Massachusetts Institute of Technology

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Attn: Grads

Graduate students will have an opportunity to express their opinions on a variety of academic and housing issues on a questionnaire they will receive at Registration Monday, Feb. 3. The survey forms will be distributed with ID validation stickers to all graduate students and a table will be provided for students to fill out the forms.

The survey is being conducted by the Academic Policy and Planning Com-mittee of the Graduate Student Council in conjunction with several Institute Offices. Its results will be considered in future policy decisions regarding graduate student life at MIT.

Arts grants

The third deadline for grant proposals to the Council for the Arts is Friday, January 31. Any individual or organization formally associated with MIT is eligible to apply for Council funds for arts-related projects. All artistic disciplines are welcome and previous experience in the arts is not a requirement for funding.

For more information, and for application forms and program guidelines, call Alison Shafer, x3-4003, or stop by the Council Office at E15-205.

Harassed?

A film, "You are the Game: Sexual Harassment on Campus," will open a forum on harassment Thursday, Jan. 30, at 3pm in Huntington Hall (Rm 10-250). A panel and open discussion will follow. The community is invited.

Topics to be considered include harassment as a form of discrimination, legal aspects of harassment and peer harassment. The forum is being sponsored jointly by the Offices of the Dean for Student Affairs and the Graduate School, the Cheney Room and the Department of Applied Biological Sciences.

Altman on Ch. 2

A half-hour television interview of John Updike by China Altman of the MIT News Office will be aired as an introduction to the American Playhouse presentation of Updike's "The Roommate," to be broadcast by PBS on January 27 from 9-11 pm. It will be seen locally on Channel 2. The dramatization is based on an Updike short story about two mismatched college roommates. Ms. Altman's interview with Updike was filmed as part of a series of interviews she did several years ago for WGBH-TV.

Real-time Voyager images expected this week



MIT's Voyager Plasma Science Team, headed by Professor Herbert S. Bridge of the Department of Physics and the Center for Space Research, is seeking the "inside story" on Uranus. Instruments aboard Voyager 2, which makes its closest approach to the planet on January 24, are expected to relay information on Uranus' interior and other features. The satellite was launched in 1977. Team members are: seated, John D. Richardson, post-doctoral fellow, CSR, left, and Professor Ralph L. McNutt Jr; standing, center, Fran Bagenal, visiting scientist, Imperial College, London; back row, from left, graduate students Richard S. Selesnick and Mark R. Sands, research scientists George S. Gordon Jr. and James D. Sullivan, and Professor John W. Belcher and Dr. Bridge. All but one of the team is now at the Jet Propulsion Laboratory in Pasadena, Calif., the main link to the satellite. Mr. Selesnick remains at MIT to coordinate IAP Voyager activities and to be the team's on-campus link.

-Photo by Calvin Campbell

Private ownership of highways proposed at transportation forum By ROBERT C. Di IORIO

Staff Writer

An MIT engineer says the federal and state governments might save billions in road maintenance costs if some of America's highways were sold into private ownership.

"If this idea only improves the efficiency of highway maintenance by 5 or 10 per cent, which seems to me quite possible, it will save us scores of billions of dollars," said Dr. Fred Moavenzadeh, William E. Leonhard Professor of Engineering in the Department of Civil Engineering.

He made his proposal Saturday, Jan. 18, at a forum on the future of transportation

Artery substitute aids research By LAUREN SEELEY

Quick in the wake of substitute hearts and

organized by the Center for Transportation Studies. The forum, at the Silverado in Napa Valley, Calif., brought together leading executives from major private and public organizations involved in transportation-including carriers, shippers, investors and government. The purpose of the forum-the second MIT has organized-was to examine how economic and technological trends will affect the development of our transportation system.

Professor Moavenzadeh said the nation's highway system-more than three million miles of roads and highways-"is in danger (continued on page 11)

MIT scientists hope to find clues to Uranus' interior, when Voyager 2 visits the far distant planet this week and sends back images to earth that can be seen at MIT almost as they arrive.

The satellite will make its closest approach past the planet on January 24 at 1pm (EST). It has been traveling outward through space since it was launched in 1977, and has already visited and relayed information on Jupiter and Saturn.

Real-time images direct from Voyager 2 will be shown in Edgerton Hall, Rm 34-101, Thursday and Friday, Jan. 23 and 24, 12noon to 4pm. Radio signals, which will take 2 hours and 45 minutes to reach earth, will be received at the Jet Propulsion Laboratory in Pasadena and relayed by telephone to MIT. A different, unedited image will slowly appear on the 10foot screen every five minutes. Video, film, and oral presentations will be made as the images are projected.

"We expect this program to be very in-teresting," said Gladys Barron of Educational Video Productions, which has been coordinating the intricate technical procedure for providing the imaging. "There has been a lot of interest in it. I think it is because of the immediacy.

If the lecture hall overflows, the imaging will be shown on the MIT Cable. "But it is best to see it in Edgerton because of the large screen and the explanations that will go with it," Mrs. Barron said.

(continued on page 8)



Calder show

Ever wonder what was in Alexander Calder's mind when he created The Big Sail in McDermott Court? Keys to understanding the legendary artist's work will be provided in a new exhibition: "Alexander Calder: Artist as Engineer," opening next week (January 31) in the Bakalar Sculpture Gallery of the List Visual Arts Center in the Wiesner Building. This will be the third of a continuing series designed by MIT's Committee on the Visual Arts as a survey and introduction to the great sculptors of this century. Calder came to MIT himself to install The Big Sail, known as a stabile, with the aid of a crew of union steel workers, 21 years ago.

LIS reminder

Friday, Jan. 24, is the deadline for registering for spring term classes at the Lowell Institute School. See page 10 for course offerings.

substitute skin comes the advent of substitute arteries.

A team of MIT biologists has reported the development of techniques to fabricate substitute arteries almost entirely from living animal cells and the proteins that normally surround such cells.

Dr. Crispin B. Weinberg, a research fellow, and Professor Eugene Bell, both in the Department of Biology, report in the current issue of Science magazine that they have fabricated arteries in the laboratory that are essentially equivalent to mammalian arteries.

an "artery equivalent" by Dr. Weinberg and Dr. Bell, performs in laboratory tests like a normal mammalian artery and, therefore, will be especially useful in studying the causes and potential cures of cardiovascular diseases, Dr. Bell said.

The multi-layered living substitute, termed

Although the artery equivalent may ultimately serve as a substitute artery in humans, Dr. Bell stressed that its immediate use will be in trying to find out more about cardiovascular diseases

"The isolated artery equivalent will provide a tremendous advantage as a model system, (continued on page 11)

Weatherall: Job market is mixed

By SHARON DAVIS

Staff Writer "The job climate for MIT graduates this year is a bit up and down," reports Robert K. Weatherall, director of Career Services and Preprofessional Advising. "There are uncertainties in the computer,

semiconductor, oil and chemical industries. Some of the major corporations, including IBM, will not come to MIT this spring. But lots will come," he promised.

More companies recruit here than at most colleges. "They think of us as a prime source for science and technology. But too many students believe these are the only companies

they should apply to. There are many others," he said.

Twenty-six offices, plus a conference room, are used by companies to interview prospective employees in the career center. More than 400 recruiters come to the Institute each year. Phyllis Jackson is coordinator of recruiting.

But, for some majors such as architecture and urban studies and planning, the recruiting process is not the main route to a job 'Architectual and planning firms are small and seldom recruit. They rely on students to go after them. We tell students that jobs are there and to cast their net wide," said Elizabeth

(continued on page 11)

An elevator for lateral moves was created in Building 3 recently when a horizontal indicator plate was installed in place of a vertical one. Does this make the machine a lativator?

-Photo by Calvin Campbell

Watch the windows

Sometime within the next few days, if all goes according to schedule, the windows of Lobby 7 will glow with color.

The art project is the work of four students in architecture: graduate student Arjun Mangaldas, senior Ian Whitelaw and sophomores Karen Nelson and Fang-Pin Lee. Last spring they mounted squares of primary colors above the doors to test their effect on the Lobby. Now they are ready to put up their design, which will be on view through the first week in February, and could be remounted sometime in the future.

The present installation is scheduled to take advantage of the day late this month when rays of the setting sun extend the length of tha main corridor.

INSTITUTE NOTICES

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

Announcements

Course VI-A Orientation Lecture - All Course VI and Undesignated Sophomores interested in applying for the EECS Dept VI-A Internship Program, Wed, Feb 6, 3pm, Rm 34-101.

School of Engineering Sophomores – Engineering Intern-ship Program (EIP) Orientation Lecture** – Thurs, Feb 6, 4pm, Rm 10-250.

Memorial Service in Honor of Prof Thomas B. King, Dept of Materials Science and Engineering* - Mon, Feb 10, 11am, MIT Chapel

Graduate Student Survey - GSC Academic Policy and Planning Committee survey to give graduate students a chance to voice their opinions on issues affecting their lives, Mon, Feb 3 during Registration, Dupont. Surveys distributed along with ID validation stickers

Career Planning and Placement Company Recruitment Presentations* - Computer Information Systems, Jan 27, Presentations" - Computer Information Systems, Jan 27, 4-5pm, Rm 4-155. ANSER, Jan 27, 7-9pm, Rm 4-153. Proctor and Gamble Manufacturing, Jan 30, 3-6pm, Student Ctr Mez-zanine Lounge. Bain and Company, Jan 30, 4-6pm, Rm 4-163. Vitesse Electronic Corporation, Jan 30, 7-9pm, Rm 4-163. Gillette, Feb 6, 5-7pm, Rm 1-135. Chemical Bank, Feb 6, 7-9pm, Rm 4-149.

