



# THE NEW S

CITY COLLEGE OF NEW YORK

VOL. XV — No. 4

WEDNESDAY, NOVEMBER 15, 1961

222

BY STUDENT FEES

## Ion Engine Colors Vector's New Issue

By TED SEMEGHAN

With a fascinating and imaginative color blending and shadowing... But what is it? The answer is on the Vector cover—a laboratory test of an ion engine photographed during its actual operation. It's lucky that the "About the Cover" explanation was given since I would have had hallucinations all day after seeing it.

After the glaring cover show, I am pleased to say the student articles were of a technical but enlightening nature. The well written article, "The Science of Time Measurement," flows smoothly, relating the four epochs, in each of which advances in the measurement of time were accomplished. Mr. Van Blerkom, the author begins with the ancient hourglass and clepsydra to the recent technical account of Accutron and the Ammonia Atomic Clocks.

The second of the three technical articles written by students reviews the use of ultrasonics as one of the newest tools of industry. Ed Rosenthal, the author and editor of Vector, explains the application of ultrasonics in clearing, testing, drilling, and soldering. His presentation of transducer theory is clear and vivid and should be understood despite its technical nature.

Missing, and a great loss to Vector, is the stolen stuff section. It is disheartening to finish the issue and not conclude with the usual crisp humor of engineering and scientific cajolery.

Vector has once again become a science magazine even though the editors state that biology and technology make a marriage in the article, the "Heart-Lung Machine."

The author, Mike Goldman, explores the techniques and structure of the mechanical hearts that are now pumping for patients on the operating table.

Finding no more than three student technical articles, and only two of real engineering significance, I hope Vector will again, as in the past, produce articles on rocketry, chemical industry and civil engineering in future issues. "Engineering Highlights" was a refreshing briefer on new accomplishments but this did not make up for the lack of student articles. Congratulations to Morty Scheps, editor of Vector Volts for continuing the puzzling problems on "Vector Volts." Hey Morty, how about solving some of those problems in full instead of just giving the answers? Maybe then, solutions will be submitted.

## Honor Societies Start Pledge Interviews

By HERB JAVER

On Wednesday, October 22nd, three of the School of Technology's honor societies, Pi Tau Sigma (ME), Eta Kappa Nu (EE) and Chi Epsilon (CE), began pledging students for induction into their orders.

Requirements for pledging any engineering honor societies vary according to the standards of the society. Eta Kappa Nu requires that junior be in the top quarter of his class, maintain a B average for all subjects taken and have completed 8 or more Electrical Engineering credits. Seniors must be in the top third of their class and have a 1.0 index in Electrical Engineering courses. Pi Tau Sigma allows students to pledge if they are in the top quarter of their class as a senior or in the top fifth as a junior. Chi Epsilon pledges students as juniors who are in the top one-fifth of their class and seniors in the top third of their class.

Each term the honor societies go through a process called cataloging whereby student records are checked. Those with high averages are then notified by mail.

Meetings are arranged between the student and the members with the purpose of informing the prospective pledges of the significance and benefits derived from belonging to their honor society.

Interviews between the student and members then take place. Besides superior grades a candidate for pledgership must be a well rounded individual. The interview was established to determine these factors.

The interrogation, as some people refer to it lasts from a half to a full hour.

Elections by three honor societies took place on Saturday and Sunday. At these elections the eligible students are voted upon and officially asked to pledge if they obtain the proper percentage of voters.

Pledging requirements offer among each society. Chi Epsilon requires a pledge to give 40 hours of service to the school by building a structural model according to faculty specifications. The model will then be used as an aid by the teacher. Each week a progress report

(Continued on Page 3)

S. W. E.

The Society of Women Engineers is having a Tea Thursday, Nov. 16, at 12:15 p.m. in Room 438 Finley. Mr. D. E. Freeland of IBM will discuss the application of computers to solving engineering problems. Everyone is invited.

