August 31, 1988 Volume 33 Number 3

# Early deadline

The deadline for inserting listings in the Institute Calendar, Notices and Classified Ads will be early this week: noon Thursday, Sept. 1, because of the Labor Day holiday observance next Monday.

# Benefits advisory

The Tuition Assistance Plan benefits available to retirees have been improved. The Compensation Office has announced that individuals who retired on July 1, 1988 and later will be entitled to tuition assistance benefits for the first three years following retire-

Previously, this benefit was available for only the first year of retirement. To be eligible, courses must develop skills or interests related to retirement and must be completed within three years. Total reimbursement per year for the three years will be limited to the maximum dollar benefit in effect in the year of retirement (e.g. \$3,000 is available in 1988, 1989 and 1990 for employees retiring in 1988.)

Questions about the Tuition Assistance Plan may be directed to the Compensation Office, Rm E19-434, x3-4271, 9am-3pm daily, or the Lincoln Benefits Office, Rm A-125, x3-7060.

## Kid space

Technology Childrens Center has a few full-time openings (Monday-Friday 8am-5:30pm) for children ages 2.9-5 years. For further information call TCC at x3-5907.

# Stickers up

The fee for parking stickers will rise from \$7 to \$10 this year, William R. Dickson, senior vice president, has announced.

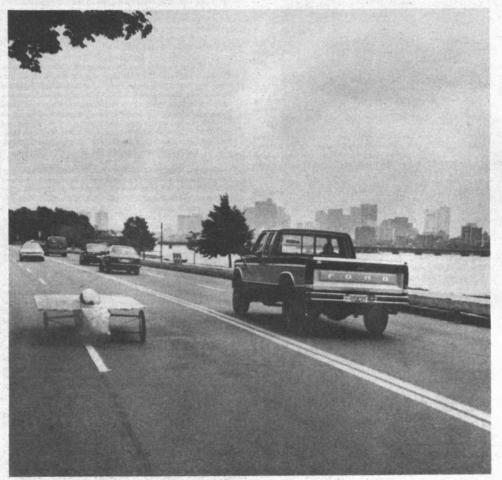
Applications for parking stickers will be distributed to department heads soon. When applications are completed they should be returned to the department head with a check, payable to MIT, for \$10 for each sticker desired. An application must be completed for each sticker required.

As has been true since the sticker fee was adopted 12 years ago, carpools and vanpools are exempt from the fee. Carpools, in which two or more drivers each drive periodically, should submit their parking permit applications to-

The last increase in sticker fees was six years ago. The sticker fee helps offset the cost of administering the parking program, which annually allots more than 6,000 stickers.

# LIS deadline

Friday, Sept. 2, is the deadline for fall term registration at the Lowell Institute School. Applications and catalogs are available by visiting E32-105 or calling x3-4895.



With the Boston skyline in the background, Solectria V has a demonstration spin along

# MIT solar cars to compete in cup race in California

The two solar-powered cars that a team of MIT students will race next month in California had a successful and well attended demonstration on Monday, Aug. 29.

Members of the MIT Solar Racing Team, headed by James D. Worden, a senior in the Department of Mechanical Engineering, demonstrated the cars—a commuting vehicle and a race car-for reporters and photographers behind the Johnson Athletics Center. Later, a Campus Police cruiser led the solar cars and a small convoy on a brisk trip along Memorial Drive.

The MIT team is a strong one with impressive experience in solar-car racing. The students competed in a ground-breaking transcontinental race in Australia a year ago, and this summer, in Switzerland's Tour de Sol-1988, captured two secondplace awards and were sixth overall in that six-day race.

Mr. Worden, of Arlington, is project manager, chief designer and chief race car driver. He has been building, racing and commuting in solar cars since his high

Race by its organizers and will be held in

school days, both as an individual and as

head of the MIT student team.

The September 16-17 race in Visalia, Calif., is called the America's Cup Solar conjunction with the 14th annual Human Powered Speed Championships. The race will cover more than 185 miles of the central California highway system, beginning and ending in Visalia

The organizers said the race is intended to highlight the technical capabilities of solar-powered vehicles, to increase public awareness of this technology and to promote research and development, all through intensive team competition. The MIT team has been told that the ESPN cable network and ABC's Good Morning America will cover

The two cars the MIT team will enter are the Solectria-V, a racing machine, and Solectria-II, which Mr. Worden, its owner, says is the only registered solar commuter

(continued on page 8)

# Freshman class shows diversity

By ELIZABETH A. THOMSON

Staff Writer

The hard work has paid off. After young lifetimes of achievement, this week members of the Class of '92 will begin the first of many treks along the infinite corridor.

This year's freshmen represent all the states and more than 30 foreign countries. A higher percentage than ever before are minorities (17% are blacks, Mexican-Americans, Puerto Ricans or Native Americans and 18% are Asian-Americans), and 34% are women. "This is a very diverse group of students," said Elizabeth S. Johnson, associate director of admissions.

Though they've barely begun their years at MIT, members of the Class of '92 have already passed their first test. They've survived one of the most competitive application procedures of any school in the country. Of 7437 applicants, only 1833 were accepted (1003 have actually registered as of August 29).

How were they selected? How did the Admissions Office begin to weed through the thousands of applications, all from quite competent people?

Of course, all of this year's successful applicants had top grades (88% graduated in the top 5% of their high school class). But in general they were also heavily involved in extracurricular activities. "We try to identify what the student does besides study," said Ms. Johnson.

And here the personal touch comes in: application materials for each student are reviewed by at least two "readers." These important people include the 12 profes-

(continued on page 8)

# Freshman R/O feast is underway

By JOANNE MILLER Staff Writer

Not one but two separate rushes await the freshman class which has begun to arrive on the campus this week and will be fully assembled by Friday.

In addition to the traditional living group rush that begins following the freshman picnic on Friday afternoon, the faculty is ginning up an academic rush for next Wednesday (Sept. 7) when the new students will meet their advisors for the first

Altogether some 250 faculty and staff advisors and their upperclass associate advisors-many in costume-carrying pickets or wearing sandwich boards advertising their specialties will mass on Kresge oval to greet the freshmen after an academic convocation featuring a presentation by Professor Daniel S. Kemp of chem-

This new arrangement is part of the student-run Residence/Orientation Committee's effort to make a clear distinction between the residence and academic parts of the R/O period.

"We thought concentrating first on residence, then on an introduction to academics would make the R/O period less confusing for freshmen," said Curt Jones, a senior in linguistics and philosophy who is this

(continued on page 8)

# Police help? Think blue

The campus network of emergency telephones changed color and grew over the summer.

"People often thought that the red telephones, mostly located in the parking garages, were for fire emergencies," Chief Anne Glavin of the Campus Police, said. "When we set about expanding the system, we decided to change the color to blue—a traditional police color," she said. All telephones also have blue lights.

The expansion was a joint venture of Campus Police, Physical Plant and Telecomunications. There are now 16 telephones reaching from Hayward Garage on the east to the Tang/ Westgate complex on the west. Picking up any receiver brings instant communication with the police dispatcher. Use the lines for any emergency need: police, medical or fire.

Wall-mounted telephones are located at the entrance to E23; between Buildings 12 and 24; near the Green Hall entrance and outside 500 Memorial Drive in Amherst Alley, and at the entrance to NW14.

Pedestal-mounted telephones may be found in McDermott, Lowell and duPont Courts; near the Johnson Athletics Center and MacGregor House on Briggs Field, and near Westgate.

The original—though now bluetelephones are located at the entrances to Hayward, East, Albany and West Garages and at the entrance of E19.

Maps showing the locations are available from the Campus Police Crime Prevention unit, x3-2998.

# INSTITUTE **NOTICES**

- Open to public

  Open to MIT Community only - Open to members only

#### Announcements

Wellesley-MIT Exchange Bus - Resumes weekday service, Tues, Sept 6. For up-to-date information on delays and schedule changes, call x3-7475. Interdepartmental mail between MIT and Wellesley will be transported on the bus each day. Bus schedules and additional information available in the Wellesley-MIT Exchange Office, Rm 7-103, x3-1668.

Barker Library Orientation Tours - Regular 45-minute tours of the library will be offered through Sept, Tues, 10am and Thurs, 4pm. They will cover types and locations of materials, ref-erence services, use of the Barton terminals and circulation policies. Meet in the lobby outside the library, Rm 10-500. Specialized tours for individuals or groups also available. Call Carole Schildhauer, x3-6051.

Science Library Tours - Including collections for the physical and life sciences, mathematics, and chemical, materials, and nuclear engineering, Tues, 9am and Fri, 3pm during September. Meet at the Reference Desk, Rm 14S-100.

MIT Japan Science and Technology Program Orientation\*\* - Wed, Sept 14, 5:30-7:30pm, Rm 4-153. Prof Samuels, Program director and Patricia Gercik, assistant director explain how students can go to Japan.

International Open House\*\* - Medical Dept/Dean's Office informal gathering to welcome international newcomers, Sept 6-7, 9:30am-5pm, Rm 10-105. Representatives from campus organiza tions and helping services answer questions. Special play area for childre. Evening with MIT Faculty - Tues, Sept 6, 7:30-9pm, Rm 10-105. Panel includes Associate Provost Samuel J. Keyser, Prof Philip Morrison, Prof Sylvia T. Ceyer, Dean Gerald L. Wilson and Prof Suzanne Flynn. Graduate Student Panel Discussion - Wed, Sept 7, 7:30-9pm, Rm 10-105. Info:

Hosts to International Students Program - MIT Women's League program to host foreign students coming to MIT for the first time. Provide a welcome, occasional hospitality and friendship. All financial and academic problems handled by specific MIT offices. Info/volunteer forms: Kate Baty, 861-6725 or Pam Daveta, x3-3656.

MIT Language Conversation Exchange\*\* – Medical Dept program to assist members of the MIT community to practice a language with a native speaker. Applications accepted throughout the year. To exchange English or another language and be matched with convenient to the convenience of the convenience o matched with someone with your interests, call the secretary of the Language Conversation Exchange, x3-1614.

English Classes for International Wives\*\* - MIT Women's League classes meet Tues/Th, 9:15-11am. Registration: Sept 15, 9-11am, Rm 10-340. Cost: \$25/student. Info: x3-3656.

MIT Student Furniture Exchange\*\* – MIT Women's League store, Tues/Th, 10am-2pm, 25 Windsor St (N52), x3-4293.

Free Museum of Science Admission for MIT Students — With MIT student ID, provided by Mass Beta chapter of Tau Beta Pi, the National Engineering Honor Society. Reduced admission to special exhibits.

Arts Hotline - Recorded information on all art events at MIT may be obtained by dialing x3-ARTS. Material is updated every Monday morning.

Nightline\*\* - a student-run campus hotline open every evening of the term, 7pm-7am. If you need information about anything or you just want to chat, give us a call. We're here to listen. x3-7840.

### Club Notes

MIT Student Television Channel 36\*\* - Seeks people interested in programming the cable television network. Info: Christopher Coon, x5-9432 dorm.

MIT/DL Bridge Club\* - Duplicate bridge, Tues, 6:30pm, Rm 33-419. ACBL masterpoints awarded; come with or without partner, newcomers always welcome. Special tournaments monthly. Handicap game, 3rd Tues every month. Info call Gary Schwartz, x8-2459 Draper, or Mark Dulcey, 868-5518. Admission: \$1/students, \$2/non-students.

MIT Student Bridge Club\* - Duplicate bridge, every Sat & Thurs, 7:30pm, Rm 33-419. Come at 7pm for lessons. Match points or team games. Come with or without partner. Refreshments Info: Dave x5-74 Bo-Yon, x5-9865 dorm

MIT Go Club\* - Meets every M/Th, 5-7pm, Bldg NE43 7th floor lounge. Ring bell to get in if locked. Info: x3-4874.

MIT Science Fiction Society\* - The world's largest open col lection of science fiction books and magazines is lo dent Ctr Rm 473. Meetings, Fri, 5:30pm. Info: x5-9144 dorm.

Animal Rights Forum\* - Meets 2nd & 4th Weds each month, 5pm, Rm 8-105. Info: Peter Mead, x5-9616 dorm.

COCA (Committee on Central America)\* - Meets at least once a month to plan activities relating to events in Central America. Info: Charlie Welch, 783-1668 eves/messages.

MIT Nautical Association\*\* - Recreational and Competitive sailing on the Charles and beyond. Sailing Pavilion open every day, 9am to sunset. Sailing cards on sale at Cashier's Office (Lobby 10): \$10 students, \$30 staff/faculty; \$40 alumni. Free basic sailing classes Sat, 9:30am-1pm; Wed, 5:30pm. Boardsailing classes, Thurs, 5:30pm. Info: x3-4884.

MIT Outing Club\* - Camping, cycling, climbing, canoeing cabins. Summer office & rental hours, Mon 5-6pm, Wed 12-1:30pm, Student Ctr Rm 461. Also, see our bulletin board in "Infinite Corridor" next to Athena

**MIT Soaring Association\*** - Weekend Soaring - Learn the exciting sport of soaring. We fly from the Mansfield airport every weekend and some holidays (weather permitting). Mansfield is 45 minutes south of Cambridge, off Rt 95. Student membership: \$125; typical flight: \$16. Contact: Bob De Saro, 622-1472 or

MTT Hobby Shop\*\* - Complete supervised facilities for woodworking and metalworking, Rm W31-031, M-F, 10am-6pm; Wed, m. Fees: \$15/term students; \$25/term community. Info

MIT Aikido Club\*\* - Non-competitive martial discipline, meets M.F, 5:30pm, DuPont Exercise Rm. Beginners always welcome. Info: Mitch Hansberry, 258-1272.