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.

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 ad-mission 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 ac Hune - The magazine of arts and literature at MIT is now ac-cepting 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. x3-7840.

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 phone number

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 hum or 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 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 welcome.

- Duplicate bridge, Tues, 6pm, S

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.

MIT Masters Swim Club** - Structured, coached workouts for graduate students and other members of the community who are not eligible for varsity swimming. Practices W/F, 8:30-10pm; Sun, 4-5:30pm. \$100/9 weeks starting Jan 22.

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; Weekdays: T/Th: 5:50pm & Fri 12:05pm (ex-Cept 1/29 & I/30). All Masses in MIT Chapel. Morning Prayer: M-F, 8:15am, Chapel Basement. Bible Study: Tues, 8pm, Chaplaincy Library. Chaplaincy Office:, x3-2981.

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, 7pm, MIT Chapel.

MIT Islamic Society* - The Position of Women in Islam: MIT Islamic Society* - The Position of Women in Islam: A Videotape, Jan 22, 12:30-2pm, Rm 3-133; Muhammad in the Bible: A Videotape, Jan 29, 12:30-2pm, Rm 3-133. Daily prayers, Ashdown House (basement), 5 times a day. Call x5:9749 dorm, for schedule. Friday prayer, Ashdown House 12:30 law. Houths ettat at 12:30 pm propertient at 19:55pm 12:30-1pm, Khutba starts at 12:30pm, congregation at 12:55pm.

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

United Christian Fellowship** - MIT Chapter of Inter-Varsity Christian Fellowship, weekly meetings: large group for w.~ship 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 Fellowship⁶ – 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 Chinneys. For in-formation contact Burt Kaliski, x3-5866 or Roz Wright, x3-5896. 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, sing-ing, 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

on 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.

US Navy Office of Naval Research Graduate Fellowships. Approximately 45 three-year Fellowships available for 1986-87, awarded for study and research in the following nine disciplines: electrical engineering, computer science, naval architecture and ocean engineering, materials science, applied physics, aerospace/mechanical engineering, life sciences and mathematics. These renewable fellowships have a 12-month tenure and pay full tuition and fees plus a stipend of \$13,000. Applicants must be US citizens who will receive their bac calaureate degree in 1986. Deadline: January 31, 1986. For applications, write: American Society for Engineering Education. 11 Dupont Circle, Suite 200, Washington, DC 20036.

Walter S. Barr Fellowships. Awarded by the Horace Smith Fund for advanced study or research. Fellowships are limited to residents of Hampden County, Mass, who have been or about to graduate from college. Candidates should be preparing for careers of "definite social usefulness," such as careers in politics or scientific research. The GRE Aptitude or other appropriate professional school aptitude test is required of applicants. Min-imum award is \$1,500. Deadline: February 1, 1985. Apply to: The Secretary, The Horace Smith Fund, Box 3034, Springfield, Mass 01101

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: February 1, 1986 for the seminar in German civilization, Spain Research Fellowships, and France and Germany travel-only awards. For ation, contact Dean Eugene R. Chamberlain, Rm 5-106, x3-3795.

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 Whitaker College of Health Sciences, Technology, and Manage ment 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. For further informa-tion, contact the Whitaker Health Sciences Fund Office, Rm F25-501 .27.878 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: Magnetic Fusion by Oak Ridge Associated Universities: Magnetic Fusion Energy Technology and Magnetic Fusion Science Fellowships and the Nuclear Engineering, Health Physics, and Radioactive Waste Management Fellowships - Com-petitive 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 Univers-ity Programs Division, Oak Ridge Associated Universities, PO Box 1127, Oak Ridge, Tenn 37831-0117, (615) 5765-3255.

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' Directory of Summer Internship Programs that Lead to Careers. It can be found in the Reference section of the Career Services Office Services Office.

Volunteer/low paying internships: The Financial Forum, Inc, in Boston offers unpaid internships in marketing and public relations, financial writing, and investment, taxes and financi planning. Spring term and summer opportunities available. ncial

Internships Offering a Stipend:

Commonwealth of Massachusetts, Massachusetts Internship Office offers a paid program in public policy for the summer, aimed at seniors and grad students with at least a 4.0/5.0 GPA, a strong interest in state government and a resident of Massa-chusetts. Deadline: Feb 28.

MIT Lincoln Laboratory in Lexington seeks participants for the

Minority Research Program. This is a ten week program offer ing students the opportunity to improve their engineering and scientific skills, supplement their academic research, and gain hands-on experience. The deadline for submitting application materials is Feb 1. Career Services has applications, see Diane Wilhoite.

Student Jobs

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

Babysitter needed for 1-yr-old baby in Beacon Hill. Experience required. Hours: evening and weekends; pay: \$4/hr. Also expert painters needed for indoor work, painting preparation work in Back Bay building. Hours flexible; pay: \$6-A/hr. If interested in either job, call Peggy H. or Dr. Missel, 523-2232.

Programmer in C or Pascal needed. Knowledge of UNIX is helpful. Student needed to develop and port products for com-pany which specializes in software development tools: compilers, assembler, linkers, simulators, debuggers, communication tools. Duties also include testing some systems. Car needed. Hours flexible, 10-40 hrs/wk. Pay: \$7-10/hr depending on experience. Also, a shipping clerk is needed to prepare magnetic tapes for shipping, and then actually doing the mailing. Car needed. Hours, part-time; pay: \$5.8/hr. If interested in either job, contact Joel Schacht, Oasys, 60 Aberdeen Ave, Cambridge, MA 02138 (Fresh Pond area). Call 491-4180.

Man or woman needed to car for disabled man. Must be able to sleep over Fri and Sat nights, every other weekend. Must have driver's license and be a non-smoker. Job will be every other weekend, at \$70/weekend. Location in Newton, near a T stop. Contact Paul, 964-0208.

The Neuroendocrine Laboratory of Harvard Medical School/ Brigham & Women's Hospital is actively recruiting female sub-jects aged 18-35 for drug-free studies on hormonal function. Both in-house and at-home studies are being conducted, for which subjects will receive from \$200-500. If interested, contact Michele Fleeter or Jeanne Duffy, Brigham & Women's Hospital, Fuller Pavilion, 221 Longwood Ave, Boston, MA 02115,

UROP

MIT and Wellesley undergraduates are invited to join with faculty members in pursuit of research projects of mutual fas-cination. Undergraduates are also urged to check the Undergraduate Research Opportunities Program's bulletin boards located in the main corridor of the Institute and in the UROP Of-fice. Faculty supervisors wishing to have projects listed should send project descriptions to the UROP Office. Questions? Contact us, x3-5049, Rm 20B-141. Sea Grant UROP Award. Awards of \$750 will be given for undergraduate research in any area related to the study and management of ocean resources. Proposals may come from departments throughout MIT (Wellesley students may also apply). A letter of reco ly). A letter of recommendation should accompany the prope and be sent to the UROP Office by February 10, 1986. Eloranta Summer Fellowship Program. Several \$4,000 research fellowships for MIT undergraduates will be awarded this spring for work to be done during the summer. Areas of study may be in any field: science, engineering, humanities. Travel is encouraged. Originality is rewarded. Deadline is March 31, 1986. Contact the UROP Office for more details.

Software Development in Crystallography and Crystal Defects: 2 positions available in a new Athena related project to develop graphics software which will aid in the teaching of crystal structure and crystal defects in the Dept of Materials Science and Engineering. Project focuses on the graphical il Science and Engineering. Project focuses on the graphical il-lustration of 3-D arrangements of atoms in space of varying complexity and includes features such as hidden detail, shading and rotation. Knowledge of basic crystallography, symmetry and the structure of solids as taught in 3.13 desirable, and ex-perience in computer graphics and programming essential. Previous experience with Project Athena useful. 10 hrs/wk. Con-tact: Dr. Paul Bristowe, x3-3326, Rm 13-5157.

Communications Program: 3 positions spring, with possibilities for summer. Communications Program is conduct ing research of audience evaluations of new media technologies Specifically, the research involves designing, implementing, and analyzing data to be gathered at an off-campus research facil-ity. Seek students interested in video and microcomputer applications and communication technologies, experimental research, human factors, or political science. All students, especially FRESHMEN, are encouraged to apply. Faculty super-visor: Prof W. Russell Neuman. Contact: Ann Fryling, x3-3135, Rm E53-366.

Mechanical Engineering in Medicine Projects. Three projects: 1)A new method of freezing organs to survive to -80 degrees C in a rigid closed circular container so that organs can be dehydrated at low temperatures under pressurized conditions without freezing them. Work includes mechanical design of a circular freezing container, incorporation of container with the present organ preservation cooling unit, pressure, temperature, and ice front location measurements under different experimental conditions, and theoretical modelling of the solidification process in a closed space. Interested students are welcome to visit organ preservation facilities and learn more about the project. 2)Embryo freezing group seeks students interested in monitoring embryos (bovine, porcine, and sometimes mouse) and their resulsts after freezing to thawing on the survival of embryos. The goal of this work is to determine the freezing condi-tions which produce the best survival rate. Positions would in-clude either working on alternative methods for assessing the viability of an embryo after freezing or conducting freezing ex-periments. **3)The cryomicroscope**, a light microscope with a freezing stage, was a major development in the study of freez-ing biological tissues. This system allowed not only well defined thermal gradients and freezing behavior, but also visual obser-vation of the sample undergoing freezing. Need student willing to take specifications and ideas of lab and turn them into a new kind of freezing stage. Responsibilities include not only design and fabrication, but also testing of the "superstage." In conjunc-tion with this project, a person interested in developing an ap propriate control system for this new stage would be needed. bryos. The goal of this work is to determine the freezing condi-These projects can also be used as Senior Thesis projects. Facul-ty supervisor: Prof Ernest Cravalho. Contact: Allison, x3-3181 or Mehmet, x3-2331.

