

Engineering report: major proposals

RESTRUCTURING THE SCHOOL OF ENGINEERING

Development of a new organizational structure to "increase the quality of its educational programs and provide greater flexibility." A panel is preparing alternative structures for consideration.

ENCOURAGING FACULTY LEAVES OF ABSENCE

Such a policy would enable faculty to expand their interests, would provide broader professional experience, and increase the School's flexibility. The Dean of Engineering is preparing a proposal for the faculty on such a policy.

ADOPTING A UNIFIED CO-OP PROGRAM

A School-wide co-op program would enrich the student's academic program, expose students to work experience, and help save on educational expenses. Unifying these programs would provide better administration while leaving initiatives to departments. The Dean for Engineering is implementing such a program.

OPENING COURSE XXV TO ENGINEERING STUDENTS

Course XXV, now used as a general-science major, would be opened to engineers to meet a "limited" demand from students. A committee will prepare a sample curriculum for such a course.

ESTABLISHING A RESEARCH INSTITUTE

A wholly-owned tax-exempt Research Institute composed of full-time core staff and MIT faculty and students would give the Institute an option for increased research in applied, sponsor-oriented needs research. The Provost is appointing a committee to study this recommendation.

Quarter plan, split tuition recommended by study

By Mike McNamee

A faculty and staff "self-appraisal group" in the School of Engineering has recommended that MIT consider switching to an academic calendar based on quarters and from flat-rate tuition to per-unit tuition.

The report of the Self-Appraisal Project, released last week, suggests that these and other changes would help the Institute streamline its operations, increase its efficiency, and meet new demands being placed upon it in education and research.

The result of a year-long study by task forces composed of engineering and other faculty and Institute staff, the report also recommends a restructuring of the School of Engineering to "lead to a consolidation in the number of different subjects taught and encourage curricula based upon a small number of core programs."

The Self-Appraisal Project was initiated to help the Institute in its efforts to save money and cut costs, while making sure that we did nothing to jeopardize the School's standing as the premier engineering schools in the country," according to Associate Dean of Engineering James Bruce.

"We had to keep both of these considerations in mind," Bruce explained. "We wanted to cut costs, but we used the quality issue as a restraint. It will cost more that way, but it will broaden the school's scope, open it to useful fields that we haven't yet explored, and help us retain our standing."

About 120 faculty and staff worked on the report, which reported on recommendations in five areas: operation of the School, faculty and staff activities, educational activities, financial management of the Institute, and support services for education and research. The 19 task forces working on the report produced 47 specific recom-

mendations for revising operations in these areas.

Most of the recommendations have been discussed by the Engineering Council, Bruce said, and have been suggested for further action. "Some of the more routine changes — accounting procedures, co-op programs, and so forth — we're taking care of already," Bruce explained. "Some of the others will take a great deal of study and thought, however."

The recommendation concerning the academic calendar suggested breaking the academic year into three three-month quarters, in place of the two four-month semesters and the one-month Independent Activities Period now used. The fourth quarter — the three summer months — could be utilized as a full academic period for year-round operation (see story, page 3) or could be left in the "summer session" mode now used during the summer vacation.

Under such a plan, most students would take 36 units — the equivalent of three 12-unit courses — each quarter. This would result in a slightly heavier load of 108 units per year, 18 units more than the current 90-unit average annual load.

The quarter-plan calendar was proposed mainly to make masters' degree programs — "programs which are still very important in engineering," Bruce said — more attractive, according to the report. Using a quarter plan, with its slightly higher loads and greater flexibility, a student could complete a masters' degree in one year, instead of the one-and-a-half years normally required now.

While pointing out that the quarter-plan calendar will be useful for part-time students, co-op students, and mid-career industry people taking advanced degrees, the report recognizes that the advantages of IAP in the current calendar could not be retained. "It seems reasonable, however,

(Please turn to page 3)

Fund drive gains speed

By Eileen Mannix

Representatives of the Resource Development Office told *The Tech* that they are pleased with the progress of the \$225 million fund drive launched last spring.

However, at this early stage, visits to key prospects are just beginning, and no major gifts have yet materialized.

According to N.C. Lees, '53, Director of Resource Planning, 25,000 volunteers have signed up to assist in the identification of potential donors.

Lees anticipates that the tangible results of these visits will not be seen for some time.

Smaller gifts have been added to the original starter fund, however; Lees said that the total now stands at \$49 million, up from April's figure of \$43 million.

Kenneth S. Brock, '48, Director of Resource Operations, said that the Leadership Committee has been recruiting corporation members or alumni to serve as leaders for the campaign in their communities. Twenty-seven domestic areas or cities and three overseas locations currently have campaign leaders. These persons hold alumni meetings in their areas and organize plans for making lists of pros-

pects and deciding how best to approach each one. Brock said that of a list of 3,000 possible area leaders, 800-900 have been identified so far.

District Officers have been added to the Resource Development Staff. Each major geographical division, i.e., Midwest, Far West, New England, etc., has one officer supervising the overall operation and traveling to various communities to assist their campaign leaders.

Lees said the campaign will focus on two donor levels: the key prospects, who would be able to contribute a quarter of a million dollars or more over a five-year period, and secondary prospects, who would donate \$10,000 or more over five years.

Solicitations to major donors will be conducted throughout this fall. These are time-consuming because they require the direct involvement of the President and Chairman of Resource Development. As Lees put it: "You don't ask a major donor for a substantial gift without a chief in the organization doing the asking."

Both officials feel that the reception to fund drive leaders has been very warm, and are much encouraged by the fact that so many have volunteered their time and services. "I think we're far ahead organizationally than where one would normally be in a major campaign like this," said Brock.

The response was also favorable at an Alumni Officers Conference held on Sept. 9-10th, attended by some 600 alumni. One and a half million dollars have been added to the fund since then.

Brock is optimistic about the general outlook for the success of the campaign. Referring to prospective donors he said, "One gets the feeling that when their economic situation is right, when their circumstances are right, they'll be very generous."

The MIT Leadership Campaign, as the drive is known, is expected to last five years. Funds will be raised for building a new sports center, financing new dormitory construction on campus, creating new faculty chairs, and increasing general endowment.

The fund drive is MIT's third since World War II, following the Mid-Century Drive in 1950 and the Second Century Fund, launched in celebration of MIT's centennial in 1961. Both of those drives exceeded their targets of \$20 million and \$60 million respectively by large amounts.



Director of Resource Operations Kenneth S. Brock '48

Student killed in mountain fall

By Margaret Brandeau

Memorial services will be held Friday for Steven Drazovich '78, who died while mountain climbing last Saturday.

Drazovich, an undesignated sophomore, who lived in Baker House, was on an expedition with the MIT Outing Club in the New Hampshire White Mountains when he apparently fell down a gully. "We don't have all the details," Outing Club President Rob Milne '78, said, "all we know is that somehow a rock fell on him."

Drazovich was climbing a slope that was rated by the Outing Club as "an easy fifth class — a step or two up from an

ordinary mountain hike."

