December 11, 1985 Volume 30, Number 15

#### No Tech Talk

Next week's issue of Tech Talk will be the last until January 8, 1986. The Institute Calendar next week will cover the period from December 18-January 12 and the deadline will be as usual, at noon Friday, Dec. 13. The deadline for listings in the January 8 paper will be Friday, Jan. 3, at noon.

#### IAP listings

The IAP Timetable will be published in Tech Talk as an adjunct to the Institute Calendar. All activities included in the IAP Guide will automatically be listed in the Timetable.

Organizers of new or changed activities should fill out a form in the IAP Office, Rm 7-108, so the information in the Timetable will be accurate. Deadlines for submitting Timetable listings are today (Wednesday, Dec. 11) and Wednesday, Jan. 8. Tech Talk will not accept IAP listings

#### Party reminders

President and Mrs. Gray's Holiday Open House will take place today (Wednesday, Dec. 11) 4:30-6:30pm at the President's House, 111 Memorial Drive. All members of the community, including children at least eight years old are invited.

The Institute-wide Holiday Party will be held Thursday, Dec. 12, at noon in the Rogers Lobby. Hot cider and cookies will be served by the MIT Women's League and festive music will be provided by Shirley Brown and the Concord Bell Ringers.

#### Any comments?

Crimson Travel Service, Heritage Travel, Inc., Raymond & Whitcomb Company and Topaz Travel were designated as Institute approved travel agencies by the Ad Hoc Travel Committee in February 1984.

The Travel Committee is now reviewing the performance of these agencies and would appreciate comments from the community relative to their performance. Travelers using non-approved agencies are also invited to submit comments on those agencies.

Please send your comments to Joseph R. Cullinan, assistant to the comptroller, Rm E19-556.

#### Video fiesta

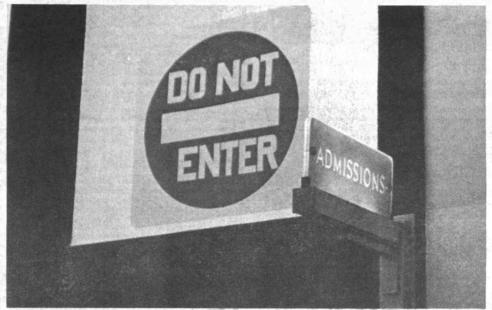
Films made by students in the Film/Video section of the Media Lab will be screened this Friday (Dec. 13) at 7pm in the classroom opposite the Bartos Film Theatre on the ground floor of the Weisner Building (E15). Everyone is invited. These classes are taught by Professor of Cinema Richard Leacock and filmmaker Gloriana Davenport, lecturer in the Department of Architecture.

#### Lights & music

How can light become sound and then become light again? Two installations by graduate students at the Center for Advanced Visual Studies (W11) explore possibilities arising from that question. An installation by George Nemrica is in its final day today (Wednesday, Dec. 11), with and installation by Shawn Brixey scheduled to open tomorrow (Dec. 12). Brixey will use lasers and solar panels to create music and musical instruments. Booth artists are in the Masters of Science in Visual Studies (MsVs) program and these pieces were done for one of the advanced classes taught by Otto Piene, Professor of Visual Design and director of the Center. The community is invited to see these unusual works, in the exhibition room on the first floor of the CAVS

# TECH TALK TECH TALK TECH TALK TECH TALK

# Infinite corridor becomes 'Toolpike' for a day



At the Admissions Office, a prankster's admonition.

-Photos by Calvin Campbell

## Electronic piano to make debut

By CHINA ALTMAN

Staff Writer
The MIT community is invited to demonstrations Friday, Dec. 13, of the Bosendorfer Recording Piano, hosted by the Music Cognition Group of the Artificial Intelligence Laboratory

tory.

Students interested in possible research opportunities involving the piano are encouraged to attend the 3:15 demonstration. The second demonstration will be at 5:15. Both are in the AI/LCS Reading Room on the ground floor of NE43 at 545 Technology

These demonstrations will show how recordings are made and edited using the piano, and will also demonstrate the piano playing a variety of musical material.

In 1983 the Music Cognition Group began a joint project with the Bosendorfer Piano firm of Vienna to develop a state-of-the-art recording piano using digital storage media. Dr. Wayne Stahnke of the Caltech Jet Propulsion Laboratory, in collaboration with Kimball International, Bosendorfer's parent corporation, completed the electromechanical design of the instrument in the fall of 1984. A manufacturing prototype was delivered to MIT in February this year.

The 9 ½-foot recording instrument owned by the Music Cognition Group is a new Bosendorfer Model 290 Imperial Concert Grand, valued at approximately \$100,000. It has been outfitted with optoelectronic sensors and precision solenoids, giving it the capability to record and reproduce keyboard performances with uncompromising fidelity.

The Music Cognition Group presently serves as Bosendorfer's principal beta test site for the Recording Piano, advising Bosendorfer on issues of software engineering, packaging, user interface design and calibration methods. The piano presently communicates with a Symbolics Lisp Machine located on the 7th floor of 545 Tech Square.

When the first phase of software development is complete, the piano will transmit and receive performance information in a standard serial format, allowing it to be used with inexpensive personal computers.

Al's Music Cognition Group investigates the cognitive foundations of musical behavior using the methods of Artificial Intelligence. The principal objective is to extract and represent expert knowledge about music by building computational models of the cognitive processes involved in composing, performing, and listening.

#### By CHARLES H. BALL Staff Writer

The MIT Hack lives on.

MITers using the infinite corridor at 77 Massachusetts Avenue Monday morning found it transformed into a prankster's version of the Massachusetts Turnpike—complete with double-striped yellow line down its center, appropriate signs and, of course, an automobile in its property species of the part of the property of the part of the property of the part o

in its own parking space in Lobby 10.

A sign an the Lobby 7 entrance to the corridor proclaimed it "Massachusetts Toolpike—Toll \$16,000," a not-so-subtle reference to the cost of attending the Institute.

A spokesman for the hackers, Thomas H. Adams, a pseudonym derived from the name of the group that perpetrated the prank, the Technology Hackers Association, declared the project to be all in good fun.

In a call to Tech Talk, he termed it an effort to relieve the "very high pressure" of the final week of classes and to "lighten the atmosphere" before students get down to the serious business of studying for finals.

"A lot of people seemed to enjoy it," he said.
MIT Police Chief James Olivieri, who apparently can appreciate a well-executed, nondestructive hack when he sees one, agreed,
saying, "I saw a lot of smiles on people's faces
this morning, and I think that's good."

The THA spokesman stressed that the group insists its hacks "not do any damage whatsoever to any Institute property."

The spokesman said that 30 to 40 students were in on the "design and execution" of the prank and that about 20 actually carried it out starting at 4:15 Monday morning. The work, some of which was observed but not interrupted by Campus Police, was completed by 6.

rupted by Campus Police, was completed by 6. He said the "Toolpike" grew from the idea that a double-line down the infinite corridor might encourage people to follow traffic rules in the often crowded space. (In fact, many people were staying to the right of the line throughout Monday.)

The spokesman made it clear that placing the auto in Lobby 10 was "the icing on the cake." He explained, "We asked ourselves, 'When is a highway not a highway?' And so it

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"Toolpike" sign signifies what lies beyond the doorway at 77 Massachusetts Avenue.

# 1986 holiday schedule are recognized Institute holidays and the days on w

Following are the recognized Institute holidays and the days on which they fall and will be observed.

New Year's Day—January 1—Wednesday, Jan. 1

Martin Luther King Day—third Monday in January—Jan. 20
Washington's Birthday—third Monday in February—Feb. 17
Patriots' Day—third Monday in April—April 21
Memorial Day—last Monday in May—May 26
Independence Day—July 4—Friday, July 4
Labor Day—first Monday in September—Sept. 1
Columbus Day—second Monday in October—Oct. 13
Veterans' Day—November 11—Tuesday, Nov. 11
Thanksgiving Day—fourth Thursday in November—Nov. 27
Christmas Day—December 25—Thursday, Dec. 25
A holiday that falls on Sunday is observed the following Monday. A holiday that falls

on Saturday is observed the previous Friday unless the Institute designates another day as the holiday.

## IAP to feature nuclear safety to Beethoven's Ninth

By MARYGLENN VINCENS
IAP Editor

From French Grand Opera and chemical crystallography to effective scholarly writing and rainbow holography, Independent Activities Period continues to offer a rich, diverse program appealing to every taste in learning.

IAP '86 will run from January 6 through 29. The IAP Guide itself has a new offering: an alphabetic list of activity titles and their numbers. It begins on page 35.

Since it is difficult to give a fair overview of a program offering almost 700 activities, what follows is merely a sample.

IAP turns its attention to the heavens this year with the Voyager encounter with the

planet Uranus. In the activity, "In Celebration of Pioneers and Voyagers: To Jupiter, Saturn, Uranus, and Beyond" (see activity No. 1 in the IAP Guide), William Ward will examine the workings of the spacecrafts to which "every area of human experience stands in intimate relationship?"

As a result of a joint effort by Educational Video Productions and The Center for Space Research, the MIT community will be able to view Uranus as Voyager makes its closest pass by the planet on January 24. Live slow-scan images will be telecommunicated to MIT via the Jet Propulsion Laboratory in California (activity No. 1000), and live press conferences from the JPL during the encounter will be

televised over the MIT cable (No. 863). Also, Ralph McNutt and James Belcher will present a history of the Pioneer/Voyager mission (No. 862).

Institute Professor Philip Morrison will share his experience as "An American Physicist In Japan in 1945 and 1969" (No. 800), with the hope of creating understanding on the impact of the atomic bomb as well as providing insight into the complex relationship between the United States and Japan.

The Committee on an Integrated Curriculum will hold an open hearing on a proposed curriculum that would merge scientific/technical education with the liberal arts to provide

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# INSTITUTE **NOTICES**

- Open to public
  Open to MIT Community only
  Open to members only

#### Announcements

The Advisory Committee on Shareholder Responsibility, (ACSR) – will meet in the Maclaurin Room (10.300) at 4pm, Dec 11 for a discussion of issues related to MIT's investments in corporations with activities in South Africa. For further in formation, contact the secretary of the ACSR, Walter Milne,

International Students – If planning to go home for the holidays, or taking a trip outside of the US, remember to request your travel documents at least two weeks in advance. To re-enter the US you will need a passport valid for six months in to the future, a valid consular visa stamp (entry visa obtained from a US Embassy or Consulate) and a Form I-20 and I-20 ID Card (F-1 Students) or a Form IAP-66 (J-1 Students). Come to the International Student Office, Rm 5-106, for more

International Students - As a member of the Greater Boston International Careers Consortium, MIT will collect your resume and send it to the Chamber of Commerce branch in your home country for further distribution to the Chamber's me local companies and locally-based divisions of US multina-tionals. Interested companies will then contact you directly if your qualifications meet their needs. Resumes will be sent out by January 7 to the overseas Chambers of Commerce. To see if there is a branch in your home country and to request that a copy of your resume be sent, come into the Career Services Office, Rm 12-170, before January 7 to pick up a resume release form and to obtain the address of the ICC representative.

Career Planning and Placement Company Recruitment Presentations\*\* - General Computer, Dec 12, 4-6pm, Ashdown House.

Serials in the MIT Libraries, 26th Ed - Microfiche listing published, three times a year, of approximately 22,000 titles in-cludes information on holdings, dates, call numbers, and title changes. The 26th edition contains over 300 new titles and is published in two section: 1)an alphabetical list (8 fiche) and 2)a keyword index (8 fiche). Prepayment required. Price: \$20; \$5/MIT staff and students. Send check payable to MIT to Office of the Director, Rm 14S-216.

Project Contact - Undergraduates interested in communicating with high school students and guidance counselors about what it's like to be an MIT student are encouraged to join Project Contact. For more contact the Educational Council Office, Rm 4-240, x3-3354.

Free Museum of Science Admission for MIT Students With MIT student ID, provided by MIT chapter of Tau Beta Pi, the Engineering National Honor Fraternity. Also, reduced admission to special exhibits.

MIT Hunger Drive Food Drive – We need non-perishable, unopened foods for Boston's less fortunate. Ongoing collection all day and night at drop-off boxes in Lobby 7, Walker,

Rune – The magazine of arts and literature at MIT is now accepting submissions of prose, poetry and graphics for its 11th anniversary issue. Three copies of written submission may be sent to Rune, Rm 14E-310. Special arrangements for pick-up of graphics submissions may be made with Don (247-2740) or Olga (x5-6563 dorm). All work will be returned if requested. Deadline: Feb 23, 1986.

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

Nightline\*\* - a student-run 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.

Faculty Members — Technology Review would like to hear about books being published by MIT faculty members. Please notify us, as far in advance as possible, of your upcoming book. Technology Review, Rm 10-140, x3-8250.

#### Club Notes

WMBR\*\* - is looking for students interested in radio and technical work. Contact Eli Polonsky, x3-4000. Leave name and

MIT Student Cable Programming Group\*\* - Looking for students interested in programming the MIT Cable Television channels. Contact Randy Winchester, x3-7431.

Tool & Die - MIT's humor magazine\*\* - meets every Weds, 7pm, Rm 50-309 (Walker). Everyone welcome

Student Center Committee (SCC)\*\* - Has fun every Sunday, 7pm, Student Ctr Center Lounge. Do you? Call x3-3916 anytime for more info.

MIT Students for Individual Freedom\* - Topic presentation followed by discussion, concerning individual freedoms, defense of those freedoms and other conservative issues, Dec 11, 9pm, Rm 13-2010. Mailing address: Rm W20-401.

MIT Student Duplicate Bridge Club\* - Bridge games every Sat, 7pm; every Thur, Sun & Mon, 6:30pm, \$.75 entry fee, Rm 407, Student Center. Lessons free w/entry at 6:15pm from Bridge Senior Masters. No partners necessary, all welco

MIT/DL Bridge Club\* - Duplicate bridge, Tues, 6pm, Student Center Rm 349 ACBL masterpoints awarded; come with or without partner, newcomers always welcome. Special tour-naments monthly. Info call Gary Schwartz, x8-2459 Draper, or Mark Dulcey, \$1.50/non-students. 272.8428 Admission: \$.75/students.

MIT Table Tennis Club\*\* - Meets Fri. 8-10pm; Sat. 6pm, T. Club Lounge. Info: Hoang Do, x3-2843.

MIT Go Club . - Meets M/Th, 5-7pm, Rm NE43 3rd flr Playroom. Play the ancient oriental game of skill. Knock to get in if the door is locked.

MIT Hobby Shop\*\* - Complete supervised facilities for woodworking and metalworking, Rm W31-031, M-F, 10am-6pm; Wed, 10am-9pm. Fees: \$15/term students; \$25/term community. Info, x3-4343.

MIT Yoga Club\* - Rejuvenate your mind and body with Kundalini Yoga, the science of awareness, M-Th, 5:10-6pm, outside Burton Dining Hall. Beginners welcome. Info: Fred Martin or Jeff Tollaksen, 247-0506 or x3-3157.

MIT Aikido Club\*\* - meets Mon-Fri, 5:30pm, DuPont exercise room. Aikido is a non-competitive Japanese martial discipline. Beginners welcome

Human-Powered Vehicle Association\* - New England Chapter meets Thurs, 8pm, Bicycle Exchange, 3 Bow St. Harvard Sq. Come help plan an HPV workshop for IAP '86.

MIT Outing Club\* - Camping, cycling, climbing, canoeing, cabins; meets M/Th, 5-6pm, Student Center Rm 461. Also, see our bulletin board in "Infinite Corridor" next to Athena.

MIT Wu Tang Club\* - teaches northern Chinese kung fu, Tues & Thurs, 8pm, Burton Dining Hall; Sat, 10am, Athletic Center. Beginners welcome. For info call Meilin Wong, x5-8713

MIT Tae Kwon Do Club\*\* - Tae Kwon Do is a Korean mar tial art. Meetings Sundays, 4pm, T-Club Lounge; Mon-Wed, 6pm, Burton Dining Hall; Fri, 6pm, T-Club Lounge. For info call In Ho Kim, 266-2827.

Scuba Club\*\* - The club sponsors dives throughout the term Call scuba locker (x3-1551) for info and equipment rentals. For more info contact Dave Summa, x3-6464 or Mike Fox 492-4407.

MIT Guild of Bell Ringers\* – meets Mondays, 6:30-9pm, 2nd floor Lobby 7, for change ringing on handbells. We also ring the tower bells at Old North Church. Beginners are welcome. Contact Steve Costenoble, x3-3664 for more information.

#### Religious Activities

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

Christian Science Organization at MIT\* - Weekly Testimony Meeting, Thurs, 5:45pm, Rm 4-145.

Tech Catholic Community\* - Roman Catholic Masses: Suns 9am, 12noon, 5pm (& 10pm on 12/15); Weekdays: T/Th: 5:05pm & Fri 12:05pm. All Masses in MIT Chapel. Morning Prayer: M-F, 8:15am, Chapel Basement. Advent Prayer Vigil: Tues, 12/17, 7-8pm, Chapel. Bible Study: Tues, 8pm, Chaplaincy Library. Chaplaincy Office: x3-2981.

MIT Hillel Shabbat Services\* - Fri, Dec 13: Conservative-Reform Services, 5:30pm, Hillel. Shabbat Dinner, 6:45pm, Kosher Kitchen; dinner reservations due Thurs, \$6.50. The Kosher Kitchen will serve dinners through Thurs, Dec 19; it will reopen on Mon, Jan 6.

ran Ministry and Episcopal Ministry\*\* – Weekly ser Holy Communion: Wed, 5:10pm, MIT Chapel. Supper vice of Holy Communion: Wed, 5:10pm, MIT Chapel. Supper following at 312 Memorial Drive. For further info, call x3-2325/2983.

Baptist Chapel\* - Baptist Student Fellowship Services, Suns,

Islamic Society\* – Daily prayers, Ashdown House (basement), 5 times a day. Call x5-9749 dorm, for schedule. Friday prayer, Ashdown House 1-1:45pm, Khutba starts at 1pm, congregation

Meditation and Discourse on the Bhagavad Gita Swami Sarvagatananda, MIT Vedanta Society, head of Ramakrishna Vedanta Society of Boston, meets Fridays through Dec 13, 5:15pm, MIT Chapel.

United Christian Fellowship\*\* - MIT Chapter of Inter-United Christian Fellowship. — MIT Chapter of Inter-Varsity Christian Fellowship, weekly meetings: large group for worship and sharing from God's word, Fri, 7pm, Student Ctr Rm 491; small group meetings for Bible Study and support, week-ly at different times. For more info, call Chiu-Oan, x5-6123

MIT Graduate Christian Fellowship\* - Come meet other Christian faculty, staff and grad students, Tech Sq Prayer Meeting, Tues, 1:30-2pm, Rm NE43-368; weekly lunch gather-ings, Weds, 11:55-12:55, Student Ctr Twenty Chimneys. For innation contact Burt Kaliski, x3-5866 or Roz Wright, x3-8926. A fellowship group also meets Weds, 7:30am, Rm E51-307.

