THE SCHOOL OF ENGINEERING AND ARCHITECTURE

TECH NEWS

CITY COLLEGE OF NEW YORK

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Students Want 'Outside' Architecture Chairman If Bischoff Resigns

President Buell G. Gallagher, Dean William Allen, and Architectural Chairman Gilbert Bischoff met with six students of architecture Friday, February 24 concerning the selection of a chairman for the Department of Architecture from outside the City College community.

Ray Longwell, one of the spokesmen for the students, opened the meeting by elaborating on the petition submitted to President Gallagher earlier in the day. The two-page petition, which was signed by 135 architectural students, requested that the President consider taking the initiative in the selection of a new chairman when Professor Bischoff's term expires in May.

It cited the advantages of having a prominent architectural educator come to the school, including his ability to attract experienced men from the field and bring in new methods of teaching. The students said that, "A new chairman must possess the leadership qualities necessary to set high standards in design and all other phases of a complete architectural education. He must be willing to treat students and faculty as partners in the learning experience and as members of a college community where the search for truth and knowledge is the ultimate goal."

The students also said, "We cannot overemphasize the importance of starting off right and and establishing a tradition of excellence in the new Department of Architecture. Most of the other architectural schools are already strangled by one point of view, while C.C.N.Y. still has the chance to approach architecture and urban design with a refreshing new outlook."

The petition pointed out that the present department is unable to accept constructive criticism from the students and attempts to isolate itself from the rest of the architectural profession.

President Gallagher emphasized the fact that he called the meeting to hear the students' point of view, but that he would make no commitment one way or the other. He promised to attend a meeting of the architectural faculty to discuss the impending elections for chairman.

OP Linking Of Gallagher With CIA Called Libelous

Observation Post could be held libel for the statements it made about Dr. Gallagher in its last issue, according to Mr. Irving E. Levine, Director of Public Relations of the College. He stated that in the process of scooping the other college newspapers, OP accused Dr. Gallagher of knowingly participating in the secret CIA operations to channel money to the National Student Association, which Mr. Levine said is not true.

Mr. Levine listed the following statements in OP as errors:

1) the title — "BGG LINKED TO CIA FRONT": there have been no hearings to prove that NSA is definitely an organization working with the CIA;

2) NSA has been alleged to be a "conduit agency," not a front. The difference between a conduit agency and a front is that a front is a false agency created explicity to work for another agency. Mr. Levine maintains that NSA is not a front — it is a functioning organization.

3) the reference to WUS (World University Service) as a recipient of funds from the CIA.

Dr. Gallagher would not comment on the OP article, but he did try to clear up his relation to the NSA, WUS, and the CIA. He said:

"I was, from 1953 to 1966, chairman of WUS, and for the last half dozen years, international chairman. During this time, NSA helped pay the traveling expenses for some of the delegates coming to assemblies. I have satisfied myself that no funds to WUS were received from the government. All the money that they received was from private sources.

"Last May, 18 months after serving notice to the board, I resigned from WUS. At that time, I was invited to serve on the Board of Directors of NSA. Since that time, I have attended two meetings of the Board. I know nothing about the allegations of money received from the CIA."

Mr. Levine stated that OP's reporting worked against the efforts of many college administrators to keep the student presses free. He referred to a 1956 incident when the CAMPUS wrote a defamatory article about a Hunter College alumnus in an April Fool's issue. He noted that the entire managing board was suspended from school for the entire term.

Mr. Levine also said that he was almost sure that nothing this drastic would occur. But he did state that in the future, college papers should exercise as much caution as a public newspaper.

Interest In Biomedical Engineering Increasing

Prof. Gerner Olson (C.E.) is doing research in bio-medical engineering at the College.

By ALEX SCHREIBER

Bio-medical engineering is the application of engineering methods and principles to biological and medical problems. In its widest sense it involves enginers in everything from developing delicate medical instruments to studying the structure of the body, and to handling sanitation problems.

Bio-medical engineering presently covers six fields of engineering. These are medical engineering, fermentation engineering, environmental health engineering, agricultural engineering, bionics, and human factors engineering. Bionics and human factors engineering are both areas in which engineers seek to apply biological knowledge and discoveries to engineering problems.

Interest in bio-medical engineering is growing quickly. According to a November 7, 1966 article, called, "Engineering Emerging as a Separate Field," in Chemical Engineering News, the emphasis now is on medical engineering. In the past six years 40 universities have set up degree programs in medical engineering, a factor behind the growth of medical engineering has been the availability of money in the form of federal grants. Again, according to the article, these grants totalled one million dollars in 1966. A great deal of the money, about $600,000, went for the direct support of more than 100 graduate students. Other areas of bio-medical engineering are also receiving increasing support from the government agencies.

The growth of bio-medical engineering is not only being accelerated by money. The need for bio-medical engineers is growing and this need is being increasingly recognized. As reported in the current Engineers Joint Council (E.J.C.) newspaper, doctors are quick to give credit to engineers and to affirm their vital role in bio-medicine. A representative for noted heart surgeon, Dr. Michael E. De Bakey, who is pioneering the development and implantation of the artificial heart, said that, "We would have stumbled along for many years if it were not for the assistance of engineers."

There are problems, however, in establishing biomedical engi-

(Continued on Page 5)

Facilities Will Be Shown On E & A Day, March 11

By LENNY SOLOMON

The City College's annual Engineers' and Architects' Day will be held on Saturday, March 11, 1967, from 10:00 A.M. to 2:00 P.M. The School of Engineering and Architecture will be open to the public, and tours of the school and its laboratories will depart from the lobby of the new engineering building at 140th Street and Convent Avenue.

The tours will cover many of the College's interesting facilities including its nuclear reactor, laser beams, IBM 7040 computer center, and various architectural models. There will be free refreshments, parking, and door prizes.

Purposes

During the day, upperclassmen and faculty members will be present to answer questions pertaining to engineering and architecture, or to the City College itself. There will also be a continuous showing of engineering and architectural films.

The purpose of E & A Day is two-fold. One is to show to those who are interested some of the modern scientific techniques that play such a large role in the complex society that we all live in today. The second purpose is to inform those students who are specifically interested in the City College's engineering and architecture program of the broad and quality education they can receive at this institution.

The Committee

The main efforts of the E & A Day Student-Faculty Committee go into publicity, and most of the publicity is directed toward the high schools. This year, letters and posters were sent to the college advisors, principals, student papers, and selected department chairmen, of all the high schools in the city. Each high school was contacted by telephone.