Outing Club members said that Drazovich, who came from Wyoming, was a competent climber. "He was in a section that was well within his experience," said Milne, "and he had done a good deal of climbing before this." Milne added that "his climbing partner was even more experienced. This guy was really sharp on safety. According to the best reports we have, as a two man team they were doing things right."

According to Associate Dean for Student Affairs Jim Bishop "something happened — we don't know what — and he fell down an easy sloping gully,

about 40 feet down. Somewhere in the fall a boulder struck him."

Bishop did say that in the area where Drazovich was climbing there were very few loose boulders.

Bishop went on to say that "The accident was just not preventable. I was very impressed with how competently and professionally the incident was handled."

According to Milne, "The mountain takes its toll every once in a hundred thousand times, and this was just one of those times."

The state Game and Fish department is investigating the incident.

October 10 is the deadline for adding subjects to one's registration. It is also the last day that juniors and seniors may specify an elective for pass/fail grading. The cross-registration deadline is Oct. 14. According to the Registrar's Office, no petitions will be accepted after that date.



Christine Dall (left) and Niti Salloway, producers of the film *Women's Work: Engineering*

CAES kicks off 'Women' films

By Margaret Brandeau

The Center for Advanced Engineering Studies has recently completed what it hopes to be the first in a series of films dealing with women and work.

The film, entitled *Women's Work: Engineering* looks at women who are engineers and women who are studying to be engineers.

The purpose of the film, according to producers Christine Dall and Niti Salloway, "is to encourage high school girls to think about engineering as a career. Engineering has been thought of traditionally as a career area for men. Perhaps more women will become engineers when they see what the experience of being an engineer is."

The 26-minute film funded by the School of Engineering, IBM, and the National Science Foundation (NSF), cost about \$50,000 to produce.

According to Dall, the film will soon be distributed to high schools across the country.

About half of the film shows MIT women engineering stu-

dents talking about why they are interested in engineering. "I like it because it's applied... it's not a pure science..." A scene shows a woman welding in a machine shop. "You get to use your hands... It's not like you're just dealing with equations and formulas..."

The major thrust of the film deals with the social aspects of fitting into a male-oriented world. "It's a lot easier preparing academically than preparing socially," one woman student says.

The film shows the woman engineer who designed the Mystic Bridge, standing on the bridge surrounded by construction crews at work. "I've had some of the foremen confess to me that they didn't exactly know what to think of a woman boss at first," she says. "And maybe some of the men thought well, this is going to be a really light job working for a woman... But after we got started working, things worked out pretty well."

The film also focuses on the question of how a woman

engineer handles her home life. It shows an engineer and her husband at home with their children. "Since we began sharing work and responsibility," she says, "things have really worked out." She and her husband describe how they manage to both work and take care of their children.

Salloway said that the film was shown to some high school students in Illinois "and these are the sorts of issues they are concerned with."

Elsewhere in the film another engineer advises women on the prospects of getting a job. "The jobs are there," she says. "A woman getting out will be able to find a high-level job."

Although the film was shot at MIT and features MIT women, Dall said "it shouldn't be viewed as a recruitment film for MIT. We want it to do the more general job of letting women know about engineering in general."

The CAES will be releasing its next film, *Women and Work: Management*, at the beginning of next year.

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Report hints at year-round plan

By Mike McNamee

A key idea runs as an undercurrent in many of the suggestions of the Self-Appraisal Project of the School of Engineering — an idea which the Project report stopped short of recommending, but which in places implied it would have welcomed.

That idea was year-round operation for the Institute.

"We stopped short of recommending year-round operations because we weren't sure about it," Associate Dean for Engineering James Bruce said. "But there was some pretty strong sentiments expressed on the issue in

our meetings."

And in places the report seems to suggest that year-round operation — conducting classes, research, and all other activities on the same scale throughout the year — wouldn't be such a bad idea. The discussion of the proposed quarter-plan calendar

mentions year-round operations, pointing out that such a calendar would aid scheduling of summer events and classes. Discussing masters' degree programs — especially for students from industry — and continuing education the report mentions the value of the summer months for research and thesis-writing.

Has the time come for year-round operation at MIT?

One of the most thorough considerations of that question in recent years is the October, 1972, "Working Paper on Year-Round Operation" prepared by Vice President Kenneth Wadleigh '43, who also chaired one of the Self-Appraisal task forces.

The working paper pointed (Please turn to page 5)

Restructuring most important

By Mike McNamee

The recommendations of the Self-Appraisal project of the School of Engineering range from minor tuning of accounting systems to sweeping changes in the Institute's calendar.

But people who worked on the Project feel that the most important recommendation is the one which suggests restructuring the School along some lines other than the department/center organization currently used.

"I think we're at the stage in the School's evolution where we have to start thinking of transdisciplinary fields — fields which bridge several disciplines — and how to formalize those fields so we can have people learn within them." Associate Dean for Engineering James Bruce said. "To do that, we're probably going to have to break down the discipline-oriented

departments and start looking at broader fields."

Interdisciplinary programs have become an increasingly popular means of spanning several fields in "job-oriented study," Bruce said. "Things like the Centers for Transportation Studies, for International Studies, for Advanced Visual Studies, and so forth, are one means of getting at these areas," he said.

But the Engineering School, were it to reorganize into cross-disciplinary "divisions" or "centers," would be the first to abandon the departmental form of organization. Such reorganization might be done, Bruce said, by giving centers or "divisions" composed of several departments departmental prerogatives — the right to grant degrees, to admit graduate students, to have faculty chairs.

"It's a facade to force stu-

dents who want to major in transportation to fit into a departmental mold," Bruce said. "Why couldn't the Center for Transportation Studies admit students, give them a curriculum to follow, and grant a degree in transportation when the student is through?"

Bruce admitted that emphasis on "job-oriented" education would be useful mainly on a graduate level — "an undergraduate would probably still be better off in a well-defined department," he said — and agreed that overlapping departments, centers, and divisions would lead to "some organizational confusion." But one area in undergraduate education would be simplified by such a plan, he feels — core engineering courses.

"If we had a division of energy, for example, then that division could teach thermodynamics for the whole school, rather than having a thermo course in each department," Bruce said. "That would represent a considerable simplification from the current system."

The School of Engineering is expected to debate several proposed means of reorganization in the near future as Dean Alfred Keil prepares and presents plans.

Report suggests change in calendar, tuition

(Continued from page 1) that suitable alternatives could be found," the report says.

"The variable tuition plan grew out of the recommendations on the quarter-plan calendar," Bruce said. "Many people felt that under such a calendar, one way to keep students from overworking and to make financial loads more equitable was to charge tuition according to how many units you actually take."

The report points out "the current imbalance between the amount of credit received by many students versus the amount of tuition paid to MIT,"

and stresses that a quarter plan would "exacerbate" the imbalance. "Benefits accruing to the students would justify, indeed require, such an approach to insure the Institute's financial stability," the report said.

Under variable tuition, students would be charged a base registration fee and a tuition charge that would vary with the number of units taken. Units would be calculated around the ninth day of the term, according to the report, which is significantly earlier than current deadlines for adding or dropping subjects.

