

The Tech



NEWSPAPER OF THE UNDERGRADUATES OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

VOL. LXXVIII NO. 33

CAMBRIDGE, MASSACHUSETTS, TUESDAY, OCTOBER 7, 1958

5 CENTS

Physics Takes Registration Lead From EE; Math Makes Big Jump

Amounting to slightly over half of the Class of '62, the electrical engineering and physics fledglings have followed in the paths of previous classes in keeping those courses at the top of the enrollment lists. For the first time, however, EE this year with 208 frosh was nudged out of its lead position by the Course VIIers with 268.

Still occupying the third slot is Chemical Engineering, but it, too, is declining, dropping from 109 freshmen last year to 91 new enrollees this year. Mechanical Engineering, which was once one of the most popular courses at the Institute dropped only slightly, but it was enough to let Mathematics, rising from 46 to 76, to move into fourth.

A possibility for an interesting case study arises from the Course VI and Course VIII enrollment figures, particularly the latter. The frosh physicists—to be have, as a matter of tradition, always borne the brunt of a lot of comments concerning their "fatality" rate—with good reason. The registration list gives Physics enrollment by years (frosh, soph, etc.) as: 263, 150, 103, 106; odds are high that 8.01 is the chief assassin." Electrical Engineering, though not suffering quite so badly *en totale*, still must have received a shock when only 139 Class of '60's returned this year from a group of 240 last year. Percentage-wise, Aeronautical Engineering also took a sudden dive with the Class of '61, going from 63 to 36. Possibly, one answer to this may be the fact that these are largely "glamour courses" in name, but ones which the practical student soon finds are no more attractive than some of the little-known courses.

Of the smaller courses which usually attract few freshmen but which grow rapidly, probably the best example is Course XV, "money engineering," which now lists for enrollment by classes: 23, 45, 78, 92. On a smaller scale, Metallurgy with measurements of 11, 26, 37, and 43, is another "course changer."

The "small-but-mighty" fields of endeavor provide just one excuse for the drops in the major courses; the other lies in the total enrollment. From last year to this by classes: '61, 913 to 866; '60, 914 to 842; '59, up with 892 to 902. For whom the bell tolls...

Singer Bikel Stars In Folk Music Show For Baker House JP

Folk Singer Theodore Bikel will be at Baker House on the Junior Prom Saturday afternoon. He will sing at a cocktail party called "Folk Music Goes to Baker." The liquid refreshments will begin to be dispensed at 1:30, and Theodore Bikel will begin his two-hour songfest at 2:30.

Tickets will be sold in the lobby of Building Ten beginning on October 6th, at five dollars per couple. Those who purchase their tickets before October 16th will be given preferential seating locations. Paul Silverman '59, who is in charge of the affair, recommends advance ticket purchases, as he says "In all probability, there will be no tickets left for sale at the door."

Bikel is a man of many talents. Besides his extensive repertoire of Israeli and Yiddish songs, he sings in Gaelic, Ukrainian, and Zulu. He has acted on Broadway and in Hollywood. He has also opened a very avant-garde espresso coffee house in Hollywood, which highlights folk singing and conversation.

In response to rumors that Baker House Social Committee is trying to bird-dog Junior Prom, Baker House President Otis Bryan '59 wrote an open letter stating: "It has been stated that we are trying to compete with the Junior Prom. This is not true. We are trying, in our small way, to add to the festivities planned for that weekend... Several people have told me that they feel ticket sales should be restricted to the MIT Community. We intend to do this until it is apparent that no one else from the Institute family plans to come. If a large block of tickets remains unsold at that time, we will offer them to the general public on a mail order basis."

President's Report Emphasizes Gains, Cites Extreme Undergraduate Problems

In the annual President's Report, released yesterday, Dr. J. A. Stratton cited the Institute's failure to emphasize undergraduate problems. Stratton says, "today's undergraduate feels himself anywhere but at the center of this particular academic universe."

Stratton points out that there are many Institute activities which the undergraduate can only read about in the newspaper. He maintains that, "The typical entering freshman at MIT is far from ready to cope with such a mature concept of learning," as is found here. Stratton recognizes the fact that MIT must deal with this problem realistically.

