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# TECH NEWS

SCHOOL OF TECHNOLOGY • CITY COLLEGE OF NEW YORK

VOL. IX, NO. 4

THURSDAY, NOVEMBER 13, 1958

By Student Fees

## TAU BETA PI HOLDS CONVENTION

Tau Beta Pi's 53rd national Convention was held in Boston, Massachusetts, on October 9, 10, and 11, 1958. The five Massachusetts chapters, at Worcester Polytechnic Institute, M.I.T., Tufts University, Northeastern University, and the University of Massachusetts, were official hosts. All of the Association's 100 active collegiate chapters were represented at the session.

Tau Beta Pi is a national engineering honor society which was founded at Lehigh University, Bethlehem, Pennsylvania, in 1885. It now has 100 active undergraduate chapters in U. S. engineering colleges, 26 alumnus chapters, and over 97,000 initiated members. Students are elected to membership by the chapters from the top 20 per cent (scholastically) of their engineering classes on the basis character and service to their colleges. Alumni may be elected on the basis of their eminent achievements in the engineering profession.

A feature of the initiation banquet program was the announcement and presentation by President King of the winners of the Outstanding Chapter Awards for 1957-58. Top prize in this competition went to the Missouri Beta chapter at the Missouri School of Mines, and honorable mentions were given to California Gamma at Stanford University, Maryland Alpha at Johns Hopkins University, and Texas Alpha at the University of Texas.

Valuable features of Tau Beta Pi Conventions are the chapter-work discussions and the exhibits at which ideas for school and community service projects and chapter administration are exchanged by the delegates, most of whom are presidents of their local groups.

The Convention granted new chapters of Tau Beta Pi to local engineering honor societies at the Air Force Institute

## TIIC ELECTS LOU NASHELSKY, SEEKS TO REACTIVATE COMMITTEES



Lou Nashelsky

of Technology, Wright-Patterson Air Force Base, Ohio, and the University of Vermont, Burlington, which had submitted petitions for charters last winter. The new chapters, to be designated Ohio Eta and Vermont Alpha, will be installed this coming winter as Tau Beta Pi's 101st and 102nd active undergraduate chapters.

Beginning tomorrow, there will be a display of past Chi Epsilon pledge projects in Lincoln Corridor.

### VECTOR

- \* AUTOMATION '59  
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Lou Nashelsky was elected president of the Technology Intersociety, Interfraternity Council on Thursday, October 30th. After the resignation of Herb Lekuch three weeks previous to the election, Judy Perry did an admirable job at acting president, but gave way to Lou, an experienced, hard driving Electrical Engineering student.

Lou Nashelsky is a senior in the class of '59. He is president of the American Rocket Society, Co-Chairman of the Big Brother Committee, and a former member of Student Gov't.

"I would like to build up the prestige of TIIC to its proper position in the school. At present the attendance at meetings, and student interest, are not indicative of the importance of the organization.

By reactivating committees, establishing better student faculty relations, and providing proper publicity, TIIC will find a new meaning to the Tech students."

Part of the program will be the reactivation of various standing committees. The educational practices committee which checks the curriculum and facilitates better student faculty relations is one which will be revised completely. Another, a Coordination Committee, is being formed to prevent conflicts in scheduling of events by the various member organizations. A calendar of events will be part of the program.

Also, Lou intends to give Phil Seidenberg his full cooperation so as to make E-day more attractive than it has been in the past.

The Chi Epsilon tutoring program is operative this term, with Barney La-Greca in charge. Chi Ep will be happy to give aid to any student (non-CE's included) encountering difficulty in a CE course. See the Chi Ep bulletin board at the Crossroads for instructions for obtaining help.

# TECH NEWS

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## FLUCTUATING TRENDS IN TECH ENROLLMENT

What motivates a person to study engineering? This question has been asked scores of times and has received twice as many different answers, each one either trying to pin down the motivation to one or two specific reasons such as love of science, regard for financial security etc. or else generalizing about how the increasing role of technology in our civilization makes it inevitable that more people turn to technological study.

In effect, the question may be reworded to: how can we explain the overall increase in engineering school enrollment over a period of time in a manner which will explain also the sharp rises and falls in enrollments during the same period?

A conference with Dean Allen along with a look at enrollment records of the college revealed an interesting fact; the occurrence of sharp rises and falls in enrollment can only be explained in terms of the particular social and economic forces prevailing at the time with the condition that the limits of these fluctuations are controlled by the general technological trend upward experienced in last half century.