A new idea was put into practice when several City College engineers visited various high schools in the city, and gave talks to some of the clubs. Some of the high schools contacted in this way were the Bronx High School of Science, Stuyvesant High School, and Brooklyn Technical High School.

Publicity has also been directed to the other city colleges with pre-engineering programs, and to the City College itself. Announcements have been posted in different buildings around the school.

WELCOME

This issue of TECH NEWS welcomes footings, the architectural journal, which was started last year by a group of students We hope that footings will become a regular feature of this paper.

VECTOR REVIEW

No Magnitude or Direction

By KENNETH N. FLAXMAN

Vector, like many other college engineering magazines, looks very slick and professional — until one reads it. Because of financial considerations, the ratio of advertisements to copy must be one to one. Therefore, of the 40 pages in the January issue of Vector, 20 pages are ads. The rest are divided between student articles, faculty profiles, puzzles, poems, an editorial, news briefs, and book reviews.

It is a task of Herculean proportions to build a good magazine around two articles, especially when only one is a good piece. Stu Personick's article, "Mathematical Universe," is an excellent attempt to explain mathematics as a way of life. Unburdened by formulae or rigorous definitions, Personick writes of electromagnetic theory and relativity, without trying to explain fully these two obstruse topics. He writes of "The opening of a universe to man beyond the fiven senses, which at many times seem strange and contradictory to reason." He does this beautifully, without trying to solve the Schroedinger equation, but talking around it. Of such stuff good magazines are made.

The other article is a failure. In "Recent Trends in Commercial Radio," Jay Michelin tries to write a communication systems course. He attempts to explain amplitude modulation, frequency modulation, frequency tranctions, audio frequency clipping and compression, and antenna theory. Michelin's article is not complex enough to be interesting to the technically oriented, and too complex for the uninitiated reader.

It is interesting to see poems in Vector; it is a pity that they are generally trite. The first, "Spaceman's Salute," is pure unadulterated "rah, rah." Lines like, "We will fight to keep our planet's space lanes free — free, free." make one wonder when a "Let's go Mets" is going to appear. The two poems the computer produced are interesting: the first, titled, "Computer Poems," initially seems to have some deep meaning, but actually doesn't. The second, "Phoebe," an ode to an irregular satellite, represents a poem obviously produced by a different programming technique than the first poem. "Phoebe" tells a story as, perhaps, a fourth grader might. It is a cute piece. Perhaps a future Vector article could deal with programming techniques for the generation of poems.

Carefully perusing Vector's masthead, one wonders why it is the "CCNY Engineering Magazine," published by the students of the School of Engineering and Architecture. Why aren't the students of the School of Engineering and Architecture publishing a "CCNY Engineering and Architecture Magazine?"

For a nominal twenty-five cents, Vector is worth buying — if only for Personick's article and the advertisements. The twenty pages of ads represent the work of some of America's greatest public relations agencies, and should be accepted as works of art. Hopefully the next issue of Vector will have a more substantial basis for its articles.

LETTERS

To The Editor

Two years ago, the students of City College, in a referendum, voted overwhelmingly to retain our membership in the National Student Association. At the time I thought the decision was a wise one, and at the present, I would still concur.

At the current time, the fight to dissaffiliate Student Government from NSA is being led by the "Stop NSA Committee." Two years ago, the attack on NSA was led by Young Americans for Freedom, a notorious right-wing group, dedicated, so it seems by their actions, to destroy any semblance of progressive activities in the United States. The President of the Stop NSA Committee is concurrently publicity director for YAF. It would seem that beneath the guise of a new name, YAF and friends are once again launching an attack.

Let us take a careful look at the charges made by YAF. They allege that the College pays $1200 a year and receives absolutely nothing in return. In fact, Student Government pays approximately $250 a year in dues to NSA, for which it receives numerous mailings containing ideas for programming as well as reports as to the activities of the National staff. Periodically, staff members visit the campus to help out with activities, including the recently formed "Experimental College," the Teacher and Course Evaluation Program, an dthe recent selective service controversy. The additional $1000 per year is spent to subsidize delegates to the National Student Congress, held every summer at a midwestern university. At the Congresses, six delegates and three alternates gain valuable information about student services, the role of the student and student government in the college and in the nation, university reform, educational change, how to be more effective within Student Government, and how to keep in touch with the student body. The most important function of the National Student Congress is to start students thinking about the issues of the day, both locally and nationally. I believe that NSA serves all of these functions superbly, and therefore label YAF's charge absurd.

YAF alleges that "NSA is pushing for legislation on fraternity housing and membership now that would destroy the American fraternity system." If the members of the Stop NSA Committee would care to browse through the Codification of Policy of NSA, they would soon change their tune, because they have been singing the same one for many years now.

I believe I've wasted enough time on Young Americans for Freedom (one minute is one too many). Let me for a moment discuss the current controversy over NSA's former ties with the Central Intelligence Agency. Through devious means and false promises the CIA covertly attempted to infiltrate NSA and the national and international student movement. Whether or not you support the activities of the CIA, (which I don't, for many valid reasons), you must conclude that the CIA had no business there. Through a great deal of pressure, including penalty of up to 20 years imprisonment, the CIA kept their activities within NSA secret. I am happy to say that for the past two years NSA has attempted to sever those connections, and have finally succeeded, not without paying the price of a great deal of bad publicity, however. NSA policy for the future will be against entering into any covert relationships, legitimate or otherwise, and I find that I must applaud this decision, perhaps to the exclusion of their international programming (unfortunately).

Let me conclude by saying that there is a great need for a national student union. Around the world students have a great deal to say about how their countries are run. In America today fifty per cent of the population is under the age of twenty-six, and yet they have little to say about US policy, both foreign and domestic. NSA has served the function of appraising the people of the wishes of the students of America for the past twenty years. Hopefully, with City College as an affiliate, they will continue to lead America on the path of a progressive, free, open, and democratic society, where the quest for knowledge is applauded rather than disdained. America and CCNY both need NSA, and they need us. I would hope that you remember this when and if a referendum comes before you again.

Shelly Sachs
Student Government
President

TECH NEWS SURVEY

Query Shows College Is "Good"

By MARK KRAMER

City College girls love City College. Unles they happen to be girl Engineers.

City girls, outnumbered by almost 3 to 1, overwhelmingly approved of the school, with 96% of them stating they are glad they are here. Exactly half the female slide rule manipulators polled, however, stated unequivocally they are sorry they came. We could not retermine if this was a reaction to our men engineers or our Physics professors.

Reasons for Coming

Among the other questions we asked was, "What was the primary reason you came to City College?" More than half of the sampling we took said financial considerations was the reason.