Along these same lines, the President thinks that "there is even more immediate need to convey to the undergraduate a keener sense of belonging, of personal participation in the great enterprise which is MIT." Measures are being taken within the residential program to remedy the situation.

A major problem has arisen with regard to engineering education. There are two basic positions. The liberal viewpoint desires the conversion of all engineering courses to applied science. This would postpone most specialization to graduate study. The conservative viewpoint defends the present system, stating that engineers have professional problems far different from those of scientists. Compromises have led to the development of "engineering science" parallel courses.

At the moment, MIT is in the throes of re-examination of all educational programs. This has led to the no-homework plan employed in freshman calculus sections. Other changes in the offing are the replacement of requirements with electives in the last two years, and more opportunities for independent research.

The department of Modern Languages has expanded its program in Russian, German, and French. The spoken word is emphasized rather than grammar or translation.

Responsibility To Nation

Stratton says that MIT is in the national limelight: The appointment

of Killian to Washington was evidence of a new national awareness that the hopes for our survival as a free and prosperous nation rest in large measure upon the quality of our education and upon our capacity for scientific research.

Even though MIT deals with public service, defense research and the broad advancement of scientific knowledge, the foremost concern of the Institute is the education of its students. In the future, private institutions will be able to supply only a small part of the needed scientific manpower. However, according to Stratton, MIT will have "... a heavy responsibility to provide highest standards of excellence, to set new patterns, to give leadership, and to lift the sights of all."

Financial Situation Improved

Stratton reports that the Institute did \$75,000,000 worth of business last year. Of this, \$21,000,000 was for educational expenses, and \$54,000,000 was spent on sponsored research. This represented an increase of 7 per cent for education, and a 12 per cent gain in research.

The total amount of student aid last year was nearly two and one-half million dollars, an increase of 15 per cent over the previous year. However, Stratton says in the report: "We are assisting through scholarship aid only 22 per cent of our undergraduates, a percentage relatively low compared to other ranking educational institutions. Our need for scholarship endowment funds is urgent."

A major source of this increase was the loan fund, which topped the half-million dollar mark for the first time. This fund has just now been made available to freshmen.

Information Theory Expert

Shannon To Donner Science Chair

Claude E. Shannon, Professor of communication science, Professor of mathematics, has been selected to fill the recently established Donner Chair of Science at MIT.

The new professorship, made possible by a grant of \$2.5 million from the Donner Foundation, is one of a total of five chairs of science established at leading universities. Sharing the Donner grant with MIT are Harvard, Yale, Princeton and the University of Pennsylvania. Harvard has selected Nobel Prize winning physicist Henry Purcell as its Donner Professor.

Professor Shannon holds a S.M. degree, electrical engineering, and a Ph.D. in mathematics from MIT. He is a graduate of the class of 1940.

Here From Bell Labs

In 1956 he left a research position at Bell Telephone Laboratories to become visiting professor of electrical communications here. Last year he became a permanent member of the Institute faculty in his dual-titled role.

While holding the Donner Chair of Science he will retain the title of full professor in both departments.

Professor Shannon has achieved special eminence in the field of information theory, which combines mathematics with electronics in the design of computers and automated machinery. Norbert Weiner and Vannevar Bush have been among the other Institute personnel who have been leaders in this field.

The \$2,500,000 Donner grant has been hailed by educational leaders as a timely and pace-setting effort to bolster basic research and science education.

The Donner Chair of Science raises to a total of four the number of permanent endowed chairs at MIT. Others are: Alfred P. Sloan, Professor of Industrial Management, Jerome C. Hunsaker, Professor of Aeronautical Engineering, and Edwin Sibley Webster, Professor of Electrical Engineering.

Senior House Votes On Its Constitution; Autonomy at Stake

The Senior House held the referendum on its new constitution today. Approval by three-fourths of the residents will ratify, and place Senior House in the position of a separate dormitory unit on a par with Burton, Baker, and rest of East Campus. The parallel units of East Campus will still be known officially as East Campus, although the Senior House unit is farther east.