To cite examples, consider the relation between enrollment and time. The pre-depression years saw a steady unfluctuating rise in enrollments reflecting the normal growth of a technological era. The sudden drop which followed mirrored the shaky economic years; a turn-about around 1940 due to the repealment of the neutrality act and threat of war once more made a technological career profitable and so enrollment rose. The draft deferments being offered to tech students at that time caused a startling increase — this is proved by the decrease which took place when deferment privileges were removed. On and on we could go citing cases where particular conditions set the stage for a change in direction of enrollment such as the drop which occurred when the bureau of Labor Statistics published a bulletin declaring a surplus of engineers — a fact which was totally untrue at the time in 1940.

But throughout all the enrollment oscillations there is an unmistakable trend upward as a product of a society's technological growth — as a result the minimum point of an enrollment drop is almost certain to be higher than the previous ones and likewise a rise in enrollment will reach a peak which is higher than the peaks preceding it. This general overall rise in demand and enrollment is the key to describing the future of engineering. To enter or not to enter the field motivated by reasons based upon a temporary economic or social condition is to look but a short distance behind and ahead. A sudden increase in demand for engineers because of a war threat or a decrease due to a recession are not the factors students should look to when making a decision which will effect their lives long after those conditions have reversed.

Congratulations to Lou Nashelsky on his election as president of TIIC. We wish him luck and sincerely hope he injects some initiative into the body which has thus far this term shown little ability to obtain adequate cooperation from its student members.

## Dear Irving

Dear Irving:

Somehow engineering boys never seem to like me. They continually tell me that while my potential is quite high, my susceptibility is rather low. What should I do? Confused

*Irving Answers:*

Don't be a cold terminal! Rectify this situation at once by lowering your resistance.

Dear Irving:

Whenever my boyfriend and I double with another engineer and his girl, the boys always end up trying to solve their drafting problems by cutting up the pizza. Do you think ordering an extra pizza would solve my problem. Starved

*Irving Answers:*

Pack a few peanut butter sandwiches the next time you go out together. Be sure not to take any hard boiled eggs; they're perfect for conic sections.

Dear Irving:

My boyfriend's birthday is coming up next week, and I'd like to give him something he'd really like. What would you suggest. He's engineer.

Anxious to please

*Irving Answers:*

Dear anxious, forget what he'd really like. Get him a slide rule.

Dear Irving:

The other night I was sitting on the sofa with my girl, and she reached up and turned out the lights. What should I do? Worried

*Irving Answers:*

Dear worried: I'd do the same thing you did and be just as worried.

Dear Irving:

My measurements are 36-21-36 and boys are always chasing me around the school. What should I do and where should I hide? Beautiful Blond

*Irving Answers:*

Dear Beautiful Blond:

You may come to 335 Finley anytime you want and then you will be chased by men and not by boys.

PS 335 Finley is my home office as well as Tech News'.

ASCE's induction dance will be in the Grand Ballroom of Finley Center on Nov. 21. Dave Ozerkis, Vice-president and Program Chmn. hopes for a big turnout. That's next Friday Evening.

## TECH LIFE

Who in Hell is this bird Irving?

With the presidency of THIC goes our best wishes for a successful term of office for Lou Nashelsky.

Officers of Professional Societies! Bethlehem Steel has 21 16mm. sound films available for showing at meetings. For descriptions of each film and instructions for obtaining them, come up to the Tech News office, F335.

Next Thursday, Nov. 20, at 12:30, Prof. Jerry Gray, Asst. Prof. of Aeronautical Engineering at Cornell Univ. (he was at Princeton according to last issue), will speak to the American Rocket Society on propulsion systems. In addition to evaluating the possibilities of using existing rocket systems for space travel, Prof. Gray will discuss more exotic topics such as nuclear, ultra high temperature fission, plasma and ion rockets and magneto-hydrodynamics.

On Dec. 4 Mr. A. Sherman, supervisor of the test dept., engineering section, at Reaction Motors Inc. will speak on the development of the powerplant for the X-15 rocket plane and will show films of actual test runs.

On Dec. 29, A.R.S. will visit the NARTS—Naval Air Rocket Test Station—at Lake Denmark, Dover, N. J. I've seen the agenda; it's impressive, and includes a rocket test demonstration. I'll have more details next issue but it would be a good idea to waste no time in getting over to Tech Crossroads and signing up now.