The following gives a schoolwide breakdown of the answers received.

Financial Consideration	54%
Reputation of School or Department	34%
Didn't Get Into First Choice of Schools	7½%
Other	4½%

Interestingly enough, ten percent of the men said they were here because they were turned down by their first choice school, while not one girl admitted this.

When asked, "Do you feel City College is 'good,' 'fair,' or 'poor,'" an interesting breakdown resulted. The girl students gave the school a much better rating, as follows:

	Good	Fair	Poor
Female	88%	12%	0%
Male	64%	32%	4%
Total	74%	26%	3%

The survey indicated that the students think City College is better than outsiders think it is. Only sixty seven percent felt the College's reputation is "good," and seven percent who felt the school had a "poor" reputation.

The Daily News, President Gallagher, and sloppy dressers all help destroy City College's image, according to several students. When asked to single out factors that adversely affect our stature, three students pointed the finger at New York's Picture Newspaper, four mentioned the College President and others complained of "beatniks," "slobs on the subways," and "girls in pants."

Of the choices suggested, the College's reputation as a center of Communist activity ranked as the most detrimental to our image.

Here is the breakdown on "What hurts City College's image most:"

Reputation as Center of Communist Activity	45%
Lack of Campus life	31%
Mediocre students and/or Faculty	12%
Other	12%

The Engineering students, supposedly more conservative than South Campus students, showed no more hostility towards Communist activity on campus than the school as a whole, naming that as a prime cause of a poor image at the same rate of forty five percent.

The College's high academic standards are by far the most important factor in building our reputation, according to the students. More than six times as many students felt that this was of greater significance than its famous alumni and tradition.

"What aids City College's image most?"

Fine Academic Standards	73%
Alumni and Tradition	11%
National Publicity	6%
Other	10%

In spite of the fact that only one third of the students came here because they had much of a choice, ninety percent of them are glad they are here. They are proud of its standards, but are not in awe of its past.

Most opinions are fairly well distributed between North and South campus, and there were no discernible differences in attitude between upper and lower classmen. Girls seemed to be more easily satisfied than men. Overall, the survey indicated the students have a great deal of pride in the college.

An Open Shutter Case

TECH NEWS is sponsoring a photo contest this term. Black and white glossy prints from 4 inches wide by 3 inches high, to 8 inches by 7½ inches may be submitted. Two categories of subjects will be contested. One group is limited to technical and architectural subjects; the other category is completely open to any subject. Winning pictures will be published and a five-dollar prize will be awarded to each of the two categories. Please keep in mind that tiny details and medium contrast will not reproduce satisfactorily. Prints should be of higher than normal contrast.

TECH NEWS

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Another OPituary

In line with their usual low level of objectivity, the editors of **Observation Post** have performed once more. Like the jury that sent Dreyfuss to Devil's Island, the OP editors have accused Dr. Gallagher of being a player in a game he didn't even know existed.

In OP's lead story and in their editorial, not one fact was cited which could prove that the President knowingly aided any CIA cause. In fact, Dr. Gallagher stated that he had checked the financial statement of NSA and no government agencies were indicated.

Combined with a generally bad effort at reporting, OP used, out of context, a quote almost fifteen years old to launch its attack on the President. The statement, which appeared above the editorial entitled "An Obituary," was one in which Dr. Gallagher was referring to Communists, Facists, and other radical groups. This precludes the fact that Dr. Gallagher, like any other human being, can grow and change his mind over such a long period of time.

Furthermore, since OP could not prove with any degree of certainty that its allegations were correct, it resorted to the infamous 'guilt by association" tactics which the late Senator McCarthy made so famous; i.e.: Dr. Gallagher is serving the Foundation for Youth and Student Affairs; this foundation is allegedly a "conduit agency" for C.I.A. funds; ergo, Dr. Gallagher is a white-hatted Commie fighter.

Respect for the student press at C.C.N.Y. is at its lowest ebbing years, due in part to OP's journalistic irresponsibility and abuse of its privileges as part of the free press. Our Administration must fight both internal and external pressures to maintain these privileges. The student abuses, such as OP's kangeroo court tactics, strengthen those who are opposed to freedom of the student press and may reduce the administration's incentive to maintain these privileges. The obituary should have ben written on the third floor of the Administration Building instead of on the third floor of Finley Center.

theCoffeeDrinkers

The Department of Buildings and Grounds is living up to its reputation for less than meediocre service. Along with their inability to shovel walks, repair escalators, and service water coolers, they recently found it difficult to fulfill a request by Professor Bischoff (Chrmn., Arch.) to empty the room designated for the architectural library.

As a result, the students in Goethals Hall took it upon themselves to do half the job and decided to move the furniture into the hall. In a matter of days, the department found the needed storage space and finished the job.

the Mural

By DENNIS COHEN

Of the old mural I shall never be free
There's a girl; I wonder if she's thinking of me
And the wind blows through the trees
Surrounding Bronx Science High
Whispering about lost dreams
That would never die.

I dreamt of reaching heaven
For the stars in the sky
Now, on my aching back, I lie
Sometimes in my sleep a somber voice calls
Find the soul now locked in those walls.
I saw her face, her hair golden brown
My desire soon turned me into a clown.

Ah by the old mural I'd like to be
Where once I hoped of capturing the dream
Which places man above the beast;
Instead, my soul became a feast
To desire and to lust
Crumbling always crumbling
Eventually turning into dust.

And the cold mural took part of my soul
Still it seems to mock me
It knows how far I wandered from my goal.

And the ghosts of the past
Haunting the halls of Bronx Science High
Whisper softly to this bitter outcast
Things that would make the strongest cry.
Whispering about dreams killed slowly by fears
My battered heart leaves me only tears.

When the moon shines brightly overhead
The night is full of stars
Those halls are filled with the dead
Whose hearts were full of scars
And the mural gazes in pity
At things that never could be,
At long lost dreams
At long crushed hopes
That might have made them free.

Proper Methods of Study

By R. NEWCOMBE

Pomegranites in the malevoilent navel of the mind

Superimposed upon the indolent degradation of an omnicient text:

Wails of the semi-dead echo entreaties of pungent pencils as they attack its ecclesiastic trivia.

And the incandescence of my toenails foreswears memories of cosines and Mother -

To sit and dream without so much as the truth and justice of cafeteria lint between intestine and vector,

With but the odor of livid pellicans to combat;

Aye, what is life but baneful blotches of a fool's paradise,

What is a soul but a noodle in the sand:

What is knowledge but a mellow shoelace?

