expression of those ideas which might be considered radical. Everyone, except those who happen to have a great deal of power; social, political, financial, etc., is forced to follow a conservative middle of the road; anyone whose ideas veer, even slightly off course, are forced to the extreme.

It is only natural for a college student or anyone in his late teens or early twenties to have radical views. This is the time in life when zeal of youth comes bursting forth.

This gush of great new human power is at first expressed clumsily and it takes time and understanding and the type of training that college is supposed to supply to begin to channel it into useful, creative directions. Every idea which springs forth at this time should be allowed to be expressed and allowed to challenge existing ones. In many cases it will be found that old ideas stand up well to the challenge of the new. In such instances the proposer of the new idea should understand why his idea is not so good as the existing one. In some cases it will be found that the new idea is better than the existing one; in such an instance a change should be made.

But what happens in America today to the youth bubbling with "new" and sometimes radical ideas. He finds very quickly that it is taboo to express them. He is denied the outlet he seeks and the understanding he needs. He finds that as soon as he expresses ideas which are off center, he is branded an extremist and if he becomes so branded he will miss out on many important opportunities.

And so in most cases he gives up his ideas and ideals and settles for the bread alone. By twenty-five he is afraid to express any opinion except those which he believes are the proper ones to utter; by thirty he is convinced that this is the right policy and condemns anyone who doesn't follow it.

In some other cases the youth finds he can't restrain himself and must express his ideas. He finds that the only groups open to him where he may express his ideas are the extremists. Having no refuge, no middle ground, he is driven to the extreme. After a while he is found to be expressing almost any idea that is extreme or counter to the established simply because it is extreme — he becomes a rebel without a cause. Naturally he is spurned by society and is in most instances soon completely crushed. He becomes like so many of the characters in an O'Neill play.

In a few cases — far too few — he finds the proper atmosphere in which he can develop. He learns to express his new and different ideas in a way that can be constructive and not destructive. He seeks to change society, but he seeks to do so from within and not

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Book Review

Computer Handbook edited by Harry D. Huskey, Ph.D., University of California and Granino A. Korn, Ph.D., University of Arizona. Prepared by a staff of specialists. 1228 pages plus index; 1099 illustrations; 6 x 9; McGraw-Hill Handbook Series; $25.00. Publication date: November, 1961.

The "Computer Handbook" is comprehensive, practice reference book covering thoroughly the design of analog and digital computers and systems and their application to science and engineering. It was prepared by a group of experts including top representatives of every major computer manufacturer as well as leaders in computer applications in the aircraft industry and in major university center.

Technical information is presented in the handbook in sufficient detail to be useful in actual design work. Many circuit diagrams have been included as concrete examples of design principles for direct adaptations to the designers problem. In addition, there are specific sections dealing with computer system design. For the younger engineer and for newcomers to the fields of computers and control, the handbook provides quick access to just that industrial know-how which is necessarily neglected in a modern engineering school curriculum stressing principle rather than technique.

The analog-computer sections of the "Computer Handbook"

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AIEE Gets Talk On Brain Programming

On Thursday, October 26, the AIEE-IRE was addressed by Mr. Buck Martin, an engineer associated with the International Electric Corporation. Mr. Martin's lecture was entitled, "Computer Programming" with special emphasis on the Strategic Air Command Control System.

In the first of the two films shown during the talk, the duties of a compter programmer were briefly outlined. A hypothetical problem was posed; namely, suppose a spacecraft was traveling at highspeed in an area highly infested with meteors, meteorites, etc, . . . How could a computer be programmed to direct the space craft through this area without any collisions. The film showed the development of such a system and illustrated the various problems encountered in a design problem.