## Brookhaven Has Open House For All Comers

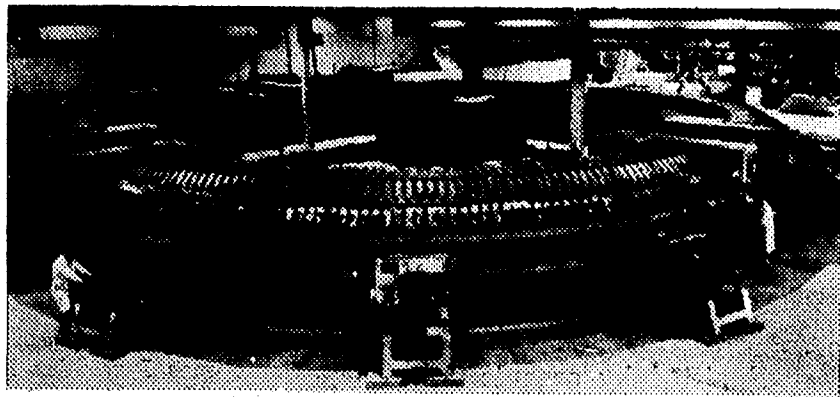
By HOWARD SIEGEL

On Friday, Oct. 27, from 9 a.m. to 4:30 p.m., Brookhaven National Laboratories shut down its reactors and opened its doors to college visitors. This annual event as always was an

The student boycott against the Administrative Council's ban on controversial speakers failed to find support among stu-

dents of the School of Technology. The orders of the day for engineers were classes as usual; there was no noticeable decrease in attendance. A poll of about fifty tech student disclosed that only 10 percent boycotted classes. This would come to only one or two students per class. Taking the school as a whole about twenty-five percent of the student boycotted classes. The number of tech students in the picket lines was negligible.

For most people the ride to (Continued on Page 4)



The Cosmotron, a synchrotron that accelerates protons in a circular path to speeds approaching the velocity of light. In this acceleration process, the protons attain an energy of 3 billion electron volts, and are then directed at a target. The fragments of the resultant nuclear collisions are studied by photographic methods.

## Eng. Start With Higher Salaries

By ANTHONY GENNA

Each semester the City College Placement Office prepares a report, representing approximately 45% of the previously graduated class, which establishes a salary and placement norm for City College graduates with Engineering, Liberal Arts and Science degrees.

Mr. E. W. Schnaebele, the Placement Director, feels that opportunities and salaries of future graduates will be better this year than they have ever been. Students will not only have offers of higher salaries but also for a wider choice of placement in their desired objective field. However, Mr. Schnaebele warned that employers have made greater demands on employees and industrial techniques are becoming ever more complex.

The average salary of those graduates reporting to the

placement office in the summer of 1961 are: Engineers — \$527; Liberal Arts — \$373; Science—\$411. This past summer 40% of the Engineers, 28% of the Science and 5% of the Liberal Arts students left the New York area for points in the Mid-Atlantic, New England or Far-West for private employment.

Of those registered with the placement office 55% Engineering, 18% Liberal Arts and 35% Science graduates took employment with private cooperations; 19% Engineering, 17% Liberal Art and 5% Science graduates were employed by the Civil Service. The remainder of the registered graduating students went to graduate school, took fellowships, joined the service, or went for teaching positions.

The Federal Government pays engineers and scientists without experience \$5335 per year

DEGREES	Average mo. 1959	1960	1961	1961 Salary Range
Chem E.	\$481	\$508	\$529	\$450-\$624
Civ. E.	479	454	488	390- 563
E. E.	520	533	560	400- 685
M. E.	501	524	530	433- 720
Lib. Arts	344	367	373	251- 550
Chem.	378	418	452	325- 530
Physics	504	483	532	434- 570
Math	451	450	465	303- 575

(Continued on Page 4)

## Strike Fails To Stir Techmen

The lack of tech participation was a consequence of the support for the ban in that school. Compared to over eighty percent opposed to the ban on a schoolwide basis, more than half (fifty-eight percent) of the technology student body is in favor of the Administrative Council's ban.