Dept of Civil Engineering Projects. Two projects: 1)Create a Decision Support Program Portable on Pc's. Existing software, to help managers evaluate projects has been developed in the Athena/UNIX environment. This ASSESS program needs to be made compatible with IBM and ATT PC's so that it can easily be usedl wherever it's needed. Knowledge of C required. 2)Decision Analysis. to define strategies for industrial. existing system, the DECISION-MAKER program, and apply it to specific situation. Knowlege of C required. Contact: Prof Richard de Neufville, x3-7694, Rm 1-138.

Dept of Physics: Special relativity. Computer graphics to visualize the results of special relativity and to apply its conse quences for learning and fun: visual appearance of objects mov ing at relativistic speeds; animated space-time and momentum-energy diagrams; analysis of collisions including creations, an-nihilations, and transformations. Similar displays for quantum physics. Contact: Dr. Edwin F. Taylor, x3-7433, Rm E155-232.

Dept of Physics and School of Engineering. Divers, acrobats, bicyclists, flowing fluids, colliding cars, a collapsing bridge: these images are on videodiscs, which serve as nature's archive. We use overlay coordinate systems, frame grabbing, archive. We use overlay coordinate systems, frame gradoing, digitalization, and signal processing to extract data from these images, plug the data into computer models, and overlay resulting computer-generated graphics back onto the video-disc images. In this way we can explore the adequacy of our models and devise useful ways to represent abstractions for teaching and research. Contact Dr. Edwin F. Taylor, x3-7433, Rm E15-232 and/or Prof Judah L. Schwartz, x3-2050, Rm 20C-120.

Expert System for Identifying Optimal Bridge Painting Systems. Student to develop an expert system using an expert system building program. The expert system would identify feasible painting systems for steel; then determine the optimal painting system based on the expected life, reliability of the paint and costs. No programming required, but familiarity with an IBM PC and the concepts of expert systems, and an interest in bridges would be helpful. Contact: Prof Sue McNeil, x3-1982, Rm 1-179.

Performance of Civil Facilities. The nation's crumbling infrastructure has received a great deal of attention in the press Engineers have not been able to agree on estimates of the needs for civil facility rehabilitation due to failure to understand the in ulti-dimensional aspect of civil facility performance and its relationship to failure and deterioration. UROP student would explore the components of performance, such as reliability and serviceability, that are common to all civil facilities and their relationships to failure and deterioration. Contact: Prof Sue McNeil, x3-1982, Rm 1-179.

Optimal Design of Sandwich Panels: Identification of Failure Modes. Panels made up of two stiff, strong skins separated by a lightweight core are known as sandwich panels. Such structures have a high moment of inertia combined with low weight and so make efficient members for resisting bending and buckling loads. They are used in aircraft components, port able buildings and in modern sports equipment (Skis, yachts) The project aims to improve techniques for minimzing the weight of a sandwich structure of some required stiffness and strength - and need to identify the failure mechanisms in sand-wich panels and to be able to predict the 1 ds at which each of these mechanisms occur. Student will make and test a series of sandwich beams, note the load at which failure occurs, and note the mode of failure. Student should learn some techniques of mechanical testing and methods of modelling material behavior from the project. Contact: Prof Lorna Gibson, x3-7107, Rm 1-27

MIT/DL Brid 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 Dulcev, 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 wood-working 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 Kun-dalini 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.

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 dorm.

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Howard Heinz Endowment Office Research Grants on Latin American Issues. To interdisciplinary teams with at least one political scientist and/or economist. Also, one team member must be based at an institution located within the Commonwealth of Pennsylvania. Information and applications Marty Muetzel, Howard Heinz Endowment, 301 Fifth Ave, Pittsburgh, Penn 15222, 412-391-5120. All applicatio submitted no later than February 14, 1986; awards announced by July 1, 1986.

Armenian General Benevolent Union (AGBU) Hirair & Anna Hovmanian Fellowships – two fellowships, each in the amount of \$3,000 given annually to assist Armenian-American students sp ecializing in government, international affairs, or instudents specializing in government, international anarray, or in-ternational law. Applicants must be graduate students with high academic standing. Written requests for application forms must be submitted to the Armenian General Benevolent Union, 585 Saddle River Rd, Saddle Brook, NJ 07662 (tel: 201797-7600) by February 15. Decisions will be communicated to the applicants during July.

Other Opportunities

er Programs for Minority Students Interested in Health Professions - 6-10 week summer sessions offer room board, stipend, and training for gaining entrance to medical school and to other health-related professional programs. Deadlines begin mid-February. For further information, contact Preprofessional Advising, Rm 12-170, x3-4737.

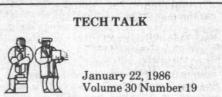
il Stude: White Ch 469 and at LSC movies,

Civil Engineering UROP Traineeships. The Dept of Civil Civil Engineering UKOP Traineeships. The Dept of Civil Engineering offers several traineeships of \$750 which are awarded on the basis of a UROP proposal competition. Deadline is February 10, 1986. For more information, call the Civil Engineering Undergraduate Center or Prof Sallie Chisholm, 22,1721 x3-1771.

Nuclear Engineering UROP Awards. Several awards are given to encourage research with faculty in the Nuclear Engineer-ing Dept. Freshmen are encouraged to apply. Contact. Prof. Ronald Ballinger, x3-5110, Rm 24-215 for more details.

PCT Imaging of the Canine Heart. UROPs available in the development of PCT (positron computed tomography) techniques applicable to canine cardiac studies. Emphasis is on developapplication of methods allowing the noninvasive diagnosis of heart transplant rejection and the detection of moycardial inflammation. Work will be towards refinement of myocardial blood flow and ejection fraction measurements as well as the development of a procedure permitting the imaging of radiolabeled leukocytes. Studies are conducted at Mass General Hospital in the Physics Research Lab. Course 6,7,8, 20, and 22 students best suited for this position. PAY or credit. Start immediately. Faculty supervisor: Prof Gordon Brownell, x3-7017, Rm E25-406A. Contact: Gordon Warren, x3-0376 or 732-5905 dur ing IAP, Rm E25-225.

Computer Graphics for Engineering Geology Knowledge Based System. Existing equipment, and some under develop ment, require data acquisition and feedback for experimental control. The hardware for instrumentation and data acquisition exists. Computer programs need to be developed for two pur-poses: 1)Data portrayal, representing different locations and different relationships (stress strain, stress temperature, stress time, etc., also combinations of more than two variables). 2)Use of the data to control experiments. Monotonic and dynamic tests have to be accommodated. (Changing one variable usually changes more than one other variable.) Contact: Prof Herbert H. Einstein, x3-3598, Rm 1-330.



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MIT to take part in storm study

By CHARLES H. BALL Staff Writer

Three MIT scientists are participating in a \$10 million study to learn more about the severe winter storms that form along and off the east coast of the United States, often leading to crippling snowfalls in the megalopolis stretching from Washington to Boston.

The study-said to be the largest operation of its kind ever undertaken-will try to determine more precisely what causes the storms and how to predict them better. The project will employ the resources of 17 universities, seven federal agencies, six satellites, eight aircraft, two ships and scores of ground stations and research buoys.

The MIT participants, all in the Department of Earth, Atmospheric and Planetary Sciences, are Kerry A. Emanuel, associate professor of meteorology; Randall M. Dole, assistant professor of meteorology; and Earle R. Williams, assistant professor of meteorology.

They will conduct research on the dynamics and electrical characteristics of the storms, which in New England are called northeasters because the flow around the oceanic storms produces northeasterly winds.

The storms possess several traits that distinguish them from milder continental low pressure systems. They tend to intensify much more rapidly than normal; they develop hurricane-like features including so-called 'eyes"; and they occasionally contain very powerful cloud-to-ground lightning.

The three MIT researchers will test several scientific hypotheses pertaining to these phenomena in studies carried out both at MIT and at experimental sites

One hypothesis holds that the rapid intensification of the coastal cyclones is a consequence of unusually strong atmospheric temperature contrasts that sometimes exist near the northern edge of the Gulf Stream. Because temperature contrasts drive most ordinary low pressure systems, extreme contrasts could well be a factor in rapid storm development.

Another possibility to be explored by the MIT scientists is that storm-induced winds draw a substantial amount of heat energy from the sea and, in this respect, cause the storms to behave more like hurricanes.

The three meteorologists also will investigate the supposition that the unusual lightning discharges sometimes seen in the storms are related to the electrical configuration of a special kind of sloping convection that mainly occurs in winter storms.

A variety of tests will be made this winter, from January 15 to March 15, when it is expected that a half dozen winter storms will cross or be born in the experimental area covered by the study, known as GALE, for Genesis of Atlantic Lows Experiment. The observations will be far more detailed, extensive and closely spaced than those provided by the usual observing system.

The project is being organized at the National Center for Atmospheric Research in Boulder, Colo., by a steering committee headed by Dr. Richard Dirks of the National Science Foundation, the lead agency for the study.

Kitz, Mark to co-direct HST

The Harvard-MIT Division of Health Sciences and Technology (HST), the mechanism by which MIT and Harvard link the physical sciences and engineering to medical education, and vice versa, has two new co-directors

They are Richard J. Kitz, MD, of Harvard Medical School, and Roger G. Mark, MD, PhD., of the MIT Department of Electrical Engineering and Computer Science. Dr. Kitz is the Henry Isaiah Dorr Professor of Research and Teaching in Anaesthetics and Anaesthesia. Dr. Mark is the Matsushita Associate Professor of Electrical Engineering in Medicine.