Gross Sayings

BY JEFF GROSSMAN

Do college students have sex on the brain?

Of course not!! They know that there are better places for it.

It's easy to see this for yourself if you go to a "Mazola Party," like the ones they have at Antioch. You move all the furniture out and roll up the rug. Everybody takes off all their clothes and pours Mazola on each other. Then everybody jumps into a big pile in the middle of the floor. The best advice I can give you is to try to get some good mixers in the crowd.

After the University of Pennsylvania recently granted coeds permission to phone in from men's apartments to sign out, the janitor reported a large bonfire of used picket signs. Each said: "If you can't get it by midnight, you're not gonna get it.

Students at the University of Minnesota were slightly concerned when that state's Senate considered the passage of an anti-necking bill. The law would forbid a driver to place his arms around a passenger (or vice versa) while the vehicle is in motion. An earlier vision of the bill somehow made it legal to place your arms around the passenger while the **passenger** was in motion.

Need a summer job? Dr. Kinsey's successor at Indiana University's Institute for Sex Research has announced that a study is planned on "Sex in College." As **The New York Times** (it's about time this column got some class) reported: "It hopes to lighten its staff's load by training students to do much of the field work. . . ."

A girl I know at Oregon State got pinned one night. She returned to her dorm wearing both the fraternity pin and one of those little circular jobs known (I wonder why) as a virginity pin. Her roommate promptly (and appropriately) asked, "Well, which one is it?"

Women at Smith have won at least one battle in the sexual rvolution. They are now allowed to entertain men in their rooms from two to five on Sundays. Doors must be open six inches, however, and at least three of their and their guest's collective feet must be touching the floor. You know what I always say — "If you can't get it with three feet on the floor, you can't get it."

The trustees of Vassar College have announced that they've accepted an invitation by Yale to make a joint study of the possibility of locating Vassar in New Haven. That seems only fair. For years Yalies have enjoyed locating in Vassar.

The Director of Health Services at the University of Maryland says that the sexual revolution is over. His reasoning comes from the fact that, as he put it, "Many prostitutes get their early training in college."

Prostitution 101, 3 cr., M W F 11 pm, T 11 pm & TH 11 pm-1 am. Professor Mephisto and staff. Prerequisites: none. May be taken concurrently with Sociology 63 (Marriage and the Family). An introductory course, probing the history an dpractice of prostitution from the earliest nights to the present. Special emphasis on modern application. No papers. Graded on basis of class participation, lab work, improvement.

At a Dartmouth conference, the Reverend Mr. Byrd Heligs of Brandeis University said he had allowed his daughter to live with a man for a year before they were married. Very nice, Reverend. Does she have a sister?

From the **Colorado Daily:** "F.A.C. Contest at Tulaki's—Special prizes for five girls with the tightest ski pants. No girdles allowed."

The University of Hawaii ran this headline in their **Ka Leo O Hawaii:** " 'The Flies' to Open."

The want ads in the Indiana University **Daily Student** are enough to scare anybody. F'rinstance: "HELP WANTED: part or full-time male or female. . . . "

And from the Ball State (I kid you not) **News,** the following eyecatcher: "Drivers' License Age Jump Delays Accidents, Drop-outs, Pregnancies"

But, all seriousness aside, geting back to my original question about sex on the brain, I leave you with THE big puzzler about the sexual revolution. "Will it end with a whimper or a bang?"

Tech Life

BY STU PERSONICK

An important problem facing every engineering student is that of curricular flexibility. This is not a technical term used in structure design, but one denoting the freedom given to upperclassmen in engineering to chose courses which they deem pertinent over those which they feel are useless or extraneous.

City College is regarded by many graduate schools and corporations as a top-notch institution. However, it has been criticized by those who evaluate engineering schools as not offering sufficient elective freedom for upperclassmen. It is paradoxical that while engineers take more credits in their major field than any other students, they are given the least choice in choosing their advanced courses. Surely if other departments feel that twenty-four credits are enough to establish a foundation in a major, and beyond that the student should decide what courses he would like to take; then certainly the engineers who take over a hundred technical credits should be allowed the same privilege.

There comes a point where any student gets sick of taking background and would like to begin concentrating on his major interests. There are always a few more courses which would be nice to have, but which are not necessary for all students to take. I know what will happen to a beam when it is put under tension load. I may find it interesting to see this first hand in the lab, but as an electrical engineering major, I would rather do other things. Thermodynamics is very interesting, but those aspects of it which are important to a mechanical engineer are not so important to me.

Perhaps I would rather take something else. Even in E.E. courses or in any other field, there are many subdisciplines, all of which are nice to know, but which I may prefer not to study. Surely an upper junior or lower senior in engineering should be allowed to choose those courses which he finds of interest. One can got on building up a general background of all aspects of an art for a lifetime.

The ideas which I express here are by no means radical. Other engineering schools such at M.I.T. and Cornell offer tremendous flexibility to upperclassmen. Junior and seniors are allowed to specialize. They may take courses offered to graduate students. They are allowed to participate in work study programs. There is even provisions for the combining of undergraduate and post-graduate work into a five year master's program. Surely these schools must be doing something right .A student who specializes as an upperclassman may miss something; but at least he can learn about something in a little more detail. He can point to something he picked out in his third year as his speciality.

At present only some students are allowed to substitute courses with permission of the Committee on Course and Standing. Very few advisors ever inform students of this privilege and it is usually the upper seniors who find out about it before they graduate. This is partially the fault of the students, but is more the fault of the advisors for not being concerned enough to inform them.

The student faculty committee of the Technology Council has been trying to initiate curriculum changes for the engineering school. Of course, it has gone the way of all student faculty committees; much talk, much indigestion and little action .It is mostly the upper classmen who participate in the Tech Council, although they probably have the least to gain and the most to lose. Their requests are not, in general, for changes in the courses, but for a broadening of scope and for a chance for upperclassmen to make a few decisions on their own.

It is easy to sit around and take in a spoon-fed education without much thought as to what is being served. Engineering courses require long hours of work. Every hour spent on a course which is not useful, and which will be quickly forgotten forever, is an hour wasted. Those people who cannot decide on what to take, or who expect to continue advanced studies, may prefer the broad, well-rounded approach. They will always be able to take many varied courses as are now offered. However, those who can see earlier where their interests lie should be encouraged to specialize as soon as possible. It is in advanced courses that one finds interesting that enthusiasm grows. In boring courses taken merely because they are required, interest drops off and little is accomplished.