The reasons given in favor almost completely follow the "He is out to destroy our way of life, and therefore we should not let him speak" line of reasoning. One student said that he was in favor of the ban on communist speakers, but against the undefined generalized aspect of the ban. About fifteen percent of the total answers said that they were unfamiliar with the issues raised.

The heaviest preponderance in favor of the ban came from the freshmen and juniors who were about 70% in favor of the ban. Seniors were reversed, being about 60% against the ban.

## TIIC Nixes Speaker Ban

By SAMUEL EIFERMAN

At the November 2 meeting of the Technology Intersociety Interfraternity Council, Irv Kalet of HKN brought up a motion to send a letter protesting the speaker ban at the City University campuses to the president of City College, Harry Rivlin, and to the Administrative Council of the City University. This motion, seconded by Sam Eiferman, took all of this meeting of TIIC to discuss. In the debate that followed most of the arguments against protesting the speaker ban were more a matter of individual principles than a presentation of hard facts against the protest and for the speaker ban.

When it was thought to be time to vote on the motion a roll call vote was asked for. The roll call vote came out five voting for the motion, four voting against the motion, and two abstained from voting. The results of the roll call vote caused quite a bit of confusion since some of the representatives on TIIC thought the motion had failed.

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# TECH NEWS

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

## Congratulations...

Are in order to the Student Council for finally finishing up its new constitution. The major points of interest in the document are two: SC's new powers and the Student Activities Board. The new powers of Student Government would be:

to be able to allocate the student activities fee instead of using a student-faculty fee committee.

to approve club and organization charters instead of having to get final approval from the Student-Faculty Committee on Student Activities.

to have jurisdiction over files submitted by organizations in the process of chartering or rechartering.

The Student Activities Board would generally supervise extra-curricular activities at the College and be a planning board for the Finley Center. It is to be composed of representatives from club federations such as IFC, TIIC, IIPA, a cultural club federation, etc.

We urge the student body to vote in favor of this constitution in the upcoming special election scheduled for next week. We feel it would give new power and respect to student government and also infuse new vigor and order into our extra-curricular activities.

This constitution also offers new hope to TIIC which would become an integral part of the SAB, and through the SAB, of the campus as a whole. Its important seat on the SAB should inspire some more interest and participation. It may be just what the doctor ordered.

\* \* \*

While on the subject of constitutions, we regret to note that the organizations listed below did not hand in copies of theirs in time to comply with the SFCSA and Student Council deadlines set up for this purpose.

AIEE, ASME, PTS, SXE, ARS, IRE, and SPO.

They are to be denied use of all school facilities and funds and the school name for the remainder of the term. It is disturbing to think that these organizations are so out of touch with Student Council and DSL that they have not yet submitted the constitutions that were called for last year, and that have been called for twice this year with extended deadlines given for delivery. If SFCSA and Student Council enforce their punitive measures these groups will have little room for complaint. We wish them the best of luck.

## It's Too Radical

"We hold these truths to be self evident, that all men are created equal, that they are endowed by their creator with certain inalienable rights, that among these..." When this declaration was presented many chanted their disfavor of its liberal and radical implications even after the tariffs

(Continued on Page 3)

## Letters

November 9, 1961

Dear Editor:

In your editorial on the Technology Intersociety Interfraternity Council in the November 2, 1961 issue you stated that T.I.I.C. needs a change of leadership. Perhaps it would be more appropriate to suggest a change in the leadership of the member organizations of T.I.I.C. rather than in Council.

As you undoubtedly know, T.I.I.C. is not an independent organization. Whatever power it has is derived solely from the member organizations. If they see fit to withdraw their support, there is nothing that T.I.I.C. can do about it. This term we have been especially handicapped by a lack of interest in the major organizations.