MIT Seekers Christian Fellowship\* - Park Street Church Seekers Teaching and Worship Time, Sundays, 9:15am, enjoy our biblical teaching, worship and sharing at Park Street Church, right in front of the Park Street T stop. MIT Seekers leave from McCormick at 8:30am. Come join us

Campus Crusade for Christ\*\* - Family time, 7:15pm, Fri, eves, Rm 37-252. Fellowship, scripture teaching, prayer, singing, refreshments & fun. Tues, prayer time, 7:30-9am, W20-441, Student Center. Call x5-9153 dorm.

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, x3456 Linc.

Noon Bible Study\* - Every Wed, Rm E17-109, bring lunch. Ralph Burgess, x3-2422. (Since 1965).

Edgar Cayce Study Group\* - Tuesdays, 6:30-9pm, Edgar Cayce's Search for God material will be used as the basis for group discussion & meditation. For info: Douglas McCarroll, 497-0819 12-9pm or Scott Greenwald, x3-7423.

#### Graduate Studies

Unless otherwise indicated, contact Dean Jeanne Richard at the Graduate School Office, Rm 3-136, x3-4869 for further information.

bright Collaborative Research Grants, 1986-87. Design ed for teams of 2-3 graduate students or recent post-graduate researchers to perform joint research abroad. Applicants must be US citizens, hold a BA or equivalent before the beginning date of the grant. Those with a PhD at the time of application may have obtained the degree no earlier than June 1983. Applicants are expected to have written and spoken proficiency in the language of the host country. Application deadline: December 20, 1985. For more information, contact Dean Eugene R. Chamberlain, Rm 5-106, x3-3795.

National Graduate Fellowships in the Arts, Humanities and Social Sciences. The Dept of Education announces the availability of applications for the 1986-87 National Graduate Fellows Program. Eligibility open to seniors who will begin graduate studies by September 1986 or currently enrolled graduate students "with expressed intent of obtaining a doc-torate" in the following fields of study: architecture, dramatic and creative arts, fine arts, music, the humanities, or the social sciences. Applicants must be US citizens or permanent residents or persons in the process of becoming citizens or permanent residents. Awards are made up to \$10,000 based on need and the institution in which the fellow is enrolled may receive up to \$6,000 to cover costs associated with tuition and fees. Applications must be postmarked by December 20, 1985. Applications can be obtained by writing to: US Dept of Education, National Graduate Fellows Program, PO Box 44367, L'Enfant Plaza Station, Washington, DC 20026-4367.

Fulbright Scholar Awards 1986-87. The Council for International Exchange of Scholars (CIES) has announced the opening of competition for the 1986-87 Fulbright scholar awards in research and university lecturing abroad. The basic eligibility requirements for a Fulbright award are US citizenship, PhD or comparable professional qualifications, university or college teaching experience, and for selected countries, proficiency in a foreign language. Application deadlines: Dec 31, 1985 for NATO Research Fellowships; and Feb 1, 1986 for the seminar in German civilization, Spain Research Fellowships, and France and Germany travel-only awards. For more information, contact Dean Eugene R. Chamberlain, Rm 5-106, x3-3795.

The Business and Professional Women's Foundation's Lena Lake Forrest Fellowship Program and the BPW Poundation Research Grant Program. To support research pertaining to economic, educational, political, social or psychological factors affecting working woman. Awards range from \$500 to \$3,000. Applicants must be doctoral candidates or postdoctoral scholars whose proposal for research has been approved by an accredited graduate institution. Only US citizens are alicible. Application deadling. January 1, 1986. are eligible. Application deadline: January 1, 1986

Bell Laboratories Graduate Research Programs for Women. Provides financial support for outstanding women students pursuing full time doctoral studies in the following fields: chemistry, computer science, economics, electrical engineering, experimental human psychology, materials science, mathematics, operations research, physics, and statistics. The Fellowship Program provides full tuition and fees plus a stingle of \$252 month, for the academic year (9 months) plus an pend of \$925/month for the academic year (9 months) plus an allowance for books, fees and related travel expenses. The Grant Program provides an annual award of \$1,500 which the recipient may use during the academic year in any way that benefits her professional development. Fellowships and grants will be renewed on a yearly basis for the duration of the graduate program, provided the student maintains satisfactory progress toward the doctoral degree. Applications must be received by January 15, and all supporting material by January 31, 1986. Two fellowships and four grants are awarded annually in late March for graduate study beginning in September. Applications are usually submitted during the candidate's senior year in college.

The Josephine de Karman Fellowship Trust of Pasadena, Calif. Twelve fellowships of \$3,000 each for the regular academic year (fall and spring semesters, or the equivalent where the quarterly system prevails) paid through the office of the university in which the candidate will be enrolled for study in the US. Study must be carried out in the US and all funds must be expended only within this country. Students in any discipline who are entering their senior undergraduate year or graduate students entering their third year or after of graduate school in the fall of 1986 are eligible. Postdoctorate students are not eligible. Special consideration will be given to applicants in the hyperstripes requires students are applied in a univerthe humanities. Foreign students already enrolled in a university located in the US are eligible. Tenure is for one academic year and is not renewable. Travel expenses are not included. For information and application forms, write to: Fellowship Committee, ATTN Miss B.J. Brown, Secretary, Josephine de Karman Felloswhip Trust, PO Box 446, La Verne, CA 91750 on or before January 15, 1986. Announcement of awards will be made during April 1986.

#### Other Opportunities

The Whitaker Health Sciences Fund. Research awards for graduate students and faculty – approximately five fellowships (plus five renewals) for MIT doctoral students, as well as two graduate students and faculty — approximately live fellowships (plus five renewals) for MIT doctoral students, as well as two Whitaker College of Health Sciences, Technology, and Management fellowships (plus two renewals), and one Harvard-MIT Division of Health Sciences and Technology fellowship (plus two renewals). MIT fellowship applications should be submitted to the Dept's Representative for the Committee on Graduate School Policy; Whitaker College fellowship applications to Dr. Emilio Bizzi's office (E25-526); the Harvard-MIT HST Division fellowship applications to Prof Kenneth A. Smith's office (3-240) by February 1, 1986. All renewal applications should be sent directly to the Whitaker Health Sciences Fund Office (E25-501). Fellowship awards will pay a \$800/month stipend, plus a full year's tuition beginning September 1986. In addition, 31 faculty research grants in the amount of \$40,000 (excluding overhead) will be awarded to young investigators in the biomedical sciences as follows: 11 MIT faculty research grants (submit applications to the respective department head by February 1); 9 Harvard Medical School/MIT collaborative faculty research grants; 7 Boston University School of Medicine/MIT col-Harvard Medical School/MIT collaborative faculty research grants; 7 Boston University School of Medicine/MIT collaborative faculty research grants; 4 Tufts University School of Medicine/MIT collaborative faculty research grants (submit applications to the respective chief of the teaching hospital/medical school department by January 15, 1986). For further information, contact the Whitaker Health Sciences Fund Office, Rm E25-501, x3-7878 E25-501, x3-7878.

Mellon Fellowship Program, 1986. The Program in Science, Technology and Society at MIT invites proposals from scientists, engineers, and physicians for several one year study fellowships on the relationships of science, technology, or medicine with society. PhD or equivalent in science or engineering is desirable. Partial or full stipend. For more information write: Deborah Wilkes, Mellon Fellowship Committee, Rm E51-128. Deadline: February 1, 1986.

Department of Energy-Sponsored Activities. Administered by Oak Ridge Associated Universities: Faculty Research Parby Oak Ridge Associated Universities: Faculty Research Par-ticipation Program – summer appointments which provide support for collaborative participation in ongoing energy research and development at designated DOE facilities. Stipends or salaries are based on the university salary of the ap-plicant. Undergraduate Student Research Participation Program – summer appointments to participate in ongoing energy research at designated DOE facilities. Participants paid on a weekly stipend. Graduate Student Research Participation Program - supports summer research in fossil energy technologies at the Pittsburgh, Penn. and Morgantown W. Va. Energy Technology Centers for beginning graduate students. A weekly stipend will be provided. Applications for the above are due January 20, 1986. Magnetic Fusion Energy Technology and Magnetic Fusion Science Fellowships and the Nuclear Engineering, Health Physics, and Radioactive Waste Management Fellowships – Competitive fellowships awarded to students for graduate study and research at designated universities in magnetic fusion energy technology, applied plasma physics, nuclear engineering, health physics, and radioactive waste management. The practicum is at a DOE research facility. The basic student stipend for both fellowships is \$12,000 annually plus fees and tuition. The deadline for these fellowships is January 27, 1986. To request application materials or more information, contact the University Programs Division, Oak Ridge Associated Universities, PO Box 1127, Oak Ridge, TN 37831-0117, (615) 5765-3255.

#### International Opportunities

The following is a list of opportunities available to foreign nationals. For more information on these, please see the Interna-tional Jobs notebook in the Office of Career Services, Rm 12-170.

Arthur Andersen & Company, a worldwide organization serving clients with accounting and audit services, tax consulting and management information consulting, is soliciting resumes from foreign nationals to work in one of their 44 international offices. They seek graduating students in economics, engineering, computer sciences, law and accounting. For infor mation on application procedures and a list of their 44 interna-tional offices, visit the Office of Career Services, Rm 12-170.

The Morgan Guaranty Trust Company of New York needs three or four graduating Singapore/Malaysian nationals for permanent employment in their Singapore branch. They will also consider non-graduating students for summer internships.

Proctor & Gamble, Inc in Ontario seeks Canadian students in electrical, mechanical, chemical, civil and industrial engi-neering and mathematics to work in the following areas: plant technical management, project engineer, plant electrical/systems management and plant cost management. Candidates should be Canadian, seniors or graduate students, have a 4.0/5.0 GPA or a 3.5/5.0 with related work experience

#### Internships

The following is the list of internships received this week. For more information please see the Internship Information notebook in the Office of Career Services, Rm 12-170.

NOTE: The Office of Career Services has added a new directory to their Career Library: Getting Work Experience, the College Students' Director of Summer Internship Programs that Lead to Careers. It can be found in the Reference section of the Career

Volunteer internships: Greater Boston YMCA, International Services Branch (local and international opportunities); Inter national Marketing Institute, Cambridge (non-profit firm expanding international business through marketing management education); Commonwealth of Massachusetts, Senator John Olver's office; National Broadcasting Company, New York Ci-

ty; Northeast-Midwest Congressional Coalition, US House of Representatives, Washington, DC (alliance of 200 members of Congress), School Volunteers for Boston, Inc (volunteers to tutor public school students in reading, math, English and other subjects); and US Senate, Washington, DC, John Kerry's office.

Internships Offering a Stipend:

American Association of Advertising Agencies, Inc 1986 Minority Advertising Intern Program. Applicants must have completed their junior year by June 1986 or their first year of graduate school. Deadline: January 31, 1986. Career Services has application materials.

The Dow Jones Newspaper Fund, Inc, Princeton, NJ 1986 Reporting Intern Program for Minorities. This program is for sophomores interested in news writing and reporting. Students selected will attend a two week seminar, placement at a daily paper, earn at least \$200/week and a scholarship worth \$1,000. Deadline: January 15, 1986. Career Services has a limited supp

The Hartford Courant 1986 Summer Intern Program and Year-Round Internship Program for Minorities. For both programs, students in any major can apply with preference given to students who have completed their junior year and are residents of Connecticut and New England. You must have a dependable car and must provide own housing. Deadline: December 20.

Martin Marietta Energy Systems, Inc Summer Research Internships. Approximately 50 internships available at the Oak Ridge National Laboratory in Tennessee. Program aimed at graduate students or students planning to enter graduate school. Salaries range from \$1,400.\$1,900/month. Deadline: January 31, 1986. For more information and application materials, visit Career

#### Student Jobs

There are more job listings available at the Student Employment Office, Rm 5-119.

Student needed to pick up waste chemicals throughout the Institute. Must be 21 years of age, and a chemistry or chemical engineering major. Hours: 6-10/wk. Salary: \$6.75/hr. Contact: Donald Batson or Virginia Cruz, Safety Office, x3-4736.

Secretary for small office in Harvard Square. Must have good telephone manners, some bookeeping and computer skills. Non-smokers, only. Hours are part-time, flexible, between 9am-5pm. Salary negotiable. Contact: New England Sights, (a tour ser-vice), 18 Brattle St, Rm 255, Cambridge. Call 492-6689 for an

Part-time secretary needed with knowledge of DecMate desirable. Hours: flexible, around 8/wk. Salary: \$5.50/hr. Contact: Pat Gercik, MIT-Japan Science and Technology Program.

Contact WGBH donors by telephone to request renewed support of WGBH radio and Channel 2, to promote upcoming programs and conduct listener/viewer surveys. Any previous telemarketing, fundraising, or sales experience preferred. Broad familiarity with BS programming. Excellent communication skills required and ability to think logically and persuasively. Hours: 5:30-9:30, M-Th, 2 night commitment/wk needed. Salary: \$6.16/hr. contact George Havenspin, WGBH Tele Dept, 114 Western Ave, Allson, MA 02134. Call 492-2777, x3707.

Advanced Life Guard and Water Safety Instructor needed Qualifications: American Red Cross/and Standard First Aid, Advanced Life Saving Course, and CPR. Salary: LG: \$4.82, WSI: \$5.54/hr. Contact: Judith Wine, Cambridge YWCA, 491-6050.

MIT and Wellesley undergraduates are invited to join with faculty members in pursuit of research projects of mutual fascination. Undergraduates are also urged to check the Undergraduate Research Opportunities Program's bulletin boards located in the main corridor of the Institute and it the UROP Office. Faculty supervisors wishing to have projects listed should send project descriptions to the UROP Office. Questions? Contact us, x3-5049, Rm 20B-141.

Molecular Biology. UROP Project IAP/Spring for student interested in molecular biology. Project involves isolation of proteins that bind to a left-handed conformation of DNA. These proteins are obtained from yeast and the project involves characterizing the proteins that it binds to and introducing mutations in the protein in order to test for its biological activities. FRESHMEN may apply. Faculty supervisor: Prof A. Rich, x3-4715, Rm 16-735.

Alumina-Zirconia Composites. UROPer to assist in the production and characterization of Alumina-Zirconia composites based in flocculated, binder containing dispersions. Work involves production, characterization and consolidation of binder containing Alumina-Zirconia dispersions. Polishing of ceramics based on these dispersions using an automated polisher will also be precessary. Williampost to cheave bears clearly less precessary. be necessary. Willingness to observe basic cleanliness precautions in a semi-clean environment required. Upperclass student in MSE preferred. Contacts: Dr. Wendell Rhine, x3-5034, Rm 12-064 and Bill Moffatt, x3-8478, Rm 12-084.

Surface Deactiviation of Hydroemetallation Catalysts. Hydrodemetallation (HDM) catalysts are used to remove metals in the hydroprocessing of heavy residuum oils. One of the goals of our research is to determine the mechanisms of deactiviation of these catalysts in a model compound environment. As a part of this effort a UROP project is available on the surface characterization of fresh and aged HDM catalysts. This project will involve using x-ray photoelectron spectroscopy (XPS) and secondary ion mass spectroscopy (SIMS) to analyze catalyst samples appropriate standard compounds, and the development of data handling programs for data reduction and interpreta-tion. The student should have a background in chemcial engineering, material science or chemistry. Some computer pro gramming experience necessary. IAP/Spring, with the possibility of extension. Faculty supervisor: Prof James Wei. Contact: Barbara Smith, x3-6448, Rm 66-565.

Structure of Mammalian Eye Lens Proteins in Relation to Dept team of physicists, chemists and mathematicians investigating the molecular basis of cataract formation in the human eye lens, and developing chemical treatments to prevent cataract need a team member to determine amino acid sequences of bovine lens proteins (gamma-crystallins) and cor relate them with known structural properties. Techniques will include peptide purification by chromatography and electrophoresis; amino acid analysis and sequencing. Chemistry or biology major preferred. PAY or credit. 10 hrs/week. IAP/Spring. Faculty supervisor: George Benedek, x3-4828, Rm 13-2005. Contact John Thomson or Roland Siezen, x3-6804, Rm

#### TECH TALK



December 11, 1985 Volume 30 Number 15

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# Brown dedication: a time for recollection



Graduate student Denice Denton presents Gordon Brown with his personal 'bunny suit" during the Gordon Stanley **Brown Building dedication ceremonies** on Friday, Dec. 6. The suits must be worn in the ultra-clean environment maintained in some of the chip-making labs in the building.

The dedication on Friday, Dec. 6, of the Gordon Stanley Brown Building in honor of the former Dean of Engineering and head of the Department of Electrical Engineering was a colorful event with brilliant balloons, vivid VLSI T shirts and a stunning cake.

There were warm memories too. Professor Richard B. Adler, for example, recalled in his remarks that Dr. Brown and several faculty members in the department lived in the same Concord neighborhood. Their newspaper carrier was Dr. Brown's son and on Sundays, when the paper was heavy, Dr. Brown drove his son along the route-occasionally taking the opportunity to deliver departmental correspondence with the newspaper, Professor

Perhaps the most colorful recollection was President Paul E. Gray's. He told of a lastminute change in plans that kept Professor David C. White from visiting the Birla Institute of Technology and Science in Rajasthan, India, in the early 1960s. Dr. Brown, who had established the Birla-MIT link, recruited Dr. Gray, then a faculty member in the department, and Robert P. Greene, an administrator in the Dean of Engineering's Office, to go instead. Dr. Gray and Mr. Greene arrived to find Birla's president puzzling over Gordon Brown's telegram, which read: "White can't come. Gray and Greene will arrive soon. Signed Brown.



Corporation Chairman David S. Saxon, Dr. and Mrs. Gordon S. Brown and President Paul E. Gray cut a striking cake upon which is reproduced a famous chart created several years ago by Dean Brown which illustrates his vision of how interdisciplinary research centers could energize education.

-Photos by Calvin Campbell

## Decoration guidelines issued

The Safety Office has issued guidelines for the use of holiday decorations in all Institute buildings in order to assure a safe holiday season for the community.

Flammable decorations-including natural greens, straw, crepe paper, streamers and surface coverings on building interior finish are prohibited in places of public assembly and public and private school buildings under Massachusetts Fire Prevention Regulations. Also prohibited are flammable decorations in lobbies, student rooms, and assembly areas of residential buildings. Noncombustible decorations or those labeled as flameproofed are permitted.

All Christmas trees and decorative boughs must be artificial with an approved

flame retardant label.

Only UL approved lights rated for use on artificial trees are to be used. Larger tree lights normally used on natural trees generate enough heat to melt plastic and ignite decorations.

Remote spotlights are recommended for use with metal trees to avoid an electrical shock hazard.

The use of Christmas cards, wrapping paper and streamers to decorate exit corridor walls is prohibited.

The use of Christmas lights, electric ornaments, and extension cords in corridors and over exit doors are prohibited.

Combustible materials should be kept at a safe distance or be shielded from sources of heat such as radiators, light bulbs, desk lamps, dryers and cigarettes.

Christmas trees are not allowed in passage-ways or aisles to exits.

The use of candles or any type of open flames for lighting, or decorative purposes is prohibited by the Cambridge Fire Department.