MIT Judo Club\*\* - Meets M/Th, 5:30-7pm, Dupont Gym Wrestling Rm. Info: Donna Duffy, x3-5773 or 661-9469

MIT Wu Tang Martial Arts Club\*\* – Learn Northern Chinese kung fu. Long fist and praying mantis styles, short sabre and sword. Beginners welcome. Meets T/Th, 8-10pm; Sat, 9am-12noon, Johnson Athletic Ctr. Info: Jeff, Cohen, x3-6204 or

MIT Karatedo Doshinkan Club\* - Classical (non Okinawan-Japanese karate teaching a system for lifelong good health as well as self defense. Men and women of all ages encouraged to participate. Beginners welcome, MWF, 5:30-7pm. Meet on the lawn between Bldgs W23 & W33. Info: Mark, x3-0988 or Jim, x3-0472.

#### Religious Activities

The Chapel is open for private meditation 7am-11pm daily.

Tech Catholic Community\* - Roman Catholic Masses: Suns Pam, 12 & 5pm, MIT Chapel. Tues & Thurs: 5:05pm, MIT Chapel. Fri, 12:05pm, MIT Chapel.

Lutheran Ministry and Episcopal Ministry\*\* - Weekly Service of Holy Communion - Wed, 5:10pm, MIT Chapel. Supper follows at 312 Memorial Drive. For further info, call

United Christian Fellowship\*\* - Large group meetings. Join us for worshipful singing, prayer, sharing and Bible teaching, and small group Bible studies during the week in various dorms, Fri, 7pm, Rm 6-321. Info: Tracy, x5-9676 dorm.

Graduate Christian Fellowship\*\* - Come join other grad students, faculty and staff as we meet in small groups to learn about and grow in the Christian faith. Activities open to both Christians and those interested in learning more about Christianity. Info: Curt Bronkhorst, x3-4414.

MIT Islamic Society\* — Daily prayers, Ashdown House (basement), 5 times a day. Call x5-9749 dorm, for schedule. Friday prayer, Ashdown House 1-1:30pm, Khutba starts at 1pm, congregation at 1:20pm

Christian Science Organization at MIT\* - Weekly Testimony meetings, Thurs, 7:30pm, Rm 4-145

Lincoln Laboratory Noon Bible Studies\* - Tues & Thurs, Kiln Brook III. Rm 239. Annie Lescard, x2899 Linc.

Morning Bible Studies - Fri, 7:30-8:30am, L-217. Ed Bayliss,

Noon Bible Study\* - Every Wed, Rm 66-160, bring lunch. Ralph Burgess, x3-8121. (Since 1965.)

MIT Campus Crusade for Christ\* - Fridays, 7:17pm, Marlar Lounge, Rm E37-252, TGIF weekly meeting of MIT Campus Crusade for Christ. We "thank God it's Friday" every week with singing, biblical input, discussion and fun. Info: x5-9153 dorm.

#### Graduate Opportunities

The Committee on Foreign Scholarships strongly encourages seniors and graduate students to apply for grants for interna-tional study. Unless otherwise indicated, applications for interna-tional scholarships are available in the Dean of the Graduate School Office, Rm 3-138, x3-4860.

Fannie and John Hertz Foundation Graduate Fellowships for 1989-90. Provides financial support for outstanding students pursuing graduate studies in the applied physical sciences (does not support students in the biological sciences, nor those seeking professional degrees). The Program provides tuition allowance of \$8,000 and a stipend of \$15,000 (nine months). United States citizenship required. Applications available in the Dean of the Graduate School Office, Rm 3-138. Application deadline: Oct 31, 1988.

### International Opportunities

Fulbright Faculty Grants for Lecturing and Research Abroad, 1989-1990. Approximately 1,000 awards spanning 120 countries. Major deadlines: JUNE 15 – Australasia/India/Latin America/Caribbean (except lecturing awards in Mexico, Venezuela and Caribbean). SEPTEMBER 15 – All other countries (and lecturing awards in Mexico, Venezuela and Caribbean). Write/call: Council for International Exchange of Scholars (CIES), Eleven DuPont Circle NW, Washington, DC 20036-1257, 202-939-5401. On-campus Info: Lillian H. Whelpley, x3-1939, Rm

National Academy of Sciences, Committee on Scholarly Communication with the People's Republic of China. Visiting Scholar Exchange Program — Supports short-term visits to initiate and conduct research by American and Chinese scholars in the natural sciences, engineering, social sciences and humanities. Application deadline: Nov 15, 1988. Graduate Program and Research Program — Support American scholarly interests through sponsorship of long-term study and research in China in the social sciences and humanities only. Application deadline: Oct 15, 1988. For application requests contact Lillian Whelpley, x3-1939, Rm 4-237

MIT-Japan Science and Technology Program. A unique opportunity to science and engineering students to spend a year working at a major Japanese company or laboratory. Students are trained in Japanese language and culture at the Program's expense before being placed in Japan. Placement is tailored to the student's background and experience. Travel to/from Japan and living expenses will be covered. For further information, call Patricia Gercik, x3-3142, Ctr for International Studies, MIT-Japan Science and Technology Program, Rm E38-656.

### Student Jobs

There are more job listings available at the Student Employ

Special Note: The Student Employment Office has many "one time only" jobs. Many students find these jobs a good way to earn money fast.

Dietary assistant needed to help in the Medical Dept Dietary

Services kitchen. Hours: M.F. 10am-12:30pm or Sat-Sun, 3-6:30pm and 4 more hrs/wk. Pay: \$7.85/hr. Contact: Phil Wickens or Maria Fernandez, x3-1784.

Lab assistants needed to help with animal studies in the toxicology lab at Arthur D. Little. Hours: 4-5 hrs both Sat and Sun. One position starts 9/3/88; other starts 10/22/88. Pay: \$7.50/hr. Contact: Cindy Berman, 30 Memorial Dr, Cambridge, 864-5770

Administrative assistant needed for answering telephones, data entry and billing and Prepworks. Hours: M·F, 1-5pm (or similar 20 hrs/wk). Pay: \$6.50-\$9.50/hr depending on experience. Contact: Bill Manning, 1050 Commonwealth Ave, Boston, 232-3010.

Consultant needed for the design and assembly of tv/radio tuners. Hours: part-time, flexible. Pay: \$18/hr. Contact: Robert Smith, 508-877-2457 or 508-877-6745.

## UROP

MIT and Wellesley students are invited to join with faculty members in pursuit of research projects of mutual fascination. New spring term projects are now posted on the bulletin boards located in the main corridor and in the UROP Office. Faculty supervisors wishing to have projects listed should send project descriptions to the UROP Office. Questions? Contact UROP at x3-7909. Rm 20B-141.

Parallel OS and Compiler Development. A student with an interest in operating systems and compilers is needed for the development of the Jellybean programming environment. The project involves refining and extending an experimental parallel operating system and compiler for the Jellybean architecture with the Concurrent VLSI Architecture Group. Applicants should have earned an "A" in 6.001, 6.004, and 6.033. A working knowledge of assembly language programming, C, and Lisp is required. Supervisor: Bill Dally, Rm NE43-417A. Contact: Scott Wills, x3-6048, Rm NE43-415, scotty@wheaties.ai.mit.edu

The Mechanical Properties of Magnetic Recording Systems. A student is needed to run wear and friction tests on hard magnetic disks which are used in the computer industry. Student will also analyze the results with scanning electron microscopy (s.e.m.) and dektek (profilometer). Prefer M.E. Seniors interested in rigid magnetic memory systems. Faculty super-visor: Prof Ernest Rabinowicz. Contact: Farid Kaymaram, x3-1759, x3-2265 or 494-8401.

Third World Politics and Development Video Collection. This two semester UROP-funded position would entail participating in the creation and administration of a Third World Politics and Development Video Collection. Specific responsibilities include: research on distributors dealing with Third World related videos; previewing possible purchases for use in HASS-D courses; researching video reviews; and developing and maintaining an annotated library catalog. Faculty Supervisor: Prof Jonathan Fox, Dept of Political Science, Rm E53-365, x3-5327. Contact: Jennie Purnell, Rm E53-456, x3-3119.

Mechanical Engineering. One undergraduate needed to perform a series of cyclic tension-compression tests (tension followed immediately by compression with the same specimen) on three different plain carbon steels (SAE 1020, 1045, 1095). This project will expose you to heat treating, mechanical testing, servo-hydraulics, material modelling, control programming, and data collection. Interested individuals should have experience with FORTRAN and feel comfortable working with real mechanical systems. Position available for money or credit. Faculty super-visor: Prof L. Anand, x3-1635. Contact: Curt Bronkhurst,

Two-Phase Flow Instrumentation. In this position, the work will consist of building and testing a non-intrusive concentration measuring device. Potential candidates should have background in analogue electronics and should be comfortable in a labora-tory environment. Starting date: Sept 20. Please contact Prof Harri K. Kytomaa, Rm 3-258A, x3-0006.

Microstructure in Dense Suspensions. A UROP position is available to investigate the microstructure in dense s caused by a shearing action. This project will consist of a) design work to add the final touches to the apparatus and b) methodical preparation and testing of suspensions. Starting date: Sept 20. Contact: Prof Harri K. Kytomma, Rm 3-258A, x3-0006.

History of World Oil. The History of World Oil is a project focused on an analysis of the history and economics of the world oil industry, especially since 1970. Strong data skills are required, including a knowledge of Lotus or facility in PC software. Library skills are also necessary, as much work will involve finding information and/or data. Supervisor: M.A. Adelman. Contact: Michael Lynch, x3-01443.

Movies of the Future Group. Programmers needed for development of 3D movie display software. We are trying to introduce depth and interactivity to the playback of digital movie sequences on a Mac II. The software desired includes tools for manipulating the movies as well as example applications. Prefer students who are familiar with the Macintosh and have a good knowledge of C. Supervisor: Andrew Lippman. Contact: J. Watl-ington or P. Chesnais, Rm E15-348, x3-0311.

Visual and Gravitational Influences on Perception of Mono-Oriented Objects. "Mono-orientation" typically is specified by the bearing of the object both in visual and in gravitational space. In recent studies we have begun to gravitational space. In recent studies we have begun to segregate the influences of gravity from those of vision to operations, both perceptual and cognitive, on such objects. The ability to perform several perceptual and cognitive operations with these stimuli, when the viewer is him/herself standing or reclining at various orientations, is under examination. Interested students will participate in all aspects of the study. Contact: faculty supervisor, Prof Alan Hein, Rm E10-210, x3-5759.

Muscle Vibration Affects Upon Visual Perception. Students will assist in the examination of the affects of muscle vibration upon perception with particular respect to illusory changes in location and changes in shape accompanying neck muscle vibra-tion. In addition, student will be asked to help in the design of a new generation of miniature mechanical stimulators which can precisely, and locally, excite the muscle stretch rece Faculty supervisor: Dr. Alan Hein, Rm E10-210, x3-5759

Brain Basis of Human Behaviors. The Behavioral Neuroscience Laboratory, in the Department of Brain and Cognitive Sciences, invites students to participate in studies of the brain basis of human behaviors, including memory, language, and problem-solving capacities. Students do limited background readings, and then take part in the planning, execution, and a-nalysis of behavioral experiments with normal subjects and with patients with brain injuries. Faculty supervisor: Dr. Suzanne Corkin. Contact: Maggie Keane, x3-5793.

Programmer's Apprentice Project. The goal of this project is to develop a theory of how expert programmers analyze, synthesize, modify, explain, specify, verify and document programs. We are looking for a freshman or sophomore, whom we may train and may be likely to work with the group for several years. The task for the first year will be to produce a high-quality reference manual for the Cake system, a large knowledge representation and reasoning system (over 30K lines of Lisp). The task for the first year wil involve a lot of clerical work, using the acs text editor and the Latex document-production system as well as becoming familiar with the operation of the Cake system itself. We hope that in future years, the student will be able to assist in further development and maintenance of the system. Student required who can work independently and who has good English language skills. Prefer previous familiarity with ntact: faculty supervisor, Dr. Charles Rich, Rm NE43-839, x3-7877.

Mac-Graphical Interface Programming for Data on Speech Production. We are using a Mac II to digitize and display data from a transducer for studies of speech production. This device, called a palatrograph, transduces the pattern of contact between the tongue and roof of the mouth as a function of time. The goal is to display the two types of data in a way that makes it possible to study spectral characteristics of the acoustic signal in relation to changing contact patterns. When programming is completed, the system will be used for some interesting studies of speech articulation and acoustics. Potential project for spring thesis. Required experience programming the Mac graphical interface. Contact: Dr. Perkell, faculty supervisor, Rm 36-543, x3-3223.

## Cable Television Schedule

MIT Cable Television serves the MIT campus. For connection and programming information, call x3-7431.

This schedule is subject to change. For up-to-date information, call Randy Winchester, x3-7431.

Wednesday, August 31

Channel 8:

5-5:30pm - Russian Language and People, Lesson 11 5:30-6pm - French in Action, Lesson 11



This clever logo is key to the Housing department's campaign to keep security fresh in students' minds. According to Robert W. Hagerty, Housing Operations Manager, the best way to prevent crime at the Institute is to lock your door because "this reinforces the security programs currently in place and those that will be coming." Pick up the red and white bookmarks at a library or dorm; students will also receive coffee mugs with the logo on the front and all MIT emergency numbers on the back.