It has been pointed out to me that the author of the editorial is also president of I.R.E. During this term, his organization has not even seen fit to attend the one meeting in three necessary for the retention of voting rights on council. If he feels that T.I.I.C. has deteriorated so badly that it is near collapse, perhaps he would attend a meeting and offer suggestions to the body that might help us bolster our position. I assure the gentleman that he will be welcome.

Acting President of T.I.I.C.  
Judith Goldberg

\* \* \*

Dear Editor:

I suppose that we're the victims of our own complexities. Sometimes I wonder how anything ever gets done. Sometimes I wonder why we make things so difficult in the first place.

About twenty years ago a fraternity, Epsilon Nu Gamma, was founded by engineers. For some twenty years this organization has functioned as an engineer's social fraternity, or a social engineer's fraternity or a fraternity for social engineers. As is true of most engineering organizations, the membership is limited to engineers. But E.N.G. is also a social fraternity. A social fraternity cannot be open only to engineers say the heads of I.F.C. Therefore you have your choice of being an engineering fraternity, or a social fraternity. But E.N.G. is a social engineering fraternity.

According to some decree, all student organizations must belong to some council. If E.N.G. remains on T.I.I.C. it would be a technological society, not a social organization. If E.N.G. joins I.F.C. it will be a social fraternity, but cannot be an engineering fraternity. (As an I.F.C. member E.N.G. can no longer limit its pledge class to engineering students.) Of course E.N.G. could belong to both T.I.I.C. and I.F.C. and be classified as an anti-social non-engineering society. Or we could merge with the modern art club, and become a non-objective antisocial non-engineering organization. Or we could all merge with the ski club, and become an 'anti-social non-engineering' out-of-door, non-objective circle. Or we could all.

I hope I have cleared up any confusion relating to the status of E.N.G.

Frank Schutz  
Historian E.N.G.

## ASME Hears About Odd Testing Methods

By WERNER KURZBUCH

On Nov. 2, A.S.M.E. presented an introductory lecture on Non-destructive Testing, which was attended by about 50 students and faculty members. The speaker was Mr. Fred Sarchet, Division Manager for Balteau Electric Corp., who is a member of the Executive Committee of the Society for Nondestructive Testing. The S.N.T. was organized in 1941, when the increasing importance of nondestructive testing was recognized.

Nondestructive testing is not instrumental in determining the properties of materials, as is destructive testing, but is a means to detect flaws, such as cracks or other discontinuities, in a given specimen. It is primarily concerned with the periodic checking of highly stressed machine and structural components so that impending failure may be recognized early and failure in service be avoided. Nondestructive testing, however, finds also widespread applications in checking construction and manufacturing operations.

There are four basic techniques, which have special fields of application: The Dye Test and the Magnaflux Test serve to detect small cracks on the surface of a specimen. The Dye Test can be performed on all metals and alloys. The specimen is cleaned and coated with a dye solution. If any microscopic cracks are present, some of the dye will be absorbed by capillary action. The specimen is then cleaned again and coated with a solvent which contains white chalk. If cracks are present, the absorbed dye will discolor the chalk, so that the cracks can easily be recognized.

## TIIC...

(Continued from Page 1)

The confusion was added to when it was found out that no one had a copy of Robert's Rules of Order in which they could find out for sure whether the motion failed or passed. The final outcome was a calling by TIIC's president of a ten minute recess while the council representatives went searching all over the campus for a copy of Robert's. A copy of Robert's was found in the Morris R. Cohen library by HKN and TECH NEWS. This copy was brought back to the council where it was proven that the motion had passed. This settled the dispute over whether or not the motion had passed but it didn't settle the dispute over whether the letter should say it was from TIIC or from the council representatives who voted for the motion. This issue was finally settled when a quorum count was called for and it was learned that there wasn't a quorum present since some of the members had walked out during the period that followed the roll call vote.