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Opinion

Reports and people, issues and real life

By Michael McNamee

The Report of the Self-Appraisal Project in the School of Engineering — covered elsewhere in today's paper — comes across one's desk as a very dry and dull volume. It's difficult to handle because of its unusual shape — like legal-size paper laid sideways — and difficult to read because of turgid, dry prose. Few of the rhetorical lapses which manage to creep into most MIT reports invade here; this is an engineer's report. Each of the 47 recommendations gets a few paragraphs, a couple of charts, and a terse directive.

But even the driest MIT report usually has some person behind it who can make it come to life, and this one is no exception. Associate Dean for Engineering, James Bruce, who directed the Self-Appraisal Project from its inception a year ago, is the person to talk to to put the report into context, to make the facts and figures take meaning beyond their surface appearances.

When Bruce talks about restructuring the School of Engineering, for example, he's not talking about bureaucracy or how many secretaries are going to be assigned here, there, or yonder. The issue becomes tasks, jobs, purposes, existences — what would a center/department type of structure mean to undergraduate education, and what difference would it make for graduate students? Would this type of structure do more for making MIT engineers more socially useful, or would decentralizing it more make it a better educational structure? The minor problems fall away, the question becomes "What is the point of this School and how do we achieve that?" — and the discussion is mesmerizing.

Similarly, a discussion of Bruce's second favorite topic in the report, expanding MIT's commitment to continuing education, exposes deep-seated feelings, long hours of thought, disdain for the petty and a feel for sweep, grandeur, and importance. How can MIT best serve industry, the government, other technological employers? What sort of programs does the Institute need? What sort of structures to support those programs? Why do this at all?

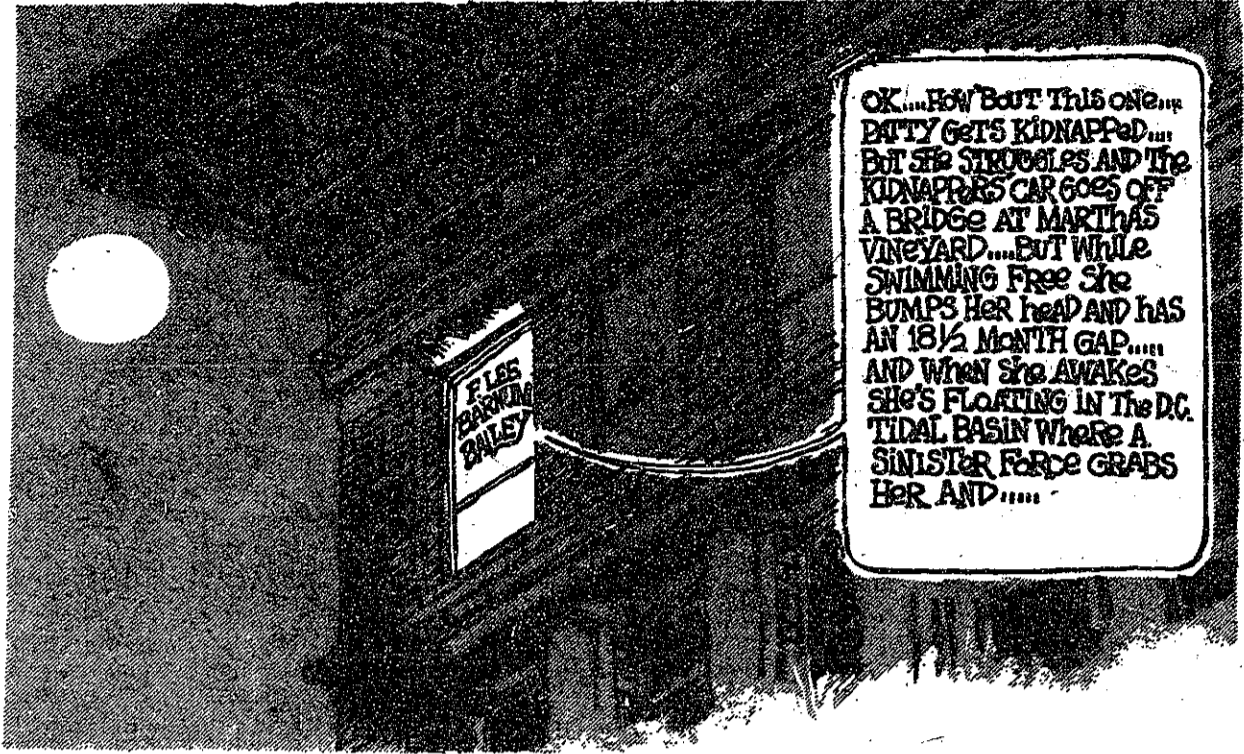
Bruce is hardly unique. As I've said, there is at least one such professor, dean, or functionary to almost every MIT report, committee, or division, a person who can make the most abstruse and abstract actions seem, at least, to be real. Their view may not be the only one on the set of issues with which they deal — their view may not even be the "right" one, by whatever index you wish to place on that — but their grasp, their feeling, their dedication is evident and sweeping.

Over the last three years I've had occasion to talk to many of these people, to grasp a little of the excitement with which they approach an issue and delve into it, to get a feeling for what a report or paper is, far beyond just what it says. In most of these cases, I've tried to transcribe their comments, translate their feelings, put it all down into ink on paper — and usually failed. There doesn't seem to be any way to communicate the excitement of an important point in the dry and dull forms that journalism prescribes, and I often end up with a newspaper in my hands wondering how in the world any reader can possibly grasp why the faculty or the reporters are up in the air over something.

The strength of MIT is the ability of these persons throughout the faculty to develop ideas, to plunge into the center of things and find the essential points and drag them out for examinations. It doesn't have to be "issues" — it can be physics or mathematics or even, God forbid, humanities. But MIT's weakness is the inability of so many people here to receive that kind of thought from others — because it's not always available, because they don't want it, because they can't see how it applies to anything except their own specialty — and put it to use.

Mike Peters

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Locke still living at MIT

By Murray Biggs

The new Humanities Requirement enters its second year offering a choice of 68 specifically "humanistic" (alias Distribution) subjects approved by an Institute-wide committee on which I serve. The most intriguing fact to emerge from our discussions last year was that one book appears on the reading list of no fewer than five of these subjects, mounted by three different departments, Humanities, Philosophy, and Political Science. Do we find here, perhaps, the elusive quintessence of a humanistic education?

The book has been described by its most assiduous editor, Professor Peter Laslett of Cambridge University, as "a giant of historical importance... at once a response to a particular political situation and a statement of universal principle for the modern ("Western democratic") world". His work has passed through perhaps a hundred editions since its first (anonymous) publication in England in 1690, and been translated into languages as diverse as Norwegian and Hindi. It assaults despotism, promulgates the doctrines of government by consent and a separation of powers, rests final sovereignty in the rational will of the people, maintains the people's right to overturn a government that has abused its trust, and finds its way verbatim into Jefferson's Declaration of Independence.