Meetings

The Student Chapter of the American Institute of Architects will hold a meeting on Thursday, Feb. 2, in Goethals 111. Architectural trips will be planned. This meeting, at 12:30, will be prefaced at noon by a meeting of those interested in any aspect of The City College image surveys (see news article, page 1).

IEEE will meet Thursday, March 2, in T-123. Various representatives of engineering companies will discuss employment opportunities. Reservations for THE FREE TRIP will be taken.

The deadline for submitting the team cards to the Intramural Office is TODAY, February 28. Al members must hand in their cards at Wingate 109.

Work-Study

The School of Engineering and Architecture of the City College of New York is presently engaged in a civilian work-study program with the Corps of Engineers, Department of the Army, and with the Department of the Navy.

The Army program is at the present time **only for C.E.'s** who have reached the lower junior level. It may be expanded at a later date to include other branches of engineering.

The Navy program is for **Ch. E., E.E.** and **M.E.** students who are in their freshman year.

For further information regarding each of these work-study programs, contact Dean White in A208.

Graduate Seminar

The Department of Civil Engineering Graduate Seminar will present two lectures on "Solutions of Partial Differential Equations for Problems of Physics and Engineering by the Method of Characteristics" by Dr. Ferdinand F. Cap, Buell G. Gallagher Visiting Professor of Engineering.

The lectures will be held in Steinman Hall, Convent Ave. at 140 St, Room 207 on March 3 and 10 at 3:00 to 5:00 p.m.

For further information on this and future seminars, please contact Dr. David H. Cheng, Civil Engineering Department.

Poem No. 11

By MATTHEW H. KRAMER

Oh, if that orangey-bright expanse of mass
Would someday let its station expand
'Till those 'neath stone could feel it pass
Burning, crackling, gurgling could He make such command?

But if that orangey-bright expanse of mass
Would fight its plight, interminably stand
Then damn that toxic-noxious gas
Laughing, crying, living would He make such demand!

Bio-Engineering Research at College

(*Continued from Page 1*)

neering as a single unified branch of engineering. Biomedical engineering is possibly as diversified an area as all the engineering areas related to the physical sciences. Considering the definition of bio-medical engineering, as defined by E.J.C., it would not be practical to set up a uniform curriculum for a bio-medical engineering degree.

Most biomedical engineering degrees are conferred by established engineering departments, and these departments have been, or are, reluctant to lower their engineering requirements to allow for the biomedical training. Thus, bio-medical engineers have often had to spend an extra one or two years in school.

But this attitude is changing. Under a new program, schools such as Wayne State University, in Detroit, and the University of Wyoming, are offering just a core of engineering courses for the undergraduate. Some advanced courses are dropped in favor of basic courses in biology, inorganic chemistry, biochemistry, physiology, and instrumentation courses.

Another problem which hinders the creation of biomedical engineering as a separate field is that some engineers see no need for the field at all. They maintain that a good graduate, thoroughly trained in one of the traditional areas of engineering is in the best position to adapt himself and apply his skills to the life sciences, if he so desires. To illustrate the point, one dean of a large eastern university points out that we make very good automobiles without giving formal training in automobile engineering. However, the fact is that engineering and the bio-medical sciences are now widely separated disciplines with separate languages. Physicians do not feel at home with engineers who have had no bio-medical training and vice versa. "The bio-medical researchers resent justly the intrusion and criticism of the glib engineer with his exact physical laws." Prof. Gerner A. Olsen, of the Civil Engineering Department, is a biomedical engineer. Approximately four years ago Professor Olsen was the recipient of a fellowship to the Hospital for Joint Diseases at 123rd St. and Madison Avenue. "From this," as he says, "there stemmed greater and greater interest and participation with medical doctors, particularly orthopedic specialists.

Prof. Olsen encountered the barrier between doctors and engineers. "I was posed problems by doctors which couldn't be solved without an understanding of the mechanics of the human skeleton. I could not help these doctors because I did not understand the mechanics of the human skeleton at that time. It was imperative that either the doctors learn engineering, or I obtain some medical background on how we were to meet on common ground."

Profesor Olsen then attended the University of Virginia with the help of a fellowship and by obtaining a leave from the City University. The Professor attended courses in physyiology, histology and neuroanatomy, with first year medical students, and also participated in seminars, operations, and diagnosis with members of the orthopedic staff. In addition, Prof. Olsen carried out individual research and with the help of Dr. William Allen, head of the Orthopedics Dept. of the University of Virginia, wrote a unique paper on the lateral stability of the spine. Prof. Olsen analyzed the structure and function of muscles and ribs, and the spine itself, as an engineer would analyze the parts of a mechanical object. He came to conclusions which are gaining support and which he believes are correct. Doctors working alone have been unable to find the causes of the lateral bending of the spine.

Prof. Olsen has been continuing this research into the lateral stability of the spine with Dr. Jacob Graham, New York orthopedic specialist. The CCNY College research foundation has awarded Prof. Olsen a grant to continue his research.

Prof. Olsen is not one of those engineers who believe that there is no need to establish biomedical engineering as a separate area, or recognize it as a separate area. "It became clear to me that an engineer going into biomedical engineering must have some preparation in his undergraduate program, such as biology, organic chemistry, basic physiology, instrumentation, and a general bio-medical engineering seminar."

Prof. Olsen and Prof. Meth, of the E. E. Department, M. Patell (Chem. E. Dept.), A. Baldo (M. E. Dept.), D. Cooper (Biology Dept.), D. Perlman (Chem. Dept.), and S. Ostrow (Phys. Ed. Dept.), have formed a biomedical engineering committee with the aim of finding out what interest, if any, exists in bio-medical engineering. Said Prof. Olsen, "Presently, the committee is thinking in terms of an undergraduate option of approximately 16 credits in the bio-medical field. These credits would not be added, but substituted in each of the 4 basic engineering programs without jeopardizing the engineering degree. However, due to the uncertainty of local interest, this may be preceeded by individual courses which could determine genuine current interest. What we hope to do is whet the students' interest.

"Biomedical Engineering," according to Prof. Olsen, "has its place in each of the four basic engineering curriculums. The Chemical Engineer is involved in chemistry applied to body chemistry. The M. E. is involved in the development of blood circulators and heart pumps, among other projects. Civil Engineers are dealing with the structure of the body, and the E. E.'s roles have been the most important up to now."

Prof. Olsen emphasizes that biomedical engineering will not attract the mediocre student. It calls for the student who is willing to attempt the almost impossible job of being proficient in both fields.