They succeed Irving M. London, MD, who directed HST since its inception in 1970. Dr. London will continue as professor of medicine at Harvard Medical School and as Grover M. Hermann Professor of Health Sciences and Technology in the MIT Department of Biology.

Dr. Mark has been involved with the research and educational programs at HST for more than 10 years and has directed the Biomedical Engineering Center for Clinical Instrumentation at MIT. Dr. Kitz is a senior member of the Harvard Medical School faculty and is chairman of the Anaesthesia Department at Massachusetts General Hospital. He helped establish the Department of Biomedical Engineering at Massachusetts General and has been a member of HST Joint Faculty Committee for five years.

The co-directors share equally the management responsibility for HST. In addition, each will have as a primary focus one of the two principal HST educational programs.

Dr. Kitz will focus on the Biomedical Sciences Program, which leads to the MD degree with special emphasis on science and technology. The program is guided principally by Harvard faculty and involves MIT faculty in quantitative, biological, physical and engineering segments of course development and independent study, including studies toward a combined MD-PhD in some instances.

Dr. Mark will focus on the Bioengineering and Physical Sciences Program, which leads to the PhD with special emphasis on engineering and the physical sciences as applied to problems in medicine. The program is guided principally by MIT faculty and involves Harvard faculty at affiliated hospitals, in teaching biomedical sciences and in providing clinical experiences for medical physicists and engineers. The program was known formerly as the Program in Medical Engineering and Medical Physics.

Under a new statement of objectives and structure that Harvard and MIT have developed, HST is linked to the Office of the Provost at MIT and the Office of the Dean at Harvard Medical School. Professor Kenneth A. Smith, associate provost and vice president for research, has special responsibility at MIT for the division

Sylvia Ceyer to hold Class of '43 Chair

Dr. Sylvia T. Ceyer of the Department of Chemistry has been named the first holder of

the Class of 1943 Career **Development** Professorship. Her three-year appointment will continue until October 1, 1988.

The announcement. made by Professor John M. Deutch, Provost and Arthur C. Cope Professor of Chemistry, said the professorship was established to recognize innovative and imaginative teaching by gifted young faculty members who show exceptional

she organizd an ACS symposium on "Molecular Processes at Solid Surfaces: Dynamical Aspects." She is presently organizing a symposium on "Molecular Processes at Interfaces: Kinetics and Intermediates in Surface Reactions" to be held next September at the national ACS meeting. She is also a member of the planning committee for the Physical Electronics Conference of the American Physical Society.

Professor Ceyer said that graduate students Sau Lan Tan, Myung Lee, John Beckerle and Qingyun Yang and UROP student Melissa Hines played critical roles in the work on chemisorption of carbon monoxide on nickel surfaces.



Debby Wheeler heads up a production number during rehearsal for Babes In Arms, scheduled this weekend from MIT's Musical Theatre Guild. In the middle are: Mary Lou Ravese '88, Rina M. Cerulli '86, Hoi Man Siu '87, Cynthia Millington, Wellesley College '86. In the back: graduate student Bobby Fonacier, Kent Borg and Scott Ramsey '89.

-Photo by Dale H. Senechal '81.

MTG to present Rodgers & Hart

Rodgers and Hart's Babes in Arms will be presented by the MIT Musical Theatre Guild, produced by Saul Resnikoff and directed by Melinda Fennell.

The musical drama concerns a troupe of young performers who struggle to put on their own original musical revue in the theatre owned by their boss, a greedy tyrant.

It will be staged January 30 and 31 at 8pm, February 1 at 6 and 9pm, and on February 2 at 7pm in the Sala de Puerto Rico of the Student Center. Admission: general \$6, senior citizens and outside students \$4, MIT community \$5, MIT students \$3. Information: x3-6294.

The box office will open one hour before show time on the second floor of the Student Center.

There are 14 in the cast, including two seniors, Rina Cerulli, MIT, and Cynthia Millington, Wellesley College; one junior, Hoi Man Siu; two sophomores, Mary Lou Ravese and Leslie Melcer; two freshmen, Scott Ramsay and Anna Napolitano; and two graduate students, Steven Schroko and Bobby Fonacier.

Also appearing with them are Lynn Heinemann who works in the Tech Talk office and Denise Cormier of the Ocean Engineering Department. From the Greater Boston community are cast members Debby Wheeler, Courtney Furno and Kent Borg.

Music directors are Barry Mirrer and Louis Toth. Ms. Millington also is choreographer for the production. Others helping to stage the musical are: Carl Dashfield, technical director; Karen Covert, stage manager; Angie Hwang, set designer; Dale Senechal, lighting designer; Rogina Haase, costume designer; Andrea Brandford, properties mistress; and Bill Boyce, publicity director.

Science prizewinners surveyed

The most significant scientific developments of the next decade are likely to be in the areas of genetic engineering and medicine, a survey of past Westinghouse Science Talent Search (STS) winners shows.

Four per cent received undergraduate degrees from MIT, while another four per cent hold master's degrees here. Eight per cent are MIT PhD gradutes. (Harvard led in all three categories; MIT was second.)

Westinghouse Electric Corporation, sponsor of the annual competition, commissioned the study to determine how former winners feel about the state of today's science education in the United States, the most pressing problem facing America, and what will be the most significant scientific development in the next 10 years.

As to imminent scientific developments, 21 per cent cited advances in genetic engineering as the most likely next major advance. Also, 19 per cent think a medical breakthrough, such as a cure for cancer or advances in immunology, will be the most important scientific development within this decade.

STS winners have mixed opinions about the most pressing problem facing the nation, although 28 per cent say the threat of nuclear war and the issue of arms control are of foremost concern. Economic problems in the US (11 per cent); social and humanitarian issues, such as hunger, crime and population explosion (12 per cent); moral and philosophical issues, such as the decline of moral values (10 per cent); and problems of education (9 per cent) were also cited as the country's most pressing concern.

Two-thirds of the respondents think scientists should participate more in contemporary politics. Almost half (44 per cent) believe scientists could contribute expert knowledge to aid government officials in their decisions.

More than half the STS winners (53 per cent) are academics in their professional life. Of these, 27 per cent report that the major source of their income is from college or university teaching.

Considering all aspects of their personal and professional lives, STS winners are most likely to cite a scientific discovery or development as their most important achievement (22 per cent). Fourteen per cent more stated their most important achievement was career success or recognition.

In spite of the increasing complexity of science and the apparent growth of research teams, an overwhelming majority (83 per cent) of STS winners think the individual scientist will always remain important. They say that individuals are the creative drive in science.

One winner wrote that imaginative scientists "rarely have the temperament necesary to participate in a team. The danger is that teams will consume resources greedily, and imaginative people will be denied. A team never displays imagination.'

Champion Fellowships established

The Champion International Corporation, to become leaders in this field, is a graduate

promise of making important contributions to teaching and research throughout their professional careers.

Dr. Ceyer, a member of the faculty since July 1981, was selected for the professorship, in part, because of her "outstanding contributions to both education and scholarship in physical chemistry." The announcement cited her "recent stunning work on chemisorption of carbon monoxide on nickel surfaces.

Dr. Ceyer holds the BA in chemistry (1974) from Hope College, Holland, Mich., and the PhD in chemistry (1979) from the University of California, Berkeley.

She has been active in the affairs of the American Chemical Society. In August 1981

Nobelist to speak Jan. 29

Dr. Julius Axelrod of the National Institutes of Health, the 1970 Nobel Laureate for physiology and medicine, will give a special lecture at MIT at noon Wednesday, Jan. 29, in E25-111. The lecture, "Regulation of ACTH Secretion," will be presented by the Whitaker College of Health Sciences, Technology and Management and the Laboratory of Neuroendocrine Regulation, Department of Applied Biological Sciences.

Japan Society to show new Ichikawa film here

The Japan Society of Boston, together with the MIT-Japan Science and Technology Program and the Center for International Studies, will sponsor the showing of a new film by Kon Ichikawa, one of Japan's leading film directors, on Tuesday, Jan. 28, at 7pm in Rm 10-250.

Patricia Gercik, program administrator of the MIT-Japan Science and Technology Program, will introduce the movie, "The Makioka Sisters," an adaptation of Junichiro Tanizaki's classic 1938 novel, A Light Snowfall. The showing, funded in part by the IAP Funding Committee, is open to the public.

The story of a once-powerful merchant family whose fortunes are declining in the changing Japan of the pre-World War II period, the movie depicts the efforts of two older sisters to find suitable husbands for the younger two.

The Japan Society of Boston has found that film is a valuable means of promoting understanding between Japan and the United States. It hopes to show other Japanese films to the MIT community in cooperation with the MIT-Japan Science and Technology Program.

a program at MIT of Thesis Fellowships in Technology and Policy. The fellowships are intended to assist outstanding graduate students to work in the field of environmental regulation and policy.

Kathleen Bennett, director of regulatory affairs at Champion and formerly assistant administrator of the US Environmental Protection Administration for Air and Water Quality, recently met with students of MIT's Technology and Policy Program to discuss the complexities of effective regulation.

She stressed the crucial need for persons knowledgeable in technical problems as engineers who also understand and can work in the policy environment in which regulations are developed.

The Technology and Policy Program, whose purpose is to educate young men and women

SSC, LSC to bring Carlin

The Student Center Committee has joined forces with the Lecture Series Committee to sponsor a Registration Day appearance by comedian George Carlin.