At the November 8 meeting of TIIC ENG asked the council for its vote back. ARS brought up a motion, which was seconded by HKN, that any organization, wishing to be reinstated at TIIC must attend at least three consecutive meetings of TIIC before getting their voting privileges back. This motion was passed and ENG and Vec-

This technique is used in the periodic testing of aircraft landing gear.

The Magnaflux technique is applicable only to ferrous metals. The specimen is first magnetized and then coated with a solution which holds finely divided iron in suspension. Any cracks in the specimen will cause a fringing of the magnetic field which causes the iron particles in the solution to form a small ridge at the location of the flaw.

To detect internal discontinuities in a specimen, X-ray film is commonly used. Internal flaws (cracks, blowholes, etc.) show up as dark areas on X-ray film. Portable X-ray apparatus is commercially available in a wide range of sizes and models. Testing of welded seams, structural members of aircraft wings and checking of pressure vessels are just a few of many applications.

The newest tool of nondestructive testing is ultrasonics. The sound is emitted by a transducer and travels through the material, where imperfections will cause an echo. The echo is received and made visible as an image on an oscilloscope. Ultra sound can be used to test welded seams. Its most application, however, is measuring of thickness of metal plates. Corrosion on the inside of storage tanks can thus be checked without the need for emptying and entering the tank.

Mr. Sarchet's lecture was received with great enthusiasm by the audience. In behalf of the S.N.T. Mr. Sarchet also presented a Handbook for Nondestructive Testing to the student section of A.S.M.E.

## A.S.M.E.

A.S.M.E. will present a lecture by Mr. C. W. Hasek Jr., Nuclear Systems specialist for Babcock and Wilcox, on "The Nuclear Savannah Powerplant." The lecture will be given in Room S126 on Thursday, Nov. 16, 12:30 p.m. All Engineering students are invited. A film: "Films in Action" will be shown at 12:15 p.m.

## Blood Bank

## Is Coming

Dec. 13-14

By

The City of most of the port that has this year, the better-than-average team that the warning flare that w

Soccer is a sport, we must play the game. Most of the aggressive winning team draw Raymond will up and send the top teams strikes again.

What we need a student body suggests a football game. The p country. The high school football game, the coaches displayed football once, and not students from whom have teams. We have the equipment Whether at the White football games between. The sports as groups learned breathe little steam.

There is more than other athletic involved in the all times, even any sport; men to prevent being the body, it is and a game of momentum cuts.

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# TECH LIFE

By MAURICE BLUESTEIN



The City College has long employed a policy of de-emphasis of most of the intercollegiate sports we participate in. The only sport that has shown any life for many years has been soccer, but this year, the booters seem to be slipping into the class of the just better-than-average. The team is surely still a powerful one, but for a team that is used to losing only in extremely rare instances, the warning flags are up. The team is fighting for victory in a contest that was once a foregone conclusion.

Soccer is in a precarious position at the College as a varsity sport. We must produce strong teams to keep up interest in the game. Most of our students do not understand soccer, much less play the game, however, the crowd can appreciate pin-point passing, aggressive play and denting the opponent's goal such that a winning team will draw the crowds. A mediocre team won't even draw Raymond the Bagelman. When this happens, the administration will up and take notice. If no one cares anymore, why bother sending the team up to Brockport or Troy or Cortlandt to play the top teams with the expense involved. The result: de-emphasis strikes again. From the way in which the student body is reacting to the defeats administered to the booters this year, the possibility seems evident.

What we need now is a resurgence of athletics at the College. We need a shot of adrenalin to combat a growing apathy of the student body in general toward sports. Toward this goal, I would suggest a football team, a City College football team. This would surely spark interest; most people (men, anyway) are familiar with the game, which is the largest crowd-drawing sport in the country. The players are here: a good many of our students played high school football and could be counted on to go out for the team; the coach is here: Seymour Kalman, presently freshman. The coach, who was a small college All-America when he played football for City College. Yes, we did have a football team once, and not so long ago! City College draws a good bulk of its students from Brooklyn Tech and Stuyvesant High Schools, both of whom have consistently produced good high school football teams. We have an adequate field and stadium. We may still have the equipment stashed away somewhere.