Fireplaces should only be used according to guidelines available from the Safety

Hayden exhibit to explore nudity

The MIT Committee on the Visual Arts will present "Nude, Naked, Stripped" in the Hayden Gallery of MIT's List Visual Arts Center, December 13-February 2. This exhibit of contemporary painting, sculpture, and photography by 18 artists explores varying personal, social, cultural, and political attitudes toward the body without clothing.

Students and all members of the MIT community are invited to a preview and reception on Friday, Dec. 13, 6-8pm when many of the

artists will be present.

While the exhibition draws together artists with greatly divergent backgrounds and approaches, there is a shared intensity of observation and depth of introspection. Artists featured in the exhibition: Mary Ahrendt, Luis Cruz Azaceta, Louise Bourgeois, Chuck Close, Robert Colescott, John Coplans, Cheri Eisenberg, Peter Hujar, Dennis Kardon, Deborah Kravitz, Greer Lankton, Robert Mapplethorpe, Alice Neel, Francois Robert, Lucas Samaras, Suzanne C. Shepherd, Nancy Spero, and TODT.

In the exhibition's catalogue, Dana Friis-Hansen, assistant curator for the Committee on the Visual Arts writes: "Throughout the history of western art, the idealized nude has carried the shared convictions of truth and beauty. Contemporary society, however, constitutes a more problematic climate for the body without clothes full of conflicting messages indicating what one should or should not do, see, feel, want, take pleasure in or avoid.

"Rather than survey contemporary art which features the nude, this exhibition focuses on the range of emotionally charged states suggested by the adjectives which form the title. Instead of categories under which to classify art, or a narrative progression, the title indicates the broad scope of responses attached to the consciousness of being without clothes, as well as the artistic cultural, and psychological issues which surround the depiction of the

naked human form."

TODT, a collaborative group of four artists who wish to remain anonymous, has been commissioned to create a room-size installation addressing the exhibition's theme. Mr. Friis-Hansen says of their work: "TODT creates a new futurism where the body and machine become one. Architectual space is subtly manipulated to focus the viewer's attention on an array of pseudo-machines and ambiguous apparatuses, crafted from elements from scientific laboratories, juxtaposed with familiar household objects to create a startling, and sometimes unsettling experience." Support for this project has been provided by the Council for the Arts at MIT.

A series of special educational programs has been organized to explore the personal, cultural, and political issues relating to the body without clothes and how it is depicted. A list of these informal discussions, all free and open to the public, will be published in a subsequent issue of Tech Talk.

An 80-page illustrated catalogue has been published to accompany the exhibit, with statements by the artists and two essays. Free-lance cultural critic Carrie Rickey has written an essay on the body within contemporary society, entitled "Mapping Autogeography: Six Routes for Navigating the Body Politic." In his essay, Dana Friis-Hansen examines the work of each artist within personal, cultural, and political contexts.

The Hayden Gallery, located in the Wiesner Building, is open, free to all, weekdays 10am-4pm and weekends 1-5pm.

## Trio to celebrate Beethoven's birthday

In honor of Beethoven's Birthday, MIT will Monday, December 16. Pianist Sally Pinkas and two members of the Lydian String Quartet will perform at this free concert at 8pm in Kresge Auditorium. The program will be: Sonata for Cello and Piano, Op. 5, No. 2 in G Minor; Piano Sonata, Op. 2, No. 3 in C Major; Trio, Op. 97, in B-flat Minor, Archduke.

Lydian String Quartet members Judith Eissenberg (violin) and Rhonda Rider (cello) both hold degrees from the Yale School of Music. Ms. Eissenberg was an artist-in-residence at the Fountainbleau School in France. Ms. Rider, the recipient of the 1980 Concert Artist Guild Award, frequently performs contemporary music.

Sally Pinkas, a former affiliated artist at MIT, is an assistant professor of music at Dartmouth College. Her training began at age ten in Israel where she composed and performed concert piano before travelling to the US to study music in 1976. Here she earned the BA degree from Brandeis University, a Master of Music degree from Indiana University and an Artist Diploma from New England Conservatory of Music. She has performed at the Marlboro, Tanglewood and Aspen music festivals and has made chamber appearances with the Lydian Quartet, the Cantata Singers, and the Cambridge Center Players gragere I grate to hand to enite A position

## Treasurer's Office names three

Robert W. McQuillan, former MIT financial benefits officer, has been promoted to assistant



treasurer for financial benefits, and Gregory B. Howland '83 has been appointed assistant to the treasurer, Glenn P. Strehle, treasurer, has announced.

A second appointment, that of Carmen Santos as senior staff accountant in the Real Estate Office of the Treasurer's Office, was announced by Philip A. Trussell, director of Real Estate and associate treasurer

As assistant treasurer for financial benefits, Mr. McQuillan supervises the financial management of the Institute's retirement plans for staff and employees. He is also assistant clerk and assistant treasurer of both plans. He participates in the financial, legal and actuarial activities with the Benefits Office and Benefits Accounting.

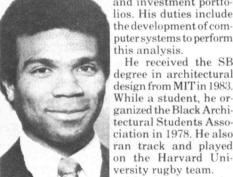
Mr. McQuillan joined MIT in 1957 as assistant auditor. From 1960-1973, he was an accounting officer for benefits and since 1973 he has been a financial benefits officer assisting the associate treasurer in the financial administration of the Institute's employee benefit program. In addition, he assisted the Personnel Office in negotiations with union representatives during employee benefit programs discussions.

Before he came to MIT, he was an assistant to the controller in the International Shoe Machine Corporation from 1954-57. He was also an accountant for the Bissell Leather Company from 1947-51 and from 1953-54.

Mr. McQuillan served in the US Army, 3rd Logistical Command, from 1951-53

He received a diploma at Burdett Business College in 1947. He also took the United States Army Basic Finance Procedures Course.

Mr. Howland is working with the treasurer on the analysis of the Institute's investments and investment portfo-



puter systems to perform his analysis. He received the SB degree in architectural design from MIT in 1983. ganized the Black Architectural Students Association in 1978. He also ran track and played on the Harvard Uni-

After graduation, he began his own firm with Terry Meehan, M. Architecture '83, where he supervised renovation of several row houses in Boston. He

#### Orloff Award presented

Thomas R. Junk, a sophomore in physics from Homewood, Ill., has received the 1985 Matthew Joel Orloff UROP Award for outstanding ability and creativity in physicsrelated research.

He was nominated by Professor Irwin A. Pless of physics as a result of a research project carried out last summer in which Mr. Junk searched for "Anomalons" in the high energy physics data. The results of this research will be submitted for publication soon and Mr. Junk will be one of the principal

The Orloff UROP Award was established by a gift from the family of Joel Matthew Orloff, a UROP participant and member of the Class of 1978, and and sine of season and

directed all phases of acquiring, developing and managing property. He was also employed by Anderson, Notter, Finegold, a developerarchitect firm in Boston in 1980 and McAllister, Schwartz contractors, Washington, D.C., in

Ms. Santos is charged with investment real estate accounting and mortgages administered by the Real Estate Office.

A resident of Dedham, Ms. Santos' most recent post at Brandeis University included reviewing bank investment reports while monitoring the sale and purchase of investments in stocks, real estate and mort-gages. At Sears, Roebuck and Company, she spent 13 years in accounting and auditing. Her duties included introducing, implementing and train-



ing Eastern region controllers and their staffs in the procedures used to reorganize and standardize the obtaining of sales, inventory and payroll information. She also analyzed, consolidated, implemented and redefined job descriptions and trained the international division in interpretation and administration of accounting functions related to the computerization of customer account receivables.

Ms. Santos received the BA degree in mathe-. matics at Southeastern Massachusetts University in 1972. She is fluent in Spanish and Portuguese.

## Visiting artist plans 'Live scenario' event

Austrian artist Richard Kriesche, known for his experiments and collaborative efforts in film, video, site-specific installations, and publications, is spending six weeks in the reference gallery of MIT's List Visual Arts Center.

Using MIT as both a reference and resource. his explorations will focus on the relationship of new technologies to the social conditions which they both convey and create.

Since his arrival at MIT in November, Kriesche has met with more than 30 research scientists and engineers to discuss their work. The artist has visited advanced research laboratories including biomedical engineering (robotics), the Architecture Machine Group the Artificial Intelligence Laboratories and the Experimental Music Studio, as part of his ongoing investigation of technological and cultural systems.

On Friday, Dec. 13, at 7pm, Mr. Kriesche will present what he calls a "Live Scenario," an event in which the artist will create a "drawing" within an installation which incorporates both high and low technology. Although reticent to discuss the piece before it occurs he has said: "Any action is a political one-the drawing in this live scenario is a political statement.'

The installation and video and photogaphs documenting the live scenario will remain on view until December 29. The Reference Gallery frequently functions as a hybrid of a laboratory, studio, and staging area, to make accessible the usually private process by which a work of art is realized.

Kriesche's residency in The Reference Gallery has been organized by the MIT Committee on the Visual Arts, and is funded by the Massachusetts Council on the Arts and Humanities. -Dana Friis-Hansen, CVA



#### December 11-22

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.

MISS THE TECH TALK DEADLINE?

Put your announcement on the MIT Cable System. "Today at the Institute" runs 24 hours a day and can be viewed in Lobby 7, Lobby 10 and anywhere the cable is

Simply submit announcement in writing to Rm 9-030. We prefer a day's warning, but faster action may be possible.
Useful also for correcting errors, notifying about

cancellations, and dealing with emergencies.

Note: If you have met the Tech Talk deadline, your announcement is automatically put on cable (except for exhibits and some multimeetings programs).

#### **Events of Special Interest**

Winter Crafts Fair\* - Tech Community Women Sale, Dec 11,

Holiday Open House\*\* - President and Mrs Gray invite you and your family to join them, Wed, Dec 11, 4:30-6:30pm, President's House (111 Memorial Dr).

Holiday Party\*\* - Women's League/Lobby 7 Committee hot cider and cookies, Dec 12, 12-1pm, Lobby 7. Shirley Brown and the Concord Bell-Ringers provide seasonal music

Pottery Sale\* - Student Art Association annual Christmas sale, Dec 12-13, 10am-4:30pm, Lobby 10.

#### Seminars and Lectures

#### Wednesday, December 11

Review of Short Wavelength Laser Progress at LLNL\*\* P.M. Hagelstein, Lawrence Livermore National Laboratory, EECS/RLE Seminar on Optics and Quantum Elec-tronics, 11-12noon, Rm 36-428.

Fourth Generation Microcomputer Loads and Annual Energy Estimation Programs\* – Bill Wright, president, Wright Associates, Inc., and MIT Architecture Dept lecturer, Joint Program for Energy Efficient Buildings and Systems Seminar, 1-2pm, Rm 1-214. Bag lunches welcome.

One-Dimensional Kinetics Equations Based on Nodal Theory\*\* - Antonio F.V. Dias, Seminar in Nuclear Engineering, 3-4pm, Rm 24-213.

Is Finite Time Thermodynamics Different From Infinite Time Thermodynamics?\*\* - Prof Elias Gyftopoulos, MIT, Dept of Mechanical Engineering Thermodynamics Seminar, 4pm, Rm 1-114. Coffee served, 3:30pm.

Fracture Mechanics-based Criteria for Assessing Pipeline Girthweld Defects\* – Dr. Peter Hilton, Arthur D. Little, Inc, Constructed Facilities Division Seminar, 4-5pm, Rm 1-350. Refreshments served, 3:30pm.

Computer Calculations of Solute Excess Free Energy in a Detected Lennard-Jones Crystal\*\* - Ademola Taiwo, PhD candidate, Radiation Science and Technology Doctoral Seminar, 4pm, Rm 24-121.

#### Thursday, December 12

Experimental System for Document Page Image Filing and Communication\* - Ryuichi Ogawa, C and C Systems Research Laboratories, NEC Corporation, Japan, Laboratory for Information and Decision Systems Seminar, 2pm, Rm 36-839.

Telerobotics: Display, Control and Communication Problems\* - Dr. Lawrence Stark, professor, engineering Science, University of California-Berkeley, Dept of Aeronautics and Astronautics Man Vehicle Lab Seminar, 3:30-4:30pm, Rm 37-232.

Vocabulary Development and Word Formation\*\* Writing and Communication Center English as a Second Language workshop, 4:15-5:15pm, Rm 14N-317.

ment of Medical Technology\* - R. Heather Palmer, MD, Institute for Health and Management, Harvard School of Public Health, Biomedical Engineering Seminar-HST 590 Seminar, 4:30-5:30pm, Rm E25-117.

The Chassidic Bratslaver Movement in Israel\* – Gedaliah Fleer, Hillel Seminar, 5:30pm, Kosher Kitchen, Rm 50-007. Optional dinner available for \$5.75.

#### Friday, December 13

Non-Reflecting Boundary Conditions for the Compressible Navier-Stokes Equations\*\* - Dr. Alvin Baylis, Exxon Corp Research Science Labs, Mechanical Engineering Computational Fluid Dynamics Seminar, 12-1pm, Rm 33-206

State University, Center for Materials Science and Engineer ing Colloquium, 12:15pm, Rm 12-132. Lunch provided, 12noon

Control of Enzymatic Selectivity Using Supercritical Fluids\*\* - John Erickson, Chemical Engineering Seminar 2pm, Rm 66-110.

Plasma Enhanced Chemical Vapor Deposition of Epitaxical Silicon Films from Silane\*\* - James Comfort, Chemical Engineering Seminar, 3pm, Rm 66-110.

The Dynamical Processes in the Solar Winds\* - Prof Stanislaw Olbert, MIT Dept of Physics, Plasma Fusion Center Seminar, 4pm, Rm NW17-218.

On Elizabeth Anscombe's The First Person\* - Prof. Rogers Albritton, UCLA/Harvard University, Dept of Philosophy Seminar, 4pm, Rm 37-212. Copies of Ms Anscombe's paper on file in Rm 20B-217.

#### Tuesday, December 17

Behavioral Effects of Food and Drugs\*\* - Harris R. Lieberman, PhD, MIT Dept of Psychology, Clinical Research Center Seminar, 10:30-11:30am, Rm E25-401.

The Role of the Nuclear Matrix in the Organization and Function of DNA\*\* – Dr. Donald Coffey, Johns Hopkins University Medical School, Biology Colloquium, 4:30pm, Rm 10-250. Coffee served, 4pm, Bldg 56 5th floor vestibule.

#### Friday, December 20

Feedback Stabilization of Resistive Modes in Tokamaks\* - Dr. Roscoe White, Princeton Plasma Physics Laboratory, Plasma Fusion Center Seminar, 4pm, Rm NW17-218

#### **Films**

American Challenge\* - The intimate on-board story of seven solo sailors facing an ultimate challenge: the Observor Singlehanded Trans-Atlantic Race, The Ditty Bag Series of Maritime Evenings cosponsored by the MIT Offshore Sailing Association, Dec 11, 7pm, MIT Museum. Light refreshments

#### Community Meetings

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

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

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

Narcotics Anonymous\* - Meetings at MIT, every Mon, 1-2pm, Rm E23-364 (MIT Medical Dept). Call 569-8792.

Medical Consumers' Advisory Council Open Meeting\*\* – Dec 17, 12noon, Rm E23-297. Call x3-1316 if you would like to

MIT Faculty Club\*\* - The Club is open Mon-Fri. Luncheon hours: noon-2pm; dinner hours: 5:30-8pm. For dinner and private party reservations, call x3-4896 9am-5pm daily. gear up for this show of over 600 of the current year's models in trailers, motor homes and vans, and a large representation of campgrounds and campsites. Show covers 205,000 square feet of the Bayside Exposition Center, M-Sat, 1-10pm; Sun, 12-7pm. Tickets: \$2/adults (reg \$4); \$1/children ages 6-12 (reg \$2); under 6 free, available in Rm 20A-023.

Cat on a Hot Tin Roof. Thurs, Jan 23, 8pm, Lyric Stage. Tennessee Williams' explosive Pulitzer prize-winning ma Tickets: \$6.50/pp (reg \$8), available in Rm 20A-023.

Dinner and Racing at Wonderland. Sat, Jan 25. No luck with Megabucks? Then try your hand betting on the dogs at Wonderland. Evening begins with dinner featuring your choice of boneless stuffed breast of chicken or broiled Boston scrod. The fun starts at 6:30pm. Wonderland is accessible by the MBTA Blue Line, or free parking is available next to the raceway in Revere. Cost: \$11.25/pp (chicken) or \$12.25/pp (scrod). Prices include clubhouse admission, racing program, all meal taxes and gratuities. Reserve your space now in Rm 20A-023.

Washington, DC Presidents' Day Weekend. Fri-Mon, Feb 14-17. Visit the Smithsonian, FBI, National Zoo, and all the monuments - FREE. Go to some of the best restaurants, theatre, Georgetown, or go jogging or ice skating on the Mall. We will be staying at the Best Western Convention Ctr - which is in walking distance to everything — and the Metro, which will get you everywhere. Naturally, there are the usual surprises. The bus leaves West Garage, Feb 14, 7am; returns Mon, prises. The bus leaves West Garage, Feb 14, 7am; returns Mon, Feb 17, 8pm. Cost: \$118/pp/dbl occupancy only (bus and hotel fares inc in total cost). Make your reservations now in Rm 20A-023.

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. NOTE: The Renoir exhibit is a separate admission price, and one must designate a day and time one wants to see the exhibit. Please call the Museum of Fine Arts directly for more information. MITAC is not offering Renoir Tickets.

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).

City Books are here! Only \$.75 ea. Great stocking stuffers.

Ski-Key Books. Containing valuable discount lift ticket coupons for the greater New England area are here! Only \$9 ea.

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



The traditional wreaths were mounted last week at the entrance to 77. Coincidentally, workmen use an old copy of Tech Talk to determine the proper placement. -Photo by Calvin Campbell

Commodore Users Group\*\* - meets monthly at noon time. For more info, call Gil, x8-3186 Draper.

Exercise Class\*\* - Tech Community Women class, Tues, 7:30-8:30pm. Call 494-4825 or 651-3697 for information on location.

Wives' Group\*\* - Morning Group: Dec 11, Museum of Science, with exhibits for all ages, including the Apollo capsule, a moon scale, the talking transparent woman, and more – info, phone Catarina Bacos, 723-3449; Dec 18, Museum of Fine Arts, 160 galleries including permanent exhibits as well as visiting collections – info, phone Lizzi Newton, 577-8031; Nerine Ahlers, 494-0402 or Hyeydon Kim, 227-1526. For all trips, meet at 9:15am, Eastgate (60 Wadsworth St). Children welcome. Afternoon Group: Dec 11, American Politics: What It Is and Isn't - Prof Michael E. McGerr, history faculty; Dec 18, Holiday Party, Bring some refreshments to share & if you make holiday gifts for friends bring them; we'll have a chance to share how to make them. All meetings, 3-5pm, Stu dent Ctr Rm 491. Babysitting provided in Student Ctr Rm 407.

Craft Group \*\* - sponsored by Wives' Group, meets every Thurs, 2-4pm, Student Ctr Center Lounge or Student Ctr Rm 407. Please call x3-1614 to check on location of meetings.