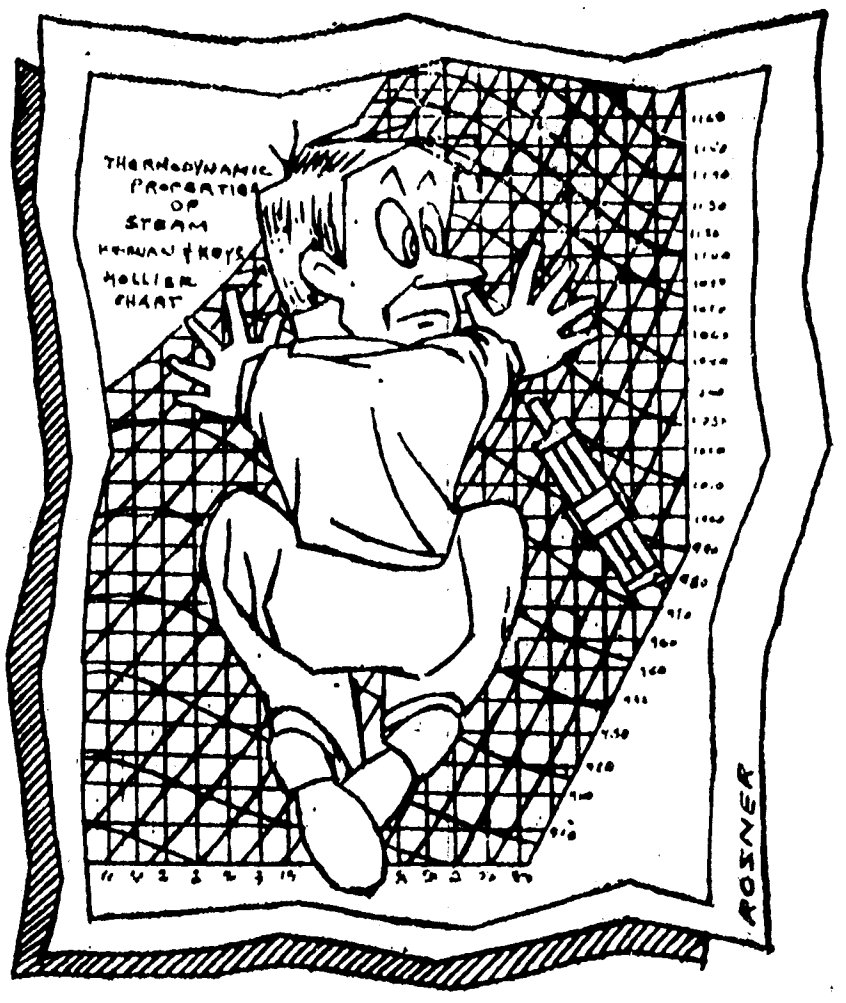
In the second film, which was recently declassified by the military, the Strategic Air Command system was outlined in all its phases. Various defense theories were presented and explained before the group. Methods of data acquisition and display were shown.

In all, the meeting provided a welcome change from the daily routine of the electrical engineer and even those few with a limited technical background, who attended the meeting found the lecture-demonstration both highly informative and interesting.

THE MEGATON RUNS

By MARC TRIEBWASSER

When April showers they come you way
They'll bring radiation from far away
With strontium 90 and carbon 14
We'll find our milk has that iridescent sheen
And who in the world will be the first to say nix
To the little baby fingering not five but six
Or to the girl whose hair, without dyeing, will be seen
To be purple or blue or perhaps even green
How does that sound, but here's something that'll heal ya
We all may come down with sex-linked haemophilia
And if you should ask about dear DNA
"Cancer's the answer," is what Khrushchev would say
But don't be afraid of this stratosphere communication
Though the only words it knows are mutation, mutation
And don't become unnerved and run helter skelter
For we'll all find protection in City's new shelter.



Damn That Frenchman!

IRE Term Events Set

Nov. 9 — Garlock Inc., Demonstration "Flexible Printed Circuitry."

Nov. 16 — General Time Corp., Demonstration "Incremental Magnetic Techniques."

Nov. 23 — Happy Thanksgiving.

Nov. 30 — Panel Discussion by recent CCNY graduates on the "Transition between School & Industry."

Dec. 7 — Instruments for Industry, "Communication Systems."

Dec. 14 —Bendix Corp., "Electron Tube Products."

Dec. 21 — Agastat Timing Instruments, "Pneumatic & Solid State Time Delay Relays."

Dec. 28 — Vacation. Field Trip to IBM.

Jan. 4 — RCA Astro Labs, "Electronics in Space."

Jan. 11 — ELECTIONS.

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Rampant Apathy

Finally, after many years of apathetic reactions from tech students, we feel that the situation has reached the saturation level. No longer should we stand for many of the injustices being forced upon us only by our lack of interest and activity. Many recent events that substantiate the opinions expressed above have occurred and we feel that it is our duty to inform the entire tech student body of them.