Today, ASME's early bird film will be "Technique for Tomorrow," a Ford film on automotive automation. A lecture will then analyze the "Basic Fundamentals of Instrumentation and Automation."

Next Thursday AIEE-IRE will present a lecture by a Dumont engineer on "Recent Advances in Cathode-Ray Oscillography" in S306.

There are rumors of a possible all-engineering societies' social affair, including dancing and refreshments, for the weekend of Dec. 19. More about it later—if it comes off.

The winner of the Miss Peach contest, sponsored by the College Book Store, will be crowned at the All College Prom.

ROBERT MELWORM. (He was dying to see his name in print).

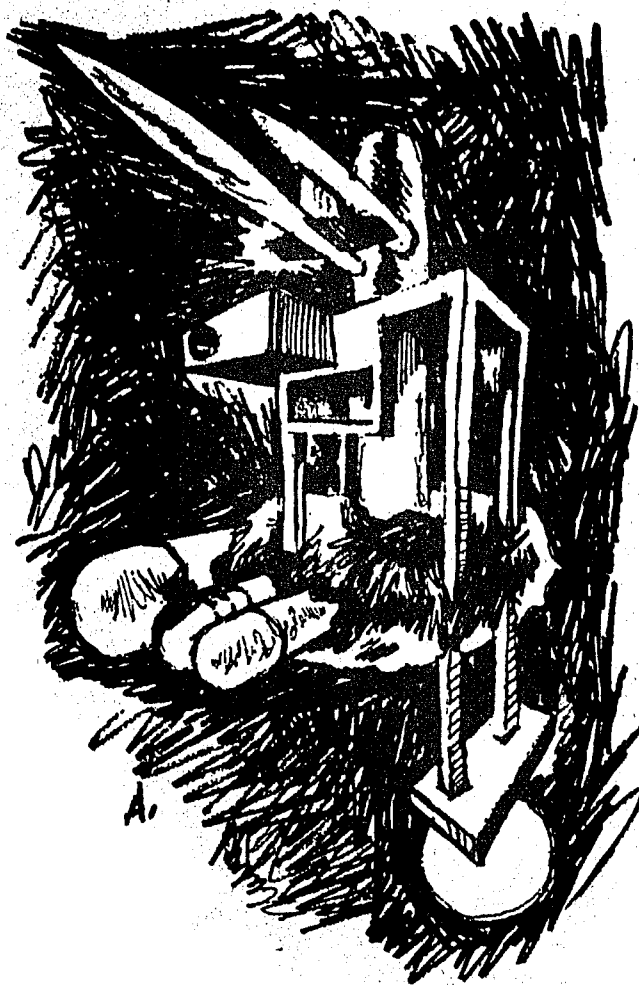
STAN GROSSEL

## THE ECONOMIC ADVANTAGES OF SPACE

Too much of the speculation concerning space travel has dealt mainly with the means and the destinations. Actually it may be discovered that the major benefits of the space age may be derived from the nature of space itself. Space is the most ideal vacuum and heat sink in the universe and it is comparatively close to the earth.

At present the major interest of man is nationalistic and militaristic. If space is to truly attract civil interest it must be considered in terms of its economic possibilities. Also it is time that we begin planning to use space as an economic element.

The most obvious use of space is that it will permit the use of terrestrial equipment in efficiency improving conditions.



Since the temperature of space is practically zero, the efficiency of heat engines should be enormous. Also since air in relation to a vacuum can be used as steam is used in relation to atmospheric air, very cheap power can be produced merely by letting air expand through a turbine or a heat engine into the ether. Of course such engines could not be used to provide transportation between planets, but they could be used for providing the necessary auxiliary power for extra terrestrial installations.

An unlimited vacuum has enormous potential in terms of electrical designing. Computers, radio transmitters, and electronic devices telescopes could consist of tubes composed only of the

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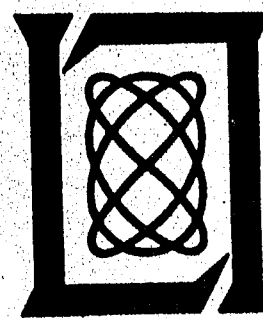
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elements surrounded by insulators and exposed to the ether. With no danger of leakage, these machines could last almost indefinitely.