The Language Conversation Exchange\*\* the Wives' Group, seeks persons interested in practicing languages with a partner. Many international students and uses wish to practice English with a native speaker. If you willing to help an international visitor practice English and/or interested in practicing or learning a foreign language with a native speaker, call the secretary to the Wives' Group,

MIT Women's League Informal Needlework Group\*\* ednesday lunchtime gatherings, 9:30am-1:30pm, Rm 10-340 Bring sack lunch, projects, swap ideas, Coffee & tea served Meeting dates: Dec 11, Jan 8, 22, Feb 12, 26, March 12, 26 April 9, 23, May 14, 28. For more info, call Lillian Alberty (491-3689), Nancy Whitman (x3-6040) or Beth Harling (749-4055)

#### MIT Activities Committee

MITAC, the MIT Activities Committee offers discount movie ickets for General Cinema (\$2.50), Showcase and Sack Theaters (\$3.00). Tickets are good 7 days a week, any performance.

Tickets may be purchased at MITAC Office, Rm 20A-023 (x3-7990), 10am-3pm. Mon through Fri and Lobbies 10 and E18 on Fri, 12-1pm. Lincoln Lab employees may purchase tickets in

Rm A-270 from 1-2pm, Tuesday through Friday only. Check out our table of discounts for camping, dining, musical and cultural events available to you through MITAC and MARES (Mass Assoc of Recreation and Employee Services).

The Loon and Heron Theatre Presents What's Inside My Magic Trunk?. Sat, Jan 18, 1pm, Rm 10-250. Back by popular demand, the highly acclaimed acclaimed Loon and Heron Theatre presents this all-new play based on children's own writings. Lively entertainment for children in grades K-3. Tickets: \$2/pp, available in Rm 20A-023.

Camping and Recreational Vehicle Show. Sat-Sun, Jan la 26. Stock up on the trail mix and granola bars, load up the backpack, tack the bikes onto the back of the Winnebago and

#### Social Activities

Table Francaise\*\* - sponsored by Foreign Languages & Literatures Section. Venez dejeuner avec nous et parler francais! Votre hote: Christophe Lecuyer. Tous les Lundis, de 12:15 a 13:45, Muddy Charles Room a Walker Dining Hall.

GAMIT Sunday Discussion Meeting\* - Gays at MIT, Suns, 5pm, GAMIT Lounge, Walker Memorial Rm 50-306. Dinner

GAMIT Study Break\* - Gays at MIT, Thurs, 9pm, GAMIT Lounge, Walker Memorial Rm 50-306.

#### Movies

Silverado\*\* - LSC Movie, Dec 12, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

Rambo: First Blood Part 2\*\* - LSC Movie, Dec 13, 7&10pm, Kresge. \$1/MIT-Wellesley ID.

TRA\*\* - Student Ctr Committee movie, Dec 13, 11pm. Free/MIT-Wellesley ID.

Rock 'N' Roll High School \*\* - LSC Movie, Dec 14, 7&9:30pm, Rm 26-100. \$1/MIT-Wellesley ID.

#### Music

MIT Chamber Music Society\* - conductors Marcus Thompson, Jean Rife, John Buttrick and Melissa Howe, Wed, Dec 11, 5:15pm, Student Ctr Sala de Puerto Rico.

Noon Hour Chapel Series\* - La Fontegara perform medieval and Renaissance Christmas season music, Thurs, Dec 12, 12:05pm, MIT Chapel. Free.

Messiah Sing\* – Lutheran/Episcopal Ministry at MIT sing, Dec 13, 3-5pm, Student Ctr West Lounge. Refreshments served. Info: x3-2983.

MIT Symphony Orchestra\* - David Epstein, music director Sat, Dec 14, 8:30pm, Kresge Auditorium. Admission \$1.

MIT Women's Chorale\* – perform works by Mozart, Bach, Reger, Butler, Mendelssohn, Dello Joio, Sun, Dec 15, 3pm, Rm 10-250. Free. Concert ends with singing of traditional carols and songs of the season, followed by refreshments. Info: 484-8187.

Beethoven's Birthday Concert\* - Two members of the award-winning Lydian String Quartet; Judith Eissenberg, violin and Rhonda Rider, cello, with pianist Sally Pinkas perform Sonata for Piano Solo, Op 2, No 3 in C Major, Sonata for Cello and Piano; Archduke Trio Op 97, Mon, Dec 16, 8pm, Kresge Auditorium. Free.

Chinese Intercollegiate Choral Society\* - Meets Suns, 3-5pm, Rm W20-491. Currently rehearsing Chinese folk songs. Free voice lessons and music theory class, 1pm.

MIT Gospel Choir\* - Rehearsals: Dec 14, Student Ctr Rm 491. All rehearsals: 11-1:30pm. Info, x5-8563 dorm.

#### Dance

Western Square Dancing\* - Tech Squares Club Level dancing and rounds, Tues, 8-11pm, Student Ctr 2nd Floor. Dennis Marsh, club caller & instructor; Veronica McClure, club cuer. Special Dance, Sat, Dec 14, w/Clint McLean and Veronica McClure. Recorded info line: x5-9126 dorm.

MIT Contemporary Dance Club\* — Cynthia Mallick, instructor, Aerobix, M., 7-8:15pm, McCormick Gym, W, 8:15-9:30pm, T-Club; Jazz I, M, 8:30-10pm, T-Club; Jazz II, W, 6:30-8pm, McCormick Gym. Fee: \$3/class, \$30/11 classes. Info: call 723-7081.

Children's Dance Classes\*\* - Pamela Day, instructor. Creative Movement/Modern Dance classes for children ages 3-8. Ages 3-4: Fri, 2:15-3pm; Ages 5-8: Fri, 3:30-4:30pm, West campus location convenient to Westgate. Children do not have to speak English. For info, location, and registration, call Pamela, x3-5791 Tues/Thurs mornings, or 648-4834 eves/wkends.

tional Dancing, 7:30pm, Student Center Sala de Puerto Rico; Tuesdays, Balkan and Western European Dancing, 7:30pm, Rm 407 Student Center; Wednesday, Israeli Dancing, 7:30pm Sala

MIT Folk Dance Club\* - weekly dancing-Sundays, Interna

Yoga\* – ongoing classes in traditional Hatha and Iyengar style. Beginners: Mon, 7:20pm; Intermediates: Mon, 5:45pm. For information call Ei Turchinetz, 862-2613.

#### Exhibits

COMMITTEE ON THE VISUAL ARTS Albert and Vera List Visual Arts Center Jerome & Laya Wiesner Building 20 Ames Street

Hayden Gallery – Nude, Naked, Stripped. Examines the varied attitudes to the body without clothes; its eternal sensuality, its vulnerability in nakedness and the horror of its violation. The issues which surround its depiction – artistically, culturalized and the surround of the surround its depiction. ly and psychologically — discussed in accompanying catalog published by MIT Press, Dec 13 through Feb 4.

Sculpture Archives Gallery – Henry Moore: Figures and Forms. Examines one of the most important topics in the British sculptor's work: the figure in relation to the natural set-

The Reference Gallery - Richard Kriesche: Cultech. Internationally-recognized Austrian artist-in-residence, known for his film, video, and installation work, seeks to understand and comment upon the social conditions which mass communication and the media convey and create, through Dec 29. Hours, M-F, 10-4; Weekends, 1-5pm.

#### THE MIT MUSEUM

MIT Museum Bldg - Berenice Abbott: Vision of the 20th Century. Five decades of photographs by Berenice Abbott, in-cluding portraits from the '20s, images of a vanishing NY City from the '30s and scientific photos illustrating waves and light refraction, through Dec 27. I.M. Pei: Selected Projects, through December. The United Nations: A Photographic Retrospective. Photographs documenting UN involvement in agriculture, education, health and scientific programs, through Dec 31. Red Weights: Sculptor Carol Keller and painter Kathleen Soles use a variety of materials to explore spatial ambiguity as a metaphor. Through Jan 31, 1986. Light Sculptures by Bill Parker '74, Changeable, touchable plasma sculptures, ongoing. Gjon Mili '27: A Tribute, Born in Rumania, world famous photographer Gjon Mili studied elec-Rumania, world famous photographer Gjon Mili studied electrical engineering at MIT and pioneered in the use of electronic flash and multiple exposure photographs. In 1938 he began doing stories for Life magazine, ongoing. Of Aerostatic Machines: Early Ballooning in France and Britain, Prints from MIT's Vail Collection illustrate the development of ballooning as a science and sport including fanciful inventions for steering balloons, and aerial views of Paris and other cities, ongoing. Physics at the Laboratory for Nuclear Science: 35 Years at LNS, ongoing. Hours: Weekdays 9am-5pm, Saturdays 10am 4cm.

Compton Gallery - Piece By Piece, Works by Italian architect Renzo Piano 1964-84, MIT Dept of Architecture exhibit, through Jan 11, 1986. Hours: Weekdays 9am-5pm, Saturdays

**Hart Nautical Gallery** 

Ongoing exhibits: Currier & Ives Prints From the Hart Nautical Collections - Colored lithographs of sailboats, steamboats, clipper ships and whalers. George Owen '94: Yacht Designer - Line drawings and half-models designed by one of the early professors of naval architecture at MIT. MIT Seagrant - A review of MIT ocean research; Collection of Ship Models - Half-models and drawings. Historical view of the design and construction of ships.

Edgerton's Strobe Alley - Exhibits of high speed photography. Main corridor, 4th floor.

Corridor Exhibits: Building 1 & 5, 2nd floor: John Ripley Freeman Lobby, Building 4: Rogers Building, 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. Building 8: Solar Energy, Society of the Sigma XI. Building 14N, across from Rm 14N-118.

#### OTHER EXHIBITS

Institute Archives and Special Collections - Planning the New Technology. Part Two: Constant Desire Despradelle. Part two of a three-part series about the relocation of MIT from Copley Square to Cambridge portrays the impressive design of architect and teacher Despradelle. Though he died before the ral of his ideas wer ultimate plan by his successor, William Welles Bosworth. Hall exhibit case across from 14N-118.

Island Interiors - through Jan. Architecture & Planning Computer Resource Laboratory sequential exhibit of photographs by S. Leland Smith, teacher of filmmaking and photographic darkroom skills at the MIT Student Art Association. Hours: M-F, 9am-5pm, Rm 9-514.

MIT Field Hockey Photo Exhibit, by Gary Agranat '85, of Technique - Jerome B. Wiesner Student Art Gallery, through

Jerome B. Wiesner Student Art Gallery – for 1985 scheduling, any MIT student or student group interested in showing or performing art in the Gallery, call Andy Eisenmann, x3-7019 in Rm W20-429, M-F, 9-5.

#### Sports

HOME EVENTS: Dec 14: Indoor Track vs Alumni, 2pm.

### Wellesley Events

Jewett Arts Center\* - Paintings, Drawings and Sculpture from the Permanent Collection, continuing. Contemporary Prints from the Permanent Collection, continuing.

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

\*\*\*Open to members only

Send notices for Wednesday, December 18 through Sunday, January 12, to Calendar Editor Rm 5-111, before noon, Friday, December 13.

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## Latham family establishes chair

The Latham Family Career Development Professorship has been established at MIT by gift from Allen Latham Jr. and his wife, Ruth Nichols Latham. Mr. Latham and the four Latham children hold eight degrees from MIT among them.

Dr. Monty Krieger, associate professor of molecular genetics in the Department of Biology and Whitaker College of Health Sciences, Technology and Management, has been named the first Latham Family Career Development Professor. Dr. Krieger, honored recently by MIT for excellence in teaching, directs his research toward understanding how cells internalize physiologically active macromolecules from extracellular fluid. He and his colleagues are investigating low density lipoprotein, the principal particle for the transport of cholesterol in humans.

Mr. Latham is founder and chairman of Haemonetics Corp. of Braintree, Mass., which develops, manufactures and sells systems used for the preparation of clinically useful quantities of blood platelets from donors for the support of patients undergoing intensive cancer chemotherapy. The Latham Family Career Development Professorship will, primarily, support research in hematology, immunology and cardiovascular disease

The establishment of the Latham Family Career Development Professorship and the appointment of Dr. Krieger were announced by President Paul E. Gray.

"MIT is truly a family affair with the Lathams, and the Institute has been strengthened by their generosity and concern," he said in making the announcements. "This new gift will support, now and in the years to come, many extraordinarily talented young faculty members as they work to expand our knowledge in these important fields," Dr. Gray said.

Mr. and Mrs. Latham live in the Jamaica Plain section of Boston. He received the SB in mechanical engineering from MIT in 1930. From 1930 to 1935 he was a development engineer at DuPont Co. He returned to the Institute in 1936 as a Sloan Fellow, taking part in an intensive 12-month management program for young executives. From 1936 to 1941 he held development engineering and management posts at Polaroid Corp. From 1941 to 1967 he was with Arthur D. Little, Inc., serving successively as engineer and then as senior vice president. He founded Haemonetics in 1972. Mrs. Latham holds both the BS and the MS in chemistry from Oberlin College and taught chemistry at Mount Holyoke College. She has sung for several years with the MIT Choral Society.

Mr. and Mrs. Latham have been generous supporters of MIT. They are Founding Life Members of the Sustaining Fellows Program. Their interests lie in molecular biology, the health sciences and medical research.

Mr. Latham's professional affiliations include the American Society of Mechanical Engineers, the American Institute of Chemical Engineers, the American Association for the Advancement of Science and the National Academic Engineering Club.

He has served as vice president of the MIT Alumni Association (1950-52) and was a member of the Major Gifts Committee for the Second Century Fund (1961) and the Visiting Committees for Humanities (1958-60), Sponsored Research (1969-74), Psychology (1965-73) and Mechanical Engineering (1974-75). He is a Life Member of the Alumni Council.

The other MIT alumni in the family are the Latham children-William Nichols Latham, SB (1946) and SM (1948), mechanical engineering; Harriet Latham Robinson, SM (1961) in biochemistry and PhD (1965) in microbiology; David W. Latham, SB (1961) and SM (1964), mathematics; and Thomas W. Latham, SM (1966), mechanical engineering.

Dr. Krieger is a native of New Orleans. He holds the BS in chemistry (1971) from Tulane University and the PhD in chemistry (1976) from California Institute of Technology. He was a research fellow in internal medicine and molecular genetics at the University of Texas Southwestern Medical School. He joined the MIT faculty in 1981.

His research may yield information that could be helpful in treating diseases such as atherosclerosis which may involve the excessive accumulation of cholesterol by the body. His work may also lead to the development of new drug delivery systems.

## Blacks, Hispanics are report focuses

Two MIT professors have played key roles in reports dealing with the condition of blacks and Hispanics in Massachusetts.

A study by eight black professors from area colleges and universities-edited by MIT's Phillip L. Clay, associate professor of urban studies and planning—has found that Boston blacks are being excluded from the city's economic boom, The Boston Globe has re-

"Ominous trends" suggest that Boston's blacks are losing ground "in a city and region that are experiencing an economic renaissance," said Dr. Clay, who also wrote a chapter on housing and development. In it, he concluded that blacks "are not involved in shaping and managing their community. . . In such a situation, cynicism has fertile soil; the winners in the development game are not blacks or other resident groups, but organized interests who have the time and resources to run the City Hall gauntlet."

On a similar topic, Yohel Camayd-Freixas, assistant professor of planning and community psychology, is quoted by the Associated Press as saying that Hispanics will soon replace blacks as the largest ethnic minority in Massachusetts and are the poorest and least educated ethnic group in the state. Professor Camayd-Freixas is cochairman of the state Commission on Hispanic Affairs, which recently issued a preliminary report based on hearings held across the state. are at the beginning of a Hispanic baby boom in Massachusetts," he said. "Yet Hispanics have the lowest median family income in Massachusetts, even lower than native Americans.

## Six from MIT cited in Esquire survey

Four MIT faculty members—and a doctoral candidate—are among Esquire magazine's 1985 "Men and Women Under Forty Who Are Changing the Nation." Profiled in the December issue of the magazine are: Alan H. Guth, associate professor of physics; H. Robert Horvitz, associate professor of biology; Richard C. Mulligan, assistant professor of molecular biology; Sherry R. Turkle, associate professor of sociology; and W. Daniel Hillis, an MIT graduate and doctoral candidate in electrical

engineering and computer science.
Dr. Guth is cited for his revolutionary theories about the origin of the universe; Professors Horvitz and Mulligan for their pioneering work in genetics; Professor Turkle for her exploration of the links between computers and human behavior; and Hillis, a scientist at Thinking Machines Corporation of Cambridge, for his innovative work in artificial intelligence.

Still another MIT scientist, David J. Edell, assistant professor of electrical and bioengineering, was included in a separate listing of notable recent achievements, for his development of an implantable silicon chip that detects nerve impulses and which could eventually help overcome problems of the physically disabled.

## Two are promoted in Benefits Office

sonnel for the Compensation Office, has announced the promotions of Sherry H. Capano and Julienne M. Kelly to administrative staff in the benefits section of the office.

Ms. Capano will supervise EDP development and record-keeping. One of her first projects will be to supervise the loading and testing of the benefits data base.



Ms. Kelly

Ms. Capano She joined the personnel office as a receptionist in the employment section in 1981. Prior to her recent appointment, she was an administrative assistant on the support staff in the wage and salary section of the compensa-

She is completing the requirements for a

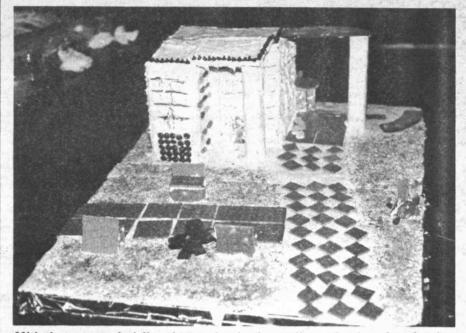
Kerry B. Wilson, assistant director of Per- bachelor's degree at Boston College. Her husband, Michael, is a PhD candidate in the department of Materials Science and Engineering at MIT.

Ms. Kelly will be responsible for supervising all responses to benefits inquiries for the MIT community and for designing and implementing all benefits orientation programs. She will supervise the administration of the Institute's scholarship program and the tuition assistance program.

Ms. Kelly, a 1984 graduate of Boston University, has worked for one and one-half years as an administrative assistant on the support staff.

In other news, Ornah R. Becker and Donna J. Taylor, current staff members, will carry responsibilities dealing with benefits planning and program development. Projects assigned to them will include research and development of new benefits programs such as FRAP (Flexible Reimbursement Account Program), the writing of Summary Plan Descriptions, the preparation of special reports and summaries and the development and delivery of workshops and seminars.

Nancy Urquhart, benefits associate, will develop retirement estimates and counsel retirees on all applicable retirement programs. She will continue to develop and run the fall and spring pre-retirement seminars on campus and at Lincoln Laboratory.



If it's the season to be jolly, why not also the time to dig out the gingerbread recipes and create an edible version of MIT's new Wiesner Building? Students of the Delta Psi House, also known as Number 6, sculpted not only the arts and media technology building but also its artist-designed surroundings. While the walkways were somewhat literal their impression of the new Henry Moore sculpture seemed to carry abstract art in a direction not seen before. It's a Delta Psi tradition to make a gingerbread house for the centerpiece of their Christmas party each year. Leading the gingerbread sculptors this year was Shawna Vogel '86, a student of biology.