The Graduate School of Technology has stagnated because of the lack of state and municipal financial aid. At present the entire masters program now offered at CCNY is supported by graduate student fees. It is impossible for a program such as this to expand to the Ph.D. level unless some other source of financial aid is obtained. Yet even though this is a year in which a highly contested municipal election is taking place, we have not heard one definite opinion uttered by any candidate on any question raised by the tech voter on this matter. We feel that with a small effort the tech student could obtain action of some sort on this matter. When Steinman Hall is opened in the fall, the tech school will have available many fine laboratories and classrooms, and we feel that this coupled with its fine faculty could insure the success of a Ph.D. program if the financial necessities were present. However it should be noted that to maintain the quality of the undergraduate school upon the opening of a graduate school it will be necessary to expand the faculty and that the only means of accomplishing this would be through increased prestige, financially rewarding positions and the opportunity for instructors to perform original research projects under the sponsorship of the school.

In comparison with other leading graduate engineering schools we find at CCNY the apparent lack of graduate fellowships, tuition scholarships, and part-time teaching assistantships. (Graduate tuition is $25 per credit.) Since, in our opinion, one of the main goals of the City College system is the education of mentally qualified people without regard to financial position,or other prejudicial items, it seems logical that student aid should be a vitally important facet of any graduation progrgam. After all, how long can we afford to go to a "tuition free" school?

At present the School of Technology is not represented on the "Graduate Committee." WHY? On last Sunday's "Youth Wants To Know," Louis Lefkowitz stated that if he was elected mayor, he would look into municipal aid for graduate programs and IF JUSTIFIED he would reappropriate funds for the program. Why don't you know NOW, whether we are justified, Mr. Lefkowitz?

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M.E. Honor Frat Hosts National Convention

Last week, the CCNY chapter of the Pi Tau Sigma national honorary mechanical engineering society was host to Pi Tau Sigma's first annual convention to be held in New York. Representatives from nearly all of the organization's seventy - four chapters attended the meetings. Syd Goldlust, president of the CCNY chapter, said that the convention was scheduled to be held in New York when our chapter asked to be hosts for it.

Although delegates started arriving Saturday and Sunday, the first business meeting was held Monday in the Henry Hudson Hotel. The ninety or so people present were welcomed by Acting President Rivlin. The business conducted at the meetings included the election of a new president, Professor David S. Clark of Purdue University, election of two new vice presidents, and various procedural matters.

Tuesday morning saw a meeting held in Aronow auditorium which was addressed by Dr. William Allan, Dean of the School of Technology, and Professor Guerdan, chairman of the M.E. department. Dean Allan spoke of the drop in engineering enrollment and expressed the opinion that it is only a short term occurrance due to the extreme interest in technology provoked by the sputnik launchings which is now tapering off to normal levels. He said that the long range trend is upward. In the afternoon, the group went on a plant trip to the Otis Elevator Company in Yonkers, New York.

A highlight of the convention was the banquet held Tuesday evening. Among those present were Professor Hem, Assistant Dean of the School of Technology, and Professor Baldo, faculty advisor to Pi Tau Sigma. Mr. William Reaser from ASME's student liaison section gave a very interesting talk.

The City College Pi Beta chapter, the twenty - seventh was installed November, 1942. Election is limited to the top quarter of the junior class and top third of the senior class, and is based on standards of character, service to the school, and promise of future success in the field of mechanical enginering.

The following editorial appeared in the New York Times Saturday, October 28, 1961 and is reprinted by courtesy of that publication.

Freedom Limited

The statement by the Administrative Council of the City University of New York barring Communist speakers from the municipal college campuses is an exercise in sophistry.

It insults the intelligence of faculty and students by stressing the importance of "the free examination of all ideas, convictions, positions, facts and theories" and at the same time demanding that the university administration must "choose among the welter of ideas . . . which present themselves for consideration." By adding that the administration and faculty must "make certain that the time of the students is properly spent" in this process, the council creates the image of a kindergarten rather than of a great and independent center of learning.

The real issue is the students' freedom to listen and to learn. The present case offers a classic example of the indivisibility of such freedom. The Administrative Council fails to explain why at almost the same time a Communist was barred, a representative of the Black Muslim Negro movement was also prevented from speaking at Queens College and The National Review, a right-wing publication, was denied use of the Hunter College auditorium. Once freedom begins to be cut down, erosion becomes uncontrollable.

Since it is inconceivable that this labored document represents the intellectual views of the university's leaders one must suspect that the council has bowed to outside political pressures, possibly created by the mayoralty campaign. If so, the action is even more inexcusable since this would mean political control over an academic institution. The chancellor and the presidents might do well to read their introductory phrase, which calls it "axiomatic" that a university is truly a university only when it deeply believes in free inquiry. New York cannot hope to build a true university on the flimsy basis of the council's decision.