It is for all that a rather dull book; though largely because we've become dulled to its issues. We take its principles and their abuse so much for granted. For that reason alone it deserves to be kept alive.

I refer to John Locke's *Second Treatise of Government*, in particular to a feature of the book that may be said to stamp it as humanistic and entitle it to classical status in a professedly humanistic culture. I mean Locke's justification of majority decisions: that principle which, in Willmoore Kendall's paraphrase, "is implicit in the logic of community life."

In our society, majorities have become unfashionable, especially since Mill's defense of individualism in his essay *On Liberty* and our own century's unhappy record of discrimination against minorities. No self-

respecting individual cares to be thought of as one of the "herd," of that "silent majority" whose very silence may be taken to give consent to tyrannous acts in its name.

On another side of the world, however, people think differently. For more than a generation, the drum-call throughout the burgeoning countries of Africa has been for majority-rule: "one man (sic), one vote." And probably rightly (though independence is no guarantee of equity); for, sad as it may be, the perennial Socratic virtues of goodness and wisdom and justice are in no way derived from power or riches or even formal literacy, those characteristic signals of colonial oligarchies. The campaign for freedom throughout Africa has been essentially and in principle a campaign to end discrimination not against but by minorities.

The African situation — then, paradoxical as it may seem to us, in fact warns us of the sinister corollary to our duty-bound protection of minorities. Individuals and minorities deserve, of course, an absolute right to defense against larger numbers. But that right does not include the right to harass or subvert or in any way abuse those majorities in their turn. Yet with our eye taken off the Lockean principle of majority decision, we have come to allow unrepresentative clubs and cliques, clans and cabals — government by crony — to regulate major areas of our lives.

Even the University — traditionally, as in Wordsworth's delineation of Cambridge, a place where "all stood... upon equal ground... brothers all in honor, as in one community" — has become increasingly divided against itself. (The following remarks should not be construed as applying specially to any particular school or administration. The problem is general.) The divorce between faculty and administration — unheard of in the less bureaucratic universities of the past — tends willy-nilly to put more power in the hands of administrators, who, while acting both legally and in good faith, may yet not be the best makers of decisions that are binding on a majority and educational in their business. It is for this reason that faculties need to insist on, even if they do not always exercise, the right to govern (or at least restrain) by majority vote, at all levels of administration — particularly the lower and middle levels — including administration by other faculty. The wise administrator

will always respect such brakes on executive power. "Big Brother knows best" is an indulgence that no truly big brother permits himself. Or, as the sociologist Daniel Bell predicted just ten years ago, in *The Reforming of General Education*: "The relation between democracy and bureaucracy, which will be an increasingly urgent matter for all organizations by the end of the century, will have its most important trial in the university."

I say "vote" rather than "consultation" because consultation is not always enough. It inclines to be selective rather than representative. It is liable to self-serving and self-deception. Officers hear what they want to hear, and too many advisors tell them, through inertia or fear of reprisal, mutual flattery is perilously tempting. The only true consultation — and the only defense against behind-doors government in matters of importance — is a referendum based on completely open discussion. And those who voice dissenting opinions must be protected from recrimination (both overt and oblique), not least in a society or a university priding itself on intellectual freedom.

"Many heads are better than one" — or a few — is a truism that is sometimes excitingly disproved. Intellectuals always think they know best, and sometimes they do. But a community in which everyone can claim to be more or less equally intelligent, more or less equally concerned with coming to measured and rational judgments, will be happiest and most productive when governors acknowledge that they are no more than *primi inter pares* (to borrow the tag immortalized by John Adams): first among equals, and accountable to them. Even a king — as Shakespeare's Henry V ruefully reminds himself and George III's loyalists unhappily forgot — is "but a man," as other men are.

We owe that principle of parity to no one more than Locke, the apostle of common sense in its most literal meaning. In the coming year we shall hear many professions of belief in the American tradition (nowhere better exemplified than in the town-meeting) of equal and independent judgment that Locke did so much to make deservedly respectable. Some of them may be less than wholly sincere. It's therefore good to know that the Institute will be buzzing with talk about American independence's debt to Locke's classic advice on representative government.

The Tech

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The Tech regrets to announce the resignation of Mark Suchon '76 from the position of Advertising Manager.

NOTES

* Oct. 10 is the last day for juniors and seniors to specify an elective for pass/fail grading.

* Oct. 10 is the deadline for adding subjects to registration.

* The MIT cross registration deadline is Oct. 14. Absolutely no petitions will be accepted after this date.

* MIT Seniors who wish to apply for a Danforth Foundation Fellowship for 1976-77 should submit an informal application consisting of a one or two-page essay about his or her background and career plans for college or university teaching to Assistant Dean Jeanne Richard, Room 3-136 by October 22, 1975. Personal interviews for applicants will be held at MIT on Saturday, November 1, 1975 in the Graduate School Office (Room 3-136). For further information, contact Dean Richard on x3-4869 or stop by 3-136.

* The discussion group for women graduate students new to MIT will continue to meet for luncheon from 12 to 1:30pm in Room 7-133 on Oct. 10 and 17.

* The MIT Withyou Club is sponsoring a seminar on the practicality and benefits of experiencing meditation 24 hours a day. The seminar will meet for six weeks on Tuesday evenings, 7:30-9:30, beginning Sept. 30. Anyone is eligible. To register, call 277-5052.

* Ocean hard mineral mining will be the subject of the fourth annual MIT Sea Grant Lecture and Symposium, which will be held Thursday, Oct. 16, at 3pm, in Kresge Little Theatre. John E. Flipse, '42, this year's lecturer, will speak on "The Science, Engineering, Economics and Politics of Ocean Hard Mineral Development." A panel discussion will follow.

* Groups wishing to use Talbot House during November are urged to apply immediately. Spaces are available. Contact Dean Jon Hartshorne in W20-345, x3-7974.

* The MIT-Numismatic Society will meet at 7pm on Wednesdays this year at Theta Delta Chi, 372 Memorial Drive. Call John Sallay at 494-9820 for further information.

* The fall organizational meeting of the Parapsychology Research Group will be held at 7:30pm Wednesday, Oct 8th in Room 5-309 on the south side of Walker Memorial. New members are invited, old members should call Brian Pirette at 5-6647 if they cannot attend.

* A year-long, multi-university history workshop has been announced by Professor Bruce Mazlish, head of the MIT Department of Humanities. The workshop will focus on the relatively new field of family history with respect to the study of American industrial society. Workshops will meet monthly to hear invited papers. First speaker will be Professor John Demos of Brandeis University who will present a paper Thursday, Oct. 9, on the American Family in the critical years following the American Revolution.

* MITHELP is being offered during the first half of the fall term to help students improve their familiarity with algebra, trigonometry, analytic geometry, and logarithms and exponentials. Each of these four topics will be covered in 2 evening sessions in one week. For more details check in the FAC Office, Room 7-103, x3-6771, or Room 4-155 Monday-Thursday.