Students who are genuinely interested are invited to get in touch with any member of the biomedical engineering committee to express their interest, or to have any questions they may have answered.

hitect is an Architect is an Architect is

A Docustat copy of last year's corrected Civil Engineering homework is a boon to the Architectural student; it helps him get at least a 20 on exams. It also helps him do his homework.

By JOEL P. DREYFUSS

The prisoner of Zenda never had it so good. The most out-of-place person at the College is the architecture student. Trapped by a quirk of fate, he finds his department attached to an entity known as the School of Enginering and Architecture. It's the first part of the title that hurts most.

Engineering and Architecture are like oil and water, and hopefully the architects float to the top. The basic difference could be considered one of outlook. The aims of each profession, and particularly of the students involved, are at opposite ends.

Engineering is a complex field of mathematics and science with practical and definite solutions. Either it works or it doesn't. There is a right answer to every problem.

Architecture deals with lots of strange things like beauty, art, aesthetics . . . The solutions invariably lead to heated criticism and violent discussions.

The mathematics-oriented engineering student looks over his fellow's shoulder and says, "That's the same answer I got."

The most valid architectural criticism may be — "It's ugly, I don't like it."

You take these two mentalities, place them together in a confined space, and there is a reaction.

The difference is striking to each individual involved. One calls the other "long-haired, crazy, leftist, graphics major" having taken that one mutual course together known ominously as Graphics 7. The above described individual got an A while his critic got a C, muttering about the total uselessness of a future Einstein like himself having to know how to draw lines with a 2H pencil.

Our hero, the architecture student, struggles through a sequence of torture known as — The eternal battle against the law of gravity, taught by the Civil Engineering Department. Next to him sits a slide-ruling gentleman whom he fondly refers to as, "Damn cloddy engineer" (DCE), who reads Playboy during the lecture, and gets 95 on the quiz.

Trying to escape, our man goes South, to the land of art and philosophy and gentle people. He doesn't get away with it though because our perceptive South Campus friends spot his books. He's asked — "You're an Engineer aren't you?" "No, I'm an Architect," he answers. "Same thing," is the retort.

Finding no understanding anywhere, our Young Architecture Major (YAM) retreats to the sheltering arms of his design mentor. He is told he has no talent whatsoever and rejoices in the knowledge that someone understands him.

The word comes around that there will be a Test. It is understood that this will be given by that infamous group of villains known as C.E. teachers. Our man goes to the House of Horrors, (Steinman) hoping to find aid from one of his classmates, a DCE.

Seeing our Architect arriving the DCE quickly shoves his priceless copy of last year's test into his book wanting to preserve the status quo—the Curve. The Curve is a magical phenomena of the E and A school which Engineers swear by, and he wouldn't want to upset it in any way.

Being rebuffed, Our Man returns to his design room where an industrious fellow has made mimeographed copies of all the homework problems to hand out. With a lot of luck and studying, the class will manage to get a 30 average.

Shattered by his experiences, our Hero goes to the one place where there are people paid to understand him—the Division of Counseling and Guidance.

The receptionist takes his name and asks him whether he is in Engineering or Liberal Arts.

"I'm in Architecture."

"Oh, an Engineer."

footings

Streetsign Immortals

By ROBERT KALISH

One day a few years ago, the residents living on North Hempstead Turnpike in Flushing awoke to find that street signs proclaiming the street 'Booth Memorial Avenue' had been newly installed on every corner.

The name change took the local residents by surprise. No one had requested the change; nobody had ever thought of changing the name to honor "Booth" or anyone else for that matter. (The "Booth" in this case was General William Booth, founder of the Salvation Army.) Apparently the New York City Council, acting on a bill introduced by some Salvation Army-conscious Councilman, and probably not too far from adjournment, had authorized the name change.

This is one of many name changes in what has become a rather popular local civic pastime. Gone are the days when streets, parks, and public squares were named for Washington, Lincoln, and Jefferson. These men have survived a small era of history as immortals. The idea now is to immortalize someone not so important or famous so that people will forever stand on this or that corner, see a street sign proclaiming "Harold R. Feeney Memorial Square," and murmer to themselves, "Ah, yes — Harold R. Feeney, good man. . ."

My objection is not to the honoring of a local solider killed in action or the first librarian of the local branch library. My objection is that the whole busines of naming things or places has taken on a completely different character today. It follows basically four patterns:

1. A place or thing is named after a local politician or friend of same (if the politician already has something named after him).

2. A place or thing is named after the guy who gave all the money for it.

3. A place or thing with a perfectly good and practical name has its name changed in conformity with the above.

4. When there is no one after whom a place or thing can possibly be named for, it is named for anyone — it has to be named for someone.

As a result of these practices, the gymnasium at Queens College is named for an ex-borough president (Maurice Fitzgerald), the Engineering School building at Columbia University bears the name "Seely W. Mudd Hall," a super highway is officially the "Major Deegan Expressway," and Eastern Boulevard became "Bruckner Boulevard" back in the '40s.

In 1963, the new Municipal Stadium for the New York Mets Baseball team was christened "William A. Shea Stadium." William A. Who? It took quite a while before people realized that William A. Shea was the Chairman of the Mayor's Committer for Bringing National League Baseball back to New York. . . . and I'm sure there's not a soul in the city who would not have accorded Mr. Shea the honor he truly deserves.

For the longest time, a bridge to connect Staten Island with Brooklyn had ben proposed. Due to lack of funds, plans came and went for well over half a century. Finally, in the late 1950s, construction started on what was to be the longest suspension span on earth — a bridge to cross the great body of water known as The Narrows — the great Narrows Crossing. With such an appropriate name for the bridge, what else could it possibly be named? Answer: The Verezzano-Narrows Bridge. This name was hard fought for though. Verezzano was reputed to be the first man ever to sail into New York harbor, in 1524. But he was an Italian and the interests that be had to weather a storm of protests from other ethnic groups who claimed that their explorer was first. Battles are still being fought as to whether the explorer's name had one or two 'z's in it, with Italians pitted against Italians.

In 1964, the New York State Thruway, again a perfectly rational name, had its name changed to "The Governor Thomas E. Dewey Thruway." New York thus became the first state to have a thruway with a name. Aside from the obvious sycophany here, there is a semantic conflict. **The New Yorker** magazine pointed out, shortly after the renaming, that it would have perhaps been wiser if the name were either the 'Dew-ay Thru-way' or the 'Dew-ee Thru-ee'; somehow, 'Dewey Thruway clashes.