## ←Here & There→

Gyorgy Kepes, founder and director emeritus of MIT's Center for Advanced Visual Studies, received the George Washington Award Medallion of the American Hungarian Foundation at the organization's annual dinner in New York City. Professor Kepes, Institute Professor Emeritus and professor of visual design, emeritus, is a noted painter, designer, author and educator who was a pioneer in recognizing the convergence of art and science. He was born in Hungary, came to the US in 1937 and joined the MIT faculty

Recently we wondered what other media outlets might be sharing our name. We mentioned a call-in program at a Detoit radio station and an occasional column in USA Today, both called Tech Talk. It seems we overlooked someone in our back yard, the Boston Herald, which also has a column under that heading.

He was an ebullient man who didn't look his age-and, in terms of what he tried to accomplish, didn't act it either. George L. Diggs, a graduate of Norwood High School, first attended MIT in 1918 as one of the Institute's earliest minority students. He left and was readmitted as a member of the Class of 1926, but left again after a year or so when he became ill with mumps

Then he began a long career with the Post Office, retiring after 30 years, and in 1956 started a second career as an electrical technician at the Charles Stark Draper Laboratory (then the Instrumentation Laboratory). By the time of his retirement there in 1969 he had been promoted to senior technician. Recalled a supervisor a few years ago, "He did very good work (and) his knowledge usually was well beyond the level at which he worked." He added, "I have always been impressed by his desire to learn, understand and improve himself. He is a fine person, a conscientious worker and a true gentleman.

The desire to learn never really left Mr. Diggs. In 1949 he completed the two-year Electrical Course at the Lowell Institute School. In the fifties, attending classes nights, he earned an associate degree in electrical engineering from Northeastern University, Later, in 1965, he completed the two-year Mechanical Course at the Lowell Institute School, and he took other courses there-including computer programming-through 1969.

During much of this time he was helping support seven children from two failed

After two careers, in retirement and in his eighties, Mr. Diggs was still nagged by his lack, as he put it in a letter to MIT, "of a full degree, especially from MIT." It had motivated him, he said, "to try and re-enter

In August of 1984, with the support and assistance of Dean Robert M. Randolph, Mr. Diggs was readmitted to MIT as a special student to take one course in the Department of Electrical Engineering and Computer Science-to see where that might

He began classes but ill health, as it had nearly 60 years earlier, forced him to withdraw. He had been wearing a pacemaker since 1979.

He had visited friends at MIT this fall and still talked of resuming his studies. But George Diggs died last month in his apartment in Cambridge.

MIT physics professor Anthony P. French, who edited a centenary volume on Albert Einstein to mark the looth anniversary of Einstein's birth in 1979, has produced, with P.J. Kennedy of the University of Edinburgh, a companion volume on Niels Bohr, who was born 100 years ago in October. The illustrated book, Niels Bohr: A Centenary Volume, published by the Harvard University Press, was praised by Professor Jeremy Bernstein of the Stevens Institute of Technology in a Boston Globe review: "I am sure there will be many other books on Bohr this year. I think it will be difficult to find a better one than this." Dr. French is currently serving as president of the American Association of Physics Teachers.

One of the first major projects of the Arcadia Institute in Maine, a year-old nonprofit center for the study of medical, scientific and social issues, is an oral history project-an autobiography/biography of Francis O. Schmitt, MIT Institute Professor Emeritus, and professor of biology, emeritus. The project, funded by two New York Foundations, is being carried out by Dr. Susan E. Mehrtens, associate director of the Institute.

Dr. Schmitt was chosen, according to the Bar Harbor, Maine, Times, because as a pioneer in the field of neuroscience he worked to integrate biology, chemistry and physics into the interdisciplinary fields of biochemistry, biophysics and molecular biology needed to study the brain. "He helped people understand how our understanding of the brain and nervous system has developed," said Dr. Judith Swazey, the Institute founder and president.

Over the course of a year, Dr. Mehrtens will interview Dr. Schmitt and more than 60 scientists in Europe and America whose work was influenced by him. Tapes of the interviews and their transcriptions will be given to MIT for keeping.

#### PRESS CLIPPINGS:

-One of MIT's youngest students, 15year-old Jolly Chen of California, has been profiled in the Los Angeles Times. Chen, born in Peking, came to this country with his family from Hong Kong when he was seven and has been amazing teachers ever since with his math and science ability, the newspaper said. He came to MIT as a freshman this year without benefit of a high school diploma but with a 4.0 high school gradepoint average. Why MIT? "For computer science, it's definitely the place to be," he told the Times, but he added, "It's a lot tougher than high school. You get humble real fast here.

-The Globe featured the views of Gary T. Marx, professor of sociology in the Department of Urban Studies and Planning, in a a story on the increasing pervasiveness of electronic surveillance systems. 'Technical innovations have. . . become penetrating and intrusive in ways that previously were imagined only in science fiction," said Dr. Marx, an expert in the field. One result, he said, is a growing "climate of suspiciousness.

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INSTRUCTIONS: Ads are limited to one (of approximately 30 words) per person per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Per ns who have no extensions or who wish to list only their 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.

Deadline is noon Friday before

#### For Sale

Rims, superior wire spokd 14x6, 4 lug, br nw, stll in bx, \$160. F. Gravina, x2261 Linc or 272-3817 eves.

Ping pong tbl w/net, \$40. F.R. Droulihet, x7014 Linc or 862-1935.

Lt bge carpt, 12x15', cmplt w/mats, fits Westgate LR & DR, \$90; wh draperies, almst nw, cmplt set, \$60. Joe, x3-6557 or 494-8194.

Crib w/mttrss; playpen; infnt bathtub chld's car seat; infnt seat/carrier; assrtd infnt & chld toys. Joe, x3-5260 or

Kraco 40 watt pwr boostr w/bypass boostr, usd 1X, like nw, \$45; Nippon 250 watt eqlzr w/fadr, v pwrful, \$50 nego, mst sell. Shelly, x3-4973 or 288-7960 aftr 8pm.

Peavey bass amp, TNT100, 150 watts, solid state, 15" spkr, \$250; Brother slf-corr elec typwrtr, \$100; brwn lthr bombr jckt, boy's sz 20, approx W's sz 9, slightly wrn, nego. Matt/Clea, 776-4452.

Wntr jckt, gr & maroon, sz Med, \$30; Conair air purifier, \$25. Kim, x3-1740 or 242-0804 eves.

Admiral gas range, slf-clning ovn, nvr usd, \$400; Westinghouse 17 c.f. fridge, 5 yrs old, exc cond, \$225. Andrea, x3-8804 or 925-2341 eves/wkends.

Btfl tradtnl LR sofa, like nw, deep orange crshd velvet, brwn trim, \$250 or bst; gld velour club chr free w/purchase. Gerri,

Lvely mahog DR buffet, \$100; mahog cabnt w/drs for tv, hifi, bar, \$65; 10-spd bike for 10-13 yr old, \$50. David, x3-1706

Pentax ME 24mm SLR, exc cond, \$100or bst; electrnc bounce flash for Pen

tax/Canon camras, \$25 or bst. Lisa,

Various Fiat 128 parts, inc nw mntd tr, buy part or all, make an offr. Ron, x3-5820 or 646-1641.

Dwnhill Rossignol skis, 54", S127 Salomon bidings, \$30; Yamaha poles, S35, 41½", \$10; Trak Tour jr x-cntry skis, 65"; Rottefella 3-pin, sm, \$20. Call 547-5357.

Dinette set: tbl. oak pedstl base, laminatd btchr blck top, 4 oak chrs, \$150. Pat, x8-3513 Draper.

3-spd M's bike, med frm, w/Kryptonite lck, exc cond, \$85, addtnl accssrs free. Angelien, x3-5239 or 491-5677.

Btfl Duncan Phyfe styl dropleaf cffee tbl w/lthr top, exc cond, \$175; s-s wok set & wok cook book, \$12.50; pr bike bskts, rear whl, ea carries 1 bag of groceries, \$8. Call 484-0802, 1-8pm.

5-pce Pearl drum set, Zildjiahn cymbls, fibr cases, some xtras, \$700 or bst. Ashley, 494-8683 eves.

IBM PCjr parallel prntr adptr, \$35. Call

Singer sewng mach, exc cond; Fendi luggage, exc cond; indr/outdr rllr skts. Call x3-1784 12-3pm only. 5-pce Slingerland wd drum set, inc 2

\$685 Dave, 603-893-9169 aftr 6pm.

Antq watch, L's Waltham huntng case (closd cvr), wrkng, guarntd to keep gd time, \$125. Harvey, x4267 Linc.

Commodore 64 cmptr sys, inc C-64 dsk, plottr, datasette, desk, mch more, askg \$500 nego. Tom, x4212 Linc or 245-9187

Panasonic 12" h&w tv. \$50. Mark x5-9230 dorm.

Brwn & tan lvseat, \$85; brwn & tan couch, \$85; cmplt Hollywd couch, \$20. Marie, x3-0407.

Delta Airlines rnd-trip tckt, Bos-San Fran, lv Bos 12/23, retrn 1/4, \$320. Call 494-8866, lv mssg.

Fisher VCR, \$300; Magnavox 25" colr tv, \$150, or \$400/both. Ivan, x3-7324.

Hardwick gas stv, 4 brnrs, cln, 30" Wx36" Lx26" D, \$150; lrg Whirlpool wshr, gd cond, \$100; Fridigaire frst-free fridge, bst offr; wden clothes closet, paintd wh, 3x6', \$50, 4 29" wh veneth blinds, 3 26" ditto, \$4 ea; Zenith 25" console colr tv, old but wrkng, \$50; 9x12 bge rug. Maria, x3-1316 or 396-5011 aftr 5pm

Holiday specl: exc Giasti champgn, \$5/bttl; Chantefleur Rose, \$4/bttl; unopnd 18 litre containr Paul Masson Chablis (#24 bttls), \$75, bargain, lft ovr frm weddng. Geetha, x3-3910; Chris, x3-2373 or 577-8226 eves

Lthr couch, 2 end tbls, dbl bed w/hdbrd, red rug, etc, all bst offrs. Call x3-7303 or 492-5158 eves.

Hobie sktbrd, knee pads & whl tool, \$50 or bst; back issues of Musician, Goldmine, Boston Rock, Trouser Press & Playboy. Jim Snow, x3-1851 8-5.

Polaroid 150 Land camra w/case; Polaroid 240 prnt copier, bth in mnt cond, bst offr. Earl, x3-2776.

artifcl Xmas tree w/stnd, grt shape; chldrn's ski boots, sz 5, exc cond. Joan,

4 rad snw trs mntd on steel rims, bght 12/4, nvr usd, will fit Chrysler, Omni, Horizon, Turizmo, Charger, pd \$48.99/tr+ mntng, balancng, nw valve stems & rims, \$110/set. Rob, x3-4963 or 388-4253.

Sm b&w tv, \$15; x-cntry skis, 210cm, waxd w/waxes, poles, \$60. Trevor, x3-8591 or 492-7442.

Dsk/tbl. oak, 48x30" H, \$75; Kenmore 3 c.f. fridge, \$40; filing cabnt, 2-drwr, wh, \$15; draperies, bge, natrl weave, therml insultn, 7x8', \$25. Sharon, x3-6038 or 491-7225.

#### Vehicles

'66 Mercedes 250SE cpe, orig FL title, nvr rstd, exc cond, all lthr & wd int, a/c, Blaupunkt, fairly priced, \$8,900. Call x3-2048 or 1-934-6782 (Duxbury).

74 Olds Delta, 4-dr, 50K, auto, ps, pb, immac, Oct stckr, \$1,800 nego. Call x8-3484 Draper or 1-334-4810 eves.

'74 Ford LTD, nw trans, gd eng & bdy, exc int, mst sell, \$400. Ray, x3-3353 or 628-5092.

'74 Audi Fox, 85K, rently rblt eng, rnning cond, grt mpg, int/ext perf, \$1,650. Tom, x3-7801 9am-1pm or 497-4819 eves.

'75 VW Bug, 10K on nw eng, gd mech cond, some rst, \$1,000. Rich, x3-5494 or 623-0962 eves.

'76 Toyota Corona, 89K, rns well, \$450 or bst. Marina, 861-9568.

'76 Saab 99GL, 4-spd, 2-dr, nw electrol sys & exh, rns v well, ext in fine cond, 2 snws, AM/FM, fuel inj, 4 whl dscs, 1 ownr, 101K, \$1,900 or bst. Call 861-0618.

'77 VW Rabbit, gd rnning cond, nw cltch & muff, AM/FM/cass, \$900 or bst. Ruth, x3-4722 or 641-1711 eves.

'77 Honda Accord htchbck, 5-spd, exc cond, mst sell before 12/18, \$1,200 or bst. Dhina, x3-8382 or 494-8007. '77 Dodge Aspen wgn, 6 cyl, auto, AM/FM, a/c, 107K, \$700. Joe, x8-2682

78 Dodge Colt, 4-spd, 77K, well maint, rlbl, \$1,100. Katie, x2203 Wellesley or pref 623-7991 or Ron, 495-2902. Ford LTD sq wgn, full pwr, AM/FM stereo, has evry xtra Ford offrs,

79 Ford Mustang, 70K, 4-spd, gd cond, \$1,200 or bst. Robyn, x3-3486

askg \$1,750. Bob, x3-7245.

'79 Chevette, 4-dr htchbck, 4-spd, 78K, AM/FM/cass stereo, a/c, mst sell, \$1,600. Zulqarnain, x3-3193 or 661-1706.

'79 Datsun 510 wgn, 4-spd, rfrck, nw batt & muff, gd rads, 101K, rns grt, ideal fmly car, \$1,900. Roland, x3-6804 or 646-8628 eves

'79 Subaru GF cpe, 62K, frnt whl drv, 5-spd, 24/38mpg, gd rpr rcrd, always strts in wntr, nw batt & trs, bst offr. Dan, 484-8546, lv mssg.

'80 AMC Spirit DL, ps, pb, AM/FM stered 80K, exc mech cond, mst selll, \$1,200. Call 876-8148.

'80 VW Rabbit diesl, 51K, mnt cond, nw plugs & muff, 40mpg, \$1,795 or bst. Ara, 924-9304 aftr 6pm.

'81 Plymouth Reliant K, ps, pb, a/c, 2.2L eng, auto, 6 cyl, 17.8K, exc cond, \$3,500 or bst. John Chandnoit, x3-5569.

'81 Buick Skylark, mst sell, auto, a/c, pb, ps, AM/FM, rear wndw defog, 7 mo extnsv warr, perf cond, \$3,600. Jon, x3-6802 or 494-1534.

'81 Chevy Chevette, 47K, 2-dr htchbck, 4-spd, AM/FM/cass, rear dfrstr, rcnt tune-up, nw cltch & exh, nw inspctn stckr, \$1,600. Kim, x3-3494 or 876-1435.

'82 Renault LeCar, mod 39K, dk grn sunrf, radio, v gd cond, no rst, ideal for those not concrnd w/exceeding 70mph, \$2,200, mst sell. Call 776-6045.

83 Subaru GL 4WD sta wgn, rfrck, cass dck, Rusty Jones, 25K all hiway, exc cond in & out, \$6,300. Roberto, x3-5723 or 497-6171.

'83 Chevy Camaro, silvr, 38K, exc cond, nw Dunlop raisd wh lttr trs, std trans, AM/FM, replcd orig fctry spkr sys w/Pioneer, 48K, fctry warr, \$4,900 or bst. Tony, 769-8228 aftr 5pm.

84 Tempo GL, a/c, auto trans, 17K, exc cond, askg \$5,499; '69 T-Bird, a/c, pwr wndws, ps & more, nw trs, nwly paintd, exc cond, \$3,988. Joseph, x3-2114 or 324-1711

'85 Mercury Topaz, like nw, loaded, 60K, full warr (ESP), \$9,000. Tom, x3-4978 or 749-6645 eves.

#### Housing

Arlington, 5 rms, 2BR, 2nd flr w/frnt & bck prch, nw fridge, prkg, nr T, \$575/mo, no utils, no pets, avlbl 1/1/86. Triveni,

Lrg sunny 2/3BR apt betwn Ctrl & Hrvd Sq, rently renvtd, empltly furn, ideal for visitrs (6 mo min), \$1,050/mo inc ht & elec. Pierre, x3-7250.

N Conway area twnhse, sleeps 8, 2 full baths, 2 mi frm Attitash, ski Wildcat, Cranmore, Brenton Wds, rnt now wkends vks, rsnbl rates. Eileen, x8-2806 Draper or 395-9154.

Pleasnt rm in fmly hm avlbl IAP for sgl

#### Animals

Guinea pig w/pen, supply of chow & wdchips, mst give away due to allergies, doesn't bite, can be petted, makes cute noises. Debbie, x3-7094.

Himalayan kttns, regstrd, hm-raisd, M's brn 9/10/85, delightful, bx traind, lng haird & docile, like Persians w/Siamese colring, \$175-250. Call 491-8307

Lng-haird brwn tabby cat, abandnd by formr ownrs, it's gttng cold & she desprt-ly nds nw hm, had shots, is spayd, v attrctv. Laura, x3-2281 or Laura/Fran, 321-4372 eves

Free: btfl kttn, 6 wks old, bx traind. Call x3-7374 or 497-7417.

#### Wanted

W sks apt for self & piano startng 1/1 or 2/1, refs on reqst. Karen, 625-8555

Directns to play Crisloid Royal Brand Tile Rummy, will copy & mail bck. Arthur Derocher, 3113 SR 580 AG225, Safety Harbor, FL 33572.

Serious playwrght to collaborate on play frm strt to finsh in artstc partnrshp. Monica, x3-1316.

F prfssr vistng MIT, 1/1-5/31/86 sks rm or shard accomdtn (w/F only). John, x3-2660 or 577-1039.

Prkg for unusd car, will pay. Call 734-8065 eves.

Apt/sm hse to rnt by vistng scholr, history facity, frm Germny, 2/86 for 1 yr, hsesittng also an opt or exch for lrg apt /balcny & grdn in Tubingen. Jess

Full-time care for 4-mo-old girl in my hm, Cambridge nr T. Sue, 661-4692.

#### Roommates

M wntd for Tang Hall rm sublt, own BR in 2BR apt, avlbl 12/15-1/30, \$240/mo or

**POSITIONS** 

**AVAILABLE** 

It is Institute policy not to dis-

criminate against individuals on

the basis of race, color, sex, sex-

ual orientation, religion, han-

dicap, age, or national or ethnic

origin in the administration of

This list includes all nonacademic

jobs currently available on the MIT

campus. Duplicate lists are posted outside the offices of the Special As-sistant (10-215) and in the Personnel

Information on openings at Lincoln Laboratory (Lexington, MA) is available in the Personnel Office.

Persons who are NOT MIT employees

should call the Personnel Office on

Employees at the Institute should con

tinue to contact their Personnel Officers to apply for positions for which they feel they qualify.

3-1594

3-4278

3-1591

3-4274

3-4267

3-4269

3-4275

3 - 4268

3-4268

3-4076

its programs and activities.