* There will be a teach-in on Spain, today at 8pm in 9-150. Speakers will be Prof. Mari Chao, Harvard, Prof. Watson, MIT, and Jose Delgado, Spain.

* Get involved and at the same time gain in some valuable experience - be a Cambridge school volunteer. Help in classrooms, in libraries, in the bi-lingual programs, in ESL, learning disabilities, in science, in music, math, drama, art and as tutors. Call Cambridge School Volunteers 492-7046 (9-1 weekdays).

* The Scuba Club will have a brief meeting today at 6:30pm in 20-E017. There will be a discussion of the planned shore dive.

* Volunteer tutors needed - reading, math and English as a second language. Contact East Boston APAC, 567-8857.

* MIT Cambridge voters are invited to Phillips Brooks House, Harvard, on Thursday, Oct. 9, 7 to 9pm to meet with Cambridge Convention '75 candidates for the Cambridge City Council and School Committee.

Report hints at year-round plan

(Continued from page 3)
out that co-op programs - which the Self-Appraisal Project strongly supported - would be strengthened by year-round operations; that new educational innovations could be tried under a different calendar; that freshman admissions could be staggered, removing some of the agony of R/O Week and allowing more "Project Interphase"-type introductory programs and that three-year bachelor degrees - an increasingly popular option for many students - would be easier to obtain under a year-

Laughing gas kills Tufts student

By Mike Namee

The death of a Tufts University student last week by apparent nitrous oxide poisoning has intensified fears of misuse of "laughing gas" by thrill-seeking students.

Kevin Deck, 19, a sophomore engineering student, was found dead in his room last Thursday night after he apparently had inhaled nitrous oxide from a tank found in the room. Preliminary autopsy reports indicated his death was caused by nitrous oxide, according to Middlesex County Medical Examiner Dr. Sidney Listernick.

Deck reportedly had obtained the gas, often used as an anesthetic by surgeons and dentists, from a Medford supply house. His body was found by fraternity brothers after he had been missing for several hours, according to Tufts officials.

Listernick told *The Tech* that the death "looked very much like poisoning by nitrous oxide," but said laboratory reports would be needed to confirm that impression. Medford police have recently received several reports of students using the gas "for kicks," Listernick said.

"That gas can be very dan-

gerous, if not deadly," Listernick explained. "Whenever it's used for anesthesia, they make sure there's oxygen nearby for the patient in case of poisoning." Nitrous oxide acts like carbon monoxide, in binding with hemoglobin in the blood to block distribution of oxygen in the body, the doctor said.

MIT Campus Patrol confiscated nitrous oxide tanks from students three times last year, and have received one report of a laughing gas incident this year, Chief James Olivieri said. "Three or four years ago, we had a real rash of those incidents," Olivieri said. "We were practically carting tanks out of one or two dormitories."

Olivieri said there had been no serious injuries caused by laughing gas use on campus, but "that doesn't mean the danger isn't there. That stuff is deadly, especially in a closed place with no ventilation," the chief said.

Security for nitrous oxide tanks on campus was stepped up about two years ago in response to earlier incidents, Olivieri said, so no further steps were being planned in the wake of the Tufts death. "We do make every effort to see that this gas isn't available to students, and to discourage its use by anyone in the community," he said.

round calendar.

The working paper, however, did not recommend year-round operations for the Institute. Instead, it suggested an "experimental evolutionary" approach to broaden the type of summer activities available at MIT, to explore possible new summer programs, and to study questions related to "making summer part of the academic year." And the issue has not been under serious discussion since then - until the Self-Appraisal report, which often treats the summer months like just another term.

MIT officials were not available for comment on whether year-round operations would be under active consideration in the wake of implementation of the Self-Appraisal report. But Bruce, for one, pointed out the "attractiveness" of increasing the role of summer in MIT's educational plans, and the idea may well be in the back of many minds when quarter-plan calendar, variable tuition, expanded continuing education, and other recommendations in the Self-Appraisal Report are under discussion.

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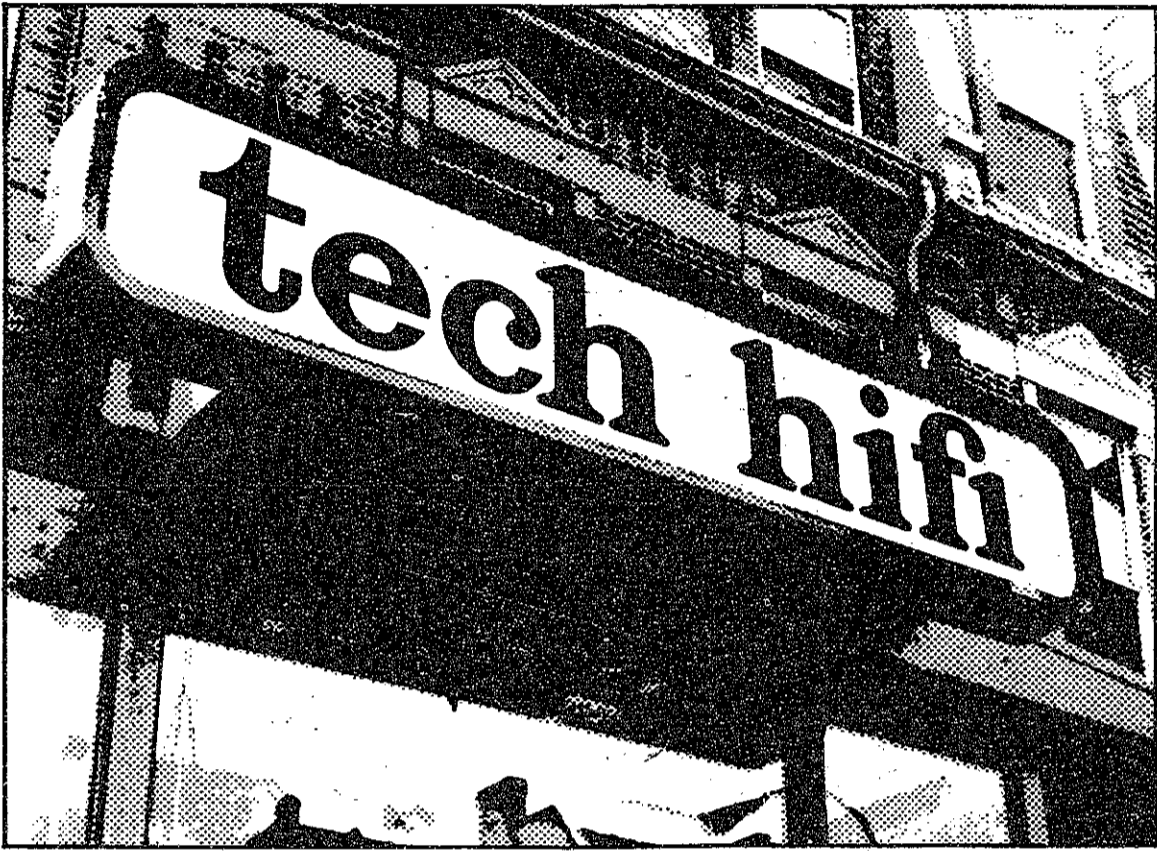
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MIT art conference to draw hundreds

The largest art conference ever held at MIT will begin Oct. 15 with hundreds of participants expected to attend.

