



# THE SCHOOL OF TECHNOLOGY

# TECH NEWS

## CITY COLLEGE OF NEW YORK

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SATURDAY, APRIL 15, 1961

222

BY STUDENT FEES

### A Message From Pres. Gallagher



"E-Day" is an exciting and informative time at City College. Each visitor is most welcome. Don't hesitate to ask questions. Make yourselves at home. May the day be one of exploration and questioning, and may you take pleasant memories with you.

Cordially,  
Buell G. Gallagher,  
President.

### Welcome From Dean Allen



Advances in all field of technology and in engineering education have been so great and so rapid in recent years that in some applications it has been said, "if it works, it is obsolete." At the City College, we think that we are in the forefront of this scientific and technological advance.

### Tech News Welcomes You To E-Day

## WELCOME TO E-DAY 1961

## Tech Building Slated for 1962

Construction of the proposed \$8,000,000 School of Technology Building was started this past June. It is expected to be completed by January 1, 1962.

The new building will enable the college to increase its engineering enrollment by 38 per cent over the next seven years to meet the anticipated rise in registration, according to Dean William Allan of the school.

At present, the School of Technology, founded in 1919, is the largest undergraduate school of engineering in the state and the fourth largest in the nation.

The only one of the municipal colleges giving degrees in engineering, the City College offers undergraduate and graduate degrees in chemical, civil, electrical and mechanical engineering as well as special non-credit technical and building construction courses.

#### Modern Design

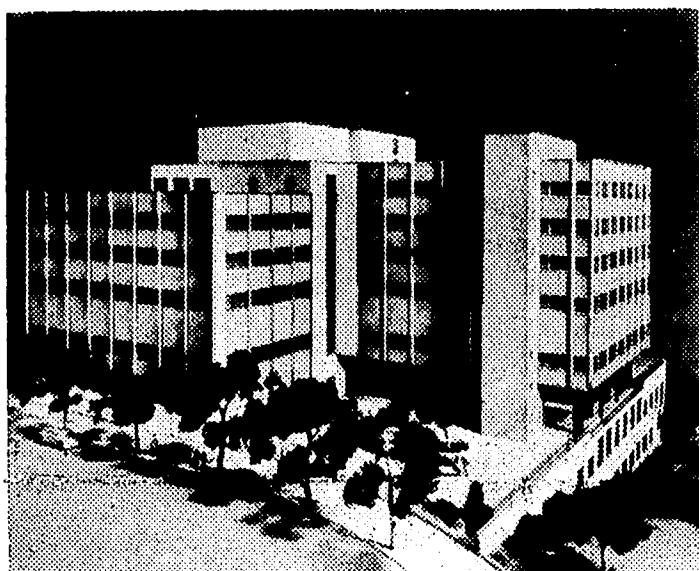
The new six-story building, modern in design, will be made of reinforced concrete with a glass-brick exterior and marble sheathing. Plans for the expansion of technology facilities go back five years, and the new building has been on the drawing boards since 1955.

With the erection of the building, the college will be able to centralize all its technology laboratories and other engineering facilities now scattered in various buildings throughout the campus.

The additional facilities will also enable the college to undertake an expanded program of independent research for governmental and private agencies. At the present time, restrictions of space and equipment which is dispersed among four existing buildings on the college campus,

have severely limited the number and scope of important research projects.

The projected structure will be used exclusively for laboratories, administrative offices and technology library facilities. The college's new sub-critical nuclear



New Technology Building

reactor, now located beneath the stands in Lewisohn Stadium, will be moved to the sub-basement of the structure. Classroom instruction, however, will continue to be given in Shepard, Compton, Goethals and Harris Halls on the north campus.

#### Buildings Razed

The technology building will be on the north end of the north campus. It will extend from St. Nicholas Terrace north to 141st Street and from Convent Avenue 200 feet east to St. Nicholas Park.

The two buildings that formerly occupied that site have been razed. They were the old ROTC Drill Hall, and the Bowker Li-

brary. The library's books were moved into the new and modern Morris Raphael Cohen Library on the South Campus.