Office (E19-239).

extension 3-4251.

Oveta Perry

Ken Hewitt

Dick Higham

Virginia Bishop

Kenneth W. Chin

Sally Hansen Appointments:

Kim Bonfiglioli

Appointments: Nancy Collins

Appointments:
Therese McConnell

Maureen Howard

Administrative and

Postdoctoral Associate, Applied

Biological Sciences, to design and syn-

thesize radiopharmaceuticals for detection of human atherosclerosis (see Nucl. Med.

26:1056, 1985). Chemical synthesis, an-

tibody production, animal and human studies are all involved. M.D. or Ph.D. in

Chemistry, Biochemistry or Phar-macology preferred. Position available im-mediately or by July 1, 1986. C85-169

Administrative Assistant to the Chair-

man. This position is in the Office of the

Chairman of the MIT Corporation and re-

quires a person to provide a full range of

services to the Chairman. This includes

heavy scheduling of meetings, travel ar-rangements, and coordination of all as-

pects of meetings; handling correspon-

dence addressed to the Chairman; main-

taining relations with MIT trustees

alumni and with people outside MIT. Strong organizational skills are needed to

handle multiple relations with many in-

dividuals. A dedication to excellence and

high standards is very important. Person

fice. Qualifications include a bachelor's or

advanced degree or equivalent experience;

attention to detail; excellent organization

and writing skills; good judgment and an ability to work under pressure with a de-

manding schedule; MIT experience and

knowledge is highly desirable. A85-649

Budget Officer II. Fiscal Planning and

Budget Office, to assist in the preparation of the Institute's Budget. Will act as fiscal

sidents in areas of assigned responsibility; assist in long-range planning and fore-

casting of future needs for expanding and

sultant for School Deans and Vice Pre-

upervises support staff in Chairman's of

Academic Staff

for new programs; prepare special reports as directed. A Bachelor's degree in Business Administration or the equiva-lent combination of education and experience is necessary. Five to seven years ex-perience in budgeting and accounting systems and procedures common to educa-tional institutions required. Working

tems, Bursar's Office, to be responsible for information systems within the Bur-sar's Office and interfacing with other MIT offices and students. These systems include centralized MIT accounting and billing systems for Student Accounts and Student Loans, a vendor-operated system of Student Loans, personal computers, and electronic mail. Will establish production schedules, control input and output, and ensure that all transactions and records are accounted for. Will recommend procedures to improve the efficiency and accuracy of the systems; ensure effective coordination with other MIT computer systems interfacing with Bursar's Office systems; ensure adequate audit trails and history files, security, backup, and disaster recovery. Interface with MIT's privacy committee on issues related to data security and access. Write programs to retrieve special report data; work closely with senior management to ensure meaningful management reports and assist them in hands-on personal computer applications. Will analyze and interpret appropriate federal regulations to ensure compliance. Master's degree or equivalent combination of education and experience required. Considerable knowledge of data processing, office automation, personal computers, IBM mainframes, links between personal computers and mainframes, accounting, finance, and government regulations governing student loans and consumer credit essential Considerable experience in information systems planning and operations is neces sary. Good interpersonal skills essential.

Assistant to the Bursar/Loan Collec tion, Bursar's Office, to be responsible for the collection of student loan accounts and student accounts receivable delinquent accounts in compliance with federal, state, and MIT regulations and pro-cedures. Will conduct exit interviews with terminating students and communicate with delinquent borrowers to develop acceptable means of loan repayment. Will exercise judgment in evaluating financial statements and personal information fur-nished by borrowers or other sources to resolve repayment problems. Counsel borcial affairs credit information, skip-trace "lost" rowers, communicate with government agencies, law firms, and collection agen-cies as needed. Must be knowledgeable in truth-in-lending, privacy of information and consumer protection regulations. Will be expected to learn and become an expert in complex MIT, federal, and state loan programs. Bachelor's degree or equivalent combination of education and experience required. Experience in debt ollection, financial management, and office procedures necessary. Must possess good interpersonal skills and have the ability to communicate well, both verbal-ly and in writing and the initiative to work independently. A85-646

Assistant Director, Office of Minority Education, to develop and implement

## Sponsored Research

Chief Operator, Sponsored Research Technical Staff, Laboratory for Nuclear Science, to be responsible for the opera-tion of the accelerator and the safety of personnel and equipment during rotating operating shifts. Sufficient knowledge of operation and design of subsystems in order to diagnose faults and to effect minor repairs during run necessary. Must understand operation and intent of machine and personnel protection in-terlocks. Will supervise and/or conduct checkout procedures. Must be able to turn on entire facility from a cold start and produce a beam to specifications. Will maintain records and log of runs. A Bachelor's degree in Engineering or Physics or the equivalent combination of education and experience is required. This position is located at the Bates Linear Accelerator Center in Middleton, Ma., 21 miles north of MIT Campus

Sponsored Research Technical Staff, Psychology, to act as Electrical Engineer for the Psychology electronics shop. Duties require a background in analog design with some digital design capabili-Will train and supervise student nployees, plan work load, and developeded circuitry in collaboration with department research laboratories. department research laboratories. Knowledge of circuit construction techni-ques and mechanical design parameters, as well as the ability to generate complete documentation necessary. Must be able to prioritize projects and workload, and be able to deal with different laboratories in a diplomatic and efficient manner Bachelor's degree or equivalent experi-ence required. R85-870

Research Staff/Programmer, Haystack Observatory, to assist with the Haystack Atmospheric Sciences Group engaged in a diversified program of upper atmospheric, ionospheric, and magnetospheric research using the Millstone Hill radars located in Westford, MA. Responsibilities will include the development, maintenance and documentation of data analysis software for Harris H100 and H800 computers. Bachelor's degree and several years experience in FORTRAN applications pro gramming required. Experience in numerical analysis, computer graphics and scientific data base systems highly desirable. R85-869

#### Secretary/Staff Assistant

Administrative Secretary, The MIT Press - Director's Office, to provide office management and secretarial support for the Director's Office, including typing, or ganizing and maintaining files, keeping the Director's calendar, occasional hand delivery of documents, and coordination of the twice-yearly Board of Directors meeting. Familiarity with word proce ing and willingness to expand skills with Personal Computer; accurate typing, experience with transcribing dictaphone tapes. Should enjoy coordinating meetings and interacting with a wide variety of creative people on the staff of the MIT press. Good organizational skills essential. Minimum 4.5 years direct/related experience required. B85-131

Administrative Secretary, Center for Real Estate Development, to work under the supervision of the Administrative Of-ficer. Duties will include typing and proofreading reports, correspondence, manuscripts and similar material from rough draft and dictaphone. Will edit and perform limited rewriting, compose routine correspondence; maintain files; perform considerable and complex phone work, including setting up appointments, making complex travel arrangements, obtaining travel advances, preparing travel reim-bursement vouchers. Will coordinate and schedule complex appointments, meet-ings, seminars, events, including large groups. Will also serve as source of infor-mation about Center and its programs, in-cluding dissemination of published material, arranging for reproduction and prin-ting of reports and manuscripts, overseeing inventory and reprinting of Center's publications; overseeing inventory of of-fice supplies; maintaining journal subscriptions file; may direct work of other support staff. Minimum 4.5 years direct/ related experience required, some college or secretarial school preferred. Good communication skills both oral and written necessary. Excellent typing of 50-55 wpr needed. Familiarity with and/or willingness to learn word processing pre-ferred. Good interpersonal skills essential in this busy office. B85-098

Sr. Secretary, Biology (part-time), to per form diversified secretarial duties for biology faculty member, friendly research group, and department Electron and editing scientific manuscripts, preparation of grant proposals, handling of a variety of correspondence and phon calls. Additional duties will include handling purchasing, keeping track of ex penditures, and maintaining account record. Will organize meetings and con ferences, arrange travel, and do occa sional library searches for needed literature. Must be able to work independently, in an informal atmosphere, and deal with a variety of people. Requires good typing skills; ability to write letters on own initiative or brief instruction; ex cellent organizational skills; good in-terpersonal skills; ability to work with frequent interruptions. Willingness to learn accounts, and knowledge of IBM PC or willingness to learn essential. Minimum 2.5 years direct/related experience required. B85-130

Sr. Secretary-Technical, Chemistry, to perform secretarial duties to two faculty members in the Chemistry Department. Will type correspondence, technical manuscripts, grant proposals and course material including drawing of figures and molecular structures. Will arrange appointments and travel; monitor research accounts and prepare financial projec-tions; conduct literature surveys; and catalog chemicals in storage rooms. Good interpersonal skills and ability to set priorities and organize work without detailed supervision essential. Familiarity with MIT procedures preferred. Excellent technical typing skills and familiarity with word processing and/or willingness to learn preferred. Minimum 2.5 direct/related experience required. B85-120

Sr. Secretary, Treasurer's Office, to perform secretarial duties related to the management of investment real estate in-cluding letter and report preparation, fil-ing, billing and processing of rent and mortgage payments. In addition, in-dividual will prepare real estate property status reports and mortgage reports, and will monitor the fraternity mortgage rewill monitor the fraternity mortgage program. Excellent typing, organizational and interpersonal skills are required. A knowledge of and/or willingness to learn word processing is necessary. Familiarity with real estate business helpful but not required. Applicants with a secretarial school degree preferred. In addition, 2.5 years direct/related experience is required. B85-024

Br. Secretary, Fiscal Flanning and Budget, to answer phone and greet visitors, type all correspondence and statistical tables using either personal computer or typewriter. Will maintain and order office supplies and be key operator for copier machine. Responsible for various clerical duties as instructed by Adviced to the control of t cierical duties as instructed by Ad-ministrative Assistant and Budget Of-ficers, including copying, logging budget changes, filing, mailing budget authoriza-tions. Will assist in arranging meetings and office functions. Must have strong organizational skills to provide secretarial support for nine staff members. Familiar-ity with statistical typing, calculator, personal computer and dictating equipment as well as a pleasant telephone manner is necessary. Minimum 2.5 years direct/re-lated experience required. B85-115 Sr. Secretary, Whitaker College, to pro-

Sr. Secretary, Fiscal Planning and

Sr. Secretary, whitaker College, to provide secretarial support for two faculty members and their lab groups, a total of 20-25 people. Position includes general office management including tasks such as typing manuscripts and correspondence, filing, copying, answering phones, as well as interfacing with laboratory personnel. as interfacing with laboratory personnel to organize purchases of laboratory supplies. Will function as liaison for each lab group and their separate administrative headquarters. Will have extensive use of neadquarters. Will have extensive use of dictaphone and especially the personal computer (IBM) for word processing, data management and office management. Minimum 2.5 years direct/related experience required. Excellent typing/word processing, dictaphone, and general office skills required Experience with the use of skills required. Experience with the use of personal computers strongly preferred Medical terminology preferred, but not re guired. B85-114

Sr. Secretary, Sloan School of Manage ment, to perform secretarial duties for three professors in the Economic, Finance and Accounting Group of the Sloan School. Will type, proofread and repro-duce manuscripts, reports, exams, and correspondence, often of a technical nature. Some work will require transcrip-tion from dictaphone, and good command of the English language. Will assist with preparation of course materials and notes, as well as for meetings and seminars. Ad-ditional responsibilities will include answering student inquiries, answering phones, scheduling appointments, arrang-ing travel, copying, maintaining files and responding to routine inquiries. Familiarity with and/or willingness to learn Wang word processing and IBM-PC desirable. Excellent typing, proofreading and general office skills, as well as good orga-nizational skills and the ability to work under minimal supervision essential. Technical typing and dictaphone skills needed. Minimum 2.5 years direct/related experience required. B85-109 B85-110

Sr. Secretary, Laboratory for Information tion and Decision Systems, to perform sec retarial duties for three faculty members Duties will include typing of technical and nontechnical reports and classroom material, arranging travel and appoint ments, maintaining files and records, and answering phones. Good interpersonal skills required in working with students and the ability to work independently and develop initiative necessary. Familiarity with and/or willingness to learn word pro-cessing essential. Minimum 2.5 years direct/related experience required. B85-108

Sr. Secretary, Laboratory for Computer Science, to provide general secretarial support for two faculty within LCS. Theory of Computation Group, a large in teractive research community. Will man age the preparation of class notes, reports research proposals and technical memos maintain files and data bases of the research group; use computer-based sup-port including text editor, formatters, and file systems as appropriate. Other secre-tarial responsibilities include handling correspondence, telephones and travel ar-rangements. Minimum 2.5 years direct/related experience required Indirect/related experience required. Interest in learning computer-based text-editing and other computer aids; ability to work independently and to exercise judgment in prioritizing tasks; good technical typing skills; ability to interact with a diverse group of faculty and students sential. B85-101

Sr. Medical Secretary, Psychiatric Services, to perform detailed confidential sec retarial duties including making appoint ments both in person and via telephone serving as a liaison with outside hospitals, and typing correspondence. Will also work with clinical sociologist in coor-dinating Institute activities for members of the international community. Duties will include arranging weekly meetings, preparing and distributing notices, and assisting with volunteer activities. Good interpersonal and organizational skills essential. Minimum 2.5 years direct related experience required. B85-849

Secretary, Energy Laboratory, is seeking an enthusiastic, "willing to learn" secre-tary for an entry level position. Primary responsibilities will include correspondence and word/list processing for CEPR Director and Center Program Board Chairmen. Will type, edit and proofread correspondence, reports, manuscripts from rough draft, or direct instructions. Will maintain schedules and appointments, maintain updated mailing lists for list processing letters, labels and regular mailings to sponsors; help administrative staff organize and coordinate CEPR con ferences and meetings; answer tele-phones, provide information and refer callers to appropriate person; reproduce callers to appropriate person; reproduce and distribute reports; prepare institute forms. Minimum 1 year-direct/related ex-perience required. High School or equiva-tent necessary. Secretarial school can

prsn or married cpl, non-smkng, garg also avibl to rnt. Eve Sullivan, x3-7182 or 864-3802.

LR, bath, frnt & bck prch, \$195/mo+ utils, avlb 1/1, no pets. Bob, x3-6822/2036 or 776-8186.

M/F or cpl to shr sunny, spacious 3BR, 2b condo in Brookline Village, ovrlookng pond, inc all utils, prkg, tennis, hlth club, v specl btfl space, mst like cats. Eli, x3-2052 or 277-6606.

\$10/day. Radhouan, x5-9584 dorm or

M/F nonsmkr wntd for Porter Sq apt in Vict hm, 3 lrg BR, hdwd flrs, nr T, avlbl 1/1, \$300 inc h/hw. Aliyah, x3-5793 or 354-6540 eves.

M/F to shr 4BR Somerville apt, 10 min wlk frm Hrvd Sq, w/2F & 1M, lrg ktchn,

Rmmate to shr lrg btfl Belmont apt nr Fresh Pond, fiplc, view of Boston, quiet st, drvway, nr T, own BR & study, furn if desird, \$325+ utils. Ed, 489-4355.

#### Carpool

Rd wntd frm Brigham's Circle/Mission Hill-MIT, 8am, M-F, will pay or shr expnses. Dorothy x3-2511.

#### Lost and Found

Found: wovn wool scarf, 12/3, vicinity Hayden Library. Al, x3-2237 or 497-2285. Lost: blck "Dance France" leotrd, prob nr T-Club lounge. Linda, x3-1782.

#### Miscellaneous

Prof tech illstratng, bttr qlty, less expnsy than Graphic Arts, pck-up & dlvry, rush srvc avlbl. Rebecca, x3-5297 or 332-6183.

Typng, all knds inc tech, rsnbl rates. Lynne, x3-4012.

Thesis typng on wrd prcssr, (inc math & scientfc), exc qlty, fast, effcnt, dpndbl, rsnbl rates. G. Collver, x3-6642 or 623-8064.

Exprt typng on wrd pressr, fast, effent, lo rates, all knds. Karla, x3-2203.

knowledge of personal computers helpful. A85-648 Assistant Bursar/Information Sys-

strategies and programs to enhance the matriculation of the underrepresented mi-nority students at the Institute. Experience and skills in the planning. anagement and evaluation of academic support services are required. Will advise students about their academic concerns and assist them in utilizing Institute resources. Bachelor's degree required although a Master's degree is preferred At least three years experience working with diverse minority populations required. Must be committed to the education of minority people, possess strong and effective communication skills both oral and written and have the ability to interact effectively with students, faculty, staff and administration at all levels. A85-645

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count towards experience. Familiarity with and/or willings ess to learn word pro ntial. 45-50 wpm typing p

Secretary, Media Laboratory, to provide general secretarial support in Media Laboratory Headquarters. Will involve ntact with faculty, Institute offices, and outside agencies and sponsors extensive phone contact and accurate receival of messages. Will proofread and type correspondence and documents; use electronic mailing system to send/receive correspondence to/from Director; file and maintain accurate office records, make travel arrangements and maintain petty cash. Strong organizational skills and attention to detail required. The ability to work well under pressure, independently, and to recognize and set priorities essen-tial. Will handle confidential material. Familiarity with word processing and a minimum of 1 year direct/related experience required. Knowledge of MIT desirable. Minimum typing speed of 45-50 wpm necessary. NON-SMOKING OF-FICE B85-133

Secretary/Receptionist, Purchasing and Stores, Office of Laboratory Supplies, to provide secretarial/receptionist support to Assistant Director of Stores, Manager of Furniture and Furnishings, and Purchas-ing Agent. Will handle incoming calls, maintain filing systems, proofread, distribute mail, order supplies, route re-quisitions. Will assist with record keeping, typing purchase orders, requests for quotation and varied correspondence. Good interpersonal skills and the ability to handle frequent interruptions estial. Excellent clerical, communication and organizational skills required. Knowledge of MIT or purchasing office procedures helpful. High School graduate or equivalent, with a minimum of 1 year direct/related experience required. NON-SMOKING OFFICE B85-128

Staff Assistant, Personnel-Benefits Office, to assist in the development and conversion of office records to an automated database. Will assist in redesigning cur edures as appropriate in ord efficiently process and record a heavy volume of applications and forms for a variety of benefit programs. Will main cords thereafter via direct entry on outer terminal. Interest in learn utility languages necessary in order to produce weekly and monthly reports necary. Will utilize DEC II word pro to generate form letters pertaining to MIT's retirement plans. Will maintain office files, setting up or reorganizing as nce nies, setting up or reorganizing as necessary. Some experience in the use of automated office equipment and familiar-ity with the use of word processing is im-portant. The ability to organize work, set priorities and work independently toward deadlines is essential. Accuracy and attention to detail necessary. Good typing skills essential. Minimum 1 year direct related experience required. NON-SMOKING OFFICE (2) positions available, B85-113, B85-117

Secretary, Applied Biological Sciences, to work in conjunction with other support personnel for a professor in the Depart-ment of Applied Biological Sciences, who is also director of several multidisciplinearch centers. Will type manu scripts from handwritten copy; act as alternate for answering office phones, as well as a backup for receiving, opening, sorting and distributing mail and an alternate key operator for area copy machine; will maintain record of pur-chases under several Institute accounts that support research group and research centers. Familiarity with and/or willingness to learn word processing and the ability to work as part of a team essential. Minimum 1 year direct/related expetial. Minimum 1 year dire rience required. B85-107