Mr. Carlin will give two shows, at 7 and 10pm, Monday, Feb. 3, in Kresge Auditorium. Reserved seats are \$6, \$8 and \$10 with MIT or Wellesely ID. Tickets are available in Lobby 10, Student Center Rm 469 and at LSC movies.

interdepartmental program that works closely with the new Center for Technology, Policy and Industrial Development. Under the direction of Daniel Roos, professor of civil engineering and Japan Steel Industry Professor of Engineering, the new center is developing an active role in the issues of industrial wastes and pollution. The Champion Fellowships will be part of that effort.

"It is increasingly clear," said Professor Richard de Neufville, chairman of the Technology and Policy Program, "that we need to pay close attention to how we can best achieve and maintain a healthy environment. We need to look carefully both at the various forms of regulation and at alternatives to it. such as negotiation. We are most grateful to the Champion International Corporation for generously helping us do this research.'

Champion, headquartered in Stamford, Conn., is the nation's leading manufacturer of paper for business communications, commercial printing, publications and newspapers. The company, which owns or controls 6.8 million acres of timberlands in the US, is also a major manufacturer of plywood and lumber.

THE INSTITUTE CALENDAR

January 22-February 9

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 connected.

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 an-

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

Special Events

An Architecture of Substance: A Design Symposium^{*} – Jan 27-Feb 2, Dept of Architecture Symposium: Mon, Jan 27 – Peter Pragnell, 7pm, Bldg E15 Bartos Theater; Tues, Jan 28 – Maurice Smith, 7pm, Rm 9-150; Wed, Jan 29, Wolf Prix, Coop Himmelblau of Vienna, 7pm, Rm 10-250; Thurs, Jan 30 – John Whiteman, 7pm, Rm 9-150; Fri, Jan 31 – Zaha Hadid, 7pm, Rm 10-250; Sat Feb 1 – Eric Owen Moss, 10am; Kurt Forster, 11:30am; Panel Discussion/Forum, 2pm, Rm 10-250; Sun, Feb 2 – Review, 2pm; Fumihiko Maki, 5pm, Rm 10-250.

Seminars and Lectures

Wednesday, January 22

Self-Amplification and Start-up in Raman FEL* - Prof Thomas Marshall, Columbia University, Plasma Fusion Center Seminar, 4pm, Rm NW17-218.

Leathergirls Just Wanna Have Fun^{*} – Slide/tape work by Suzane C. Shepherd; discussion with the artist and Donna Turley, writer/co-founder of feminists Anti-Censorship Task Force (FACT), Hayden Gallery *Nude, Naked, Stripped* Exhibit Program, 7pm, Wiesner Bldg Bartos Theatre.

A View to Today's China[®] – Dean Eugene Chamberlain, international students' advisor; associate dean, Student Affairs Office, Friendship Association of Chinese Students and Scholars (FACSS) presentation: slide show & comments on Dean Chamberlain's recent study mission to the People's Republic of China, 7:30pm, Student Ctr Rm 491. Info: Hong Ma, x3-3623.

Thursday, January 23

The Art and Politics of the Nude: Past and Present^{*} -George Stambolian, Dept of Art History, Wellealey College, Hayden Gallery Nude, Naked, Stripped Exhibit Program, 1pm, Hayden Gallery.

Comparable Worth** - Barbara Grey, state senator, Women's Forum Gay Warner Lecture, 4-6pm, Rm 66-110. Reception & refreshments, 3:30pm.

Friday, January 24

ICRF Stabilization of Tandem Mirrors^o - Dr. Jim Myra, Science Applications International Corporation, Plasma Fusion Center Seminar, 4pm, Rm NW17-218.

Islam and the Gospels^{*} - Gary Miller, MIT Islamic Society lecture, 7:30pm, Rm 54-100.

Monday, January 27

The Wage Gap^{*} - Sarah Kuhn, Urban Studies and Planning graduate student, member, Women's Economic Literacy Project, Women's Forum Workshop/Discussion to follow up Gay Warner Lecture (Jan 23), 12noon, Rm 4-159.

Friday, January 29

Regulation of ACTH Secretion[®] - Dr. Julius Axelrod, National Institutes of Health, Bethesda, MD; Nobel Laureate, 1970, Whitaker College of Health Sciences, Technology and Management/Laboratory of Neuroendocrine Regulation, Dept of

Thursday, February 6

Snatching Chaos From Order** - Prof Leo Kadanoff, University of Chicago, Physics Colloquium, 4pm, Rm 26-100. Refreshments served, 3:30pm, Rm 26-110.

Signal Propagation Delay in Linear RC Models for On-Chip Interconnect** - Prof John Wyatt, Electromagnetic Wave Theory and Applications Group Seminar, 5pm, Rm 34-302.

Friday, February 7

A Numerical Simulation of Diesel Autoignition^{*} – Mark Theobald, RA, Mechanical Engineering, Mechanical Engineering Doctoral Thesis Presentation, 4pm, Rm 31-161.

Films

The Makioka Sisters* - MIT-Japan Science and Technology Program/Center for International Studies/Japan Society of Boston film, Tues, Jan 28, 7pm, Rm 10-250. Kon Ichikawa's elegant adaptation of Tanizaki's 1938 novel, the story of a oncepowerful Osaka merchant family whose fortune is slowly declining in the changing Japan of the 1930s. Free.

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, 7:30-9am, 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.

Overeaters Anonymous[•] - Meetings every Mon beginning Jan 27, 12-1pm, Rm E23-297. This is not a lunch time meeting, so please do not bring any food. For info call Judy, x3-2481.

Medical Consumers' Advisory Council** - Open meeting, Tues, Jan 28, 12noon, Rm E23-297. Call x3-1316 if you would like to attend.

MIT Faculty Club** - Jan 22: Lobster Night, Main Dining Rm, 4:45-7:45pm; Jan 24: Friday's Fabulous Buffet, 11:45-2pm; Jan 29: Picnic Night in the Lounge, 5-7pm. 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.

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

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** - sponsored by the Wives' Group, seeks persons interested in practicing languages with a partner. Many international students and spouses wish to practice English with a native speaker. If you are 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, x3-1614.

MIT Women's League Informal Needlework Group** – Wednesday lunchtime gatherings, 9:30am-1:30pm, Rm 10-340. Bring sack lunch, projecta, swap ideas. Coffee & tea served. Meeting dates: Jan 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 tickets for General Cinema, Showcase and Sack (USA Cinemas) Theaters (\$3.00ea). Tickets are good 7 days a week, any performance.

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).

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

Home Show. Feb 1-9, M-F, 1-10pm; Sun, 12-7pm, Bayside Exposition Center. Everything for both exterior and interior home improvements, including furniture, siding, plumbing, and more, on display. Tickets: \$1.50/adults (reg \$3) and \$.75/children (ages 6-12; under 6 free; reg \$1.50), available in Rm 20A-023.

Waterville Valley Day Trip. Sun, Feb 9. Bus leaves West Garage 6am, returns to MIT approx 6:30pm. Cost: Downhill: \$32.50/pp; cross-country: \$16.50/pp. Reservations may be made in Rm 20A-023.

Family Ice Skating. Sun, Feb 9, 1-4pm, MIT Athletic Center. No athletic card required. Ice skate rentals, depending on availability, \$2/ea (sizes 4 and up) - athletic card required for rentals. Skates *must* be returned at the end of the allotted skating time. Free. 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).

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

New! The Greater Boston '86 Books are here! 2-volume, 820-page discount coupon book offer discounts on fine and casual dining, theatre, comedy shows, opera, ballet, museums, hotels, car washes, cleaners, and more. .. for the greater Boston area and beyond (inc areas in the Metro West, South Shore, North Shore & north of Boston). A limited supply now available for only \$20 ea (reg \$30 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 organization.

Social Activities

GAMIT Sunday Discussion Meeting* - Gays at MIT, Suns, 5pm, GAMIT Lounge, Walker Memorial Rm 50-306. Dinner served at 6:30pm.

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

Movies

Cat People** - LSC Movie, Jan 22, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

Live and Let Die** - LSC Movie, Jan 24, 7&10pm, Kresge Auditorium. \$1/MIT-Wellesley ID.

Cartoon Festival** - LSC Movie, Jan 25, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

Fiddler on the Roof** - LSC Movie, Jan 26, 6:30&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

26-110: The Year We Make Contact Science Fiction Marathon VIII** - LSC Movie, Jan 29-30, 6-10:40pm, Rm 26-100. \$1/MIT-Wellesley ID.

The Stunt Man** - LSC Movie, Jan 31, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

Casino Royale** - LSC Movie, Feb 1, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

My Fair Lady** - LSC Movie, Feb 2, 6:30&10pm, Rm 26-100. \$1/MIT-Wellesley ID.

2010: Odyssey Two** - LSC Movie, Feb 7, 7&10pm, Kresge Auditorium. \$1/MIT-Wellesley ID.

The Gods Must Be Crazy** - LSC Movie, Feb 8, 7&10pm, Kresge Auditorium. \$1/MIT.Wellesley ID.

Music

The Erdely Duo* - Prof Stephen Erdely, violin and Beatrice Erdely, piano perform works of J.C. Bach and Mozart, Fri, Jan 31, 8pm, Kresge Auditorium. Free.

MIT Concert Jazz Band^{*} – Everett Longstreth, director. First meeting: Sat, Feb 1, 10am, Kresge Auditorium. Rehearsals: Sat, 10-1pm, Kresge Auditorium. Info: Charles Stern, x3-6778 (ZBT, 566-4792).

Festival Jazz Band[•] – Jamshied Sharifi, director. First meeting: Sun, Feb 2, 8pm, Kresge Auditorium. Rehearsals: Wed, 5-7pm; Sun, 7-10pm, Kresge Auditorium. Info: Kris Grube, 494-8677.