# MIT and the sea

Interested in learning what current marine-related research is being performed at MIT? Pick up the free 1987-88 directory of Marine Related Research at MIT, now available at E38-300 or by calling X3-7041. The new directory, issued yearly by Sea Grant, summarizes each project, pinpoints major research objectives and lists the names of principal investigators.

Thursday, September 1 Channel 8:

7-7:30pm - Russian Language and People, Lesson 11 7:30-8pm - French in Action, Lesson 11

Friday, September 2

12-1pm - French in Action, Lessons 21 & 22

Monday, September 5

Channel 8: 12-12:30pm - Russian Language and People, Lesson 12 12:30-1pm - French in Action, Lesson 12 7-7:30pm - French in Action, Lesson 23

Wednesday, September 6 Channel 8

5-5:30pm - Russian Language and People, Lesson 12 5:30-6pm - French in Action, Lesson 12

#### TECH TALK (USPS 002157)



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originated in Tech Talk.

# Gallager named to new Fujitsu Professorship in EE & CS

A grant of \$1.5 million from Fujitsu Limited of Tokyo, Japan, has established the Fujitsu Professorship of Electrical

Engineering and Computer Science at MIT. The establishment of the Fujitsu Professorship was announced by President Paul E. Gray of MIT, who also made public the appointment of Professor Robert G. Gallager as first holder of the chair.

On behalf of MIT, Dr. Gray expressed his appreciation to Fujitsu: Dr. Gallager

Through the creation of an endowed professorship in electrical engineering and computer science, Fujitsu has made a vital and permanent contribution to the advancement of research and to the intellectual future of MIT

The Fujitsu Professorship will serve as a lasting tribute to the achievements and leadership of Fujitsu and help to strengthen and expand the close relationship which exists between Fujitsu and MIT.

President Takuma Yamamoto of Fujitsu made the following comment on the significance of the company's gift to MIT:

"Through the establishment of our first endowed professorship, Fujitsu is very happy to deepen its longstanding ties with MIT, a world leader in scientific research and education. We decided to set up this endowment because we wish to expand our contribution to technological development in the US, where our overall involvement continues to grow. We are gratified that MIT has selected one of its most eminent scholars, Dr. Robert G. Gallager, as the first Fujitsu Professor of Electrical Engineering and Computer Science, and we are proud to support his valuable research and teaching activities in the field of information theory.

Fujitsu is the largest computer maker in Japan and one of the world's leading manufacturers of telecommunications equipment, semiconductors and other electronic components. Ever since its foundation in 1935, Fujitsu has been working on the development of leading edge technology. Fujitsu engineers created Japan's first digital

# Counselman elected AGU section head

Professor Charles C. Counselman III of the Department of Earth, Atmospheric and Planetary Sciences has been elected president of the Geodesy Section of the American Geophysical Union for a two-year term beginning July 1. The AGU is an international association of 22,000 professionals in earth, atmospheric, oceanic, hydrologic, and space sciences. The association promotes research and publicizes findings in those disciplines.

As president of the Geodesy Section, Professor Counselman will represent scientists studying the shape and mass distribution of the Earth, the accurate location of points on the planet's surface, and changes in its rotation. Professor Counselman has made major contributions to geophysics and planetary sciences, in part through the application of very-long-baseline-interferometry (VLBI) techniques.

VLBI, as applied to geodesy, uses observations of widely spaced radio telescopes to observe distant quasars, and thus to determine positions of Earth stations to an accuracy of a few centimeters. Professor Counselman has also applied VLBI to measuring wind speeds in the lower atmosphere of Venus

Professor Counselman earned all his degrees from MIT—the SB (1964) and SM (1965) in electrical engineering and the PhD (1969) in instrumentation. His many committee appointments have included the NASA Lunar and Planetary Review Panel, the Pioneer Venus Science Steering Group, and the Committee on Geodesy of the National Academy of Sciences. Professor Counselman has received the NASA medal for Exceptional Scientific Achievement, and the Carl Pulfrich Prize.

computer and also the nation's first supercomputer.

Fujitsu has a significant presence in the US in terms of marketing, manufacturing, and research and development. With its eight subsidiaries, Fujitsu America, Inc. (FAI), develops, designs, manufactures and supports a broad range of computer and telecommunications equipment. Fujitsu Microelectronics, Inc. (FMI), develops, designs, assembles, tests and markets a variety of standard and custom semiconductors and electronic components. FAI and FMI together have total sales of about \$1.5 billion, employ more than 5,000 people and maintain five local production facilities. In addition, they carry out research and development at eight locations in the

Professor Gallager is well known for his work on information theory. His book, Information Theory and Reliable Communication (Wiley, 1968), has been the authoritative reference work and the standard graduate text book in this field from 1968 until the present. He is responsible for the modern form of the noisy channel coding theorem, for which he won the IEEE Baker Prize Paper Award in 1966, and for many results ranging from the purely theoretical to forward error control and data compression.

In recent years, Dr. Gallager's research has centered on computer networks. He and his students have done much of the fundamental work on random access communication, and he is also well known for his work on routing, flow control, and distributed algorithms. He is the coauthor of a new text book, Data Networks (Prentice-Hall, 1987), which puts the field of computer networks on a more firm conceptual

In his teaching activities, he has alternated between communication and computer science. He has developed courses in computer architecture, stochastic processes, data networks, information theory and mathematical programming.

Dr. Gallager's consulting activities have been in a more applied vein. He helped in the founding of Codex Corporation. After developing several error control products, he became interested in high speed modems for voice grade circuits. The basic architecture that he developed in the late 60s (patent jointly held with Dr. D. Forney through Codex Corp.) became the basis for Codex's high speed modems and later for high speed modems everywhere.

Prof. Gallager has been on the faculty in the Electrical Engineering and Computer Science Department at MIT since 1960 and is currently codirector of the Laboratory for Information and Decision Systems and cochairman of the Department Area in Systems, Communication, and Control. He is a member of the National Academy of Engineering and a Fellow of the IEEE, and he has been on the Board of Governors of the IEEE group on information theory since

# Catalogue is out

The 1988-89 edition of the Courses and Degree Programs catalogue has arrived on campus. Faculty and staff members will be receiving the book through Institute mail.

Catalogues are available now through registration day to upperclass, graduate and Wellesley students in Rm 5-134. Each student is entitled to one copy and will be asked to show ID when requesting a book. After registration day, the Information Center (Rm 7-121) will handle catalogue distribution to students, using the same procedure.

Freshmen will receive their catalogues at the Residence/Orientation Center in Kresge lobby.

Employees who have a work-related need for the catalogue may pick one up in the Information Center by showing their IDs.

Again this year, the catalogue will be available for \$4 per copy to people outside the MIT community, visitors to the Institute, company representatives and prospective undergraduate students applying for the 1989 academic year. The books will be available at the Tech Coop and the MIT Press Bookstore



Institute Professor Harold E. (Doc) Edgerton, right, received the National Medal of Technology from President Ronald Reagan earlier this summer at a White House ceremony. Doc, who was cited for the invention of the electronic stroboscopic flash and developing applications for it, was one of nine so honored this year. Observing the presentation was William R. Graham, science advisor to the President and director of the Office of Science and Technology Policy.

# Colbert to succeed Turner in Graduate School post

Dr. Issac M. Colbert, who has held important administrative posts in the Personnel Office and in Financial Operations, has been named associate dean of the

Graduate School at



He succeeds Dr. John B. Turner who announced last May his intention to leave MIT after a year's leave. Dean Turner has been a key figure in minority graduate student recruitment, retention and education at MIT since 1974.

Dr. Colbert's ap-Dr. Colbert pointment was announced by Professor Frank E. Perkins, dean of the Graduate School

Professor Perkins also announced the creation of a new assistant dean position which he hopes to fill during the fall term. The assistant dean will have specific responsibility for minority graduate education and will report to Professor Perkins through Dr. Colbert, who will discharge broad responsibilities for the Graduate School. In addition, Ms. Jackie A. Sciacca, sistant to Dean Perkins, will assume additional responsibilities as assistant to from Brown University.

Dean Colbert.

Dr. Colbert joined MIT in 1977 as a senior consultant/trainer in personnel development. From 1979 until 1981 he was assistant equal opportunity officer.

In 1981 he became manager of faculty and staff information services and was responsible for the maintenance, privacy and accuracy of all personnel records including supervision of the computerized database and systems. He also served as the interface with individuals seeking statistical information for various regular needs and special studies.

In July of 1986, Dr. Colbert was named assistant for information system activities to James J. Culliton, vice president for financial operations. He was responsible for overall planning and coordination of information systems activities and the implementation of the Institute's strategic plan for administrative computing, of which he is a principal author along with Professor James D. Bruce, vice president for information systems, and Cecilia D'Oliveira, director of Information Systems Planning and Administration.

Dr. Colbert is a graduate of The Johns Hopkins University and holds the MA and

# Summer Session sets record

More than 2,000 people—the most ever— in the Summer Session office enabled its were enrolled in the 1988 Summer Session which ended last week.

Altogether 2,062 people registered for the 65 one- and two-week programs presented by MIT faculty for professionals in industry, government and other universities. Topics covered a wide range of subjects in engineering, science and management. Among new offerings this year were Technical Japanese for Computer Scientists and Electrical Engineers and Applied Engineering Design: Creativity and Process Meth-

Also new this year was participation by more than 100 polytechnic faculty members from the Netherlands in a massive national program by the Dutch government to modernize their skills.

A recently installed computer network

staff to handle more than 16,000 inquiries for the 1988 program, according to Professor Frederick J. McGarry, its director.

"Without it, we would have been swamped," he said, "with it, things proceeded very smoothly." Altogether the office processed some 2,700 applications.

Conceived and initiated by former MIT President James R. Killian Jr., the Summer Session began nearly 40 years ago as another means of linking MIT faculty members and researchers to professionals in industry. Typically about 80 percent of registrants come from US and foreign companies, about 10 percent come from govenment agencies, and the remaining 10 percent from academia. (The latter receive scholarships that reduce their tuition charges by 50 percent.)

# THE INSTITUTE CALENDAR

# August 31-September 10

# Seminars and Lectures Thursday, September 1

Modeling Robot Dynamic Performance for Endpoint Force Control\* – Steven D. Eppinger, doctoral candidate, Dept of Mechanical Engineering Thesis Defense, 10am, Rm 3-442.

#### Saturday, September 10

Fifth Annual Workshop for Graduate Teaching Assistants\*\*\* - Prof Alvin W. Drake, MIT Dept of Electrical Engineering and Computer Science, keynote speaker, Dean of the Graduate School Office Program of speakers, panel discussions and small workshops, 9am, Rm 10-250. Coffee served, 8:45am. Info: Jackie Sciacca, Workshop Coordinator, x3-1958. Open to all MIT graduate Teaching Assistants and MIT faculty.

## Community Meetings

Alcoholics Anonymous (AA)\*\* - Meetings every Tues, 12-1pm; Thurs, 12-1pm, Rm E23-364. For info call Sarah, x3-4911.

Al-Anon\*\* – Meetings every Fri, noon-1pm, Health Education Conference Rm E23-297 and every Tues, noon-1pm, Rm 1-242. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Sarah, x3-4911.

Alcohol Support Group\*\* - Meetings every Wednesday, 7:30-9am, sponsored by MIT Social Work Service. For info call Sarah, x3-4911.

Narcotics Anonymous\* - Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-0021.

Overeaters Anonymous (OA)\*\* - Starting Sept 22, meets Thurs, 1-2pm, Rm E23-364. On requirement for membership is the desire to stop eating compulsively. Info: Sarah, x3-4911.

MIT Faculty Club\*\* - Summer hours: Mon-Fri, buffet luncheon, noon-2pm. Info: x3-4896, 9am-5pm daily.

English Conversation Classes Registration\*\* - MIT Women's League classes for International wives sign-up, Sept 15, 9-11am, Rm 10-340. Classes, T/Th, 9:15-11am, beginner to advanced. Weekly coffee hour, \$25/student. Info: Jan Kirtley, 277-2628 or Pam Daveta, x3-3656.

Women's Support Group\*\* – For wives and companions of graduate students working on dissertations or attempting to cope with over-demanding work pressures. Group will meet weekly Tues, 7-8:30pm, E23. Those interested in joining should contact Dr. Charlotte Schwartz, MIT Medical Dept, x3-2916.

Working Mothers Support Group\*\* - Meets every other Wednesday, 12:1:15pm (drop in any time), Rm E25-202. Next meetings: Aug 31, Sept 14. Join an ongoing support group to help with the hassles of being a working mother with young children. We discuss the usual problems, including daycare, work conflicts, siblings, summer camps, awful behavior of kids in public, coping with sleep dprivation, etc. New members and potential parents always welcome. Info: Janette Hyde, x3-4290.

Informal Embroidery Group\* — MIT Women's League Group meets Sept 14, Sept 28, Oct 12, Oct 26, Nov 9, Nov 30, Dec 14, 10:30am-1pm, Rm 10-340. Tea and coffee served.

## **MIT Activities Committee**

MITAC, the MIT Activities Committee offers discount movie tickets for General Cinema (\$3) and Showcase (\$3.50). Please Note: Due to the recent purchase of USA Cinema by another cinema chain, USA Cinema tickets are not longer available. Tickets are good 7 days a week, any performance.

Tickets may be purchased at MITAC Office, Rm 20A-023

Tickets may be purchased at MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm. Mon through Fri. NOTE: There are no ticket sales in Lobby 10 or Lobby E18 during the month August. Tickets sales in Lobby 10 will resume Fri, Sept 16, 12-1pm; and ticket sales in Lobby E18 will resume Fri, Sept 9, 12-1pm.