TECH LIFE

By MAURICE BLUESTEIN

In the midst of the Hillel controversy, the question of what constitutes prejudice has provoked another dispute in the minds of many people. This dispute, in many ways a cousin to the original controversy, involves the question of where is the boundary line beyond which a desire to affiliate with a particular group of people becomes morally reconcilable, and before which it becomes immoral and unethical. Hillel desires its members to affiliate themselves with the Jewish people. To most persons, this is justifiable; obviously it is justifiable to the administration of The College which has recognized Hillel on campus. It is justifiable to me.

Now there are many schools in the southern part of our country that desire an affiliation with white people. They do not desire an affiliation with Negroes in about the same manner as, say, the Young Republican Club does not desire an affffiliation with Democrats. To our minds, the action of the schools in the South is not justifiable. Why in one case yes, and in the other case no?

This question was brought into prominence at the meeting of one of our campus societies. The case before the group was the acceptance or rejection of the applications of two schools to have their chapters become part of the national organization. The two schools are the University of Houston and The Catholic University of Washington, D.C. The University of Houston is known by many to exercise a policy of segregation; there was no black-on-white evidence of this, but it seemed to be generally accepted as fact. The Catholic University was assumed to admit only Catholics; the voting results: Catholic U. accepted, Houston U. rejected. Immediately those who voted rejection for both rose to question: How can you reject a school discriminating against Negroes and in the same breath accept a school discriminating against non-Catholics? Both are obviously guilty of discrimination!

True, both schools could be considered discriminating against some persons. However, the point is that there is a kind of discrimination that is morally justifiable. The employer discriminates against prospective employees; the voter discriminates against people of the opposing party; the shopper discriminates against an unknown brand.

If there are discriminatory practices that are justifiable, discrimination by a private religious institution is one of them, segregation is not. The reason for this is that an organization or institution which is not necessary for the public welfare and existence and is not made compulsory by law reserves the right to consider itself private. A private organization which is by its very nature oriented to a specific group of people has the right to affiliate itself with that group and no other.

On the same score, I'm sure we aggree that eating lunch is a public necessity and as such, lunchcounters should be open to the public, not segregated.

The matter becomes one of practicality rather than theory. In theory, it could easily be shown that racial and religious discrimination go hand in hand; one is as bad as the other no matter what the case. However, one must look further into the particular situation at hand to attempt to judge the ethicalness of the discrimination.

A case in point concerns engineering fraternities in the Interfraternity Council, and another type of discrimination. IFC holds a non-discrimination clause; that is, all member organizations must not have in their constitutions any phrase that would indicate that membership in the organization is restricted to a particular group of people. Epsilon Nu Gamma, the social fraternity for EE's, has attempted to join IFC. The problem: the tech fraternities are naturally for techmen, a clause in their constitutions says so. This, according to IFC, violates their non-discrimination clause; thus in order for the tech fraternities to remain "on campus" as members of IFC, they must strike the "for engineers" clause from their constitutions. In other words, the tech fraternities shall cease to be tech fraternities, disclaim the vital function they were born to serve: to provide a social life for some hard-working fellows. So has done Epsilon Nu Gamma.

If one considers a fraternity for engineering students discriminatory, why not consider the whole fraternity idea itself as discriminatory, since it discriminates against girls. Are honor fraternities unethically prejudiced for honor students as opposed to the commonfolk?

I said previously that a criterion is privacy; if any organization in this world can be considered private, off-beat, independent, it is the fraternity. The fraternity is the other home, the other life. It is not to be encroached upon by the outside world. No one tells the fraternity where to have its house, when to have hell week, what to make the pledges do, what kind of parties to have, what kind of rites to conduct; no one need tell the fraternity whom to elect to membership. However IFC seems to feel that any fraternity should be open to all, and to reinforce this notion, it has taken upon itself to tell the fraternities whom to elect. I appreciate IFC's concern, but it is neither its business nor required. The fraternity, contrary to popular opinion, is not necessary for human existence. If many people at a school are unable to join a single fraternity, it is no calamity. If these people are so hepped up about fraternity life, they can form their own. Not everyone is able to join a country club, but they go on living none-the-less.

I would suggest instead of going through the constitutions of the member organization that IFC give some earnest thought to its own policies and bring them to bear with the situations at hand. Let's get off the white horses and into the realm of reality for a change.

Editorial:

S. G. Rally

TECH NEWS heartily endorses the Student Government rally scheduled for Thursday on the South Campus lawn from 12:00 to 2:00 to protest the speaker ban. If we are to maintain academic freedom, or any freedom, we must be willing to fight for it. This rally should demonstrate that the students are concerned enough about their rights to take some kind of definite action. The speaker ban is already under criticism from several sources outside the student body proper, notably from members of the faculty, alumni, the ACLU, and some regular New York dailies. The very least we can do is help ourselves.