The building will be sunk into Manhattan schist bedrock, which grades sharply between St. Nicholas Terrace and 141st Street. It

of materials. The last develops as much as 600,000 pounds of pressure.

Below the sub-basement will be reservoirs for the fluid-mechanics laboratories.

The college's engineering departments will be located according to floor, with the mechanical engineering department on the lowest stories and the civil, chemical and electrical engineering facilities on the higher floors, ascending in that order. Electrical engineering students, on the top floor, will thus have access to the roof where they can utilize radiation and electronic antenna equipment needed in their laboratory work.

#### Many Conveniences

The building will provide 280,000 square feet of space. In addition to the laboratories and administrative offices, there will be a small auditorium-lecture hall seating 200. There will also be a technological library seating 400 students and shelf-space for 96,000 volumes, as well as a faculty library.

The principal entrance to the building will look out on a paved terrace on St. Nicholas Terrace. Service entrances, including a truck-well and interior loading facilities, will be located on 141st Street.

Transportation within the building will be by escalator. But there will be supplementary staircases as well as small passenger and service elevators.

The entire building will be serviced by an interior-controlled ventilating system and heating unit.

Plans and specifications for the technology building were prepared by Lorimer & Rose, Architects and Engineers.

will extend six stories above the high-side of the plot, on St. Nicholas Terrace. The basement and sub-basement will be at street level on the low-side, on 141st Street.

#### Heavy Equipment

Of reinforced concrete flat-slab construction, the structure will be T-shaped with high ceilings to allow for the installation of tall equipment. The heaviest equipment as well as those involving "dynamic loads" will be installed in the sub-basement, where they can rest on bedrock. Among the machines are heavy turbines, steam engines and civil engineering equipment used for compression and tension-testing

## Electrical Engineering Chem-Engineering

### A Changing Profession

Electrical engineering encompasses all these activities associated with the generation of electricity. The modern electrical engineer is continually confronted with challenging opportunities in newer fields such as electronics, radio, television, acoustics, radar, computers, servomechanisms, and other aspects of measurement and control; or he may chose a career in one of the older branches of electrical technology such as power generation, transmission, distribution, electric transportation, and wire communications.

The electrical engineering department is under the chairmanship of Full Professor

Herbert Taub. Professor Taub received his B.S. degree from City College in 1940, then went on to obtain his master degree at Columbia University in 1943. In 1949 he received his Ph.D. Chairman Taub has been here since June, 1958.

Professor Taub feels that our E.E. school is the finest in the country. "Of course any chairman is bound to be prejudiced," he commented, "but our school is substantiated in making this assertion because we house the finest professors, curricula, and lab equipment for the engineering student, so that he may graduate a well rounded individual."

Chemical Engineering has been defined as the application of the principles of the physical sciences with the principles of economics and human relations. This double application is used in the processes and design of equipment in which matter is treated to a change of state, energy content or composition.

The chemical engineer designs and assembles operating units to accomplish one of two basic things:

1 — Subject molecules to treatments that will change them into new and different molecules.

2 — Separate the molecules of an original mixture to yield products for use.

As an example of the first, coal, air, and water are actually transmuted into nylon. Separation of crude petroleum into gasoline, kerosene, lubricating oil and many other products is an important instance of the second.

Broadly speaking, there are five main types of activity for chemical engineers: research, design, operation, sales and management. Being concerned with economic and human, as well as technical relations. The chemical engineer often matures as an executive utilizing his specific training and professional experience to direct industrial enterprises.





# Engineering Societies

Students enrolled in the School of Technology have many opportunities to meet other students with the same education interests as well as receiving recognition for outstanding character and scholarship in the various engineering societies and fraternities.

## AIChE

AIChE is another professional organization with a student branch at City College. Lectures on chemical engineering practice and opportunities are delivered at meetings, and movies are shown.

## AIEE-IRE

The CCNY chapter of AIEE-IRE serves to acquaint the electrical engineering student with what is going on in industry. This is done through lectures and literature mailed to its members, and by occasional trips to laboratories in the New York City area.

Included among the speakers the last few terms have been representatives of IBM, Zenith Radio and Chester Wheeling.