Lincoln Lab employees may purchase tickets in Rm A-263 from 1-2pm, Thurs and Friday only during the summer months. Beginning Tues, Sept 13, Lincoln Lab employees may purchase tickets in Rm A-270, 1-2pm, Tues thru Fri only.

F.Y.I. The Steamship Authority discounts to Martha's Vineyard & Nantucket are here. Savings on roundtrip ferry transportation for both children & adults. Martha's Vineyard: adults \$6 (reg \$7.50), children \$3 (reg \$3.80). Nantucket: adults \$13.60 (reg \$17.), children \$6.80 (reg \$8.50). Available in the MITAC office.

Council for the Arts Museum Passes. On campus, there are 10 passes employees may borrow for free admission to the Museum of Fine Arts. To check on availability, call x3-5651. At Lincoln Lab, passes are available in the Lincoln Lab Library, Rm A-150.

Museum of Science Tickets. Available for only \$1. Pay another \$1 at the door, for a total savings of \$3/pp/adult; \$1/pp/child (reg \$5/pp/adult; \$3/pp/child).

The Flyer is Coming. Watch for the new October MITAC Flyer filled to the brim with interesting events. Coming out in early September, soon after the Labor Day Holiday.

New Members are Welcome. Join the MIT Activities Committee. Bring yourself and your thinking caps to the next MITAC meeting, Thurs, Sept 1, 12noon, Rm 3-207. Should you have any further questions, call the MITAC Office, x3-7990.

Important! To avoid disappointment, purchase tickets and make reservations early as we are limited by ticket availability and transportation. All MITAC events and ticket purchases are non-refundable due to the non-profit nature of our organization.

## Social Activities

Japanese Lunch Table\*\* – Beginning Sept 20, every Tues 1pm, Walker Rm 220. Bring bag lunch and speak Japanese with native speakers. All levels welcome.

#### Movies

For the latest Lecture Series Committee movie and lecture information, call the LSC Movieline, x8-8881.

You Only Live Twice\*\* – Lecture Series Committee Movie, Sept 9, 7 & 10pm, Rm 26-100. Admission: \$1.50, MIT/Wellesley ID required.

Big Trouble in Little China\*\* – Lecture Series Committee Movie, Sept 10, 7 & 9:30pm, Rm 26-100. Admission: \$1.50, MIT/Wellesley ID required.

Dr. Strangelove\*\* - Lecture Series Committee Movie, Sept 11, 7 & 9:30pm, Rm 26-100. Admission: \$1.50, MIT/Wellesley ID required

#### Music

MIT Chamber Orchestra (MITCO) Auditions\*\* – Auditions for a newly-formed music group, Mon, Sept 12 and Wed, Sept 14, 7-10pm, Rm 14N-313. All instruments welcome; bring excerpts. Sight reading required.

### Theater

The Mikado\* - MIT Musical Theater Guild production, Sept 2-4, 8-10, 15-17, 8pm, Kresge Little Theatre. Info/reservations:

## Dance

MIT Dance Club: Summer Schedule\* – Aerobix, Mon & Wed, 6:30-7:30pm, Varsity Club Lounge; Jazz Aerobix, Thurs, 5-6pm, Varsity Club Lounge. Info: Julia, 492-1369 eves.

MIT Folk Dance Club\* - weekly dancing-Sun, International Dancing, 7:30pm, Walker Gym; Tues, Balkan and Western European Dancing, 7:30pm, Rm 16-310; Wed, Israeli Dancing, 7:30pm, Walker Gym.

Yoga\* – ongoing classes in traditional Hatha and Iyengar style. Beginners: Mon, 5:15pm; Intermediates: Mon, 6:15pm. For information call Ei Turchinetz, 862-2613.

## **Exhibits**

THE MIT MUSEUM

MIT Museum Bldg (N52) — Heinrich Hertz: The Beginnings of Microwaves. Replicas of the original apparatus used by Hertz to prove James Maxwell's theory of electromagnetism (1864). The instruments are on loan from London's Science Museum. Catalogue available for \$7.95 at Museum Shop. Through Dec 31. Earth, Sea and Sky: Charles H. Woodbury, 1864-1940, Artist and Teacher. Paintings, watercolors and drawings by Woodbury, MIT Class of 1886, is the largest retrospective exhibit of works by this master of nature's motion and opposing force. Through October 3. Light Sculptures by Bill Parker, MIT 74. Changeable, touchable plasma sculptures by the artist who developed this medium, ongoing. Hours: Tuesfri 9am-5pm. MIT Museum closed to the public on Mondays; Open 12-4pm Sat-Sun; \$2 donation requested.

Compton Gallery — Microscapes: The Hidden Art of High Technology. Dramatic photographs focusing on the seldom-seen world of advanced developments in microelectronics software and lightwave communications. Strange and colorful landscapes, rich in shapes, shades, textures and hues which are hidden from the naked eye. Sponsored by AT&T. Through Sept 9. Gallery hours: Weekdays 9am-5pm, closed Saturdays.

Hart Nautical Galler

Ongoing exhibits: George Owen '94: Yacht Designer – Line drawings and half-models designed by one of the early professors of naval architecture at MIT. Half Models in Naval Architecture and Ship Building – Half-models, ship drawings and photographs illustrate how the half model has aided ship and yacht designers and builders.

Edgerton's Strobe Alley - Exhibits of high speed photography

Corridor Exhibits

Corridor Exhibits: Building 1 & 5, 2nd floor: John Ripley Freeman Lobby, Building 4: Norbert Wiener, Karl Taylor Compton. Community Service Fund, Ellen Swallow Richards. Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Building 6: Laboratory for Physical Chemistry.

### OTHER EXHIBITS

Institute Archives and Special Collections – James Rhyne Killian, 1904-1988. Photographs from the career of MITs 10th president. 1904-05: A Pivotal Year for MIT. Chronicles alumni and staff reaction to the most serious of several attempts to merge Harvard and MIT. Hall exhibit cases in 14N, 1st floor.

# Wellesley Events

Jewett Arts Center\* – Entering the Picture. 19th & 20th Century photographs from the Wellesley College Collection including works by Atget, Kertesz, Brandt, Cartier-Bresson, Abbott and Winogrand, Main Corridor Gallery, Sept 3 through Jan 8. A Timely Encounter: Nineteenth-Century Photographs of Japan. An exhibition of hand-colored albumen prints by Western and Eastern photographers of 19th-century Japanese subjects. Sept 16 through Oct 30, Main Gallery.

ImprovBoston\* - On-the-spot comedy, Sun, Sept 4, 8pm, Alumnae Hall Auditorium. Info: 235-0320 x2375.

Kwaidan\* – Japanese film directed by Kobayashi, 1965 shown in conjunction with Museum exhibit of Japanese photographs, Thurs, Sept 8, 4:15pm & 7:15pm, 377 Science Ctr. Info: 235-0320 x2051.

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and field.

# -Here & There-

Dr. **Thomas H.D. Mahoney,** professor of history emeritus, obviously is not slowing down in retirement.

He recently flew around the world (Anchorage, Tokyo, Bangkok, Manila and Honolulu, for a total of 22,000 miles) to address an international conference in Bangkok. He next served as senior advisor to Congressman Claude D. Pepper (D-Fla.) at a conference of the Inter-Parliamentary Union in Guatemala City, and later delivered the keynote address at the 10th Annual Richman Gerontological Conference at Kean College of New Jersey. His topic: "Aging: An International Perspective."

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A new book by Professor John B. Heywood of the Department of Mechanical Engineering, Internal Combustion Engine Fundamentals, has been published by McGraw-Hill. Professor Heywood, director of the Sloan Automotive Laboratory at MIT, is recognized internationally for his extensive research on automotive and aircraft engines. The book, Professor Heywood says, describes the theory behind the spark-ignition and diesel engines that power our cars, motor bikes, chain saws, lawn mowers, trucks, railroads and light aircraft, and also those that generate mechanical electrical power. No other engine is used as widely, and some 50 to 100 million are

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Inister Medical

Professor Alan V. Oppenheim of the Department of Electrical Engineering and Computer Science has received the 1988 Educational Medal from the IEEE for his "leadership in engineering education through teaching, textbooks and videotape lecture series in digital signal processing." The IEEE, the world's largest technical professional organization, encompasses 36 societies and councils in virtually all areas of electrotechnology. Dr. Oppenheim, who joined the faculty in 1964, has been instrumental in bringing digital signal processing to the fore as a major subfield in electrical engineering. In cooperation with the Center for Advanced Engineering Study at MIT, he has developed two widely used videotape lecture series and study guides on signal processing. It is estimated that more than 20,000 people have used the lecture series.

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### **CLIPS AND QUOTES:**

—The Associated Press reported on a study by **John Krafcik**, a graduate student in management, showing that Japanese automakers assembled cars faster in their US plants than in Japan. But the cars made in Japan had fewer defects, the study showed.

—The Transcript-Telegram in Holyoke, Mass., carried a feature story on Matthew M. Sikorski, an MIT freshman from that city who has muscular dystrophy and gets around campus by motorized wheelchair. (His brother, Scott, is a graduate student in material science.) Matthew, 1987 Holyoke High School valedictorian, told the newspaper he learned two rules about college life after arriving at MIT: "Forget about normal sleeping. Forget about normal food." He added, "It's a lot of work, but I guess it's worth it. That's what they keep telling us anyway."

—Polymer engineering professor Frederick J. McGarry told the Associated Press it's no secret why Teflon still dominates dozens of scientific and commercial uses a half century after its 1938 discovery. Nothing else is so slippery, so tough and such a good insulator, all at the same time. "It's unique in these qualities," he said.

—**Diana Gagnon**, a lecturer in the Media Laboratory, told The Wall Street Journal that interactive TV—for example, videocassettes with more than one story line that will allow viewers to affect the on-screen action—will give people "a choice of watching 'Raiders of the Lost Ark' or being in 'Raiders of the Lost Ark.'"

-Helen W. Samuels, Institute Archivist and head of Special Collections, told The Boston Herald she has long been a proponent of corporate archives-a permanent collection of documents and materials that preserves the history of a company-such as the one maintained by the Polaroid Corporation. "I'm concerned for the companies," she said, "because a company should be able to see itself. I'm concerned for continuing scientific and technical work and I'm also concerned for the future of historical researchresearch that looks at issues over time. We need to understand these companies and future historians need to understand them."

—Sitting in on a math class at MIT was Herbert Skrawek, one of 25 West German educators visiting the US. Skrawek, an English and religion teacher, told the American in Waterbury, Conn., "I didn't understand anything. It's been a few years since I studied math but it was all new to me. I wouldn't like to stay for an examination."

—The "100 Years Ago" column of the Valley News of Elizabethtown, N.Y., printed this comment from The Elizabethtown Post of March 29, 1888: "There are twenty-five women studying at the Boston Institute of Technology." —Charlie Ball

MIT Cable System — Submit announcement in writing to Rm 9-050. We prefer a day's warning, but faster action may be possible. Useful also for correcting errors, notifying about cancellations, and dealing with emergencies. If you have met the Tech Talk deadline, your announcement is automatically put on cable (except for exhibits and some multi-meetings programs).

We are now accepting requests via e-mail. Announcements are shown on MIT Cable channel 12, which is displayed on the receivers in Lobbies 7 and 10. Announcements should be of interest to the general MIT community. Classified ad type messages will not be accepted. Messages should include: date, title of event, speaker or sponsor, time and location. MIT Cable reserves the right to edit your message to fit the screen. Include your MIT phone number. E-mail your announcements to: tw-messages@telecom.mit.edu. Messages will usually be posted within 24 hours of their receipt.

\*Open to the public
\*\*Open to the MIT community only
\*\*\*Open to members only

Tech Talk ads are intended for personal and private transactions between members of the MIT community and are not available for commercial use. The Tech Talk staff reserves the right to edit ads and to reject those it deems inappropriate.

INSTRUCTIONS: Ads are limited to one (of approximately 30 words) per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Persons who have no extensions or who wish to list only their home home telephones, must come in person to Rm 5-111 to present Institute identification. Ads using extensions may be sent via Institute mail. Ads are not accepted over the telephone.

MIT-owned equipment may be disposed of through the

Property Office.

Deadline is noon Thursday before publication.

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and field.

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Send notices for Wednesday, September 7 through Sunday, September 18 to Calendar Editor Rm 5-111, before 12noon *Thursday*, September 1.

# New marine organism found

By EUGENE F. MALLOVE

Staff Writer

Professor Sallie W. Chisholm of MIT and colleagues at the Woods Hole Oceanographic Institution and Harvard University report finding what may be the most abundant species of marine organism yet identified. In fact, the newly recognized species of photosynthetic plankton may be among the most abundant species on Earth.

The scientists reported their findings in the July 28 issue of Nature in the article, "A Novel Free-Living Prochlorophyte from the Oceanic Euphotic Zone." Professor Chisholm of MIT's Department of Civil Engineering is the lead author. Coauthors are Robert J. Olson, Erik R. Zettler, and John Waterbury of Woods Hole and Ralf Goericke and Nicholas A. Welschmeyer of Harvard University.

The newly identified species of plankton joins a group of globally abundant but individually microscopic marine organisms called photosynthetic picoplankton. "Photosynthetic" means that the organisms can convert sunlight to chemically stored energy, and picoplankton are cells that are about one-millionth of a meter in diameter—1/50 the width of a human hair. When the first species of picoplankton, a bluegreen alga, was recognized ten years ago, it caused a major change in science's view of the marine food chain.