"TIIC Trotters"

TIIC's "tired blood" has become so anemic that we feel a change of leadership is warranted along with an entire change of goals and constitution. TIIC should become a dynamic body that can represent the tech professional societies on student government and closely watch the election procedures and the allocation of monies. (Will the fee allocations be given to organizations before the end of the term so that the various student groups may make use of them?) An organization such as TIIC can not exist soley for the purpose of organizing teas and dances and we feel that this is the reason for the slow evolution of TIIC into nothingness. We urge all tech groups to consider the purposes of an organization representing them and to express their opinions forcefully at the next meeting of the Technology Intersociety Interfraternity Council.

Now Five Honor Frats

The formation of the new Chemical Engineer honor society Alpha Chi Epsilon raises to five the number of engineering honor societies at the school. The others are: Eta Kappa Nu-(HKN) the Electrical Engineering honor society Chi Epsilon — the Civil Engineering honor society Pi Tau Sigma-(PTS) the Mechanical Engineering honor society and Tau Beta Pi — a highly rated engineering society open to all engineers.

Evening Session E. E. Students

If you are an E.E., an upper junior with a 1.2 index, a lower senior with a .8 index, you may be eligible for Eta Kappa Nu — the national electrical engineering honor society. If so please leave your name, address, telephone number, and class on the HKN bulletin board at Tech Crossroads.

IFC Nixes *Tech Frats*

By MARVIN KASPER

This past Friday, the fraternities of the Interfraternity Council voted to accept a new constitution. In this constitution are included the new requirements for membership. The new requirements are that an organization must exist on campus as a club without Greek letters and two more years as a colony of IFC with Greek letters before the Interfraternity council as a full member unless it was a member of the Technology Intersociety Interfraternity Council.

Two weeks ago, IFC voted to accept Epsilon Nu Gamma as a colony with special consideration given. The fraternity will be a colony for six months, at the end of which it can be brought up for full membership. Epsilon Nu Gamma was the first engineering fraternity to approach IFC for full membership.

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AME Is Fun

The engineering student here at the College is a rare type of animal. A student losing his hair, gaining weight, and one who is extremely apathetic to the activities of the College has to offer him. Proof of the latter is shown by the empty seats of the engineering class in the College's Student Government. Many fraternities and organizations have tried to change this mode of life for the engineer. Among them are T.I.I.C., Alpha Mu Epsilon, Tau Beta Pi, Eta Kappa Nu, Pi Tau Sigma, Chi Epsilon, A.S.M.E. and S.A.E.

One of these, Alpha Mu Epsilon, a social fraternity composed of and open to membership for Mechanical Engineers who have reached at least their lower sophomore term. A.M.E. men participate fully in social and athletic activities because they feel that these activities are an integral part of college life.

At "E-Day," A.M.E. members gave demonstrations on Kinematics, Heat Power, Atomic Physics, and Production. The members are very active in organizational work, and its members include the president, vice-president, and treasurer of A.S.M.E. and the vice-president of S.A.E. A.M.E. contributed heavily to the faculty's upset victory over A.S.M.E. (they played against them). A.M.E. won the volleyball and soccer intermurals last term and fared well in football and basketball.

The social calendar is a full one, and includes an annual Christmas Party which is attended by the M.E. faculty. There is also an alumni dinner which helps to give A.M.E.'ers a good idea of what an engineer does, and the job opportunities which exist from year to year.

Of course there is a party going every Friday night at the fraternity house, to which college co-eds from all over the city are attracted.

The house is always open to students in need of tutoring, a place to eat lunch, or just a spot to sit down, relax, and watch the World Series.

A.M.E. currently has a display in Lincoln Corridor of Sheppard Hall. Further information is available at the fraternity house (across the street from school).

THE BAN...

(Continued from Page 2)

from without.

The most tragic effect of the pressures in America today is that they not only tend to destroy the individual but also tend to destroy the very essence of America. America was created through sweat and toil out of the dreams of intellectuals. It was based on ideas, precepts, and propositions. Its life's blood was, and always has been, an always new and vibrant stream of ideas. When we surpress the expression of ideas and the intellectual growth of the individual we are cutting off the life blood of America and strangling the American Idea.