Otto Piene, director of MIT's Center for Advanced Visual Studies and co-chairman of the conference called "Art Transition," said that the five day series of conferences, seminars, presentations and lectures has attracted "remarkable response from all over the United States and abroad." Not only have invited guests and speakers put themselves to some trouble to attend, but hundreds of participants are expected to pay \$85 (\$50 for students) to register for the series.

"Art Transition" is being funded by MIT, the National Endowment for the Humanities (NEH) and private donations, according to Virginia Gunter, project director for the event and director of programs and exhibitions at Massachusetts College of Art. Piene said that "we're trying to do it for next to nothing" with most of the money coming from NEH and registration fees. He said that MIT was providing "underwriting money that permits us to do the event but we are expected to bring back the money."

President Jerome B. Wiesner as chairman and Piene as co-chairman represent MIT, while NEH is represented by co-chairman Peter Feinstein, director of the University Film Study Center.

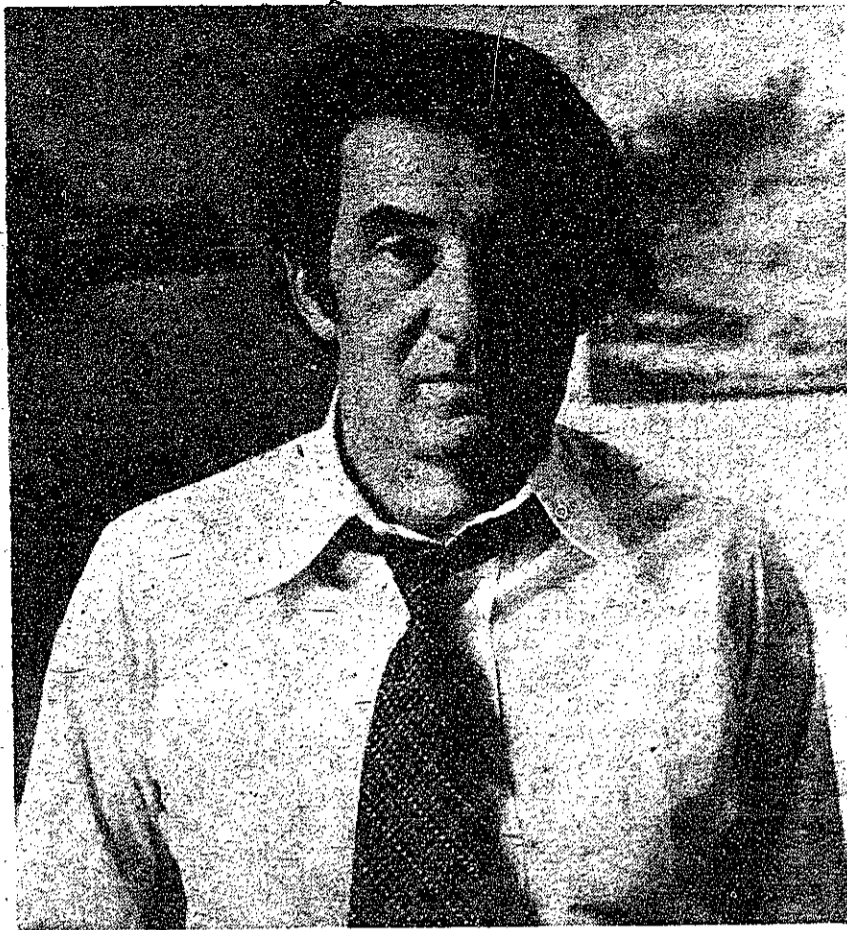
Feinstein said that "Art Transition" is the fifth and final event in a series of conferences funded by NEH. The University Film Study Center has participated in the other four, held at Boston's Museum of Fine Arts (on Animation and Special Events), the International Museum of Photography at Rochester (Sound in Films), Yale (Films and Modern Art), Brandeis (American Document-

tary) and Wesleyan (Surrealism and French Documentary).

The theme of "Art Transition" is broader than any of the previous conferences. Gunter said the purpose of the event is "to share ideas and bring people together from various parts of the country who have interests in the concerns of art and society, and to examine the changes and developments in art."

When asked if an art conference was unusual for a science-engineering school like MIT, Gunter replied that "MIT has become more involved in both the arts and in humanities, and as MIT is changing and expanding its interests, art itself is becoming more openly involved with technology and science."

Piene agreed with Gunter, saying that such events are becoming "less unusual all the time."



Otto Piene, Director of the Center for Advanced Visual Studies

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Sports

Harriers sweep quadrangular

By Dave Dobos

The MIT cross country team, showing its talent in a tremendous team effort, swept a quadrangular meet against New Hampshire, Coast Guard, and Wesleyan Saturday at Franklin Park. For the second straight year the Engineers upset the squads from UNH and Coast Guard.

Junior Frank Richardson easily ran away from the field with a sizzling 24:41 over the 5.0 mile course to lead MIT to the low score of 45 points. UNH was second with 49, Coast Guard's 59 followed, and Wesleyan trailed with 74.

The MIT squad, whose pride was hurt at the hands of WPI and RPI last week, rebounded

with an outstanding performance indicative of its preseason rating. Excellent team running placed all five MIT scorers in the top 15 of the race. Senior captain Courtney McCracken bettered his time by a full minute for the second straight week enroute to a fine 26:19 seventh place finish. Jeff Baerman '76 ran just two places back of McCracken with his season's best 26:24.

The highlight of the day was the super performance by Barry Bayus and Tom Clark, both freshmen. The pair raced competitively the entire distance to break into the scoring for MIT, the first time in MIT history that two freshmen accomplished the feat in one race. Further evi-