Cells of the new plankton are even smaller than those of cyanobacteria (bluegreen algae), and may reach concentrations of more than 100,000 per milliliter—a million cells in a spoonful. Despite this abundance in the surface layers of the sea, the cells had escaped the notice of biologists because they were not distinguishable using traditional microscopic techniques.

Scientists now know that photosynthetic picoplankton occur in most of the world's oceans and account for a significant percentage of global biological productivity. In the Nature article the researchers comment on the newly identified species: "Their ubiquity and abundance indicates that they are a significant component of the microbial food web and potentially important primary producers in temperate and tropical oceans."

Professor Chisholm says that the discovery shows how "uncharted" the ocean biota are. She comments, "The instrument that was essential for the discovery—the flow cytometer—was developed for biomedical research. It certainly was not designed to be installed on an oceanographic vessel. We decided to take it on a ship and explore the phytoplankton world with a different set of 'eyes.' This illustrates the cross-

## Warshauer is author

Every year Dr. Susan Warshauer designs and delivers 50-60 personnel development seminars and workshops for 4-5,000 members of the MIT community.

As a result, "lots of people have asked me about how to set up workshops and how to ensure their success, plus the political realities of designing and setting up training and development programs," says Dr. Warshauer, who has been at MIT nine years and is manager of training and development. To answer these questions, Dr. Warshauer has written Inside Training and Development: Creating Effective Programs, published in May by University Associates, Inc.

The personnel-development workshops and seminars at MIT are summarized in the little blue book sent to all employees and cover a wide range of topics, from supervisor training to running effective meetings to dealing with sexual harassment. Though Dr. Warshauer designs and produces most of these, she is quick to point out that some 80-90 people within the Institute make presentations for the program. "We absolutely could not do the workshops without the cooperation of these people," she says.

This year Dr. Warshauer is looking at ways to make the personnel development program even more beneficial to MIT employees. "We're talking with people in the community about what is most useful and what needs to be done. Then we'll decide from there how to proceed for next year."



Professor Chisholm with photographs of newly found species of plankton.

fertilization of technology and the importance of continuing exploration in oceanography."

The researchers mapped and characterized the newly identified cells on several cruises since 1985 in the southern California Bight, the Panama Basin, the Gulf of Mexico, the Caribbean, and the North Atlantic between Woods Hole and Dakar, Senegal. But Professor Chisholm says that she and her colleagues don't know exactly how widely distributed these cells are in the world's oceans. Are they in polar waters, for example?

The researchers have shown that the organism has an unusual and distinctive set of photosynthetic pigments, including a unique form of *chlorophyll-a*. The only other plants known to contain this pigment in abundance are certain mutants of corn. The cells also contain *chlorophyll-b*, which, combined with the cells' primitive structure, assigns them to the group known as prochlorophytes.

Prochlorophytes are extremely primitive photosynthetic organisms, believed to be related to the ancestors of chloroplasts, the photosynthetic organs of higher plants. Chloroplasts may once have been independent organisms before they became incorporated into plant cells, initially as symbionts—organisms living symbiotically in their hosts. Professor Chisholm's prochlorophyte species is only the third of its kind discovered, and it appears to be the only one to occur free-living, and in great abundance in marine systems. It could prove to be a critical "missing link" in the evolution of higher plants.

The research was supported by grants from the National Science Foundation and the Office of Naval Research.

# Housman receives gene-mapping grant

Professor David E. Housman of the Department of Biology is one of eight US investigators to receive a research grant under a special gene mapping initiative of the National Institute of General Medical Sciences. The initiative is supported by a \$17.2 million Congressional appropriation to NIGMS in fiscal year 1988.

Professor Housman's grant of \$390,683 began July 1 for an investigation titled, "Genetic Mapping and DNA Structure of Human Chromosome 11." Gene mapping, the process of pinpointing the specific locations of genes on chromosomes, enables researchers to learn more about genes involved in inherited disorders and will likely lead to new means of diagnosing, treating, and preventing such disorders.

The new awards are a component of the National Institutes of Health efforts to characterize the genomes—the complete genetic endowment—of humans and model organisms such as yeast, fruit flies, and mice. While most research done in the past has focused on locating specific genes of interest, the new initiative will support a more systematic approach that involves mapping all of an organism's genes.

# Kaurouma is new OME director

By ELIZABETH A. THOMSON

Staff Writer

Patricia Kaurouma, former dean of student development at Earlham College, joined MIT July 18 as the new associate

dean for student affairs and director of the Office of Minority Education (OME). Her appointment was announced by Dr. Shirley M. McBay, dean for student affairs.

"We are indeed for-

"We are indeed fortunate," said Dean McBay, "to have attracted someone of Dr. Kaurouma's stature and accomplishments



Dr. Kaurouma

to MIT to build upon the exceptional efforts of Dr. Joyce Gibson [the previous director of OME] to increase the familiarity with and support of OME's goals and programs among MIT faculty and staff."

In her new position, Dr. Kaurouma will be responsible for the overall operation of OME and will contribute to general student-affairs issues and concerns through the Office of the Dean for Student Affairs.

Dr. Kaurouma comes to MIT at a good time. "The Institute is at a rather exciting juncture," she says. "This fall MIT expects the largest number of underrepresented minority freshmen yet to enter [175 out of a total enrollment of 1006]. These include Blacks, Mexican Americans, Puerto Ricans and Native Americans."

The OME, along with other offices, will assist these students with their academic and institutional adjustments to MIT. Established in 1975, "OME exists to assist students of color and other underrepresented minority-group students in their academic pursuits at the Institute," Dr. Kaurouma said. "We do this through academic advising and working with the various academic departments and student support offices."

As for Dr. Kaurouma's future plans for OME, "we will continue to strengthen the programs that exist and to confer with faculty and other members of the Institute community as we undertake a major research assessment of several of our programs. This assessment will provide OME with concrete data from which to strengthen academic support to students."

As dean of student development at Earlham College from 1984 until her arrival at MIT, Dr. Kaurouma's responsibilities included the supervision of such cocurricular programs as counseling, academic support services, residential life and housing, career planning and placement, the campus ministry, student activities and organizations, the student judicial system, and new-student orientation. As an administrative-faculty member at Earlham in 1986, she taught "Images of Black in the Media."

Prior to her appointment at Earlham College, from 1980-83 she was advisor to minority and special students at Vassar College. Her responsibilities in that position included giving academic and general advice to minority and part-time adult students, organizing academic, career and cultural programs for those students, and advising college committees when minority or special students' interests needed representation.

Dr. Kaurouma also served as chairperson of the Department of Africana Studies and visiting associate professor at Brooklyn College of the City University of New York from 1979-80 while on leave from Vassar.

From 1977-79 she was dean of freshmen at Vassar College, and from 1974-77 she was director of the college's Urban Center. She was also an assistant professor in Vassar's Department of Education and Program in Africana Studies from 1974-85; Dr. Kaurouma taught the first courses in the country on women in underdeveloped countries.

She received the Ed.D. in educational social foundations and research in 1974 and the M.A. in education with an emphasis on history in 1969, both from the University of Colorado, and the B.A. in social sciences from Colorado State College in 1966. Her postdoctoral work included seminars in administrative management.

Dr. Kaurouma has been an active member of the National Association of Student Personnel Administrators since 1986, and serves on that organization's task force on international education. She is a member of the American Association for Counseling and Development and the National Association for Women Deans, Administrators and Counselors, and is a member of several academic and art organizations.

Dr. Kaurouma succeeds Dr. Joyce Gibson as director of OME. Dr. Gibson has joined the Efficacy Institute, a consulting group that works with public school systems, colleges and universities in support of minority students.

# Obituaries Manfred Rauscher

Word has been received of the death on January 15 in Switzerland of Manfred Rauscher, 83, an MIT graduate who stayed at the Institute to become one of the early teachers of aeronautical engineering for more than 20 years. His death was from a beaut attack

Dr. Rauscher, a leading authority on aircraft wing flutter and a renowned mathematician, received the SB and SM degrees in mechanical engineering in 1927 and the ScD in 1936. He had studied mechanical engineering because he thought those subjects would be most helpful in gaining entry into the emerging field of aeronautics. MIT did not establish a formal Department of Aeronautics until 1939.

Dr. Rauscher was an assistant in aeronautical engineering from 1927 to 1929, an assistant professor from 1930 to 1943 and an associate professor from 1943 to 1950, when he resigned to return to his native Switzerland and a professorship in aeronautics at the Polytechnicum in Zurich.

He was the author of an important and influential book, *Aeronautical Dynamics*, which dealt with dynamics and aerodynamics and their interaction in an aeronautical context.

This led to his World War II activities in which, under government sponsorship, Dr. Rauscher directed the so-called Flutter Laboratory at MIT, concerned with determining the speed at which the wings and other surfaces of a particular airplane will begin to flutter and therefore put the airplane in jeopardy.

After returning to Switzerland, he was instrumental in the design and development of Switzerland's first fighter

In addition to his wife, he is survived by two sons and a daughter, and five grandchildren.

## Brady L. Bryan

A funeral service was held August 15 for Brady L. Bryan, 74, of Allston, who died August 10. Mr. Bryan was a mechanic in Physical Plant from 1958 until his retirement in 1978.

A veteran of World War II and the Korean conflict, Mr. Bryan was active in veterans organizations and the Masons.

He leaves his wife, Mary Lucas Bryan; two sons, William of Allston and Brady of Hyde Park; three daughters, Frances Brueshke of Illinois, Barbara Souhlaris of New Hampshire, and Mary Ellen Bryan of Allston, and seven grandchildren.

## Christina Buechner

Services were held August 27 for Christina MacLeod Buechner, who died August 23. She was the widow of Professor William Buechner, one-time head of the Department of Physics. Memorial contributions may be made to the American Heart Association.

## Gerard C. Devine

Gerard C. Devine, 68, a specialist at Graphic Arts from 1959 until his retirement in 1986, died July 16. He lived in East Weymouth, and leaves his widow, Jean C. Devine.

# **CLASSIFIED**

#### For Sale

Gas dryr, exc cond, \$35. Gary, x3-2928 or 924-3249.

Toshiba microwave ovn, mdl 185BT, 3 yrs old, \$75; DP Bodytone 500 exrcise gym, like nw, \$80. Don, x3-6430.

Lazyboy reclinr chr & 2 Fr Prov chrs, \$75 ea or 3/\$150. Call

Desk, 30x42", real btchr block surface w/3-drwr solid steel file mbles for ez mving, \$150. Call 254-8677 or 864-7849

1 yr membershp to Brookline Fitness Unlimited, \$190 or bst.

Brwn flip-out sofa, exc cond, \$125; bl velvet camlbck sofa, \$125; piano (1890), \$150. Don, x3-0806 or 491-3104.

Fridge, 19x21x31", 2 yrs old, \$100. Cliff, x5-9521 dorm

Car radio, nw AM/FM w/sta preset buttns, hndls 4 spkrs (not inc), remvd frm '88 Dodge, bst offr ovr \$50. Jim, x8-2732 Draper.

Hvy duty Whirlpool Imperial dryr w/electrnc dryness sensor & perm press cycl, \$100. Bob, x3-6458.

Mamiya C-330 twin lens reflx camra, 135mm lens, t/4.5 & 55mm, t/4.5 lenses, hnd grip, cabl release, 4 filtrs, spare focusing screen, instructns & xtras, exc cond, askg \$300. Jon Barron,

Macintosh Plus Memry upgrade, takes 1 megabyte Mac Plus up to 2½ megabytes, \$625 installd; SuperMac DataFrame XP-20 hrd disk drv, 20 Megabytes, fst, ruggd, quiet, \$425 w/sftwr & cabls; Imagewriter wide carriage prntr, \$475. Call 661-9046.

Bikes: 211/2" Terry Precision Suntour Sprint/Cyclone comonents, 10 mos old, was \$1,000 nw, \$700 or bst; 23" Fuji Espree, gd cond, \$150. Sue, 325-6307.

Comodore 64 cmptr, 1541 disk drv, dataset recrdr, green phos monitr, disk wcase, books, all for \$180 nego. Bob, x3-5872 or

IBM XT clone, Phoenix ROM Bios, 4.7718MHz, 30MB HD, 1.2MB FD, 360K FD, 2 parallel ports, serial port, batt clck cal, ne graphics, swivel base mntr, DOS 3.1, \$1,399. Call

244-5047 aftr 6pm.

Pr O'Brien W skis w/tow rope & floatat<br/>n blt, \$80; 4 bias-ply 14° trs, 2 snws (unmtd), 2 reg (mtd on chev rims) like <br/>nw, \$100; M's Ross mtn bike, grt for commuting, usd 6 mos, pd \$350, sac for \$225. Kevin, x3-5698 or 397-0675 eves lv mssg.

Couch & 2 mtching arm chrs, \$125; bkshlf, \$25; 2 lmps, \$15 ea. Stu/David, x3-6964.

RCA 19" colr tv, 3 yrs old, gd cond, \$95. Dave, x3867 Linc or

Apple Image Writer II, barely 1 yr old w/cabl & box of papr. \$400 or bst. Tom/Gail, 924-8870.

Dynastar Omesoft skis, 175cm, usd about 25X ovr 3 yrs, only \$50. Stephanie, 276-6778 or x5-9738 dorm.

Sgl gourd sitar, v resonant, \$300. Shaun, x3-6578.