MIT Concert Band First Rehearsal* – John Corley, director. First meeting: Mon, Feb 3, 5pm, Rehearsal Rm B. Rehearsals: Mon & Wed, 5-7pm, Kresge Auditorium. Info: Ed Ajhar, x5-7509 dorm or x3-7466.

MIT Chamber Music Society First Rehearsal* - Marcus Thompson, director. First meeting: Mon, Feb 3, 7pm, Rm 4-156. Rehearsals by arrangement. Info: Music Office, x3-3210/2906.

MIT Brass Ensemble First Rehearsal^{*} - Greg Hopkins, conductor. First meeting: Tues, Feb 4, 5pm, Rehearsal Rm B. Rehearsals: Tues & Thurs, 5-7:30pm, Rehearsal Rm B. Info: Lee Tavrow, x5-6451 dorm.

MIT Symphony Orchestra First Rehearsal^{*} – Alan Yamamoto, guest conductor. First meeting: Tues, Feb 4, 7:30pm, Kresge Auditorium. Rehearsals: Tues & Thurs, 7:30-10pm, Kresge Auditorium. Positions available for obce, bassoon (principal & 2nd), bass trombone and all strings. Concerts: March 8/May 10. Info: x3-2826 1-5pm.

Noon Hour Chapel Series^{*} - Bob Seigetsu Avstreih, Sui-Zen Shakuhachi (Japanese bamboo flute), Thurs, Feb 6, 12:05pm, MIT Chapel. 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.

Theater

Babes in Arms - by Rodgers and Hart^{*} - MIT Musical Theatre Guild IAP Production, Jan 30-31, 8pm; Feb 1, 6/9pm; Feb 2, 7pm, Student Ctr Sala de Puerto Rico. Tickets: \$6; S/MIT Community; \$4/Seniors & outside students; \$3/MIT Students. Info/Reservations: x3-6294.

George Carlin** - LSC Lecture, Feb 3, 7&10pm, Kresge Auditorium. Admission: \$6,8, 10. MIT Folk Dance Club* – weekly dancing Sundays, International 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 de Puerto Rico.

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, culturally and psychologically – discussed in accompanying 80-page catalog published by the CVA, through Feb 4. See Educational Programs schedule under *Seminars and Lectures*.

David and Sandra Bakalar Sculpture Gallery – Alexander Calder: Artist and Engineer, Jan 31 through April 13. Reception: Feb 28.

The Reference Gallery – Marina Abramovic and Ulay: The Great Wall of China Project. Two European artists document their silent walk from separate ends along the Great Wall, through Feb 9.

THE MIT MUSEUM

MIT Museum Bidg – Minor White: Photographs, 102 prints dating from the 1930s to 1968, through March 1986. 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. Gjon Mili '27: A Tribute, Born in 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. Light Sculptures by Bill Parker '74, A synthesis of scientific knowledge and artistic composition gives expression to these changeable, touchable plasma sculptures, ongoing. Physics at the Laboratory for Nuclear Science: 35 Years at LNS, through Feb 28. Hours: Weekdays 9am-5pm, Saturdays 10am-4pm.

Compton Gallery – Images of Infinity: Photomontages by Yulla Lipchitz, 50-60 photographs and photomontages reflecting the artist's personal vision, Jan 24 through March 8. Opening reception, Jan 23, 4-7pm. Hours: Weekdays 9am-5pm, Saturdays 10am-4pm.

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

Corridor Exhibits: Building 1 & 5, 2nd floor: John Ripley Freeman Lobby, Building 4: Norbert Wiener, Karl Taylor Compton. Community Service Fund, Ellen Swallow Richards. Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Building 6: Laboratory for Physical Chemistry. Building 8:

OTHER EXHIBITS

Sports

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 project began, several of his ideas were incorporated into the ultimate plan by his successor. William Welles Bosworth. Hall exhibit case across from 14N-118.

Island Interiors – through Jan. People of Monhegan – Feb through March. 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.

Jerome B. Wiesner Student Art Gallery – for 1986 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.

HOME EVENTS: Jan 22: Squash vs Babson, 4pm; M's Fenc-

Management/Laboratory of Neuroendocrine Regulation, Dept of Applied Biological Sciences Special Lecture, 12noon, Rm E25-111. Refreshments served, 11:30am, Rm E25-117.

Thursday, January 30

Feeling Harassed? Sexual Harassment Forum[®] - Dept of Applied Biological Sciences/Student Affairs Office/Graduate Student Office Film, Panel and Open Discussion, 3pm, Rm 10-250. Will explore issues such as: harassment as a form of discrimination; legal aspects of sexual harassment; peer harassment.

Friday, January 31

MHD Current Generation in Tokamaks and Stellerators[•] - Dr. John Hogan, Oak Ridge National Laboratory, Plasma Fusion Center Seminar, 4pm, Rm NW17-218.

Wednesday, February 5

Mu-Oxo Complexes of Technetium with Pyridine and Halide Ligands^a – Michael Clarke, Boston College, Inorganic Chemistry Seminar, 4pm, Rm 4-231.

Kinetics of Non-Isothermal Diffusion-Controlled Mineral Growth in Contact Aureoles** - Prof Raymond Joesten, Dept of Geology and Geophysics, University of Connecticut, Dept of Earth, Atmospheric and Planetary Sciences Colloquium, 4-5pm, Rm 54-915.

Page 4, Tech Talk, January 22, 1986

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, Feb 17, 8pm. Cost: \$118/op/dbl occupancy only (bus and hotel fares inc in total cost). Make your reservations now in Rm 20A-023.

Boat Show. Sat-Sun, Feb 15-23, Bayside Exposition Center. 30-year old show of luxury cabin cruisers, kayaks, wind surfers, catamarans and more. Tickets: \$2/adults (reg \$4); \$1/children (ages 6-12; reg \$2; under 6 free), available in Rm 20A-023.

Jean-Pierre Rampal. Fri, Feb 21, 8pm, Symphony Hall. Share an evening of musical magic with the world-renowned flutist. Tickets: \$17/ea (reg \$18.50) available in Rm 20A-023.

Cinderella. Sat, Feb 22, 2pm, New England Life Hall. The fairy godmother and pumpkin-turned coach brought to life in this lively Boston Children's Theatre production. Tickets: \$4.25 (reg \$5), available in Rm 20A-023.

Rap Master Ronnie. Thurs, Feb 27, 8pm, Next Move Theatre. The master satirist, Garry Trudeau, immerses us into playfulbut-thought-provoking-satire with this musical revue. Tickets: \$18 (reg \$19.50) available 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. The Cavern - by Jean Anouilh (Lucienne Hill translation)* - MIT Dramashop, modern takeoff on 19th century melodramas, with live orchestra to heighten effects, directed by Dr. Robert N. Scanlan, director, Feb 6-8, 13-15, Spm, Feb 9, 2pm, Kresge Little Theatre. Admission: \$5; \$4 students/seniors - Box Office in Lobby 10. Reservations, x3-4720. Information, x3-2877.

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. Beginning Western Square Dancing, Two free intro nights: Jan 28 and Feb 4; monthly dance, Fri, Jan 31 - Mayo/McClure plus Level. Recorded info: x5-9126 dorm.

MIT Ballroom Dance Club Workshops[•] - Foxtrot, Thurs, Jan 23, 7pm, Student Ctr Sala de Puerto Rico; Swing IV, Mon, Jan 27, Burton; Rumba, Thurs, Jan 30, 7pm, Burton. Admission: \$1/non-members; \$.75/members. Info: x5-9171 dorm.

MIT Dance Workshop First Meetings** - Intermediate Modern Dance, Tues, Feb 4, 5:30-7pm, Walker 201; Beginning Modern Dance Technique, Wed, Feb 4, 3-5pm, DuPont T-Club Lounge; Improvisation, Thurs, Feb 6, 1-3pm, Walker 201.

MIT Contemporary Dance Club* - Cynthia Mallick, instructor, Aerobix, Mon, 7-8:15pm, McCormick Gym, Wed, 8:15-9:30pm, T-Club; Jazz I, Mon, 8:30-10pm, T-Club; Jazz II, Wed, 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 3-9. We are taking a break all of Jan. Classes begin in Feb on Fri afternoons. For info, call after Jan 25 - Pamela, x3-5791, T/Th mornings or 648-4838 eves/wkends. ing vs Yale, 4pm; W's Fencing vs Yale, 4pm. Jan 23: W's Swimming vs Babson, 7pm. Jan 24: Squash vs Middlebury College, 12:30pm; M's Fencing vs Rutgers, 7pm. Jan 25: M's Basketball vs Nichols, 2pm. Jan 26: M's Ice Hockey vs Rochester, 2pm; New England Intercollegiate Wrestling Tournament. Jan 28: W's Basketball vs Anna Maria, 7pm. Jan 29: M's Swimming vs SE Massachusetts, 6pm; W's Swimming vs SE Massachusetts, 6pm; Wrestling vs WPI, 7pm; M's Ice Hockey vs Curry, 7pm. Feb 1: Wrestling vs Amherst, 1pm; M's Gymnastics vs Vermont, 2pm; W's Gymnastics vs RI College, 2pm; Squash vs Columbia, 2pm; M's Ice Hockey vs WPI, 2pm; M's Fencing vs Fairleigh Dickinson, 2pm; W's Fencing vs Fairleigh Dickinson, 2pm; W's Basketball vs Nichols, 2pm. Feb 5: M's Ice Hockey vs Southern Maine, 7pm. Feb 7:8: Squash Round-Robin. Feb 8: M's Fencing vs Princeton, 10am; W's Fencing vs Princeton, 10am; Indoor Track vs Bowdoin, 1pm; M's Gymnastics vs Lowell, 1pm; W's Basketball vs Conn College, 2pm; M's Basketball vs Emerson, 4pm.