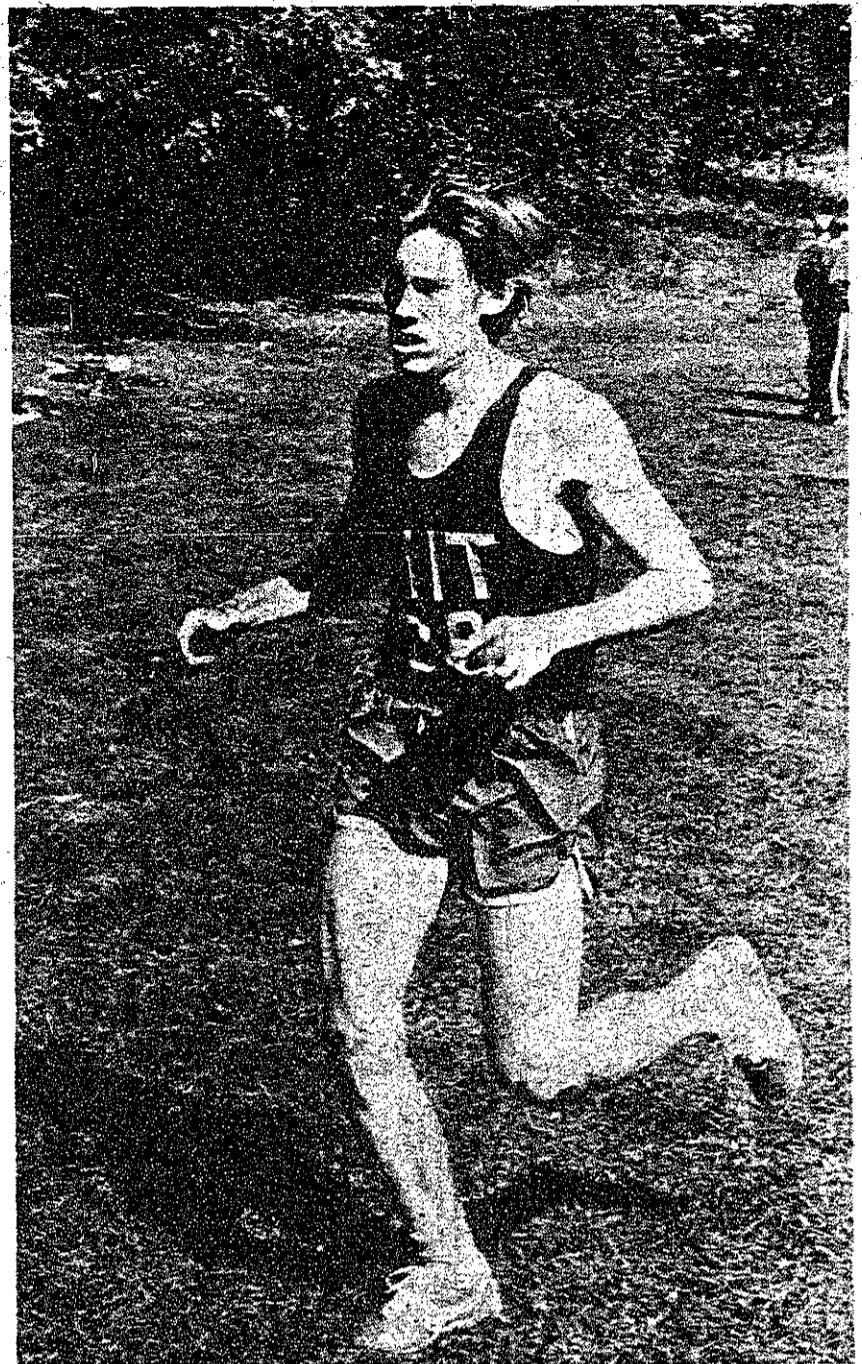
dence of the outstanding team effort was the fact that only 34 seconds separated John Krolewski '77, the Engineers' sixth man, from McCracken.

However, Richardson's convincing seventh dual meet victory in eight career outings stole the show. It was supposed to have been a confrontation between three of New England's finest runners, Richardson, Coast Guard's John Thacker, and George Reed of UNH. But Richardson left them at the mile mark on the way to his 125-yard victory. His time of 24:41 is only five seconds from his personal best.

MIT's triple victory lifts its record to 3-2 and leaves Coast Guard and UNH stunned for yet another year. The sweep also restores some of the team's confidence in itself which had been shaken in the Worcester fiasco the previous Saturday.

The JV squad dropped its season mark to 2-1 with a 19-42 loss to Coast Guard. Freshman Rich Allen's fourth placed 17:05 over the 3.1 mile course paced MIT. Mark Schwartz '79 followed close behind in 17:11.

Saturday the Engineers (varsity and JV) take on Boston College and Lowell University at Franklin Park. MIT hopes to repeat last year's double victory.



Randy Fahey

Engineer harrier Frank Richardson '77 crosses the finish line, winning Saturday's quadrangular meet against UNH, Wesleyan, and Coast Guard at Franklin Park. Richardson paced MIT to a sweep, pushing the cross-country team's record to 3-2.

Massachusetts takes water polo invitational

By Glenn Brownstein

The University of Massachusetts captured four straight games to win the fifth annual MIT Invitational Water Polo Tournament. The Minutemen came from behind in the championship game to defeat a tenacious Southern Connecticut State College squad, 9-6.

In becoming the first non-Boston area team to win the tourney (MIT won in 1971, Harvard in 1972 and 1973, and BC last year), UMass topped SCSC in Friday's opening round, and then routed URI and Bowdoin in Saturday afternoon's round-robin to set up a rematch with SCSC, which had won its round-robin matches over MIT and Williams.

The Engineers did not fare so well, losing a poorly-played game to the University of Rhode Island, 7-4, on Friday night, and qualifying for the losers' bracket round-robin.

In Saturday morning's first

game, SCSC staked MIT to a 3-2 lead after one quarter, but shut out the Engineers in the second period, taking a 5-3 lead. After a fairly even third quarter (SCSC led 8-5), the Connecticut school broke the game open, winning 12-5.

MIT then trounced hapless Williams, 15-6, to win its first game of the year, and finish the tourney at 1-2.

Standouts for MIT included captain Mark Thorne-Thomsen '76, Mike Kowtko '79, and Bob Dobbin '79.

In the championship game Saturday night, SCSC led 4-1 after the first period, but UMass improved steadily throughout the contest and, paced by the excellent goaltending of Tom Rhodes, who allowed only two more goals, came from behind to win the title, 9-6.

The Engineers' next home game will be tomorrow at 5:00pm against Brown.

IM volleyball results:

A League - Living Groups

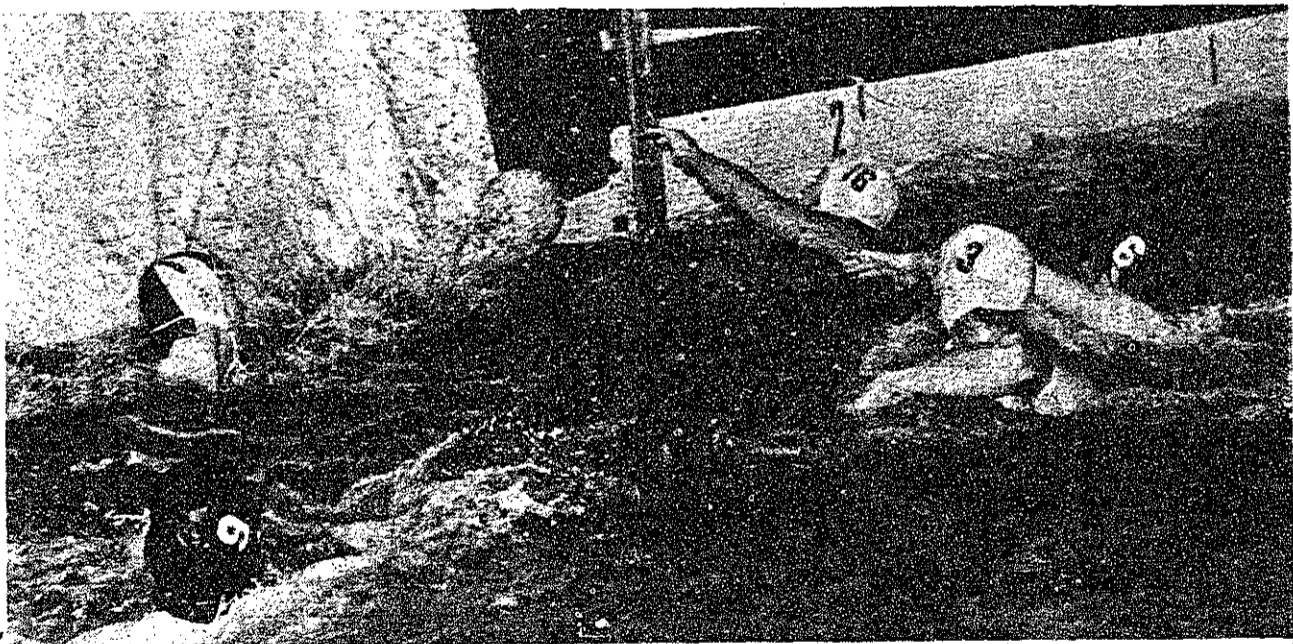
Team	W	L
Delta Tau Delta 'A'	3	0
Baker Dead Babies	2	1
Delta Upsilon	1	2
Lambda Chi Alpha	0	3
A2		
Hahvahd (Baker)	3	0
Alpha Tau Omega	2	1
Phi Beta Epsilon 'A'	1	2
Grasshoppers (Bexley)	0	3
A League - Independent		
A3		
Math 'A'	3	0
Tang 'A'	2	1
Ashdown 'A'	1	2
Fast Breeders	0	3

B League

Team	W	L
Chi Phi 'B1'	3	0
Alpha Epsilon Pi 'B'	2	1
SAE "Bouncers"	2	1
Little Giants	1	1
Virjins	1	1
Third East	0	2
Nukes	0	3
B2		
2E Baskirbaiters	2	0
Senior House	2	0
Chi Phi 'B2'	1	1
Metallurgy	1	1
NRSA Blomes	0	2
Tang 'B'	0	2
B3		
Chemical Eng.	2	0
H ₂ O's	2	0
Renal Shutdown	2	0
Theta Delta Chi '2'	0	2
TDC-TDC's	0	2
Phi Delta Theta	0	2
B4		
Sigma Phi Epsilon '2'	2	0
Fiji	1	1
Mechanical Eng.	1	1
No. 6 Club 'A'	1	1
Theta Delta Chi '1'	1	1
Pi Lambda Phi 'B'	0	2
B5		
Baker Brewers	2	0
Sigma Phi Epsilon '1'	2	0
Ashdown 'B'	1	1
Burton 3rd Bombers	1	1
Beta Theta Pi	0	2
Sigma Phi Epsilon '1'	0	2
C League		
C1		
Burton H Toocy	2	1
Delta Tau Delta	2	1
Phi Mu Delta	2	1
Senior House	2	1
Alpha Tau Omega 'C'	1	2
Conner 3A	0	3

Team	W	L
Phi Beta Epsilon 'C'	3	0
Kappa Sigma	2	0
Burton 1	1	1
Baker Lettuce and Tomato	1	2
East Campus 4E	0	2
MITNA	0	2
C3		
H-3 Turkeys	2	0
Theta Xi Enemas	2	0
Delta Kappa Epsilon	1	1
2E Studs	1	1
Burton 5 Smokers X	0	2
Math 'C'	0	2
C4		
E ³ C	2	0
EC 5W	2	0
Spanish Inquisition	1	1
Theta Chi	1	1
Student House	0	2
Theta Xi Spikers	0	2
C5		
H-4 Turkeys	2	0
Burton 5 Smokers Y	1	1
Chi Phi 'C'	1	1
H-2 Turkeys	1	1
Sigma Chi	1	1
Conner 3B	0	2
C6		
Hydros	2	0
Baker Buzzards	1	1
New III Stooges I	1	1
NRSA Persephones	1	1
Epsilon Theta	1	1
No. 6 Club 'B'	0	2
C7		
Alpha Epsilon Pi 'C'	2	0
E.C. 4WA & Siblings	1	1
Pi Lambda Phi 'C'	1	1
New III Stooges II	1	1
Economic Department	1	1
MacGregor A	0	2
C8		
Conner 4	2	0
MacGregor C	2	0
Phi Kappa Sigma	1	1
Warren Commission	1	1
First East	0	2
French/German House	0	2
C9		
E.C. 4WB	2	0
Ashdown 'C'	1	1
Burton 3rd Bombers	1	1
Navy	1	1
Phi Sigma Kappa	1	1
Phumbers	0	2
D League		
Arnold Air Eagles	3	0
MacGregor 'D'	2	0
MacGregor 'G'	2	0
W.C. 4 - Players	2	0
East Campus	1	1
Jack Florey	1	1
Baker Brewers	0	2
Pi Kappa Alpha	0	2
Russian House	0	2
Vardebedian	0	3

John Hopper



Bowdoin (white) scores against UMass in Saturday's semi-final game of the MIT Invitational Water Polo Tournament. UMass went on to top Bowdoin and Southern Connecticut and win the annual event.

Goalie Sommer saves soccer tie

By Gregg Fenton

(Gregg Fenton '77 is MIT's varsity soccer manager.)

The Engineer soccer team played Trinity College to a 1-1 standstill Saturday on Briggs Field. The rough game was not quite an even one as Trinity controlled the play almost throughout.

From the opening whistle until about the 35-minute mark of the first half, MIT was out-passed, outjumped, and out-hustled. Trinity played hard, and its aggressiveness resulted in injuries to fullbacks Johan Nye '77

and Greg Hunter '76 (Hunter had to miss the rest of the game). The Tech offense was nonexistent as no one moved to the ball for passes or steals. Goalie Charlie Sommer '76 was very impressive as he picked off ten saves on Trinity's eleven shots.

With ten minutes left in the half, MIT came alive and made some good tries for a goal. The well-rested Trinity defense was able to hold on, as the first half ended with no score.

With the wind and the sun at their backs, the Trinity eleven

came out again in control. Constantly shooting, pressuring the net, the Eagles broke through on a corner kick (one of 21 to only three for MIT). The kick came very near to the back post where two men were close enough to screen for each other. Winger Jennings headed the ball to put Trinity in front.

Although Trinity kept up the pace, MIT evened the score when a cross from Nye reached Rob Currier '79 for a half-volley shot from five yards out. The rest of the half and both overtimes were similar in the sense

that Trinity consistently made tries for scores but MIT came up with some good attempts as well.

Goalie Sommer picked off all tough shots, easy shots, and loose balls that came his way as he had to stop 30 of the 40 shots on net. Dave Fett '77 playing defensive sweeper, looked very good as did forwards Rich Okine '77 and Currier. Elsewhere, however, the team looked very flat and uninspired.

Still looking for their first win, the team travels to Holy Cross this Thursday.