Evidence of this trend is visible — far too visible — even in New York City, the most liberal city in the United States. What frightens one most about the speaker ban is the reaction of Queens College students who were afraid to sign a petition protesting the ban, not for intellectual reasons, but because they feared it might hurt their chances of getting into law school or of obtaining certain jobs. If students are afraid to sign even a mild petition on an issue which they feel concerns a constitutional right, when, if ever, will they take any stand?

But the problem strikes much closer to home than that. It strikes right at the heart of the School of Technology in what might be called the Horror of the American Engineer. Today the American educational system is producing a new and perverted type of intellectual: the technical intellectual. He has received an extensive education in technology and possesses great capabilities. But somehow his intellectual abilities are used in engineering and only in engineering. He is either unable to cope with any othr field or is afraid to do so. Certainly any of the social studies are taboo. He is afraid to say anything in these fields, for it might endanger his employment opportunities and after all why did he study to become an engineer in the first place if it were not for those big fat paychecks? He is afraid to sign a petition or join a group for, after all, the petition or group might possibly some day be found to be connected with some group which might possibly be a front for another group which might possibly be leftist.

Last year a petition was circulated protesting apartheid in South Africa. When questioned about the petition, Robert Atkins, president of the CCNY chapter of CORE, stated that the ratio of signatures obtained from the south campus to the north campus was between 2:1 and 3:1. He further explained that as a result of this and other experiences with tech students, the north campus has been almost excluded from future plans.

This trend is present in America today; it can only be halted by a conscious and conscientious effort on the part of you the college student, especially you the engineering student today, and you the leaders of America tomorrow. If it isn't, we might as wall scrap the Lady of Liberty Island and use the materials for an ICBM, a megaton bomb, or for building a better mousetrap. For, if the trend continues, America is dead; oh it might go stumbling on for another hundred years, or even another three hundred years, but it is dead — its soul has expired.

Grad School Students Set Records

By JOE NADAN

Prof. Harold Wolf stated today that at present the graduate school of Technology has enrolled 637 students, of which approximately half are matriculated for advanced degrees. While City College's School of Technology was established in June 1919, graduate work was only begun in 1950. At present the graduate school can only offer a Masters degree in the various branches of technology, but Dean Wolf has hope that in the immediate future the school will initiate a doctoral program. At present the limitations on the graduate school are only financial as a result of the lack of state and municipal aid.

The master's program at City College is available on both a full-time basis and part-time basis in the evening. At present there are only three full time graduate students. Because of the limited laboratory facilities at the college a thesis for the master's degree is not required. The usual one-semester course carries two credits. A minimum requirement for all candidates for the masters degree is the satisfactory completion of sixteen graduate courses. A graduate student in Electrical Engineering is required to take two courses in Transform Circuit Anaylsis and two courses in Applied Electromagnetics amongst the sixteen required courses. In other departments all the graduate courses are electives.

Tech Writing

One of the new courses that was to be instituted this term for the benefit of engineering students is the technological and scientific writing course. This course, known as English 11 B, is designed to teach certain necessary principles in the writing of such reports as the future engineer will be called upon to compose.

The unfortunate phase of the matter is that despite the fact that about twenty-five students expressed their desire to take the course, only our or five registered or it. This is highly disheartening, because the very existence of the course depended upon the desire of these boys to take it and the strong backing of Tech News which had faith in its usefulness.

Dr. Wasser, the proposed teacher of the course, therefore had to merge the class with another English 11 class. Now, only a small portion of the term's work deals with the originally intended subject matter.

The course is an elective subject worth two credits. English 1 and 2 would be the required prerequisites.

Dr. Wasser's opinion as to the future of the course is quite low. However, if enough students show genuine enthusiasm toward it, as the four students who are taking it now have already done, it may establish for itself the status of a regular elective.

— Serebrenik

A.R.S. . . .

(Continued from Page 1)

their field, explained and demonstrated articles on display at the Coliseum. Answers to any question a spectator might have about the exhibit were readily given; such as, an explanation of nuclear or ion pinch engine operation. The representatives were courteous and helpful to anyone wishing information. Should a spectator become tired or hungry there were many lounges or refreshment booths to retire to.

Aptitude tests were given those wishing to test their ability to respond quickly. In one such test to measure alertness and responsiveness, an individual was placed in a operator's seat facing a 4sq. in. screen or television monitor; four keys were at his fingertips (the keys resembled those on a typewriter), each representing a different symbol. When a symbol appeared on the screen the operator would press the corresponding key; as soon as the correct key was pressed and released a different symbol would appear on the screen. The purpose of the test was to see how many symbols could be detected and reacted to correctly in a 30 second interval. These statistics will help establish a norm which will be used in future tests.