Wellesley Events

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

Fifth of July Male Auditions* - Wellesley College Theatre auditions for male actors, Jan 27, 3-5 & 7:30-9:30pm; Tues, Jan 28, 7:30-9:30pm for March 14-16 production.

Organ Concert* - Prof Jean Ferrard, Conservatory of Liege performs music of Renaissance and baroque Flemish organ composers, Tues, Jan 28, 8pm, Houghton Memorial Chapel.

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

Send notices for Wednesday, February 5 through Sunday, February 16, to Calendar Editor Rm 5-111, before noon, Fridäy, January 31. ISE-S23, ang S-moon SI

The IAP Time Table

Introduction

Use the Timetable as a companion to the Guide.

When you locate an activity you are interested in attending, refer to the Guide to Activities for details about it. To find the complete listing, simply match the number that precedes the title of the activity in the Timetable with the number of the listing in the Guide. Activities appear in the Guide in numerical order.

New Listings and changes appear at the end of the Timetable.

A schedule with an asterisk (*) by it signifies an activity in which regular attendance is expected.

Preregistration dates of activities have been left in as a reminder to people who have signed up for them. These activities may be closed. They are listed under the dates that they are being held, not under the preregistration dates. If you are interested in attending an activity whose preregistration date has passed, we suggest you call the contact person listed in the Guide to see if there is any room.

Activities which in the Guide stated "date, time, and location to be arranged," and which were not scheduled by the Timetable deadline, do not appear here. If you find an activity in the Guide with no schedule, contact the organizer directly for details.

Last-minute cancellations and schedule changes should be submitted to the IAP Office, 7-108, x3-1668, so that the office can post the information and handle inquiries.

Thursday, January 23

(Special) The Age Of The Photon Is Upon Us Lasers In Nuclear Science 9 am, 10-250

80 Today's Biology For The Uninitiated

Proteins 9 am, Whitehead auditorium

127 Chemical Crystallography 9 am, Norris Room, 18-290

635 Giving Effective Oral Presentations 9 am-5 pm, E51-317

657 Introduction To Microcomputers In Planning 9-11 am, 1-132

686 Workshop On Engineering Writing: A Review Session For Graduate Students Ocean Engineering 9 am-12 noon, 5-233

856 Real Estate Capital Markets 9 am-4 pm, W31-300. Preregister by Dec 10.

3503 Reactor Dynamics 9-11 am, NW12-202. Preregister by day before.

629 The Dynamics Of Social Systems 9:30 am-12:30 pm, E51-136

(Special) The Age Of The Photon Is Upon Us Lasers For Defense Applications 9:45 am, 10-250

8 Aerodynamic Design For High Lift 10-11 am, 33-422.* Preregister by Jan 13.

9 Tethered Spacecraft: Fundamentals And Applications 10-11 am, 33-319

14 Hybrid Finite Element Methods 10-11:30 am, 33-319. Preregister by Jan 8.

65 Learning From Building Failures 10 am-12 noon, 5-216. Preregister by Dec 12.

111 Laboratory Tours 10 am-12 noon, 66-144

378 Math Department Book Sale 10 am-2 pm, 2-102

455 Theory And Esthetics Of Tonal Harmony: An Overview 10 am-12 noon, 4-146. Preregister by Dec 16.

689 The Writing And Communication Center's Consultations 10 am-2 pm, 14N-317

807 Soviet Arms Control Policy: Verification And Nonproliferation Issues 10 am-12 noon, E38-615

864 How Am I Going To Make This? 10 am-12 noon, 37-664. Preregister by Dec 30.

1153 Creating Bibliographies On Your IBM PC 10 am-12 noon, 3-343

4461 Athena Development Directions Athena Application Support 10-11:30 am, 34-101 2065 Bicycle Commuting To MIT 12 noon-1 pm, 26-414

2070 Lithuanian Culture 12 noon, 6-321

3083 Introduction To A Japanese Martial Art: Shorinji Kempo 12 noon-2 pm, dance studio

3145 Gingivitis: Where Does It Begin? Where Does It Lead? 12 noon-1 pm, West Lounge, Student Center

4820 Vatican II: Renewal, Reform, Or Revolution? 12 noon-1 pm, 5-134

223 Tour Of Haystack Observatory And The Millstone Hill Atmospheric Sciences Radar 12 noon-5 pm, Haystack Observatory

(New) Orienteering: Cunning Running 1-3 pm, 13-2010

77 Swimming Stroke Analysis 1-3 pm, Alumni Pool

111 Laboratory Tours 1-3 pm, 66-144

402 Theory And Computational Methods For Machine Dynamics 1-2 pm, 37-186.* Preregister by Jan 10.

563 Physics Flicks The Law Of Gravitation, An Example Of Physics 1 pm, 6-120

625 A Brief Introduction To Management Management And Information Systems 1-3 pm, E51-329

655 Reconstruction In Mexico City: A Workshop 1-5 pm, N52-492

686 Workshop On Engineering Writing: A Review Session For Graduate Students Nuclear Engineering, Technology and Policy 1-4 pm, 5-233

756 Experimentation On Animals 1 pm, 4-370

863 Voyager Encounters Uranus: The JPL Press Conferences 1-3 pm, Edgerton Lecture Hall, N52-260

1000 Voyager 2: Close Encounter With Uranus 1-3 pm, 34-101

1056 Designing Physics Experiments For Fun 1-3 pm, 24-612

1100 Tour Of The Millstone Hill Atmospheric Sciences Radar Facility 1 pm, Haystack Observatory

3146 Our Environment, How Hazardous? 1-2 pm, West Lounge, Student Center

4150 Cogeneration At MIT? 1-2 pm, 66-144

4553 Hairline Extravaganza 1 pm, 483 Student Center

4815 Atheists Anonymous 1-2:30 pm, 349 Student Center

(Special) The Age Of The Photon Is Upon Us Elements Of Optical Computing 1:30 pm, 10-250

88 Science, Technology, And Politics 1:30-3 pm, 66-148

477 New Radioactive Source Term Information: A Reduction In Concern For Nuclear Power Plant Accidents 1:30-4 pm, 24-115

3500 Neutron Radiography Of Flowers 1:30-4 pm, NW12-202

(New) Recent Developments In Olefin Polymerization Catalysis 2 pm, 4-270

4204 Negotiation Games In Architectural And Engineering Design 3-5 pm, E51-004

6 Highlights Of Aeronautics And Astronautics The Coming Age Of Space Engineering 2.3 pm. 33-206

808 Review Of Basic Math And Microeconomics 2-4 nm. E38-615

50 Light, Color, And Vision 2-3:30 pm, 5-216

60 Expressive And Descriptive Watercolor: Techniques For Designers And Artists 2-5 pm, 7-404.* Preregister by Dec 12.

106 Structuring A New Enterprise 2-4 pm, 66-319* (New) Using the S Statistical Package 1:30-2:30 pm, E40-153

5108 MBTA Control Center Tour 2:30 pm, lobby 7. Preregister by Jan 21.

152 Seminar Series On Arctic Offshore Engineering Ice Forces On Arctic Structures: Part II 3-4:30 pm, 1-350 4504 College Bowl Tournament

629 The Dynamics Of Social Systems 9:30 am-12:30 pm, 2-5 pm, E51-136

14 Hybrid Finite Element Methods 10-11:30 am, 33-319. Preregister by Jan 8.

127 Chemical Crystallography 10 am-12 noon, Norris Room, 18-290

9 Tethered Spacecraft: Fundamentals And

109 Millipore Plant Tour

Applications 10-11 am, 33-319

Consultation

10 am-2 pm, 14N-317

11 am-1 pm, Lobby

11 am, 54-100

11 am, 12-102

3148 Update On AIDS

4757 Yoga 11 am-12 noon, 10-340

383 Knitting Clinic

12 noon-1 pm, 12-102

m. 34-101

Shorinji Kempo 12 noon-2 pm, dance studio

4804 Torah And Chocolate 12 noon-1 pm, W2A

12 noon-2 pm, E52-321*

1-4 pm, E51-329

1-5 pm, N52-492

1-4 pm, 38-136

Conferences

2-3 pm, 33-206

2-4 pm, 1-350

12

Foreign Policy U.S. Interests In Central America

Machine Dynamics 1-2 pm, 37-186.* Preregister by Jan 10.

453 IAP Chorus 1-2:30 pm, 2-190.* Preregister by Jan 1.

Session For Graduate Students

3151 AIDS Action Committee

57 Drawing Designed Form

1-3 pm, Edgerton Lecture Hall, N52-260

1-2 pm, West Lounge, Student Center

Chemical Engineering

625 A Brief Introduction To Management Women And Men In Management

655 Reconstruction In Mexico City: A Workshop

686 Workshop On Engineering Writing: A Review

863 Voyager Encounters Uranus: The JPL Press

6 Highlights Of Aeronautics And Astronautics What Is A Nice Equation Like You Doing With A Funny Solution Like This? Or, Chaos In Dynamical Systems

2-5 pm, 7-431, new exhibition room. Preregister by Dec 12.

2-4 pm, computer resource lab, 9-551.* Preregister by Dec.

155 Finance In The Construction Industry

63 New Design: Sketches And Pixels

92 Science Journalists Versus Science

235 Cancer Treatment By Radiation Therapy

2064 International Tasting Party

9 am-5 pm, Mezzanine Lounge, Student Center. Preregister by Dec 14 in W20-345.