Mving, mst sell, Yamaha studio upr piano, I'm a composr & have takn exc care of it, \$1,800 nego. Jean King, x7180 Linc

Solid oak ktchn set, 54" oval tbl, 4 chrs, usd as DR set, exc cond, \$275. Call x3-6136 or 625-8396. DECmate II: Digital sm biz cmptr, WPS wrd pressng sftwr &

variety of biz applicatns (list, sort, math), exc cond, sys unit (RX50 dual diskette), keybrd, 12" mntr, LA50 prntr, sftrwr pckgs, \$1,200. Richard, x3-2610.

Antq Forsyth buffet, Q-Anne legs, brass handls, 1 lrg & 2 sm drwrs, 2 decorated side drs & storage areas, simpl yet elegat in design, exc cond, bst offr. Nathan, x3-5801 or 646-5931.

7-pce sectnl br nw (still has tags) bge, was \$3,600, askg \$1,000.

DR tbl w/leaf, \$55; china cabnt, \$75; sidebrd, \$65; 4 chrs, \$15 ea; round wh ktchn tbl, \$45; desk, \$55; ;2 lrg spkrs, \$85; 2 ez chrs, \$10 & \$25; tstr ovn, \$18; Panasonic stereo w/cass & 2 lrg spkrs, \$100; bureau, \$35. Call x3-3175 or 332-8251.

Kitchn set: hexagonal glss-top thl w/wds & brass accents: 4 wickr-backd chrs, exc cond, 1 yr old, \$100. Bob, x8-2357 Draper

Q-sz wtrbed, \$\$50; couch & chr, brwn tweed, \$300. Tom, x8-2909

Wh stripd love seat, 6 mo old, mnt cond, orig \$500, \$300. Call

14 c.f fridge, gd cond, \$100. Janice, x3-8939/7352 or 776-5337

Schober organ, 2 manual & full pedls, early transistor mdl, nds

wrk to function, complete w/oak cabnt & bnch, free to ap preciative hm. Bob, x3-1910.

Mving, mst sell: sofa, cffee tbls, LR accent chr, gld velvet BR chr, bl & silvr tbl lmp. Call 893-0299

Dremel creative pwr tool set, exc for hobbies, chldrn, jig saw, moto tool, accessories, \$75. Barbara King, x3-2531 9am-1pm.

Twin bed set: mttrss, frm, bx spr, gd cond, \$50; twin mttrss & bx spr only \$25. Art, 625-4518

Sears gas weedwacker, \$48; Sears elctrc blowr, \$40; Sears vac attchmnt for eletro blowr, \$20; Skill cordless screwdrivr, \$10. Gretchen, x3-6853 or 731-9619.

usd 2 seasns, presntly set up, was \$500 nw, \$250. Bob Cronin, x8-2357 Draper.

Hvy lab molding press, 8" platens, usd at hm for expermnts on prntd circuit processes, \$25. Milt, MITRE tie-line 187-807-5513 or 332-9617.

Twin-sz futon mttrss w/cvr, \$40 or bst. Adrienne, x3934 Linc or

2 Raleigh Sprite 3-spd M's 26" bikes, \$35 ea. Ed, x8-2693

18.6 cf Admiral frst-free fridge, stll undr service cntrct, \$400; 2 couches, \$20 & 30; wdn ktchn tbl w/leaf & 4 chrs, \$50; sm fridge, \$30; decoraty b&w modular shlvs, \$40; 2 mtl filing cbnts (blck or yellow), \$20 ea; deerskin & cowskin rugs, \$20 & \$75; 2 wdn drssrs, 1 w/mirror, \$40; 1 unfnshd \$50; 3 tall teak-look 4-shlf bkcases, \$30 ea; pottery, \$30; lmps, \$5-30; wght set, \$30; 10-spd Fuji M's bike, \$50; wind trainr for bike, \$50; 7 metl fldng chrs, \$8 ea; wdn nite stnd, \$10; b&w tv \$15; br nw showr massage, \$10; 2 rugs, \$15 ea; spkrs, \$30; cass hldrs, hseplnts, mag rck, canistr set, lrg metl cookie boxes, step stool, coolr, elctrc can openr, misc albums, etc. Bonnie, x3-1696; Ken, x3-5751 or

Sgl pedestl solid wd stdnt dsk, gd cond, \$250. Michael, x3-5824.

Mod fridge w/frzr 11.5 cf, approx 5'x2\%', x2\%', rns well, \$115 you-move-it. Carolyn, x3-0950 or 643-0439.

Almst nw Collier-Keyworth 40" folding clth chldrn's play yrd, \$55 or bst. Call x3-3198 or 489-5657.

2 R/T airplane tix, TWA NY-Honolulu, lv 1/1, retrn 1/15, \$950 for bth. Call 661-8252 lv mssg.

 $2~\rm mtching$  steel frm sgl beds w/bx spr & mttrss, almst nw cond, \$75 ea. Bob Sherer, x3-2991 or 924-1210 eves.

Full-sz mttrss & bx spr, 1 yr old, \$100; free-stndng wd loft for full sz bed, 6'H, \$100 or bst. Call x3-1817.

Lrg med cbnt, \$20; 2 ceramic lmps w/pyramid shades, \$15; hndtied 1940's colrful quilt, \$50; 2 sets hnd-md lined (insulatd DR drapes w/btfl gld bird design, 36"x78", nvr usd, \$75. Call

Usd RCA 15" colr tv. gd wrking cond, all solid state, \$70. Jack,

#### Vehicles

'62 Mercedes 190, 4-dr, gas eng, nice bdy & int, rns v well, grt stereo, btfl classic car, bargain pricd, \$1,500. Jim, x3-3559 or

'71 VW Bug, gd rnning cond, nw cltch & generatr, askg \$600.

'74 Alfa Romeo Spider Veloce, 114K on reblt eng, \$1,700 or bst; '73 Porsche 914, 80K rns, has evrything but is an eyesore, \$400.

'75 Volvo 242DL, AM/FM/cass, recntly rebit eng, clutch, brks, shcks, int & ext, mst be sld. Chuck, x8-3705 Draper or Lennie, 508-922-2751 aftr 6pm.

outh Valiant, 71K, auto, some rst, 2 xtra trs, \$300. Ming, x2858 Linc or 863-9578 eves.

77 Volvo 244DL, sed, injct, auto, a/c, AM/FM, \$800 or bst.

'77 Toyota Celica GT liftback, 2-dr, auto, AM/FM stereo, 106K, rnning exc, eng doesn't brn oil, fairly nw trs, orig ownr, faithfully servicd, some rst arnd fendrs, askg \$890. Call x3-2689 or 762-4821 aftr 6pm.

77 Toyota Corolla, nw batt, rad & muff, rns grt, only 87K, some bdy rst, \$400 or bst. B.C. Khoo, x3-2627 or 494-8582 eves.

78 Corvette, pastel bl, dk lthr int, a/c, AM/FM stereo, Trf, exc cond, exprtly maint, \$10,600. Christine, x3-4905 or Bob,

'78 Ford Fairmont, sta wgn, 100K, 4-dr, 4 cyl, \$800 or bst. Call

'78 Grand Safari, full-sz, S/W, v8, 85K, ps, pb, a/c, pwr wnd r lock, cruise cntrl, 3rd seat & more, gd cond, no probs, \$1,500

79 Datsun 210 htchbck, 5-spd, some rst, nds tune-up & rear brk job, othrwise ok, \$100. Dan, x4454 Linc.

'79 Olds 98 Regency, 4-dr, air, auto, ps, pb, pwr wndws, AM/FM/CB, 6-way pwr drvr's seat, \$1,300. Call x3-7290 or 508-685-2614.

'79 BMW 320i, exc cond, a/c, alloys, sunrf, Blaupunkt, clth int, frm GA, no rst, 2nd ownr, orig paint, always garagd, avg mi, \$4,950. Call x3-2048 or 934-6782.

'79 Rabbit, xtremely reliable, 4-spd, bl, 4-dr htchbck, AM/FM/cass stereo, 118K, \$700 (book valu) or bst. Vernon, x3-3706/2968.

'80 Pontiac Lemans sta wgn, auto, V6, lo mi, gd cond, \$2,000 or bst. Call 964-7929.

'80 Chevy Chevette, 4-dr htchbck, 64K, off-wh, 4 cyl, gd cond, askg \$800. Billy, x3-7925.

'81 Chevy Malibu Classic, 4-dr, ps, pb, a/c, wh vinyl top, clth seats, 82K, AM/FM, \$950 or bst. Call x4879 Linc or 508-256-0753.

'82 Chevy Chevette, 2-tone silvr/dk gr, sunrf, htchbck, 62K, well-maint, \$1,500. Call x8-4612 Draper.

'82 Saab 900-S, 4-dr, 5-spd mnl, 78K, exc bdy, trs, eng, \$5,000. Prof Newman, x3-6809 or 1-358-4698.

'84 Toyota Tercel wgn, 2WD, 6-spd, rear wipr, AM/FM/cass, Chapman, ps, 46K, radar, exc cond, \$3,850. Stan, x3-8010 or Pam, x3-8010 or 731-4922 eves.

'84 VW Rabbit Special Ed, 4-dr, 4-spd, 52K, a/c, rear wipr, AM/FM stereo, more, exc cond, \$3,800. R. Strong, 862-5955.

exc cond, \$5,500. Dan, x4177 Linc or 508-761-7858 ex

'85 Pontiac Fiero SE, 6 cyl, 2.8 ltr, 28K, a/c, sunrf, fully loaded, red, mnt cond, \$9,000. Toli, 628-4146.

'85 Dodge Colt, wh, 2-dr htchbck, 5-spd, about 34K, exc cond, carefully maint, askg \$3,500. Glenda, x3-1329.

'86 Ford Escort-L, 5-spd, 4 cyl, 61K, nw brks, nw Michelins, AM/FM stereo, blck w/red int, bk val \$4,800, will sell for \$4,000. Margaret, x3996 Linc or 508-356-0941 eves

'86 Aerostar van, fully equip, like nw, 34K, cruise cntrl, 6-spd supersound, trip comp, tilt whl. Neelu, x3-4502 or 263-1752.

'87 Chevy Blazer, full-sz, blck, loaded, Silverado, pwr, a/c, tilt whl e, askg \$15,000. Cheryl, x4643 Linc.

'87 Hyundai Excel GL, 4-dr, 5-spd mnl, 11K, a/c, AM/FM/cass, exc cond, must sell ASAP, askg \$5,900 or bst. Ted, x3-2776 or

'88 Honda Accord LX, 15K, auto, AM/FM/cass stereo, a/c, 4-dr, charcoal gr. exc cond, askg \$11,000. Pam, x3-3123 '88 Premiere Super bike, FZR 1000, exc cond, 2.4K mi, racing

trs, 2 mtching helmts, \$5,250. Call 275-2896 aftr 6:30pm

## Housing

Melrose, 8 mi to MIT, reducd to \$224,900, 3BR Victro on quiet st, has in-law w/sep entr to hlp pay mortgage, or den w/ktchnette & office on 1st flr, turret, rnd DR & BR, wrkng frplc, oak mantl, hdwd firs, nooks & crannies, blt-ins, blwn insulatn, sun prch, fencd crtyrd, grt storage. Call x3-3834 or 662-9425.

Weston, cntry setting, 29 min to Camb/Bos, exc schools, 3BR cor temp, fully furn, avibl now, flxbl for 1-3 yrs, \$1,650 mo. Call 235-6850 or 235-2955.

28 yr old tri-lvl 3BR, 1½ bath, fmly rm, blcny, ktchn, lrg screend prch w/storms, on quiet cul de sac, 10 mi to MIT, nr E Milton Sq, \$229,900. Call 843-1523.

Vac rntl, Cape Cod, S Yarmouth, yr-rnd hm, fully eqppd, 3BR, immac cond, priv area, 1/2 mi to 3 beaches. Nancy, x3-0434.

Jay, VT, secluded mtside, contemp chalet, 3BR, 2b, fully furn, frplc, hiking, fishng, relaxing, pool, tennis nrby, \$350/wk, \$850/mo thru Sept. Sherry, x3-7758.

Belmont, Cushing Sq, fully furn BR/stdy in priv hm, shr bath, lite ktchn privlgs, linens provided, on trasprtn, prkng avlbl, nonsmkng M pref, Int'l guests welcome, \$450/mo inc utils. Mrs. Wolf, x3-0779 or 484-6455.

Back Bay nr NU, hdwd flr, cabl tv, \$725/mo inc ht. Nancy,

N Beverly, sunny & elegn contemp 2BR condo, fully-appliancd cstm ktchn w/cathedrl ceilng & skylites, full tile bath, lrg deck ovrlooking panoramic vista conservata land, 2-car prkg, immed off Rt 128, 22 mi to MIT, \$169,900. Joyce Cook Realty, 741-4404.

Mashpee, Cape Cod holiday estates, timeshr for sale, wk 46, reducd to \$6,500. Ed, x3061 Linc.

Back Bay eigntly furn 1BR, 5 min wik to MIT, fully eqppd ktchn, hdwd fir, exp brick, ideal for vistng prof/scientst, \$950 inc ht & h.w, non-smkrs only. Call x2671 Linc.4fl

Btfl 2BR twnhse, 1½b, quiet sm up & coming twn, Indry rm w/wshr/dryr, priv fencd patio, stv, fridge, dshwshr, w-w carpet, ceiling fan, mch more, deeded prkg, v low taxes & fees, \$104,000.

do nr 128 & 93, exc cond, lrg rms, a/c, fridge, W/D, pool prkg, \$117,500. Call 246-7463.