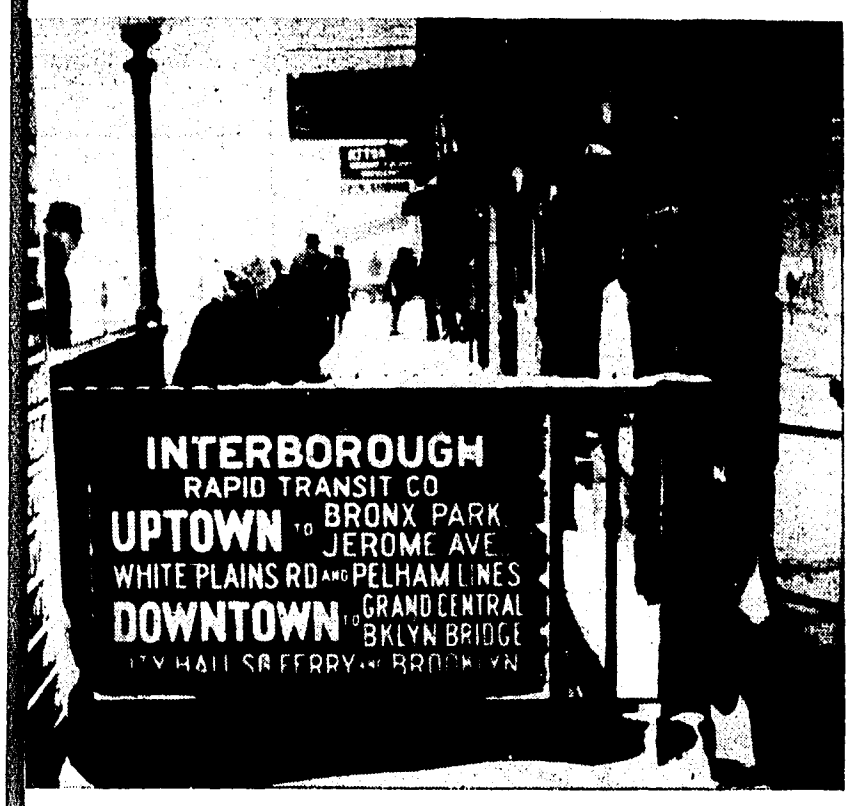
There is another instance where two famous men were being pushed by one group or another. This time, it involved a bicycle track in Queens. The first propsal was that it should be called "Mile-A-Minute Murphy Memorial Bicycle Track." Mile-A-Minute Murphy was a local folk hero who race on his bicycle, in 1890, a Long Island Railroad train from Jamaica to Hempstead (ten miles) and won. There are some Long Island Railroad commuters who say that they'd probably get to work faster if they emulated Murphy, but this not withstanding, folk heroes remain folk heroes. The Bicycle Track was finally named for Sigfried Stern, vice-president of a Long Island City chewing gum firm.

Thanks to many civic minded agencies, today's great citizens are being immortalized on more and more street signs. The day might come when a little girl walking down Fifth Avenue with her father will ask who Mr. Fifth was. For the present, we can be content with remembering Harold R. Feeney whenever we walk through His square. Harold R. Feeney . . . a good man indeed. . . .

This essay reprinted from **footings,** the architectural magazine. It was the winner of the Tau Beta Pi City College (Eta) chapter pledge essay contest, 1966.

ARCHITECTURAL SUPPLEMENT

And Don't Ask For Help With Your Crossword Puzzle



You now have even more to fear when you enter the subway.

By WILLIAM CAVELLINI

Gone are the days when . . .

- marital disputes can take place on subway platforms without unwanted intervention.
- children can entertain passengers on the Seventh Avenue IRT late at night with their bongos, harmonicas, and their agile bodies performing feats of acrobatic skill.
- a child's carefree whistling proves that the city isn't all anonymous faces anxious to reach their destinations.
- wandering troubadors with their guitars and banjos can fill the air with the strains of the time.
- pocket bibles can provide unexpected reading material for passengers who forgot their newspaper or lewd paperback.
- amateur artists, political idealists, and four-letter-word specialists can express themselves freely on the subway walls.
- Orbach's can advertise with already-built-in defacing.
- Sister Helen can solicit alms at the entrance to the Times Square Station.
- one can read all the newspapers of the day without buying any of them.
- interaction betwen the races can take place on the walls of subway cars and billboards.
- political dialogues can take place and a settlement of the Vietnamese War can be realized on the walls of the 116th Street station of the Broadway Line.
- the last car of the subway late at night can be the poor man's equivalent of the bar car on the L.I.R.R.
- the Shah of Iran can get married to Selma Glick on the shuttle between Times Square and Grand Central Station.

We have only one agency to blame for all this. It is the Transit Authority, who last week issued a list of new regulations for the New York City subway and bus systems. In the words of the TA, the new rules were imposed in order to "discourage nuisances to passengers and to protect the transit system." A fine of $25 or ten days in jail is the penalty for violation of any of these rules.

It seems that the TA thinks that the result of this will be a virgin, pristine rapid transit system which will attract all the commuters who now use their automobiles since the roads will be full of the obscenities and other practices that are forbidden on the subways and buses.

THE CLASSIFIED

God is alive in the White House.

No one knows who the architects were who refined Early Christian Architecture, but it was probably somebody who had an apse to grind.

Save the old Toronto City Hall.

To Whom it may Concern: When do we get our water cooler back? — We of the first floor of Goethals Hall.

Prof. Landy watches T.V. 4-5 hours a night.

Maybe if we left the Administration Building in the hallway in Goethals Hall, Buildings and Grounds would throw it out. —The Lavender Hill Mob.

Girls should be obscene and not heard.

No one is alive in the White House.

Whatever happened to Marv Throneberry?

Long live the New Lost City Ramblers!

Prof. Krech's M.E. 108 class will present him with a ten pound bag of chips as a farewell present.

The present architectural library is known to be the quietest in the country

The Footings Staff Rumor has it that 'the huts" are going to be built in the architectural model shop .

Hard liquor on campus NOW!

Do We Waive Goodbye to Our Rights?

I, the undersigned, having filed an application with the National Council of Architectural Registration Boards (the Council) for a Council Record and a Council Certificate (and a review and renewal thereof) in accordance with standards and procedures established by the Council, consent to have an investigation made as to my moral character, citizenship, education, training, experience, examinations, professional practice and reputation and further consent to the reporting of such information as may be received in such investigation to architectural registration boards of states or other political subdivisions licensing architects, all in accordance with the standards and procedures established by the Council. I agree to give any further information in connection with the investigation as may be required by the Council.