Whether or not it is due to the popularity of touch football at the White House I don't know, but I do know that the touch football games on the College campus are many and often. Thursday games between 12 and 2 find Jasper Oval bustling with quite a few teams. The sport is quite popular with the fraternities on campus, as well as groups of casual friends. It's a good way to take a well-earned breather from studies, as well as an opportunity to let off a little steam.

There is something about football that is altogether different from other sports. The football team utilizes more players than any other athletic contingent, and on the playing field each one is involved in the play; each has his necessary function to perform at all times, even if only deception. The body contact is unmatched by any sport; men are constantly trying to knock each other over and to prevent being knocked over in return. It is a trial for every part of the body, it is a test of every player's cunning. It is a guessing game and a game of reason. It is a game of stamina rather than brawn, of momentum rather than speed. If nothing else, it is a game of guts.

Enough sitting home in front of the television set on Saturday afternoons rooting for someone else's team. It's about time we had our own team to stand up and cheer for.

Since all syndicated columnists have thrown in their comments about the election, why not this one for a bit. After all, what would columnists have to do were it not for politics?

Surely the outcome of our mayoralty race was no great surprise, but some of the other contests laid firm ground for some interesting politicking. Many have called the capture of the New Jersey statehouse by the Democrat Hughes a surprise. The Republican Mitchell was definitely the favorite at the start of the campaign, however when election day came around, I'm sure that the really astute politicians sensed Judge Hughes' victory. One important factor was the appearance of President Kennedy at the polls in the right time: a few days before the election. A famous man once said regarding campaign speeches that it's not who speaks to the people but who speaks to them last that counts. It is debatable as to who is more popular in New Jersey, former President Eisenhower or President Kennedy, but it is clear as to who had the last word.

There are an awful lot of subtle and paradoxical points concerning this election; I would like to throw them out for what they're worth. Point one: Mayor Wagner denounced Brooklyn leader Sharkey as one of the bosses he was trying to get rid of. Sharkey won election to a council seat in his Brooklyn district by a vote of almost three to one, yet the same people who voted for Sharkey also voted heavily for Wagner! Point two: Joseph Periconi has become the first Republican Bronx Borough President, largely due to a strong Liberal Party vote for him. Actually Periconi's Liberal vote was more than that for Wagner in the Bronx. Point three: the Wagner-backed candidates for the State Supreme Court, Messrs. Nunez and Rosenberg, finished dead last in the voting. Point four: Abraham Beame polled a greater percentage of the total vote for Controller than did Paul Screvane of the total for Council President (64.2 to 62.2), which would indicate that Beame had the advantage of running against a relatively unknown politician, John Gilhooley. By the same token, it is not surprising that the total vote for Council President was about 120,000 more than that for Controller, since both candidates for the former were more well known than either Mr. Beame or Mr. Gilhooley.

## Editorial...

(Continued from Page 2)

and regulations and restrictions of the "Mother Country." Yet, many fought in the ensuing battles for what they believed right, and then;

The war was won and we wrote that "Congress shall make no law . . . abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." The United States adopted the constitution and added a Bill of Rights in order for the individual liberties of the people to be safe and secure — and from this came the American way of life, but then;

Time had passed on, and almost a century and a half later some thought that even though our country prospered and became more literate and educated, some should be denied the freedoms endowed to us by our forefathers — many would be swayed to the right or the left they chanted, and we will in effect decay and lose our rights; so they destroyed the freedoms in order to secure the freedoms. Though some were for the new laws and restrictions, a few still knew what was right and fought. . . .

## Pledges...

(Continued from Page 1)

must be filed by the pledge. Induction for Chi Epsilon will take place December 16th.