Also attractive economically, is the cheapening of the manufacture and storage of highly reactive elements like

(Continued on page 4)



## SPORTS

At the end of six weeks of play in the Slide Rule Basketball League the Electrical Engineers are far in front with a 5-1 record. The Chem. E.'s who lost their first two games and stormed back to win their next 3 out of 4 are in second place, tied by the Mechanical Engineers.

In their biggest win to date, the E.E.'s beat the Chem. E.'s 62-60. Despite Aaron Fierstein's game leading total of 35 points, AICHe could not overcome their 9 point deficit at half time. This was due to the fact that Fierstein's only assistance came from Stan Arrow, who scored 14 points. AIEE, who had four men scoring in double figures, were led by Jack Stein and Walt Cascell; each scoring twenty.

The week previous to this the EE's flexed their muscles, the CE's left their's at home, and AIEE won 71-12. The winners distributed their scoring fairly evenly among eight players.

This showing of ASCE should not be considered indicative of their ability since it came fresh off a close 49-41 loss to AICHe. Dick Marek led both teams with 17 points.

In the last three nights of play up

to press time ASME has not fielded a team. Two of these games were scored as losses by forfeit while the third was considered no game as their opponents, ASCE, did not arrive either. This behavior of the ME's seems quite strange as they won both games in which they played. It is hoped they will return to court action and bolster their association's falling athletic prestige. The Civil Engineers, too, have been lax, having missed two of the first six league games.

Because of City College basketball team practise, the games may start at a slightly later time. If this is the case, notices will be placed of the bulletin boards in the Tech Building.

Standings as of Oct. 31:

|       |     |
|-------|-----|
| AIEE  | 5-1 |
| AICHe | 3-3 |
| ASME  | 2-2 |
| ASCE  | 0-4 |

MORTY COHEN

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## ... SPACE

(continued from page 3)

Sodium and Potassium. Dangerous to store on earth, they can be kept in the open of space with no danger of reaction with an atmosphere.

The reduction of metals from their ores can be accomplished in space by the application of the sun's heat. Without the atmosphere to act as an insulator, and with simple mirrors to serve as focusing agents, the temperatures of reduction could be easily produced, and the gases produced could be used to power turbines.

By proper planning it is possible that a manufacturing and processing network could be developed for an artificial or natural heavenly sphere which could not only supply cheap and abundant byproducts but also aid in the prevention of conditions necessary for man's existence.

At present, governmental planning is basically military, but the sooner this planning involves civilian considerations, the sooner will a new source of wealth be tapped. Frankly until such planning is accomplished and utilized, the space age shall not have arrived for the true benefit of civilization.

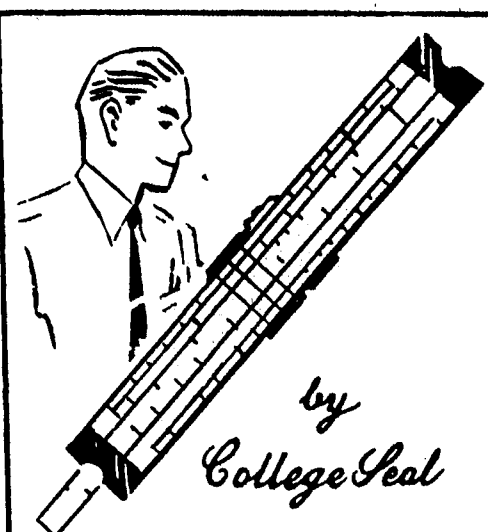
ARTHUR APPEL

### THE ENTRIES FOR THE MISS PEACH CONTEST

|                   |                                |
|-------------------|--------------------------------|
| Elinor Finkelman  | Geological Society             |
| Pearl Rock        | Modern Dance Club              |
| Jeanne Glennon    | Board of Student Mgrs.         |
| Civia Kissil      | Pi Lambda Phi                  |
| Audrie Sherman    | Alpha Epsilon Pi               |
| Linda Rosenberg   | Phi Tau Alpha                  |
| Barbara Schrift   | Tech News                      |
| Nilde Cortez      | Spanish Society                |
| Sandra Felsen     | Wittes Dynasty                 |
| Mary Anne Backman | Taft Young Republicans         |
| Melican Berman    | Debating Society               |
| Marlyn Lieber     | Confed. of Democratic Students |

VOTE for Miss Peach in the College Store. Voting ends November 19

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