I understand that I will not receive and am not entitled to a copy of any statements, papers or documents received by the Council in its investigation and that such statements, papers, and documents are confidential and privileged and may only be transmitted to architectural registration boards of states or other political subdivisions licensing architects.

I also authorize and request every person, firm, company, corporation, governmental agency, court, association or institution having control of any documents, records and information pertaining to me, to furnish to the Council any such information, including documents, records, statements and any other pertinent data, and to permit the Council or any of its officers, directors, employees, agents or representatives, to inspect and make copies of such documents, records and other information.

I hereby release, discharge, and exonerate the National Council of Architectural Registration Boards, its officers, directors, agents, employees and representatives and any person or entity furnishing information, statements, or documents concerning me in connection with the aforesaid investigation from any and all liability of every nature and kind arising out of the furnishing, inspection or transmission of such information, statements or documents.

The undersigned deposes and says that he is the architect named above and is the person making the foregoing statements and that they are made in good faith and are true in every respect.

Form 117-66 Signature

The above is a reprint of the statement which Architects registering with the National Council of Architectural Registration Boards must sign.

HAPPY 1984 —

The paragraphs reproduced above are not from a document of the McCarthy era, but from the standard Form 117-66 issued this year by the National Council of Architectural Registration Board (NCARB). Any architect registered by NCARB must complete this form and sign the statement we have reproduced in order to retain his NCARB registration — which may mean in order to stay in business. On the original Form 117-66, the statement appears in 6-point type (about the size shown here), so that most applicants, presumably, will be unable to read the passages we have underlined. We do not believe that any further comments on those passages are required from us; however, we will be happy to send a copy of the Bill of Rights to the NCARB this Christmas.

This article was first published in the December 1966 issue of The Architectural Forum.

As of last count, no copy of the Bill of Rights had been sent to the NCARB, but that is not to say that such an endeavor would not fit nicely into the 'good-deed-a-day' program of the architectural students at the City College. It's often nice to see things like this affidavit in print and begin to realize just what's in store for us when we get out from under the protective ivy of the college walls.

There are a couple of questions I would ask if I had the ready access to the source. One would be just how many architects knowingly sign the above statement, and the other would be just how much do we have to fear from those that did!

I have two suggestions for getting around this enigma. One would be to sign your name in 3-point 'style', and the other would be to return to the ancient code of Hammurabi and if the building falls down, kill the architect. **—DAVID M. SOKOL**

Survey, Forum, and Exhibit To Explore Campus' Image

The City College's physical environment will come under close scrutiny this term with the coordination of three propects instituted by students of Architecture.

The first examination of the campus will be in the form of a survey which will be distributed this month by **footings,** the architectural newspaper. The survey, to be distributed to students and faculty, will attempt to find out what sections of the campus are the most successful and which fail. Emphasis will be on the functional, ecological, and aesthetic aspects of the campus. A map will be included on which participants will be asked to mark paths of travel, nice sections of the campus, favorite spots, meeting places, foci, and other data.

Robert Kalish, Editor-in-chief of **footings,** noted that the survey will also ask for comprehensive evaluations of the college's cafeterias, the bookstore, and the libraries.

The second phase of the college's image examination will be a forum on the present image of the campus and on future expansion. It is hoped that members of the Administration, the college's Planning and Design Committee members of the Architecture, Art, and Sociology faculties, a representative of Skidmore, Owings, and Merril, the architects executing our current expansion, and students will participate. The format, yet to be decided upon, will most likely be a series of talks and then a discussion or debate.

The third project was initiated by the Architecture 114 Design Class, with their instructor, R. Jan Tereszczenko. Their term project is to research the functions of the campus and then redesign it. The student's proposals will be exhibited on campus.

The major purpose of the survey and forum, Mr. Kalish said, is to "try to infuse some meaning into the way our college is growing physically." He pointed to the new Administration building, designed by Skidmore, Owins, and Merril, and cited it as 'ap perfect failure in every architectural, aesthetic, functional, and ecological way."

Members of the Architectural faculty have been highly critical of the current expansion plans, which include a new quadrangle on the site of Lewisohn Stadium, a wide bridge over Convent Avenue decked with a plaza, and a new Science and Physical Education building at aJsper Oval. Olga Rivera, President of the Student Chapter of the American Institute of Architects, has been highly critical of the bridge plans in particular. "Most traffic here on campus is between north and south campus along Convent Avenue," she said, "why should we have to walk under this dark tunnel? Why not close Convent Avenue?"

"The college is not all that bad," Mr. Kalish concluded, "Philip Johnson (the noted architect) loved the atmosphere afforded by the old North Campus when he visited here last month. Shepard Hall is my favorite building." Many students and faculty, however, think that planning on the campus ended in 1909, when the old North Campus was completed by the architect George B. Post. A letter circulated last week by **footings** said that The City College's physical plan "is one of the poorest of any college" and that "the environment that the student and faculty must exist within must be meaningful.... This can have a profound influence on the learning process."

A meeting will be held this Thursday at noon in Goethals 111 for the purpose of planning the survey and forums. The surveys are and forums are cosponsored by **footings,** the S.C.A.I.A., and TECH NEWS.

CCNY Senior Recipient Of Technical Award

A senior in electrical engineering at the City College of New York, Allan Schwartz, has been named by Julie Research Laboratories, Inc. as recipient of its annual Senior Award for Technical Excellence in Electrical Engineering.

Schwartz, 20 years old, is a member of Tau Beta Pi, the national honorary electrical engineering fraternity. His award is the first of two which the electronics firm presents annually to electrical engineering seniors; one at CCNY, the other at Polytechnic Institute of Brooklyn. The awards program was instituted in 1965 by the firm's president, Loebe Julie, and also includes two Junior Awards to electrical engineering students at the same schools.

The second recipient of the Senior Award, an electrical engineering student at Brooklyn Polytech, will be announced soon. Both award winners will receive cash prizes of $250 each at a reception honoring them to be held at Julie Research headquarters, 211 West 61 Street in Manhattan, on April 4th. The two Junior Award winners, who receive prizes of $100 each, are named in the Spring and are honored at a Fall reception. To date, more than $5000 in cash prizes have been presented to award winners from the two participating schools.

Schwartz was graduated from Bronx School of Science in June 1962. As a New York State Regents Scholarship winner, he entered CCNY in the Fall of 1962. While attending CCNY, he worked part time and full time during the summer vacations in the engineering departments of Chronetice Inc., Mt. Vernon and Julie Research Laboratories. He also was employed as a recreation leader with the N.Y.C. Department of Parks in the summer of 1964.