Somerville, 5 yr old twnhse, 4 rms, 2BR, 11/2b, w-w carpet, ctrl air, all br nw appliances, btflly maint, \$154,900. Owner,

Arlington, 5 rms, 2BR in 2-fmly, fridge, 2 cars, wlk to T, \$785+ utils; also lrg 3-rm apt, \$600+ utils, fridge, nr T. Call 489-3715.

Compltly renovatd 1BR condo, lrg sunny eat-in ktchn ovrlookng gardn, all nw appliancs, lndry, storage, wlk to MIT, \$130,000. Kathy, x3-6162 or 497-5525.

Lrg 2 rm apt on Broadway in Somerville in ownr-occ hse, nwly renovatd Victrn, quiet, well-insulatd, bus to Sullivan (orange line) stops in frnt, \$550/mo. Alex, 643-3686.

Vac rntl for fall & wintr, Village of Loon Mt, Lincoln, NH, 2BR & bath, fully applianed, wlk to skiing. Call x3-2772 or 396-4221.

Belmont, sunny furn rm, lndry, prkg, on T, 15 mins to MIT, \$400/mo, Int'l scholar welcome. Call 489-3715.

Medford, br nw 2BR, 2 full baths, fully appliance ktchn., 2 prkg spaces, sec sys, indr/outdr pool, racqt ball, tennis, nr Wellington T, avlbl 9/1, \$1,200/mo nego. Walter, x7309 Linc or 289-8177.

Jamaica Plain, 1 of Moss Hill's lvlist hms ovrlookng Arnold Arboretum, 8 rm custm-blt Colnl, \$289,000. Call x3-157 or 524-1816 eves. Jamaica Plain, fall term rntl, 9/88-1/89 (flxbl), furn/unfurn 8 rm,

ABR hse, lite airy rms, D/D, mod lrg ktchn, W/D, fence-enclosd dbl lot, bfflly lndscapd, perf for sm chldrn, 1/2 blck to Arborway Green line, 4 mi to MIT, grg, nr wds & pnds, \$1,300. Call

Marco Island, FL, br nw condo, side wtr-view & furnshngs, 2BR, 2b, avlbl 12/1/88, \$850/wk, \$1,950/mo, no pets. Penelope, x3-4252 or 646-1876.

Bedford, lrg sunny furn rm, nr Linc Lab, & Rt 128, priv, ktchn privlgs, W/D. Lola, x3-3371 or 275-8384. Somerville, sgl fmly hse, 10 rms, huge ktchn, nice yrd, less thn 2 mi to MIT, 1 mi to Hrvd, \$239,00 or shrt-trm rntl, price nego.

## Animals

Call 969-5108.

Free to gd hm, M fixd Irish setter, 4 yrs old, loves people. Pam

Rabbit w/cage, free to gd hm. Mary, x3-8214.

Gd hm nded for v btfl M dog, looks like Pointr, may be pointr/Grt Dane cross, b&w, approx 1 yr old. Gisella, x3-2208 or 366-2788

Baby rabbits for sale. Mary Anne, 566-5873

Free: adorable cuddly kttns. Cyncy, x3-4895.

## Wanted

Boy's 16 or 20  $^{\circ}$  dirt-bike type bike w/training whls for 6 yr old, gd cond. Therese, x3-3551 or 331-8397.

Futon frame that convrts frm bed to couch w/wo Q-sz futon. Call

om sks 2BR rnt-cntrlld (less than \$500) Cambridge apt, ASAP, leads rewarded. Call x3-6888 or ly mssg at 868-0309.

### Roommates

Sk pros to locate/shr hse/apt w/in/15 mi of Linc Lab, for 9/1, can also renew lease in Woburn. Greg, x4137 or 938-7245.

Brighton nr Cleveland Circle, lrg 5BR hse, btfl x-lrg, remodld ata/c, on T, W/D, prkg. Lisa, x3-1337 or Theresa Man, 254-1899 eves.

Watertown, shr huge btfl hse w/3 othrs, 10 rms, 3 baths, 2-car grg. W/D, D/D, yrd, quiet, safe, nr T, off-st prkg, ceramic tile & oak chnts in lrg ktchn & baths, hdwd flrs, prch, \$450. Call

2F, 1M stdnt rmmates wntd for lrg Cntl Sq coop apt, \$300/mo inc ht, shr food & cooking, no pets, no smkng in common areas. Henry, x3-0315.

### Miscellaneous

Exp'd clnrs provide lite hsekeeping, early eves & Sat on wkly/monthly basis, rsnbl rates. Call x3-8612/x3-7164 or

Pro VCR clning, \$30 pickup at MIT, fst service. Call x3-3279 or

Garage: 11/2 car unit, 115 & 220 VAC service, ctrl gas ht & uppr flr for storage to shr; also garage space avlbl for storage of sprts car/comparable-sz itm. Glenn, x3-4428/4411 or 256-9302 aftr

Daycare avlbl at Westgate lo-rise, cln, comfy apt, grt environmnt for chld, I have 21/2 yr old girl. Ruth, 225-0278 anytime.

# Open House to greet international people

The 16th annual International Open House to welcome foreign newcomers to the Institute will be held on Tuesday and Wednesday, September 6 and 7, with daily and evening programs in the Bush Room (10-105).

Sponsored by the Medical Department and the Dean's Office, this informal gathering is designed to help international students, staff, faculty and their families get

From 9:30am-5pm on both days members of the MIT community are asked to stop in and help answer the many questions new arrivals usually have about the Institute and the Boston area. Representatives from various campus organizations and helping services will also be on hand to distribute information about their programs. A special play area will be set aside for children.

The annual "Evening with MIT Faculty" is planned for Tuesday, September 6, 7:30-9pm, and will discuss living and learning at MIT from the faculty perspective. The panel, chaired by Professor and Associate Provost Samuel J. Keyser, will feature Institute Professor Emeritus Philip Morrison; Professor Sylvia T. Ceyer, chemistry; Professor Gerald L. Wilson, dean of engineering; and Professor Suzanne Flynn, foreign languages and literatures.

The following evening, Wednesday, September 7, 7:30-9pm, a graduate student panel will discuss MIT from the student perspective.

Newcomers as well as other members of the MIT community are urged to attend and participate in the discussions. Volunteers are needed; if interested, call x3-1614.

# Whitehead mishap

An electrician employed by an outside contractor was seriously injured and the MIT-affiliated Whitehead Institute for Biomedical Research was closed for the day Monday, Aug. 29, as the result of a shortcircuit in a first-floor switching room. Two Whitehead electricians received minor

injuries. A spokesperson for Whitehead said that Joseph Gillis, employed by the J&J Electric Company, was working on a high-voltage line when an accident occurred. Gillis was admitted to the intensive care unit at Massachusetts General Hospital. The Whitehead electricians, who were standing nearby, were released after treatment.

The spokesperson said the building was closed for the day because only partial power was available until repairs could be made. The accident occurred at about 10:45am.

### Surplus Property

perty Office has this excess MIT equipment for transfer The Property Office has this excess MIT equipment for transfer within MIT. Unless noted, items are at the Equipment Exchange, 224 Albany St., open Tues & Thurs Ilam-3pm. After 30 days, items are sold to individuals. Where noted, bids and offers go to Earl C. Fuller, Institute Property Officer, E19-429, 32-2779, with envelope so marked. Always reference case number on the envelope. MIT reserves the right to reject any and all bids.

Case 2390 — For sale by sealed bid: Hewlett Packard computer systems. Info: Robert Kassel, x3-7719. All bids must be in by 4pm, Sept 7, 1988. Send sealed bid to Earl Fuller, Rm E19-429. s must be marked "Sealed Bid Case 2390."

Case 2393 — Transfer of funds required: 1 new enhanced graphics adaptor for IBM/PC/II/AT. 7 AST Advantage Cards for IBM/AT. Submit offers to Earl Fuller, x3-2779, Property Office,

Case 2126 - At the Equipment Exchange: 2 Digital DEC

Case 2206: 28" laminar flow benches.

Case 2240: Data General terminal, memory board, Diablo disk drive, Nova CPU, 3 disk drives, 3 Data General tape drives.

Case 2275: Data General Nova 1220 System, 2 modems, Bisset Berman recorder, office & lab furniture, Digital DEC Writer II,

Case 2314: Dbl pedestal desk

Case 2321: Digital LXX02-A printer.

Case 2361: Digital DEC Writer II.

Case 2371: 3 metal storage cabinets, 6'4"x3'Wx19"D.

Case 2368: Heinicke high temp dishwasher

Case 2372: IBM typewriter. Case 2376: 3 office chairs, 1 typing tbl.

Case 2388: 2 Kodak projectors w/extra lenses & lamps & projector stand. Call George, x3-5611.

# 900 gather for Quarter Century Club annual picnic

Though the weather looked doubtful for a while, it cleared in time to play its part in the success of the annual Quarter Century Club picnic in Eastman Court August 18. More than 900 members and their guests were on hand for the popular occasion.

Among those attending were some 100 new members initiated in the spring whose names have not been listed here before. They are:

Professor Thomas J. Allen of Lexington, Sloan School of Management

Michael E. Austin of San Francisco, Lincoln Group 3KM

Kathleen M. Barrett of Marblehead, Campus Information Services

Alma L. Beebe of Chelmsford, Lincoln Group 36

Alfred E. Benoit of Northboro, Lincoln Group 71

Jane I. Benson of Quincy, Materials Science and Engineering William P. Borge of Gloucester, Physical

Plant Edward D. Bowles of Medford, Francis Bit-

ter National Magnet Laboratory Lee C. Bradley III of Belmont, Lincoln

Martin J. Brennan of Sudbury, Lincoln Group 54

Group 54

Joseph H. Brenner of Cambridge, Medical
Department

John S. Brownson of Watertown, Lincoln Group 95

Thomas Buretta of Westford, Haystack Observatory

David E. Burnett of Boston, Comptroller's Accounting Office

Josephine E. Calderone of East Boston, Comptroller's Accounting Office

Jack Capon of Lexington, Lincoln Group
44

Clarence E. Chaklos of Salem, Physical Plant

Marshall V. Cheverie of Stoughton, Campus Police

Constance C. Choquet of Woburn, Civil Engineering

Rodolfo S. Cid of Waltham, Operations and Systems

Professor George W. Clark of Brookline, Physics Department Russell E. Clark Jr. of South Braintree,

Graphic Arts
Ronald J. Cordova of Nashua, N.H., Lin

Ronald J. Cordova of Nashua, N.H., Lincoln Group 53

Kreon L. Cyros of Saugus, Office of Facilities Management Systems

James E. Dalton of Arlington, Department

of Mathematics Richard A. Danforth of Malden, Nuclear

Reactor Laboratory
Richard E. Dolbec of Bedford, Lincoln

Group 72 Professor Richard M. Douglas of

Wellesley, History Section
Rolf R. Engler of Weburn, Urban Studie

Rolf R. Engler of Woburn, Urban Studies and Planning

James B. Enos Jr. of Andover, Lincoln Fiscal Office

Professor Lawrence B. Evans of Cambridge, Department of Chemical Engineering

Herbert W. Ewin of Arlington Electrical Eningeering and Computer Science

Dennis J. Farrell of Watertown, Francis Bitter National Magnet Laboratory Franklin W. Floyd Jr. of Concord, Lincoln

Division 6
Professor Maurice S. Fox of Brookline,

Department of Biology
David R. Gabbe of Brookline, Materials
Science and Engineering

David P. Gale of Bedford, Lincoln Group 15

Richard J. Gaudette of Nashua, N.H., Lincoln Group 28

Gerald A. Greenhow of Westwood, Purchasing and Stores

Walter Griffin of Cambridge, Physical Plant

Kyra M. Hall of Belmont, Research Laboratory of Electronics Charles T. Halpin Jr. of Chelsea, Physical

Plant
Professor Norman D. Ham of Brookline,

Department of Aeronautics and Astronautics

Richard C. Hancock of Gardner, Lincoln Group 82

Sally H. Hansen of Cambridge, Personel Office

Merrill G. Harper of Epsom, N.H., Environmental Medical Service

George W. Herald of Burlington, Physical Plant

Professor Philip B. Herr of Newton, Department of Urban Studies and Planning

Professor Walter M. Hollister of Lincoln, Department of Aeronautics and Astronautics

Jarmila Z. Hrbek of Cambridge, Office of the President

Norman L. Iverson of Whitman, Francis Bitter National Magnet Laboratory

Paul J. Johnson of Danvers, Lincoln Group 44

Stanley J. Josoma Jr. of Brighton, Lincoln Group 72 Professor Arthur Kaledin of Lexington,

History Section

Venetia Kaloyanides of Somerville, Research Laboratory of Electronics

Professor Gordon M. Kaufman of West Newton, Sloan School of Management Gordon V. Kelly of Northboro, Department of Athletics

Professor James L. Kinsey of Newton,
Department of Chemistry
Professor Stanley B. Koyselski of Arling

Professor Stanley B. Kowalski of Arlington, Department of Physics

Chester J. Kurys of Lexington, Lincoln Group 32

Robert T. Letizi of Westford, Haystack Observatory George A. Lincoln Jr. of Hudson, Lincoln

Group 87

John F. Mac Kinnon of Sharon, Physical

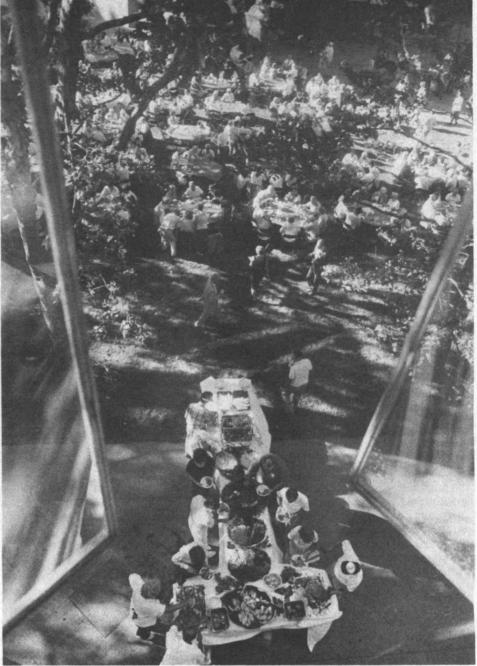
John F. Mac Kinnon of Sharon, Physica
Plant
William H. Maelachlan of Waltham Lin

William H. Maclachlan of Waltham, Lincoln Director's Office



Senior Vice President William R. Dickson (back to camera) chats with Alice and Larry Pickard at the Quarter Century Club picnic held earlier this month. Mr. Pickard is an engineering assistant in Physical Plant.