## ASCE

ASCE is a professional Civil Engineering Society that maintains a student chapter here at CCNY. Lectures and movies form the main content of ASCE meetings.

## ASME

The student branch of the American Society of Mechanical Engineers at CCNY is one of the largest societies on the campus. Established in the year 1922, the ASME at the college brings together mechanical engineering undergraduates on a professional, as well as social level, so that they may increase their technical knowledge in both scope and content, participate actively in professional conventions, express and discuss their engineering ideas, and be of service to the college, and have fun!

ASME has a full program of activities including technical lectures, technical films, trips to major engineering firms, a technical paper contest and semi-annual cocktail parties for graduating seniors.

ASME members receive the monthly magazine *Mechanical Engineering*, and many other publications. Technical papers can be obtained from the society, either free or at substantial discounts. Members are encouraged to use the free facilities of the Engineering Societies library.

Undergraduate mechanical engineering students with an interest in professional, technical and social aspects of ASME membership are invited to attend the weekly meetings.

## Chi Epsilon

Chi Epsilon is the National Civil Engineering Honor Society. Juniors and Seniors in the top third of their respective classes are eligible for membership but election is based on practicality, socialability and character. The society is dedicated to the purpose of maintaining and promoting the status of Civil Engineering as an ideal profession.

## ARS

The student chapter of the American Rocket Society was created five years ago as a subdivision of ASME. In October of 1959 the chapter was officially chartered by the national Membership Board of the American Rocket Society. The avowed purpose of the society is to advance the sciences of Rocket and Jet Propulsion and Astronautics. The present membership of the student chapter totals 65 students. The society draws its members from among liberal arts students as well as members of the school of Technology. Within the past year the Society has had as its speakers Professor Jerry Gray, Princeton University (Forestal Research Center), Arthur Sherman, (C.C.N.Y. Alumnus), chief project engineer Reaction Motors Division Thiokol Chemical Corporation (concerning the ZLR-99 engine for the X15). The Society has sponsored a tour of the Naval Air Rocket Test Station Denville, New Jersey, and is currently planning a tour of the G. E. Guided Missile and Space Vehicles Laboratory in Philadelphia.

Members of the Student Chapter are currently engaged in individual and group projects in the fields of astronautics and jet propulsion. The students engaged in research are pointing towards the 1000 dollar ARS Student Scholarship which is awarded annually to the student or group of students writing the best paper in the field of astronautics. During the first two years that the award was being presented it was won by students at the City College of New York. In addition, the Society publishes two monthly magazines *Astronautics* (a semi-technical publication) and *Journal of the American Rocket Society* (a collection of highly specialized papers which have been presented at the various ARS technical meetings that are held during the year.)

## Eta Kappa Nu

Eta Kappa Nu was founded in 1904 by the University of Illinois by a group headed by Maurice L. Carr. The aims and principles established by these men were to assist its members throughout their lives in becoming better men in their chosen profession and to help them become better citizens. The Beta Pi chapter at City College has approximately 40 members who plan to enter the field of electrical engineering.

## Pi Tau Sigma

Pi Tau Sigma is the honorary society for mechanical engineers. Students are eligible for admission if they are in the top fifth of the upper junior class, or the top fourth of the lower senior class, and show promise of success in the field of engineering. Most of the twenty-three active members participate in other organizations. Pledgees get an opportunity to meet their brothers at various occasions, such as the smoker, and through interviews before their induction. Pi Tau Sigma provides the mechanical engineering laboratory insurance program to reimburse the student for broken equipment.

## SAME

The largest engineering fraternity on campus is the Society of American Military Engineers. This national organization, the largest of its type in the country, co-ordinates the Corps of Engineers at local and student military posts. The purpose of the organization is to advance knowledge of military engineers, to encourage, foster and develop between military engineers and the military service a spirit of co-operation and mutual understanding of respective duties; to hold meetings for the presentation of speakers who are successful engineers in their respective fields. Members must either be in the School of Technology or the ROTC. SAME can boast of having well known members as Dwight D. Eisenhower, General MacArthur, and General Goethals, for whom Goethals Hall is named.