Phi Tau Sigma's pledges must give service to the school, present a skit at induction dinner December 16th, and pass a national examination. Engineer's hats and gloves will no longer be worn by pledges because the student body misinterpreted their meaning.

Eta Kappa Nu, the Electrical Engineering honor society, requires service and one-half hour skit at the induction dinner. Each pledge must also pass a written examination on the society's constitution.

"The purpose of Honor Societies" states John Benton, President of Eta Kappa Nu, "is to confer honor on those who confer honor on the school."

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NOVEMBER 28**



## Money...

(Continued from Page 1)  
to start unless the graduate achieved a "B" average or placed in the top quarter of his class in which case he is paid \$6345 per year. Non-technical, non-scientific graduates without experience are paid \$4345 per year. New York State starts engineers at \$5940, non-technical graduates at \$5200. The New York State Employment Service starts its trainees at \$4906 per year. New York City increased its beginning rate for engineers this past spring to \$5390. Non-technical college graduates are paid \$4250 in the beginning positions except for the Welfare Department which pays \$4850 per year.

A graduating senior must assess his talents, interests and needs; he should prepare his resume with the demanding qualifications of the employer in mind. The senior, with the help of the placement office, will be able to present himself to his best advantage.

Class standing is important, but as pointed out by Mr. Schnaebele should not discourage the student because interviews are of utmost importance. Extra-curricular work, initiative and trend of grades in the field of the students objective are critical points interviewers evaluate; they realize that during the first few years of college most students go through the so-called "adjustment period" in which the students' grade suffer.

Mr. Schnaebele stresses that a student must have a definite interest in the field of his endeavor or he will find as time passes that he has not advanced as those who have interest and initiative in their work. He said, "It is important that the work be challenging and test ability;" this is paramount for the student otherwise it is likely that he will end in failure or never advance.

## Ex-Techmen Offer Many Student Aids

In the '30's, the Alumni Association of City College helped form the Placement Bureau in order to help graduates achieve employment during the depression. Since then it has been a moral and supporting force behind past and even present problems as tuition and academic freedom.

A branch of the Alumni Association possibly less familiar to undergraduate engineers is the Engineering Alumni. The newly elected president, Professor Brenner of the E.E. department, said that membership in the Engineering Alumni has jumped 25% from the preceding year. "A member of the main Alumni Association is automatically a member of the Engineering group if he has an engineering degree," Prof. Brenner said. Total membership in the Engineering Alumni is approximately 2900 engineers.

One of the services not usually known by the undergraduate engineer is the resume writing service run by the Alumni Association. Though it can be used only by graduating seniors, the reasonable rates of \$2.50 for 50 resume copies is bargain. The man in charge of this service is Mr. Stark, room 438 Finley.

## Chem E's To Atomics

### Alter Labs

A revision is to be made in the Chemical Engineering curriculum when the move into the tech building is completed. Some of the new courses to be given will make use of new equipment.

It was hoped that this change would take place in the spring term. However, the numerous interruptions and delays in finishing up the tech building have made it impossible to institute the new program by April. According to Professor Schmidt, chairman of the Chem.E. department, next term's schedule of classes will be the same as this semester's. "Students should register as though no changes were to be made. We can not begin with the new courses if we don't have the rooms and space for equipment."

Professor Schmidt also added that no matter what happens with respect to the new tech building, no student's graduation will be delayed. He seemed very disappointed for not being able to start with the new program by April 1962, as was intended.

As far as EE's are concerned no definite curriculum changes are known as yet. The curriculum committee is now working to revise the present program. This would have been done regardless of the new tech building. However, no change will occur for the spring term's schedule of classes.

—Buccaczer

(Continued from Page 1)

Brookhaven was quite an ordeal, but this tedious journey was partly transformed into a pleasant one by the beautiful fall scenery and weather.