The most spectacular panel discussion, "The U.S. and USSR Space Programs: A Critical Evaluation," was presented Thursday, October 12 at 7:30 p.m. in room 4; all of the 1080 seats in the room were filled; the doorways and aisles were also filled. Photographers were busily rushing through the room taking pictures of everything in sight. Sound and projector men were religiously recording the entire panel discussion. Arthur Clarke, past Chairman of the British Interplanetary Society, was moderator; panelists were Hugh L. Dryden, Deputy Administrator of the National Aeronautics and Space Administration (NASA); Arthur Kantrowitz, Vice President of Avco Corporation; F. J. Krieger, Physics Department of Rand corporation; General B. A. Schriever, Commanding General of the Air Force Systems Command; and Wernher von Braun, Director of George C. Marshall Space Flight Center (NASA). The general conclusion of the panel was that Russia has surpassed our present propulsion systems and that the U.S. has more advanced telemetering devices and electronic equipment. It was also established that it would take the U.S. at least 5 years to catch up to the Russian propulsion systems; our only hope rests on the Saturn and Nova projects. Both of these rockets will incorporate Rocketdynes 1½ million pound thrust, F-1 engine and the J-1 200,000 pound engine for upper stages of the rockets. Other topics discussed were education, propaganda and secrecy. They also concluded that a nuclear war would mean total destruction, which neither country wants.

For ARS members the convention was concluded by an address given by Vice President Lyndon B. Johnson at a banquet held at the Waldorf Astoria on Friday, October 13.

The aim and purpose of the convention was best explained by the President of the United States, J. F. Kennedy, in his message to the people: ". . . It is therefore heartening to see that ARS has taken the lead, in cooperation with the government and military agencies, educational and scientific institutions, and industrial companies, in making available, both to the professional and to the public, full information about the present U.S. space program, and, even more important, about this country's future plans for space exploration."

A.S.M.E.

Will present a lecture on "Nondestructive testing" Thurs., Nov. 2, 1961 at 12:30 p.m. in room H106. The lecturer will be Mr. Harry W. Ebert P.E., welding engineer — Foster Wheeler Corp., who will be assisted by a panel of experts of the Society for Nondestructive Testing. A discussion period will follow the lecture. All engineering students are invited to attend.

For the early birds the film: "Manufacturing Planet Pinions" will be shown at 12:15 p.m.

Work Resumes . . .

(Continued from Page 1)

full classes, it did cause a disruption of the Chemical Engineering Department's plans for moving laboratories into Steinman Hall. ChemE labs were scheduled to be moved during this term and were to be in operation for the spring term. Many of them are already dismantled and won't be able to be set up on better than a makeshift basis for the spring term.

Blood Bank Is Coming Dec. 13-14

IF YOU CAN READ THIS THEN READ TECH NEWS

Tech Frats

(Continued from Page 6)

Steve North, president of IFC stated that another fraternity has approached IFC for membership. This fraternity will also be required to drop a clause in its constitution limiting its membership to engineers because this clause conflicts with the constitution of IFC.

The fraternities that are in the Technology Intersociety Interfraternity council are not required to join IFC, because they are professional social Greek letter organizations and not just social Greek letter organizations. This means that the recent ruling by the Student Faculty Committee on Student Activities in no way affects the existing engineering fraternities, and they will be allowed to remain on campus without being members of the IFC.

Review...

(Continued from Page 3)

present the best modern design practice in the field of analog-computer components and systems, including general-purpose analog computers and representative special-purpose machines. Since analog-computer design is often intimately related to computer applications and problem-solving methods, a rather comprehensive review of analog-computer applications and methodology is included. A large number of special computer setups and trick circuits are presented in tables and grouped illustrations for convenient reference. Starting with a chapter introducing the basic terminology, this section of the handbook covers the design of electronic - analog - computer building blocks; design of computer system; significant applications of electronic analog computers; and newer techniques like dynamic-storage computation, repetitive computer techniques for statistical problems, and combined analog-digital computation. One entire chapter is devoted to solid-state (transistor) analog-computer components and describes many new solid-state circuits. The final chapters in this section deal entirely with important analog techniques less familiar to many engineers — with network-type analogies for fields, structures, and power systems and with mechanical, electromechanical, and hydrodynamic and heat-transfer computing elements.

The digital part of the handbook starts with elementary definitions, component circuits, and computing circuits such as flipflops, gates pulse shapers, and memory devices. It discusses logical techniques, design of arithmetic units, programming, and digital computer system design. Typical systems are described and there is a chapter on applications.