## SWE

The Society of Women Engineers (SWE) is the organization which unites the few women engineers on campus. SWE's purpose is to provide part of the encouragement a girl needs to attempt the engineering program. SWE also tries to illustrate the potentials for women in engineering through its semi-annual tea. Finally SWE tries to acquaint its members with the various engineering organizations and to encourage their membership in not only SWE but also the professional society of their respective fields.

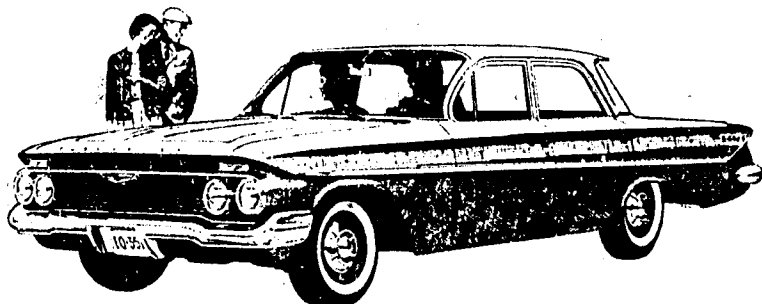
## Tau Beta Pi

Tau Beta Pi is the national honorary society for engineers. The national organization was founded in 1885 at Lehigh University by Professor H. Williams, Jr., to recognize superior students in the field of technology to whom Phi Beta Kappa was closed. The purpose of Tau Beta Pi is to mark in a

fitting manner those who have conferred honor upon their alma maters by distinguished scholarship and exemplary character as undergraduates in engineering or for their attainments as alumni in the field of engineering, and to foster a spirit of liberal culture in the engineering colleges of America. The CCNY chapter was founded in 1940, to become one of the 102 chapters who had previously elected more than 100,000 members to its ranks. The 30 active members of Tau Beta Pi, along with the members of the other honorary societies, compute the averages and rank of all juniors and seniors in the school of Technology. Well known speakers are invited to speak on non-technical subjects. Last year, the fraternity inaugurated music listening hours in Knittle Lounge. The annual Art Exhibit which Tau Beta runs on E-Day, will begin a few days before E-Day this year so that the student body may have an opportunity to see it.

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one stop  
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Here's the choice that makes choosing the new car that's right for you easier than ever. Thirty-one models in all—designed to suit almost any taste, priced to suit almost any budget. There's a whole crew of Chevy Corvairs, including thrifty sedans and coupes and four wonderful new wagons. Budget-wise Biscaynes—lowest priced full-sized Chevrolets. Beautiful Bel Airs, sumptuous Impalas and America's only true sports car—the Corvette. Drop by your Chevrolet dealer's and do your new car shopping the easy way—in one convenient stop.



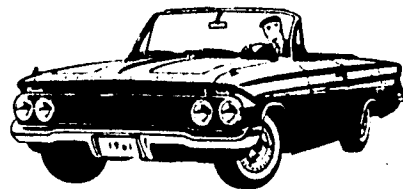
New Chevrolet BEL AIR 4-DOOR SEDAN

Priced just above the thriftiest full-sized Chevrolets, all four Bel Air models bring you beauty that likes to make itself useful.



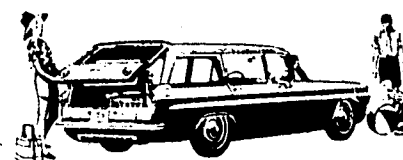
New Chevrolet IMPALA SPORT COUPE

All five Impala models combine Body by Fisher beauty with a new measure of practicality. Door openings of this Sport Coupe, for instance, are over a half-foot wider this year.



New Chevrolet IMPALA CONVERTIBLE

Here's one wide open for fun and a lot of the fun is in Chevy's Jet-smooth ride. Add Turboglide transmission (extra-cost option) to this or any Chevy V8 for tops in easy going.



New Chevy Corvair 500 LAKEWOOD STATION WAGON

Loads of space inside—and still more in the trunk up front. And with all their wagon-size versatility, these rear-engine Lakewoods handle like a charm.