—Photos by Donna Coveney



Windows of Building 14 frame a view of the recent Quarter Century Club annual

Jerome E. Mader of Northboro, Lincoln Group 93

John H. Mahoney of Waltham, Lincoln Group 18

E. Larry Mastromattei of Auburndale, Lincoln Group 83

Elisabeth Pate Meyer of Waltham, Lincoln Group 18

Group 18
Robert A. Mocklin of Lexington, Lincoln

Group 71
Institute Professor Franco Modigliani of
Belmont, Institute Professor

Jean E. Morrison of Cambridge, Francis
Bitter National Magnet Laboratory
Clarence J. Mosey of Burlington Lincoln

Clarence J. Mosey of Burlington, Lincoln Group 12

Paul F. Murray of Westford, Lincoln Group 76

Leo J. Neuringer of Wellesley, Francis Bitter National Magnet Laboratory Charles W. Niessen of Carlisla Lincoln

Charles W. Niessen of Carlisle, Lincoln Division 5

David M. Osborne of Norwell, Laboratory for Nuclear Science Margarete H. Palazzi of Cambridge,

Libraries
Christopher D. Parker of Cambridge, Lin-

coln Group 87

Robert E. Payson of Milton, Operations and Systems

Barbara J. Pellecchia of Burlington, MIT
Press
Professor Ronald F. Probstein of
Brookline Department of Mechanical

Brookline, Department of Mechanical Engineering
Maria E. Re of Arlington, Comptroller's

Accounting Office Ronald M. Reader of Medford, Lincoln

Group 15
James B. Reebel of Derry, N.H., Physical
Plant

Joseph Ricardo of Tewksbury, Lincoln Group 12

Robert H. Rines of Concord, N.H., Electrical Engineering and Computer Science James R. Ritchie of Lincoln, Lincoln Group 91

Paul D. Robertson of North Billerica, Lincoln Group 15

John F. Rockart of Weston, Sloan School of Management Peter T. Scaglione of Medford, Graphic

Arts
Professor Peter H. Schiller of Newton,

Department of Brain and Cognitive Science

Carl A. Seagren of Tewksbury, Housing Office Allan R. Shaw of Needham Heights, Aero-

nautics and Astronautics
Anne Shepley of Brookline, Architecture

Professor W. Gilbert Strang of Wellesley, Department of Mathematics

Reese W. Straw of Chelmsford, Lincoln Group 48

Albert T. Supple Jr. of Pembroke, Aeronautics and Astronautics Rebecca L. Taggart of Indianapolis, Ind.,

Libraries
Professor Alar Toomre of West Newton,

Department of Mathematics
Diane R. Valcourt of Salem, N.H., Lincoln
Division 7

Gerald L. Valcourt of Salem, N.H., Lincoln Group 51 Robin Verdier of Belmont, Laboratory for

Nuclear Science
Professor Harold Y. Wachman of Lexington, Department of Aeronautics and

Astronautics
Professor Joseph B. Walsh of Westport,
Department of Earth, Atmospheric and
Planetary Sciences

Jerry D. Welch of Lexington, Lincoln Group 42

Thomas White Jr. of Dedham, Physics Elizabeth J. Whittaker of Cambridge, Chairman of the Corporation

Kerry B. Wilson of Belmont, Personnel Office

Frank R. Winson of Melrose Superinten.

Frank R. Winsor of Melrose, Superintendent's Office

Hans Wuest of Cambridge, Chemistry George F. Yarworth of Belmont, Plasma Fusion Center

# Student Center due back soon in new, improved version

If all goes according to plan, the public spaces in the Student Center will begin reopening in mid-September, beginning with the Lobdell Food Court.

The reopening has been delayed a few weeks because renovations to the building were much more extensive than originally planned, according to Stephen D. Immerman, director of operations for the Campus Activities Complex. Work included installation of new electrical, mechanical and heating and ventilation systems, as well as sprinklers and fire alarms which are yet to be tested out.

Other changes of general benefit include installation of men's and women's restrooms on every floor and improvements to the Student Center Committee's 24-Hour Coffee House and the Games Room.

In addition, Mr. Immerman noted, a decision to substantially upgrade food services for the community required more extensive rebuilding of the kitchen.

"We will be able to offer foods we have never been able to use before because of kitchen limitations," Gene Perkins, director of the Student Center Food Services, said. Such things as French fries cooked to order, pizza and soft-serve yogurt with fruit toppings will be available for the first time, as well as bread, pies and cakes baked on the premises. Many items will be prepared quickly for-and in front of-individual customers.

There will also be a new cafe-called Networks-in the building. Networks will have a counter for fast take-out or eat-

(continued from page 1)

sionals in the Admissions Office as well as

faculty and staff volunteers from through-

out the Institute. "This year we had 90

outside readers [faculty and staff]," said

Ms. Johnson. "Of those, 40 read 20 or more

Ms. Johnson, "each reader rates the stu-

dent on three different dimensions: per-

sonal style, personal accomplishments, and

academic style." To tally up personal style,

the reader asks "Is this student a leader? Is

Personal achievement concentrates on ex-

tracurricular activities. What has the stu-

dent done, and how good is he/she at it?

an organizer? Self-motivated?"

"After reviewing a student's folder," said

folders, and 14 were faculty.'

there orders plus a seafood-based full-service restaurant that will serve wine and beer. Plans call for Network to be open extended hours, seven days a week beginning in October.

In October the building's service and retail establishments will move into their renovated spaces and be joined by several new ones. Returning to the basement from the loneliness of their fourth floor temporary spaces will be the Post Office, the Optical Shop, the Barber Shop and Charlie the Tech Tailor.

The Microcomputer Center will move over from Building 11. Graphic Arts will have a 24-hour self-service copy center, with an attendant to handle longer runs during the day. It will also have some Macintosh computers for on-site use and sell individual disks. Rounding out the MIT enterprises in the building will be a Museum Shop specializing in "intellectual whimsy."

Other organizations who have leased space in the building include Baybank, which will have a full-service office; Newbury Comics, Council Travel and the Coop, which will sell stationery, MIT insignia items and trade books. Negotiations are continuing for a grocery store and unisex hair salon.

Watch Tech Talk for an announcement of the upcoming reopening dedication ceremony of the Julius Adams Stratton -Joanne Miller

Academic style involves "co-curricular"

activities. Has the student done independ-

ent research in some area? What are his/

her accomplishments in a particular aca-

sions are combined with a computer-gener-

ated academic rating based on class rank,

grades, and other numerical data. The final

combination of these factors determines

the student's ultimate rating . . . and

is put together a class that's interesting to

each other, as well as one that will contrib-

ute to the Institute," said Ms. Johnson.

In the end, however, "what we try to do

whether or not he or she'll be accepted.

The reader's ratings for all three dimen-



James Worden in Solectria V with his commuter car in the background. -Photo by Donna Coveney

# MIT solar cars to compete in cup race in California

(continued from page 1)

car in the United States. The race car is a streamlined, three-wheeled vehicle built in 1988 with the support of Dow Chemical, ARCO Solar and MIT, as well as Whitaker-Yardney Power Systems. The car, made mostly of lightweight Dow plastics and composites, weighs only 340 pounds and is capable of speeds up to 90 miles an hour, its builders say. The optimum cruising speed is 65 miles an hour.

The commuting car uses ARCO solar cells and a SAFT nickel-cadmium battery pack. It is capable of 35 miles an hour and can travel 30 to 40 miles on a sunny day.

Other members of the team are Erik G. Vaaler, a graduate student in mechanical engineering, who is the project adviser and beth Stock, Julia Ask and Karen Lewis. assembly techniques expert.

Gill Pratt, a graduate student in the Department of Electrical Engineering and Computer Science, who oversees the electronic design and assembly aspects of the vehicles.

Catherine J. Anderson, undergraduate in mechanical engineering, who deals with machining and the composite construction and who also drives.

Mark Wintersmith, an undergraduate in management, is the team's promotional director and also solicits corporate sponsor-

Other members of the design, assembly and support team are Andrew M. Heafitz, Tanya Jegeris, Martin C. Scheidl, Elisa-

# Coming weekends to bring 'Mikado'

Freshman class shows diversity

demic field?

Gilbert & Sullivan's The Mikado in Kresge and movement. According to producer Peter Little Theatre, September 2-4, 8-10 and M. Colao '89 it promises to be a genuinely

Set in the unpredictable town of Titipu, Japan, The Mikado tells the tale of political reserved. Ticket prices are: \$4/MIT stuand emotional highjinks concerning the dents, \$5/other students and seniors, \$6/ affairs of Nanki-Poo, the son of the Mikado MIT faculty and staff and \$7/general pubof Japan; Yum-Yum, the object of his love; Ko-Ko, lord high executioner of Titipu and Sept. 8-10 performances and group rates Yum-Yum's warden; Pooh-Bah, lord high are also available. Tickets may be pureverthing else; Katisha, an heiress in love chased at Out-of-Town Tickets, Harvard with Nanki-Poo; and the Mikado himself.

This production of The Mikado is pre-

The MIT Musical Theatre Guild, cursented in Modified Kabuki Theatre form rently in its 16th season, will present with traditional Japanese dress, makeup

entertaining evening for all. All shows are at 8pm and seating is lic. Freshmen will be admitted free t Square, or may be reserved by telephone,

1988-89 Holiday schedule

X3-6294.

Following are the recognized Institute holidays during the upcoming academic year and the days and dates on which they will be observed:

Labor Day Columbus Day Veterans' Day Thanksgiving Day Christmas Day New Year's Day Martin Luther King Day Presidents' Day Patriots' Day Memorial Day Independence Day

Monday, September 5 Monday, October 10 Friday, November 11 Thursday, November 24 Monday, December 26 Monday, January 2 Monday, January 16 Monday, February 20 Monday, April 17 Monday, May 29 Tuesday, July 4

A holiday which falls on Sunday is observed the following Monday; a holiday which falls on Saturday is observed the preceding Friday, unless the Institute designates another day as the holiday.

Freshman R/O feast is underway

(continued from page 1)

year's R/O coordinator. "This will make it possible for the freshmen to devote their full attention to residence selection for the first several days and may relieve the pressure of that decision."

With that out of the way, the focus will switch to education. Freshmen will meet in groups and individually with their advisors and visit departmental open houses Wednesday afternoon.

The major focus of Thursday is "Book Day." Each freshman received a copy of Toni Morrison's novel, Beloved, to during the summer. A presentation on the book will be held in Kresge Auditorium at 4pm, with after-dinner discussions with faculty members to continue in the resi-

On Friday, Sept. 10, the popular Freshman Explorations will return. Begun last year, this program encourages faculty members, labs and offices to schedule demonstrations of their activities. The number of Explorations has doubled for

Throughout this academic period there will also be introductions to special education programs such as the Integrated Studies Group, Concourse, the Undergraduate Research Opportunities Program, the Experimental Studies Program and the Writing Requirement.

R/O in total includes nearly two weeks of activities that began Monday with the arrival of international students and will end September 13 with registration. (Because that date is Rosh Hashanah, alternative registration will be held Tuesday and Wednesday, Sept. 13 and 14, 8am-4pm). All registration this year will take place in the Johnson Athletics Center.

In addition to all of the official activities orienting new students, there are dozens of tours, ice cream outings, barbecues, entertainments and sporting activities to help the new students get acquainted. Come September 14, the bewildered young people we are seeing this week will be old hands at the campus—and probably very tired.

# Ashdown renovations ease housing crunch

Amid the fanfare of a ribbon cutting and reception, six new suites of rooms with a total of 24 beds were opened in the renovated basement of Ashdown House this

"This is an unqualified step forward toward improving graduate student housing on campus," said Jim Abbott, president of Ashdown House. According to Mr. Abbott the renovated basement had been used for storage; the basement on the other side of Ashdown is now being used for that pur-

Each of the new suites has its own bath; two have a full kitchen and lounge. The entire floor shares two large lounges and a kitchen. The new rooms are coed by suite and have already been filled for the fall

Mr. Abbott noted that many people helped make the new rooms a reality, including Vernon and Beth Ingram, housemasters, Lee Birks, house manager, Mike Mills, Bob Hagerty, Larry Maguire and Karen Nilsson from the housing office, and Joe Salvatore from physical plant.