At the Dormitory Council meeting which approved the new constitution, a steering committee was set up to run the referendum today and the forthcoming election of House officers. The members of the committee are Adul Pinsuvana '59 and Christopher Sprague '60 of East Campus, and Mike Padlipsky '60 of Baker House. Two residents of the Senior House, Al Krigman '60 and Charlie Rook '60, were selected to advise the committee in their actions.



Professor Claude E. Shannon, newly appointed Donner Professor of Science, in the departments of Electrical Engineering and Mathematics.

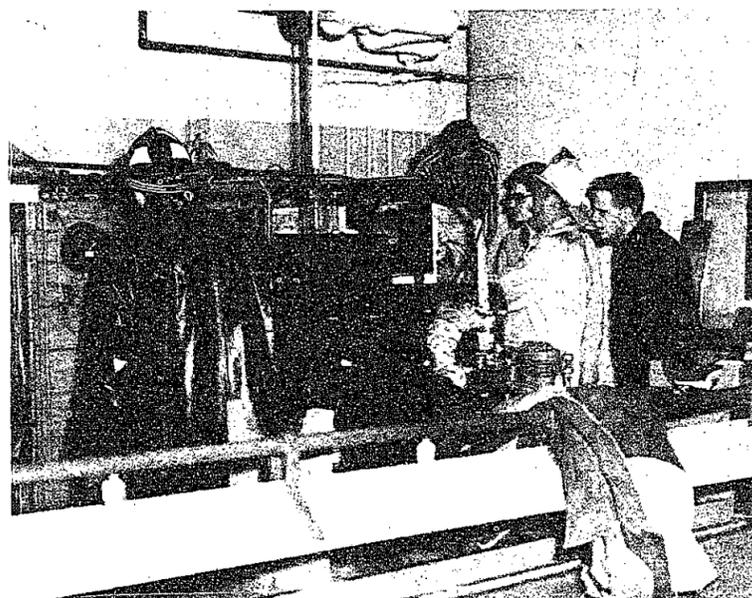
Dense Smoke, WTBS Alarm Draw Crowd of Students And Firemen to Building 5 Saturday in Fire Scare

A fire which burned out a refrigeration unit in Building Five, was announced over WTBS as it happened. At 1:30 Saturday morning, the announcer broke into the regular "Night Owl" show and announced "Three fire trucks have been seen heading towards Building Seven. We believe this is authentic!" Linda Greiner '60 had seen the fire trucks come past under her dormitory window, and had immediately called the radio station, who relayed the information to their listeners. Within a short time, about fifty students had gathered in the area, some bringing dates.

The kibitzers were not disappointed. A York Refrigeration unit had caught fire in the Refrigeration Lab, Room 5-007, and was giving out thick clouds of smoke. The fire was soon put out, but the firemen had to shovel away several hundred pounds of smoldering cork insulation. The entire laboratory was covered with a thick pall of burnt cork, some of it mashed into paste with the water.

The fire was discovered by William Franklin, a night sweeper. He reported it to the Heating and Ventilation technician on duty, who pulled out the plug. When the fire kept on, the firemen were called. This is standard operating procedure, since the Institute must pay heavily whenever the fire trucks are called, as MIT does not pay the regular city taxes.

The fire department responded with its normal fleet: three hose companies,



Firemen and kibitzing students inspecting the burned wreckage of the refrigerator in the Building Five fire early Saturday morning.

two hook-and-ladder units, and one rescue unit. When they saw the magnitude of the fire they sent all but one truck back home. The fire chief reports that he ran into difficulty with the new gate blocking off the parking lot between Buildings Three and Five. He was unable to get through the gate, so he was forced to park the truck under Building Seven and run hoses

down the length of Building Five. The hero of the night was John Scroffels, a graduate student. He walked over when he saw the fire trucks, and came just in time to help drag some valuable instruments to safety. Other students in the audience chatted with the firemen, tripped over the hoses, and took home pieces of charred wood as souvenirs.