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More people are buying new Chevrolets than any other make. So your dealer's got a wide choice of OK Used Cars.



## EDITORIALS

(Continued from Page 2)

under your guidance to a high rank in academic circles. We and the student body wish you luck as Chancellor of the California State College system.

### We Extend Greetings

The staff of TECH NEWS welcomes you who have come to E-Day. Whether you are a student or parent, we hope that you will enjoy seeing what the engineering profession is like.

The roles of the engineers vary in scope from pure research, to development of various products and even to the building of bridges. The promising future for engineers grows daily with the many new products that are constantly being developed. What you will see here is just a sample of what the engineering student does at CCNY.

We hope that you will be enlightened and become interested in engineering through your visit this E-Day, and that you have tasted some of the spirit of City College.

### Hail and Farewell

TECH NEWS wishes to express its regret at the resignation of President Gallagher. Dr. Gallagher, in his nine year stay at CCNY, has served with dignity and efficiency. He has attempted to guide students along a path of democratic liberalism. Though his methods were often criticized, Dr. Gallagher strove mightily to prevent Communism from re-establishing a foothold at the College. He never hesitated

As atomic energy moves from the domain of physicists into its technological domain due to its engineering application for electrical power generation and as an energy source for transportation vehicles, it becomes more apparent that engineers shall have to be trained in its use and application. City College in its atomic reactor laboratory has the nucleus of just such a training program.

The reactor itself bears little resemblance to those used for actual power generation but it illustrates certain fundamental principles involved in using atomic energy at a controlled rate for peaceful purposes. Along with the display of the reactor there will be shown several radiation counters which measure the number of atoms breaking down per unit time in a sample of any given material.

to speak out on an issue if he felt that it should be brought to the student's attention.

Dr. Gallagher waged a constant struggle to improve and enlarge the City College. During his sojourn here, the size of CCNY more than doubled, and construction was begun on three new buildings, one of which, the Cohen Library, has already been completed.

Dr. Gallagher's office in Shepard Hall is always open, and a student need merely give his name in order to receive an appointment with him. Dr. Gallagher was always friendly and easy to talk to.

To Dr. Gallagher we can only say that you were well-liked by the students, all of whom are sorry to see you leave. Hail and Farewell.

## The Atomic Reactor

The Wilson Cloud Chamber which is a more fundamental device used for the detection of atomic particles will also be illustrated. Using the cloud chamber enables the investigator to observe the paths of atomic particles which are invisible to the naked eye.

The Metallurgy Laboratory has on display some of the equipment used to investigate the microscopic structure of metals. This is important to the research now being conducted to find "exotic materials" capable of withstanding severe environmental and loading conditions.

Producing the innumerable products used by our complex civilian and defense economy has always been an important part of mechanical engineering. In the production lab there are displays of some of the basic machine tools which are the

building blocks of our production system.

Many of the displays in applied mechanics laboratory will be senior research projects on the dynamics and static analysis of machine parts. Accompanying these displays will be simple models illustrating basic physical laws.

### The Open Book

The topic "Mechanisms is a closed book" was presented before the ASME in what was one of ASME's most stimulating and thought provoking lectures of the year.

Mr. Walter Musser of United Shoe Machinery Company, inventor of the recoilless rifle, spoke on his most recent invention, the harmonic drive.

This device is a power transmission mechanism which makes use of controlled deflection which can be produced in all materials used for machine construction.

A two-stage harmonic drive unit, which is compact light and very rugged, can produce reduction ratios of up to 2000:1. Other applications include precision indexing, angular phasing, and timing devices and power transmission through sealed metal walls.

## CITY COLLEGE STORE Pre-Inventory Sale

### Paper Back Books

3 Days Only — April 17, 18, 19

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APRIL 17, 18, 19

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	LIST	SALE
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Aristo Log Log Decitrig .....	22.50	11.25
Post Versalog .....	26.25	15.95
<b>PLUS</b>		
5" Pocket Rule—Aristo .....	10.25	7.49

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APRIL 17, 18, 19

### Spring Fashions

The latest style and design for Spring  
is now in stock

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- Light Blue
- Shell Cream White

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