Brookhaven National Laboratories represents quite an achievement in science and technology. Its facilities are continually being expanded and improved. Among its major accomplishments are its 1/2 mile circumference Alternating Gradient Synchrotron (world's largest), and its research reactor capable of producing 20 megawatts of power. This reactor is cooled by 1,000,000 lbs. of air per hour. Another significant accomplishment at Brookhaven is the first hospital (48 beds) devoted entirely to radiation therapy. This hospital has its own reactor.

Brookhaven is practically a city unto itself. Because of this vast size, continuous shuttle service by private bus was run to all major facilities which included: 1) A chemistry exhibit, 2) Physics, 3) Biology, 4) The hot lab, 5) The graphite research reactor and 6) The theatres for movies and lectures. Naturally, all exhibits emphasized the work done by controlled radiation techniques as applied to a particular science.

Several of the large pieces of equipment such as the cyclotron and the 1/2 mile circumference Alternating Gradient Synchrotron were not available for inspection because of "heavy rigging which left little room for guided tours." As a substitute for the equipment which we

didn't see, there were scale models for our inspection and qualified speakers to answer our questions.

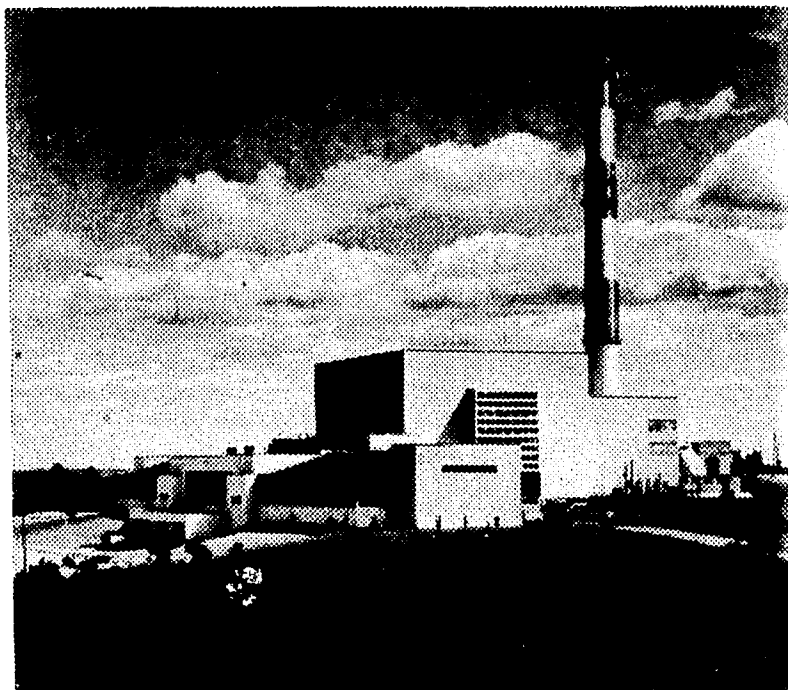
The majority of the minor exhibits were at a "high school science fair" level, but the various technicians and engineers were quick to answer the most complicated questions put to them. For the esoteric, individual conferences could be arranged with any of the experts.

For the young at heart, there was a demonstration showing the versatility of Brookhaven's instrumentation division where you could play tennis by controlling a pip of light on an oscilloscope. There were also many mechanical slaves used in the "Hot Lab." To demonstrate their versatility, one technician

was tying knots in a rope playing dice.

Among the many other attractions, were included a demonstration of half life, a chamber, a tour of the graphite core reactor, a tour of the lab." and model depicting Brookhaven's radiation hospital. As you can plainly see, day was quite complete.

Only once a year does Brookhaven allow visitors to see its facilities. Unfortunately, a few students from CCNY took advantage of this opportunity this year. Such an experience is well worth the effort considering that Brookhaven represents a possible job prospect even affords undergraduates opportunity to do summer work as trainees.



View of the complex of buildings housing the Brookhaven reactor and its supporting elements. The scene is Rutherford Hill named for Ernest Rutherford, British pioneer in nuclear physics.

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