Among the recent advances in the "Computer Handbook" are late amplifier and multiplier circuits; new precision electronic switches; analog dyamic storage technique and automatic iterative programming; transistor amplifiers, multipliers and function generators; computers in Random-process studies; and combined use of analog and digital machines.

Dr. Huskey and Dr. Korn are both well-known consultants and lecturers on computer theory and practice. Harry D. Huskey is Professor of Electrical Engineering and Mathematics at the University of California at Berkeley and president of the Association for Computing Machinery.

Granino A. Korn is Professor of Electrical Engineering at the University of Arizona and was formerly associated with Lockheed Aircraft Corporation, Curtiss - Wright Corporation and Sperry Gyroscope Corporation.

AIEE-IRE

On Thursday Nov. 2 at 12:20 pm the AIEE-IRE will present Mr. Sid Levine of Paktron Inc. a division of the Illinois Tool Works who will speak on "Administration and Management in Electrical Engineering". The meeting will be held in S 315 and members are advised to attend promptly. Following the meeting, members will be allowed to enroll for the IBM field trip to be held on Dec. 28.

The Tragedy of the Stern Moralist

A Review of O'Neill's "Diffrent"

By SAL FAVIA

"Let him who be without sin cast the first stone," said the Prince of Peace two thousand years ago, and so saith O'Neil in "Diff'rent," his second full length play, written in the early twenties and now enjoying a revival at the Mermaid Theatre. In this marvelous two act tragedy by America's greatest playwright, we learn what happens to a seaport village girl in New England who is such a stern moralist that she can't love her suitor unless he's completely different from other men (i.e. absolutely moral: no drinking, no gambling, and no sinning with other women). When she discovers that her lover, a sea captain, on one of his voyages to the South Seas let temptation get the best of him one night, she absolutely refuses to marry him. He, thinking she is just temporarily upset, vows to wait for her "thirty years if necessary!" And in the second act we find out what happens to the stern moralist thirty years later. She has become a frustrated old woman, ready to marry a young scoundral who will do anything for a fast buck, and who is the very nephew of her old suitor. In the process the sea captain commits suicide, and in order not to spoil the playgoers enjoyment this critic shall not reveal how O'Neill ends his work.

O'Neill's play is a beautifully engineered piece of writing. Utilizing only one scene, the parlor of the girl's home, he manages to convey the impression of life in a small seaport village in New England as well as the adventures that men had in the South Seas in the days of whaling ships. In addition, he effectively attacks the puritanical attitudes of the "holier than thou" supermoralists. This is what the play is saying: no one has any right to claim to be morally superior to anyone else, and that to take such an attitude will inevitably lead to unhappiness, theirs and t ones they love.

In the role of Emma Crosby, the stern moralist, Marion Seld gives a beautiful and powerful portrayal. Opening the play in a one as a sweet but austere young girl she closes it in act two the bitter, frustrated old woman. Miss Seldes is one of our mode actresses who has a rare quality — she can act. Possessing neith a balloon bosom nor the curves of a sine (or cosine), she is a ve beautiful woman who assumes the part she is playing so complete that it is a joy to watch her perform.

As her sea captain suitor, Caleb Williams, Michael Higgi turns in a capable performance. In the first act he presented ju the right amount of brassiness and saltiness to reveal his youthf determination to wait for the girl he loves. But he was far superi in the second act as the old man who realizes what a waste he made of his life waiting for a foolish old woman.

The third leading role was performed by Robert Drives, Benny Rogers, the young scoundrel who'll stoop to any level f a fast buck. Mr. Drivas' performance was adequate, but his cha acterization of the young boy appeared to be somewhat stunte This fault can, perhaps, be attributed to Paul Shyre's directio Some scenes were over-emphasized: notably the scene in the secon act where Miss Seldes is required to go through hysterical cryin Had it been toned down, the scene would have been more effectiv In other scenes the direction was under-emphasized, such as whe the old woman is showering her attentions on the young boy.

The best mnor performance of the evening was by Art Smi as Captain Crosby, Emma's father. His was the comic relief t play needed, and Mr. Smith performed it so well that this crit regrets O'Neilll didn't write the part bigger for him. However, that as it may, "Diff'rent" is a fine play to see and I heartily re ommend it to the discriminating student who's looking for evening of entertainment and enlightenment.

If you feel that you would like to read more articles on vario cultural topics drop us a line in room 152F so that we may ha your opinion.