Staff Assistant, Artificial Intelliger Laboratory, to perform general secretari al duties in support of lab faculty and senior research staff. Duties will include typing, proofreading, editing, answering phones, receiving and distributing mail, and handcarries. Will maintain files and records, schedule appointments, prepare various forms; make complex travel arrangements, and photocopy. Will perform additional duties as assigned. Must be flexible and able to work well under pres sure as well as enjoy working with eccentric people. College education preferred. required. NON-SMOKING OFFICE

Staff Assistant, Artificial Intelligence Laboratory, to perform general secretarial duties for the administrative officer and two assistant administrative officers Duties will include typing, proofreading inswering telephone, opening and distri buting mail, maintaining files and rec ords, and photocopying. May perform additional duties as assigned. Must have good organizational skills, excellent typ ing, spelling, and grammar skills. Good interpersonal skills and the ability to work with confidential matters in a professional manner essential. College educa tion preferred, minimum 1 year direct/re experience required. NON **SMOKING OFFICE B85-104** 

Staff Assistant, Artificial Intelligence tory, to perform combination o clerical and secretarial duties in support of Labs Publication office and one Pro-fessor. Clerical duties include processing fessor. Clerical duties include processing publication mail orders, photocopying, or ganizing materials, maintaining inven tory records, filing, typing, answering tel ephone and taking messages, scheduling appointments and meetings, maintaining files and records, making travel ar rangements. Must be capable of working independently with little supervision; flexible and willing to assist in various tasks; able to work under pressure in a busy office. Minimum 1 year direct/re-lated experience required. NON-SMOKING OFFICE B85-103

#### **Technical Support** Staff

Architectural Designer/Draftsperson Physical Plant, to prepare plans for In stitute remodeling and alteration work Must be able to develop a project from preliminary estimating through and working drawings. Some field super vision experience helpful. Minimum five to ten years experience in the architec-tural field required. Ability to work with minimal supervision required. Knowledge of electrical and mechanical systems with

prior experience in school or institutional odeling work preferred. T85-121

#### Office Assistant

Accounting Assistant, Comptroller's Ac counting Office, to perform internal cost audits of research contracts and grants; coordinate accounting, audit and cash flow functions with Office of Sponsored Programs, MIT Departments, and schools General business education with 3-5 years of accounting experience or BA in Ac-counting or equivalent combination of formal education experience. Must be able to communicate well with personnel from other MIT departments and representatives of outside sponsors. S85-124

Administrative Assistant, Urban Studies and Planning (Environmental Planning and Design Program), to provide administrative support for joint programs in the Departments of Architecture and Urban Studies and Planning where exten-sive coordination is necessary to ensure that the program functions effectively. Will coordinate the subject offerings in the area including assisting in the search for appropriate faculty; scheduling offer ings; monitoring offerings in terms of overlap and integration; preparing analyses of enrollments in subject and suggesting revisions to curriculum. Will manage communication of program including creating and distributing publici ty to potential students and those ed; preparing and maintaining integrated catalogue of course offerings; answering inquiries; organizing and publicizing lec-ture series and special events; and connec-ting students with faculty appropriate to their interests. Will administer affairs of the program including coordinating group's participation in admissions pro ceedings, typing class notes, correspondence, manuscripts, and articles. Will copy, answer phones, maintain files, and distribute mail. Will perform additional duties as requested. Good interpersonal skills with prior administrative and office experience preferred. Excellent typing skills and familiarity with word processing and/or willingness to learn esse NON-SMOKING OFFICE S85-123 sential

Sr. Office Assistant, MIT Press, to assist in book promotion. Will coordinate and maintain book and author information; send out author questionnaires; create order forms and other handouts and assist with the combined program for exhibits Will process text exam and desk copy reests; create new books flyers, maintain MIT Press bookbuyers mailing list and handle envelope inventories for direct mail. Will process inquiries; answer phones; sort and distribute mail; monitor supplies; copy; file; and proofread. Good typing and experience with word process-ing desirable. Excellent organization skills essential. Must be able to handle numerous details and assignments and to work under deadline pressure. Ability to work independently and a good teleph manner necessary. Interest in book pub-lishing important. Minimum 2.5 years direct/related experience required. S85-116

Office Assistant, Whitaker College Center for Biological Information Processing (part-time), to report to Co-director of small interdisciplinary research group Duties will include organizing weekly seminar series, making travel ar rangements, answering phones, copying, handling reprint requests and library searches, and providing for Center staff and visitors as needed. Good command of written and spoken English, affinity for dealing with international visitors and ability to type 45 wpm essential. Willingness to learn computer text-editing, electronic mail systems and MIT accounting procedures desirable. Minimum 1 year direct/related experience required (20 hrs/week flexible) S85-135

Receptionist, Student Financial Aid Of-

fice, to communicate Financial Aid information to students, staff, parents and other visitors both on the telephone and in person. Will be responsible for all stu-dent interview scheduling and work with the aid officers to be sure they are informed of their schedules; keep abreast of the ever-changing Student Financial Aid rules and regulations and interpret policy. Will maintain files and assist aid officers in locating student information when requested. Responsible for all student information sheets and handouts containing current, correct information. Will proce all incoming and outgoing mail, maintain postage machine; process financial aid cripts and GRE and grad school ap plication fee waivers; assist with special tasks and projects as assigned. Good com-munication and organizational skills preferred. Knowledge of financial aid and an academic setting helpful. Ability to work well under pressure necessary. Some typ-ing skill required. Experience in dealing with the public as well as some college and work experience desirable. Minimum vear direct/related experience required NON-SMOKING OFFICE S85-127

Receptionist/Office Assistant. sonnel-Employment (part-time), to act as departmental receptionist in the employment section of Personnel. Will provide services related to the employme process including providing information on job status, specifications and applica-tion procedures. Will assist persons in completing applications and refer inquiries to appropriate Institute offices Additional duties will include administer ing typing tests, scheduling interviews maintaining data bank of applicant information, assisting with resume acknowle edgment system, and operating word pro cessing equipment. Will eventually process unemployment claims, and mon monthly unemployment statements. Will ork on special projects as assigned. Must have the ability to grasp both routine procedures quickly and to recognize unusua situations and respond to them appropri ately. Requires ability to monitor severa situations at once. Good interpersonal skills essential. Minimum 1 year direct related experience required. Accurate typ ing and familiarity with computer termi nals helpful. (12:004:00, 20 hrs per week flexible) NON-SMOKING OFFICE

Office Assistant, Laboratory for Com puter Science (part-time), to assist as re-ceptionist in LCS Headquarters, including handling telephones, filing and typing. Will deliver administrative material and correspondence to other MIT offices as required. Minimum 1-year direct/related ex-

#### Service Staff

Technician B (E-M), Plasma Fusion Center, to assist in laboratory or research work and operate experimental and technical equipment under the supervision of scientific personnel or technicians of a higher grade. Must be able to work for periods of time without supervision. Will work in the TARA Vacuum Shop assisting in the maintenance, fabrication, installation and modification of parts and equipment for a high vacuum system and experimental apparatus. This position requires good mechanical skills, the ability to read engineering drawings and family arity with basic machine shop tools and practices as well as basic electronics. Graduation from a two-year day technical school or its equivalent in applicable ex-perience is the minimum experience required. H85-313

perience required. Excellent verbal skills necessary. (20-25 hours/week) S85-102

Technician A (E-M), Electrical Engineerand d Computer Science -ems Technology Laboratories, to assist in laboratory, research, or analytical work under the direction of scientific personnel. Will operate highly technical experimental apparatus, and have demon strated considerable skill and good perfor mance in the particular field of activity.
Will require some supervision. Will be assisting in various aspects of the photo lithographic and photo-masking areas; this includes the process development, operation, and maintenance of optical patern generators, photo-resist coa developers, wafer and mask step and repeat systems, wet-etch related ser ductor processing equipment. This posi-tion requires the ability to work with sophisticated measurements equipment such as microscopes, line width measures, development rate monitor, SEM's and to gather data from this equipment and enter it into a CAF system. The in-dividual must be able to keep accurate laboratory notes, maintenance logs, and assist in the preparation of process documentation. Will be working in a state-of-the-art semiconductor fabrication area and will be required to follow strict procedures regarding cleanliness and the safe handling of gasses and chemicals. The individual must possess willingness to be flexible regarding temporary tasks or when needed to provide technical sup-port outside of the designated area such as building support systems. Grad from a two-year day technical school or its equivalent and a minimum of two years applicable experience are required. Experience with microproces or controlled equipment desirable. H85-312

Technician A (E-M), Microsystems ology Lab Technology Laboratories, to assist in laboratory, research, or analytical work under the direction of scientific personnel Will operate highly technical experimen-tal apparatus, and have demonstrated erable skill and good performance in the particular field of activity. Will re quire some supervision. Will be assisting in various aspects of the thermal process-ing area, this includes the process devel-opment, operation, and maintenance of diffusion and oxidation furnaces, LPCVD deposition systems, chemical cleaning stations, and other related semiconductor processing equipment. Requires the abili-ty to work with sophisticated measurement equipment such as microscopes, con ductivity probes, CV plotters, and to gather data from this equipment and enter it into a CAF system. Must be able to keep accurate laboratory notes, main tain logs, and assist in the preparation of process documentation. Will be working in a state of the art semiconductor fabrication area and will be required to follow strict procedures regarding cleanliness and the safe handling of gasses and chemicals. Must possess will-ingness to be flexible regarding tempo-rary tasks or when needed to provide technical support outside of the de area such as building support systems Graduation from a two-year technical school or its equivalent and minimum of two years of applicable experience are required. Experience with microproces controlled equipment desirable. H85-311

Houseman/Housekeeper, Housing, to responsible to the House Manager Will perform all duties associated with general cleaning in housing facility. This includes cleaning and waxing floors, washing of wall surfaces and windows (in side), vacuuming of floors, carpets, drapes and upholstery and dusting. Will spot clean carpet and upholstery as directed by supervisor. Will clean bathrooms, showers and kitchen appliances. Will service rooms when necessary including the mak ing of beds, emptying waste baskets and distributing soap and towels. Will strip, refinish and buff floors using power equipment, and dispose of trash and rubbish. Must be physically able to perform tasks outlined and be familiar with the use of cleaning equipment both power and hand

General Helper, Graphic Arts, to perform a variety of routine jobs such as running copy machines, stapling, collating, binding, cleaning, oiling, and supplying raw materials to the bindery, press room and ozalid room. Will work in various groups doing repetitious work as signed. Will require supervision and instruction. Graduation from high school or its equivalent is required. H85-304

Tech B-Electronic, Haystack Obser vatory, to assist in operating and main-taining the Westford radio astronomy antenna and receiver system under direc tion of scientific and engineering personnel. This system includes the anter vo drive system, digital interfacing, S and X band receivers, IF data processor, high density recording system and contro minicomputer. The site also contains en and control vironmental monitoring systems and other specialized electronic equipment Some electrical and mechanical construc tion work will be done. In addition, operation of the antenna during recording ses-sions will be required, including some time on occasional weekends and even ings. The position also includes mainte nance work on the Haystack electronic and hydraulic systems under direction of engineering personnel. Graduate of two-year technical school or equivalent applicable experience required. Should be knowledgeable in analog and digital circuits as well as having aptitude for work ing on mechanical equipment. Must be

#### Bingman appointed development officer

Sarah E. Bingman, who received the SB in chemical engineering in 1983 from MIT, has been appointed a resource development officer in the School of Engineering.

Her appointment was announced by Eric Johnson, assistant dean for resource development in the engineering school.

Ms. Bingman's position, a new one, streng thens the engineering school's effort to develop more resources from alumni and industry, especially with respect to the school's core needs and programs. She will work closely

with the department heads and faculty in the School of Engineering. Dean Johnson has had overall responsibility for the School of Engineering's resource

'We are very pleased to have Sarah join us,' he said. "She brings the energy and enthusiasm we need to broaden our base of support.' Ms. Bingman will focus initially on a new effort to establish contact with alumni entre-

development activities since February 1983.

preneurs and will also seek to reinforce the school's links with large companies.

able to climb protected ladders on anten-na structure during performance of duties. H85-302

Cook's Helper, Food Service, to prepare food as directed for all meal periods. Will provide general assistance to kitchen staff and maintain a clean and sanitary work area. Will perform additional duties as assigned. Must speak English and be able to compute variations in standard recipes, understand fundamentals of grill, saute roast, and steam preparations. Experier in quantity food preparation required H85-301

Pot Washer, Food Service, as directed, to be responsible for the pot washing area and all wares cleaned and sanitized herein. Will clean and sanitize all major equipment as well as all floors, walls, and refrigeration units. Will remove all trash, and perform the daily cleaning of the serving and dining areas and perform ad-ditional duties as assigned. Ability to follow verbal instructions, and speak and understand English essential. H85-293

#### TECHNOLOGY CHILDREN'S CENTER

TEACHER (1/2 day, 31 hrs per week, Dec.-May), child care center on campus Degree in Early Childhood Education or related field. At least one year of experience with 3 and 4 year-olds. Must be able to relate well to multicultural communi-ty. Excellent benefits. Apply to Luise Flavin, Director, TCC, 253-5907.

The following positions were still available at Tech Talk deadline. Complete descriptions of all available posi-tions are posted in the Personnel Office (E19-239), and at locations listed at the eginning of Positions Available section

ADMINISTRATIVE AND ACADEMIC STAFF A85-642, Assistant Bursar/Student Ac

counts, Bursar's Office A85-641. Assistant to the Bursar/Student Accounts, Bursar's Office C85-168, Librarian IV, Head, Engineer

ing Libraries, MIT Libraries
A85-640, Administrative Officer, Office of
the Dean for Student Affairs A85-639 Animal Facilities Manager

Division of Comparative Medicine C85-167, Librarian III, MIT Libraries rvation and Collection A85-637, Staff Writer/Editor, Cor tions/Resource Development

A85-638, Analyst Programmer I, Ad ministrative Systems C85-166, Librarian I, MIT Libraries

(Assistant Librarian for Technical Pro cessing Rotch Library for Architecture and Planning) C85-165, Project Archivist, Archival/Manuscript Specialist, MIT

Libraries (temp. 2 yrs) C85-164, Archival Assistant, chival/Manuscript Specialist, MIT

Libraries (temp. 2 yrs) A85-635, 634, Route Supervisor, Building Services A85-633, Assistant Director, Research

Development Officer A85-631, 630, Sr. Editor, Alumni Association C85-163, Assistant Acquisitions Librarian

I, The Libraries A85-624, Analyst Programmer II, Alumni Association

A85-623, Construction Coordinator, Physical Plant A85-621. Assistant Dean for Develop ment, School of Humanities and Social

A85-616, Systems Programmer II-Operations and Software Development,

Project Athena C85-161, Postdoctoral Associate, Applied Biological Science C85-160, Librarian I\*Cataloguer, MIT

A85-606, Sr. Systems Analyst, Ad-

ministrative Systems C85-159, Records Management Officer, A85-589, Network Manager, Telecom-

munications Systems C85-158, Sr. Dental Hygenist, Medical A85-583, Director-Graduate Alumni Pro-

grams, Alumni Association 85-154, Nurse Practitioner-D

C85-152, C85-153, Postdoctoral Scientist. Spectroscopy Laboratory C85-151, Comparative Pathologist, Divi-

sion of Comparative Medicine

C85-143, Assistant Dewey Librarian I, **MIT Libraries** A85-557, Sr. Analyst Programmer, Administrative Systems

A85-553, Sr. Analyst Programmer. Comptroller's Accounting Office C85-149, Director of Health Education Service, Medical

C85-148, Archival Manuscript Specialists, The Libraries C85-147, Academic Staff-Technical Instructor, Electrical Engineering C85-146, Postdoctoral Associate, Applied

Biological Sciences C85-144, Audiologist, Medical (parttime) C85-142, Asst. Science Librarian for the Physical Sciences C85-141, Librarian I, Roman Jakobson

A85-512, Systems Programmer, Information Systems A84-419, Systems Analyst, Ad

ministrative Information Systems C85-139, Clinical Veterinarian, Division of Comparative Medicine

C85-137, Postdoctoral Associate, Harvard-MIT Division of Health Sciences, Technology C85-136, Postdoctoral Associate, Applied **Biological Sciences** 

A85-513, Secretary of the Alumni Association, Alumni Association A85-512, Systems Programmer, Information Systems

A85-500, Director of the News Office, News Office

C84-130, Postdoctoral Associate, Nutrition & Food Science C84-129, Postdoctoral Associate, Nutri-tion & Food Science C84-128. Nurse Practitioner (pt), Medical

C84-126, Nurse Practitioner, Medical Department

SPONSORED RESEARCH STAFF:

R85-862, Technical Assistant, Chemical Engineering

R85-681, Research Scientist, Earth, Atospheric, and Planetary Sciences R85-680, Technical Assistant, Applied Biological Science

R85-858, Research Scientist, Earth, Atmospheric, and Planetary Sciences R85-856, Research Specialist, Statistics Center R85-855, Technical Assistant, Energy

Laboratory R85-854, R85-853, Research Associate Earth, Atmospheric, and Planetary

Sciences
R85-852, Accelerator Phy
Laboratory for Nuclear Science Physicist, R85-846, Manager of Computer Services (Research Engineer), Aeronautics and

Astronautics R85-845, Technical Assistant, Center for

Cancer Research R85-844, Research Engineer, Energy Laboratory R85-839. Technical Assistant-Molecular

Biology, Applied Biological Sciences R85-831, Research Specialist (temp-lyr), Materials Science & Engineeri R85-828, Registered Nurse, Clinical

Research Center R85-826, Sponsored Research Technical Staff-Physicist, Llaboratory for Nuclear Science

R85-824, Sponsored Research Technical Staff, Laboratory for Nucle (located 25 miles north of MIT) R85-822, Research Scientist, Research Laboratory of Electronics

R85-817, Research Specialist, Energy Laboratory R85-813, Research Technologist, Division

of Comparative Medicine R85-800, Systems Programmer, Laboratory for Nuclear Science R85-796, Research Scientist, Laboratory Programmer,

for Electromagnetic and Electronic Systems R85-776, Research Staff, Francis Bitter National Magnet Laboratory R85-770, Research Specialist, Center for Materials Science and Engineering

R85-761, Technical Assistant-PC Coor dinator, Media Laboratory R85-746, Research Specialist, Harvard MIT Division of Health Sciences and

Technology R85-743, Assistant Group Leader-Diagnostics, Plasma Fusion Center R85-731, Research Engineer, Aeronautics and Astronautics R85-727, Research Associate, (temp. 3

mths), Research Laboratory Electronics R85-723, Scientific Research Staff, Center

for Space Research R85-721, Scientific Researcher, Center for Space Research R85-719, Theoretical Space Plasma

Physicist, Center for Space Research R85-715, R85-716, Electrical Engineer, Center for Space Research R85-714, Mechnical Engineer, Center for

ace Research R85-713, Quality Control Engineer Manager, Center for Space Research R85-712. Contract Administrator/Project

Coordinator, Center for Space Research R85-711, Research Staff, Haystack Observatory R85-702, Program Manager, Center for Space Research

R85-681, Research Scientist, Plasma Fu-R85-645, Principal Research Scientist,

Materials Processing Center R85-641, Program Manager (tmp), Harvard-MIT Division of Health

Sciences and Technology R85-631, Research Specialist, Earth, Atmospheric, and Planetary Sciences R85-627, Research Engineer, Materials Science and Engineering

R84-475, Postdoctoral Associate, Energy -549, Research Scientist, Energy Laboratory

R84-519, Research Scientist (temp), Haystack Observatory R84-492, Research Associate, Energy

Laboratory R84-433, RF Engineer, Plasma Fusion Center R84-426, Research Scientist, Plasma Fu

sion Center R84-381, R84-383, R84-384, SRS Postdoc toral Positions, Spectroscopy Lab R84-373, Research Engineer, Aeronautics

R84-370, Research Scientist, Artificial Intelligence Laboratory R84-358, Principal Research Scientist, Lab for Nuclear Science R84-340, Research Scientist, A.I. Lab.

& Astronautics

R84-333, R84-332, R84-331, Research Staff and Principal Research Staff, Electrical Engineering and Computer

R83-210, Research Specialist, Artificial Intelligence Laboratory R83-135, Research Scientist, Earth, At mospheric & Planetary Sciences

R83-988, Experimental Physicist, Center for Space Research LIBRARY SUPPORT STAFF L85-090, Library Assistant IV, Rotch

Visual Collections-MIT Libraries L85-069, L85-070, Library Assistant III, MIT Libraries-Catalogue Department (temporary)

L85-066. Library Assistant III. MIT Libraries-Catalogue Department (temporary) SECRETARY/STAFF ASSISTANT.

B85-093, Administrative Secretary, Council for the Arts

B85-087, Sr. Secretary, Electrical Engineering and Computer Science B85-081, Sr. Secretary, Electrical Engineering and Computer Science B85-085, Secretary, Office of Sponsored

Programs B85-073, Administrative Secretary, Plan ning Office

B85-077, Sr. Staff Assistant, Office of the Chairman

B85-074. Sr. Staff Assistant/Receptionist Admissions Office B85-055, Administrative Secretary, Alum-

ni Association B85-063, Sr. Secretary, Laboratory for

Electromagnetic and Electronic B85-057, Sr. Secretary, Chemical

Engineering B85-048, Sr. Secretary, Energy

Laboratory B85-047, Sr. Secretary, Aeronautics and Astronautics

B85-034, Sr. Secretary, Urban Studies and Planning B85-041, Sr. Secretary, Electrical

Engineering and Computer Science B85-040, Sr. Secretary, Electrical Engineering and Computer Science B85-039, Sr. Secretary, Materials Science

and Engineering B85-038, Sr. Secretary, Electrical Engineering and Computer Science B85-033, Sr. Secretary, Center for Information Systems Research

B85-031, Sr. Secretary, Applied Biological Sciences (part-time) 85-037, Secretary/Receptionist, Committee on the Visual Arts (part-time) B85-037, Se

Secretary, Treasurer's Office Staff Assistant/Assistant B85-020 Manager, Center for Ad-gineering Study Prod ministrative Staff, Biology B85-0 Secretary, Materials Proces ing Center/Ceramics Processing

B85-024

Research Laboratory B85-964, Sr. Secretary, Office of the Dean for Student Affairs B85-849, Sr. Medical Secretary,
Psychiatric Services

B85-862, Sr. Secretary, Center for Infor mation Systems Research B85-984, Secretary, Earth, Atmospheric,

and Planetary Sciences (part-time) B85-963, Sr. Secretary, Physics B85-959, Sr. Staff Assistant, MIT Press B85-950, Sr. Secretary, Sloan School of

Management B85-944, Sr. Secretary-Technical, Opera tions Research Center B85-940, Sr. Staff Assistant, Research

Laboratory of Electronics (part-time) B85-932, Sr. Secretary, Center for Cancer Research (part-time) B85-931, Secretary, Medical B85-916, Sr. Secretary, Mathematics

B85-897, Sr. Secretary, Laboratory for Nuclear Science B85-865, Sr. Secretary, Biology B85-862, Sr. Secretary, Center for

Information Systems Research B85-617, Sr. Secretary, Biology B85-708, Sr. Secretary, Materials Science and Engineering 85-547, Sr. B85-547, Secretary-Tech.

Mathematics B85-501, Secretary, MIT Press B85-465, Sr. Secretary, Physical Plant B85-593, Sr. Secretary, Upward Bound

Program
B84-231, Receptionist/Word Processing Operator, Civil Engineering TECHNICAL SUPPORT STAFF T85-088, Sr. Technical Typist, Chemistry

(part-time) T85-971, Ophthalmic Assistant, Medical T85-621, T85-620, Technical Assistant, mmunications System

T84-319, Reactor Operator, Nuclear Reactor Laboratory OFFICE ASSISTANT

S85-089, Administrative Assistant, Dean of Engineering S85-083, Office Assistant, Student Finan cial Aid Office S85-046, Sr. Office Assistant, Office of the

Dean for Student Affairs S85-936, Sr. Office Assistant, Alumni Association S85-058, Benefits Specialist, Personnel

S85-052, Office Assistant, Registrar S85-013, Account Representative, Operations and Systems

S85-012, Sr. Account Representative, Operations and Systems S85-011, Accounting Assistant V, Comptroller's Accounting Office

S85-007, Sr. Office Assistant, Resource Development Office S85-006, Sr. Office Assistant, Resource

Development Office S85-909, Assistant Communications Console Operator, Physical Plant S85-761, Clerk Typist/Receptionist, Naval

Science, (part-time) SERVICE STAFF H85-298, Waiter/Waitress, Faculty Club H85-296, Bus Person, Faculty

H85-294. Technician C-Mechanical. Plasma Fusion Center H85-289, Porter, Faculty Club

H85-286, Counter Person, Faculty Club H85-282, Technician A, (electronic), Haystack Observatory H85-271, Technician A (E-M), Microsystems Technology Laboratories - Elec-

trical Engineering and Computer H85-242, Technician A (Electronic), Francis Bitter National Magnet Laboratory H85-241, Sr. Technician (electronic), Laboratory for Manufacturing and

H85-252, Engineer 2nd Class, Physical Plant H85-253, Electrician, Physical Plant H85-243, Technician B (electronic), Haystack Observatory

Productivity

Tech Talk, December 11, 1985, Page 7



Two ocean engineering students were honored last month at the annual Robert Bruce Wallace Lecture. Peter A. Quigley, above, a graduate student from Larchmont, N.Y., received the Wallace Prize for academic excellence from David H. Saxon, chairman of the MIT Corporation. Below, Professor T. Francis Ogilvie, head of the Department of Ocean Engineering, presented the Undergraduate Research Prize to George Kriezis, a senior from Kifisia, Greece.

—Photos by Calvin Campbell



## Football players named all-stars

Six members of the MIT football team have been named to the 1985 New England Conference All-Star squad selected by the league's coaches.

Named to the all-star first team were offensive guard John Newton (E. Greenwich, R.I.), a graduate student; junior defensive end Rich Rice (Rockland, Mass.); sophomore linebacker Mark Hanson (Peoria, Ill.), and sophomore running back Hugh Ekberg (Pepper Pike, Ohio).

Defensive tackle Larry Monroe (Arab, Ala.), a graduate student, and junior offensive tackle Art Gregory (Boxford, Mass.) were selected to the second team. This was the third straight year Monroe received conference honors. He was a first-team selection in 1983 and second team in 1984. Rice was a second-team all-star last year.

Ekberg was MIT's second leading rusher with 600 yards on 121 carries for 5.0 average. He set a school record for most yards rushing in a game (182) against Assumption earlier this season. Hanson led the Engineers in tackles (91) despite missing one game with an injury. Monroe was second in tackles (75) while Rice led the team in sacks (12-½). Newton and Gregory were two of the premier blocking linemen in the conference.

MIT was second in scoring defense allowing only 12.4 points a contest. Coach Dwight Smith's team also was second in rushing defense (105.5 yards) and third in both total defense (218.0) and rushing offense (177.1).

Junior running back Chris Adams (Phoenix, Ariz.) was fifth in the conference averaging 85.4 yards per game. He also set a school record for most yards rushing in a season (683). Sophomore Peter Gasparini (East Syracuse, N.Y.) was fifth in the conference in punting with a 34.0 average.

In other awards, Monroe was named the team's "Most Valuable Player" at the squad's break-up banquet Friday night at the MIT Faculty Club. Ekberg was selected as the "Outstanding Offensive Player" while Rice was named the "Outstanding Defensive Player." Adams, meanwhile, received the "Most Improved Player" award.

Four-year participation awards went to Monroe and senior linebacker Nick Nowack (Bolingbrook, Ill.) while captains awards were presented to Gregory, Monroe, and Nowak. Ekberg and Hanson received "Player of the Week" awards for outstanding performances during the season.

MIT finished with a 3-5 record this past season competing in the New England Conference with Assumption, Bentley, Massachusetts-Boston, Merrimack, Providence, Roger Williams, Southeastern Massachusetts, and Stonehill. Three of those losses were by a total of seven points.

## Whitaker Fund seeks applicants

The Whitaker Health Sciences Fund invites graduate students and faculty to apply for research awards totalling \$1.6 million for the fiscal year beginning July 1986.

Approximately five fellowships (plus five renewals) for MIT doctoral students will be available this year, as well as two Whitaker College of Health Sciences, Technology, and Management fellowships (plus two renewals) and one Harvard-MIT Division of Health Sciences and Technology fellowship (plus two renewals).

The due date for fellowship applications is February 1, 1986. MIT fellowship applications should be submitted to the departmental representative of the Committee on Graduate School Policy (and forwarded to Dean Frank E. Perkin's office by March 1, 1986), the Whitaker College fellowship applications to Dr. Emilio Bizzi's office, Rm E25-526, and the Harvard-MIT HST Division fellowship applications to Professor Kenneth A. Smith's office, Rm 3-240.

All renewal applications should be sent directly to the Whitaker Health Sciences Fund

Office, Rm E25-501, by February 1. Fellowship awards will pay a \$800/month stipend, plus a full year's tuition beginning September 1986.

In addition, thirty-one faculty research grants in the amount of \$40,000 (excluding overhead) will be awarded, effective July 1986, to young investigators in the biomedical sciences as follows:

—11 MIT faculty research grants.—9 Harvard Medical School/MIT collabora-

tive faculty research grants.

-7 Boston University School of Medi-

cine/MIT collaborative faculty research grants.

—4 Tufts University School of Medicine/MIT collaborative faculty research grants.

MIT faculty grant applications must be submitted to the respective department head by February 1, and BUSM/MIT, HMS/MIT and TUSM/MIT collaborative faculty applications to the respective chief of the teaching hospital or medical school department by January 15.

Announcement of these awards will be made on April 1, 1986. For further information, please contact the Whitaker Health Sciences Fund Office, Rm E25-501, x3-7878.

## IAP to offer great variety

(continued from page 1)

students with "dual literacy" (No. 4260). Information Services offers a range of single-session computer courses throughout January (No. 1150-1165).

From the Statistics Center comes "Lies, Damn Lies, and Statistics," an introduction into the mysteries of the art (No. 4326). Again this year, the Chinese Student Club presents a variety of programs, including "Chinese Soap Operas" (No. 4608) and "The Case of Long Guang Huang" (No. 4608).

People can "Build Your Own Speakers"

People can "Build Your Own Speakers" with the help of Poh Ser Hsu, whose offering is one of the many "How-To-Do-It" activities.

Undergraduate Kenneth Sparks examines "Security Clearances and the MIT Student: Your Rights and Obligations" a subject relevant to civil libertarians and anyone considering working in the military-industrial complex.

A tradition continues in the Music section with the IAP Orchestra (No. 459), a sight-reading ensemble conducted by Roland Vazquez. Players from performing groups join community members to read works by Beethoven, Schumann, and Sibelius. On the other hand, a tradition may be born with the IAP Chorus (No. 453), which brings together for the first time this year anyone with "enthusiasm, some choral experience and music-reading ability." Members will sing Beethoven's Symphony Number Nine.

From Mathematics comes "Discrete Groups, Fractals, and Iteration," which examines examples of discrete groups of low-dimensional goemetries (No. 384).

"How Tough Can You Make 4340 Steel?" People can find out in activity No. 350. Using traditional blacksmithing techniques, participants will forge a blank for a fracture toughness specimen.

Institute Professor Franco Modigliani, 1985 Nobel Laureate in economics, will discuss his work in "Modigliani on Economics" (No. 202), be honored, in "A Tribute to Franco Modigliani" (No. 203), and be available for informal talks, in the Sloan School Faculty Open House (No. 630).

The Medical Department is again offering its broad education program with topics such as "AIDS Update" (No. 3148), "How Do You Spell Relief? Over-The-Counter Drug Abuse" (No. 3109), "How To Start A Walking Program" (No. 3111), and "Depression: What Is It? Why Is It? Do You Have It? What To Do" (No. 3117).

As part of "Fusion Safety and Economics," a panel of national experts will discuss the prospects of fusion energy (No. 475).

prospects of fusion energy (No. 475).

Professor Sameul Jay Keyser plans to teach
"How To Write Metrical Verse" (No. 300) and
review the work of those who participate.

The Literature Section's annual film series will have as its theme, "Women in Crime," concerning attitudes toward the connection of gender to criminal behavior, both comic and tragic (No. 325).

In "Shakespeare's, Olivier's, and History's Henry V," George Kendall poses the question, was this king of England an epic hero or an aggressive, warlike monarch? The movie by Laurence Olivier will be followed by a discussion (No. 4654).

An old IAP favorite, College Bowl, is back (No. 4505). Any four-member team from MIT may register and play.

## All about lasers

A highlight of IAP this year is "The Age of the Photon is Upon Us," a special two-day Institute-wide forum of talks, shows, and demonstrations on light, particularly laser light. (See p. 3 of the IAP Guide.)

Geared toward the layperson, the program will have speakers from MIT and area institutions to explain the history and principles of the laser as well as its applications and possibilities.

"The impact the laser has made in our lives is both exciting and thought provoking," says IAP chairperson Professor Shaoul Izekial of Electrical Engineering and Computer Science and Aeronautics and Astronautics. "This program is for everyone because it affects everyone, be it in medical treatment, entertainment, or telecommunications," he said.

Dr. A. Osoroff of Massachusetts General Hospital will discuss lasers in medical diagnosis and therapy; Professor Michael Feld of the MIT Physics Department will talk on "Lasers in Nuclear Science," and Dr. M. Feiner of Sony Corporation will give a demonstration with his talk on the compact disc.

Prof. N. Bloembergen of Harvard University, 'Nobel laureate for his work in lasers, will wind up the two days of talks with an overview "The Age of the Photon."

Light shows will be presented each evening by Paul Earls, a staff member at the Center for Advanced Visual Studies.

—Maryglenn Vincens

#### Infinite corridor

(continued from page 1)

was obvious we had to provide a vehicle."

Most MITers had a question of their own: How did the hackers get the car, a junkyard Fiat 128 sedan, into the building?

The spokesman didn't want to be too specific, but he said the car was carried into the building, over outside stairs, directly onto the first floor. Carried? "With 20 people carrying less than a 2,000-pound vehicle, it's a fairly light load for each person, about 100 pounds," he explained.

The real trick, he said, was "pushing it down corridors, and making turns," all the while being careful not to cause any damage. "It wasn't easy," he said:

And where had the hackers stashed the car?
"Do you know of anything less conspicuous than a car parked on Memorial Drive?" he

#### Morrisons to speak

Professor Philip Morrison of Physics and his wife, Phylis Morrison, author and educator, will discuss the "Symbol and Substance in Grade School Science" Thursday, Dec. 12, at the New England Aquarium Auditorium at 7:30pm.

## Symphony to feature 2 soloists

Two guest soloists—pianist Seth Kimmelman and glass harmonica player Vera Meyer—will be featured in the MIT Symphony Orchestra winter concert in Kresge Auditorium on Saturday, Dec.14, at 8:30pm. Alan

on Saturday, Dec.14, at 8:30pm. Alan Yamamoto will be guest conductor.

Mr. Kimmelman will perform Prokofiev's Piano Concerto No. 3 in C Major, Op. 26. The pianist recently returned from his fifth concert tour of Europe where he was the only American asked to perform in the continent-wide European Year of Music Festival. His Boston debut last February in the Charles River Concert Series was praised by the Boston Globe for its "powerful command of sonorities, singing tone, and melting lyricism." That recital will be re-broadcast by Radio WBUR on Christmas Day.

Vera Meyer, who has a background playing flute and recorder, will perform Mozart's Adagio and Rondo in C, K. 617, on the glass harmonica. Mozart composed this quintet for a relative, Marianne Kirchgessner, who was the leading glass harmonica virtuoso of the

The glass harmonica, invented by Ben Franklin in 1761, flourished in Europe for about 40 years until people came to believe that its ethereal, haunting sound caused insanity and nervous disorders.

The program also will include Schumann's Symphony No. 3 in E-flat Major, Op. 97, Rhenish.

Mr. Yamamoto is a member of the conducting faculty at New England Conservatory and is the Assistant Conductor of the Boston Philharmonic. This spring, he will be in residence at MIT as guest conductor of the Symphony Orchestra while Professor of Music David Epstein, conductor and director of music

#### Becker to read poetry

Robin Becker, assistant professor in the Writing Program, will give a poetry reading of her recent work Monday, Dec. 16 at 8:15pm at the Blacksmith House, 56 Brattle St., Cambridge. The event is sponsored by the Cambridge Center for Adult Education.

for the Symphony, is in West Germany. Professor Epstein recently was awarded a grant which will permit him to continue his writing and research on time and music at leading institutions in that country.,

leading institutions in that country.,
Admission for the concert is \$1; free to those
with MIT or Wellesley College ID's.

#### Edward W. Brown Jr.

Burial services will be held today (Wednesday, Dec. 11) for Edward W. Brown Jr. who died December 5 at the age of 68. Mr. Brown had been a porter in the housing system from 1946 until his retirement in 1982.

He is survived by his widow, Albertha Lane Brown, three children and a step-daughter, five sisters and two brothers.

#### John F. Fitzpatrick

A funeral Mass will be said at 10am today (Wednesday, Dec. 11) in Blessed Sacrament Church, Saugus, for John F. Fitzpatrick, 44, who died December 7 following a long illness. Mr. Fitzpatrick had been a heating and ventilating mechanic in Physical Plant since 1980.

He is survived by his widow, Susan McCusker Fitzpatrick; two children, John F. III and Jill C. Fitzpatrick, two sisters and a brother.

#### Richard A. Osborne

A memorial service for Richard A. Osborne, 66, of Wayland was held Thursday in the Wellesley Park Assembly of God Church. Mr. Osborne, a retired staff member in the Laboratory for Information and Decision Systems, died December 1. He had worked at MIT from 1948 until his retirement in 1981.

Survivors include his widow, Louise Nickerson Osborne; a daughter, Nancy Santamaria, and a granddaughhter, Amy Santamaria, all of Wayland. Memorial contributions may be made to the church or to the American Cancer Society.