151 Analytical Solutions To Transportation Problems 10-11:30 am, location to be arranged

233 Space Charge Effects In High Field Conduction 10:30 am-12 noon, High Voltage Research Lab, N10-220

180 Current Problems In The Earth Sciences Storm Surges: The Most Damaging Aspect Of Hurricanes

11 am-1 pm, 14N-313. Preregister by Dec 3 in 14N-207.

11 am-12:30 pm, West Lounge, Student Center

1000 Voyager 2: Close Encounter With Uranus

3083 Introduction To A Japanese Martial Art:

Central America: Developing Alternatives To U.S.

3149 Keeping Up:To-Date On AIDS: Using The Computerized AIDS Information Network (CAIN) 12:30-12:45 pm, West Lounge, Student Center

402 Theory And Computational Methods For

12 noon-1:30 pm, 26-414. Preregister by Jan 3.

4661 Media Myths And Manipulations 12 noon, 37-212

382 P-Adic Analysis And Your Friendly e-Function

689 The Writing And Communication Center's

12 The First Annual Paper Airplane Contest

255 Survival Russian In Six Hours

227 Plex 3-5 pm, 34-401A

259 Contemporary Russian Movie: The Garage 3-5 pm, 14N-225

4202 Negotiation Games In Architectural And Engineering Design 3-5 pm, E51-004 636 Computer-Aided Mechanical Engineering

Design Systems 3-5 pm, E51-332

656 Planning, Organizing, And Questions Of Power 3-5 pm, 1-134

3900 Open Meetings Of The Institute Colloquium Committee 3-4:30 pm, 10-280

5051 Feminist Readings 3-4 pm, E52-341

(Special) The Age Of The Photon Is Upon Us The Lightwave Revolution 3:15 pm, 10-250

4325 A Package Of Probability Programs 3:45-4:45 pm, 4-149

(Special) The Age Of The Photon Is Upon Us The Age Of The Photon 4 pm, 10-250

(New) Losing Someone You Love: Group Discussion on Death, Dying, and Bereavement 4-6 pm, E51-218

381 Fire And Ice: A Glimpse Of Iceland 4 pm, 2-190

700 The Ins And Outs Of Admissions 4 pm, 4-231

776 Things You Can Do With A Technical Degree Besides Hands-On Technical Work International Investments And Banking 4 pm. 4-153

4103 Operations Research Center Faculty Lecture Series 4-5 pm, E40-298

4853 Nanotechnology Lecture Series Nanocomputers 4-5 pm, West Lounge, Student Center

4903 Comparable Worth 4 pm, 66-110

582 Central America: Developing Alternatives To US Foreign Policy Impact Of Revolution On Health Care In Central America 4:30-6 pm, 4-270*

4567 Home Brewing For Beginners 5-6 pm, 1-150

4755 Kundalini Yoga Meditation: A Neurocognitive Approach To Excellence 5-7 pm, 24-624.

4800 Christian Science Organization At MIT: Weekly Testimony Meetings 5:45-6:30 pm, 4-145

(New) Science Action Coordinating Committee Revival 6-8 pm, 4-249

222 Build Your Own Computer 7-8:30 pm, 34-101.* Preregister by Jan 7.

325 Women In Crime The Trojan Women 7 pm, 66-110

2086 Cultural Awareness In Design And Planning Practice: An EAP Forum 7-9 pm, 10-400*

4250 Introduction To Thoroughbred Handicapping 7 pm, 36-372

4654 Shakespeare's, Olivier's, And History's Henry V 7 pm, 9-150

4765 The MIT Ballroom Dance Club Crash Course Foxtrot 7-10 pm, Sala de Puerto Rico, Student Center

4810 How To Answer A Cultist And Other New Testament Topics

4814 The Baha'i Faith: A New View Of Religion Overview Of Baha'i History 7-9 pm, West Lounge, Student Center

252 Jacques Brel Is Well And Alive At MIT: An

4601 Practical Training For International Students 10 am-12 noon, Mezzanine Lounge, Student Center

4660 Beginning Hebrew 10 am-12 noon, W2A.* Preregister by Dec 20.

(Special) The Age Of The Photon Is Upon Us Lasers For Materials Processing 10:30 am, 10-250

17 Restructurable/Reconfigurable Control 11 am, 33-419

752 How To Speak 11 am-12 noon, 2-190

3006 History Of Navigation 11 am, 5-231*

3144 Right To Know Legislation 11 am-12 noon, West Lounge, Student Center

4757 Yoga 11 am-12 noon, 10-340

(Special) The Age Of The Photon Is Upon Us Holography (with demonstrations) 11:15 am, 10-250

401 Biomechanics: How The Human Motor System Works And How To Fix It When It Doesn't 12 noon-1 pm, 3-133

1196 Feasting Twice 12 noon-2 pm, E51-017

582 Central America: Developing Alternatives To U.S. Foreign Policy

12 noon-2 pm, E52-321

254 Busch-Reisinger Museum Tour 2-4 pm, Busch-Reisinger Museum, Harvard

379 Real Simple Lie Algebras 2-3 pm, 26-310

564 The Program In Science And Technology For International Security 2-4 pm, 12-142

569 Physics Department Music Concert VII 2 pm, Music Library, 14E-109.* Preregister by Dec 3 (to perform).

629 The Dynamics Of Social Systems 2-5 pm, E51-136

3010 Music Library Concert Series Physics Department Recital 2 pm, Music Library, 14E-109

3147 Hunger And The Environment 2-3 pm, West Lounge, Student Center

4201 What Should A University Be? MIT in 1986 And Beyond Do Industry Funds Help Or Hinder Our Research And Education? 2-4 pm, 4-145

4703 Israeli Folk Dance For Beginners 2-3 pm, 407 Student Center

4904 Do I Have To Work In The Arms Industry? 2-4 pm, Center Lounge, Student Center

(Special) The Age Of The Photon Is Upon Us Lasers And The Compact Disc Era (with demonstrations) 2:15 pm, 10-250 7:30-10:30 pm, French House

5107 Riding On The Metro

7-8 pm, 66-319

7 pm, 4-163

4566 Build Your Own Speakers 7:30-9 pm, 12-122*

4818 Being A World Christian 7:30 pm, Center Lounge, Student Center

4656 Introduction To New Testament Greek 8-9 pm, 66-319*

5111 Strat's Rat The Ritz 9:30 pm-12:30 am, second floor, Student Center

Friday, January 24

80 Today's Biology For The Uninitiated DNA And RNA *9 am, Whitehead auditorium

657 Introduction To Microcomputers In Planning 9-11 am, 1-132

686 Workshop On Engineering Writing: A Review Session For Graduate Students Electrical Engineering and Computer Science 9 am 12 noon, 38-136

686 Workshop On Engineering Writing: A Review Session For Graduate Students Aeronautics and Astronautics 9 am-12 noon, 33:419

Km A 180.

856 Real Estate Capital Markets 9 am-4 pm, W31-300. Preregister by Dec 10. 379 Real Simple Lie Algebras 2-3 pm, 26-310

2-4 pm, 3-270

2-4 pm, E17-615

564 The Program In Science And Technology For International Security 2-4 pm, 12-142

571 What Does A Theoretical Physicist Really Do? 2-4 pm, 8-205

629 The Dynamics Of Social Systems 2-5 pm, E51-136

1055 The Fifth Annual Punning Contest 2-4 pm, 24-612. Preregister by 1:45 pm, Jan 24.

4208 Controversy In Cambridge: Video Documentation Of Laboratory Safety Disputes 2-4:30 pm, E15-054B

3150 AIDS: The Gay Community 2-3 pm, West Lounge, Student Center

3603 Graduate Resident Tutor Information Session 2-3 pm, 4-260*

152 Seminar Series On Arctic Offshore Engineering Waves, Currents, And Ice Motion 3-4:30 pm, 1-350

285 Social Conflict: Ten Historians View Its Causes And Nature Sources Of Sexual Conflict In American Culture 34:30 pm, 2-190

356 Laser Engineering: From Crystal Growth To Laser 3-4 pm, 13-3101

2071 Learning From The Past What We Didn't Do At Los Alamo 3:30 pm, 9-150

4712 Dance Workshop Guest Instrutor Series 3:30-5 pm, T-Club Lounge

4425 The New Scholarship On Women: The Impact **On Five Disciplines** Anthropology 4-5 pm, Humanities Library

4853 Nanotechnology Lecture Series Medical Applications 4-5 pm, West Lounge, Student Center

582 Central America: Developing Alternatives To US Foreign Policy Alternatives To U.S. Policy In Central America 4:30-6 pm, 10-250*

4657 What Is Science Fiction? 5 pm, 473 Student Center

4824 Science, Religion, And Life Scientific And Spiritual View Of Life 5:15 pm, Chapel

256 Russian Night 6 pm. Russian House

1051 Monty Python Film Festival 6 pm, 24-619

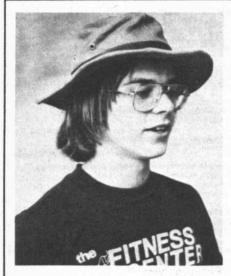
(New) Hebrews 7-9 pm, W2A, third floor 135 The History Of The Detective Story 7-10 pm, 18-290

4551 The Human Powered Vehicle Workshop 7-9 pm, 4-163, Preregister by Jan 24.

(New) Organizing A Bicycle Festival 7:30-9 pm, 4-163

4752 Cross-Country Skiing 8 pm, Fri-8 pm, Sun, Plymouth, New Hampshire.* Prere-gister by any Thurs, 5:30 pm.

5110 Las Vegas Night 8:30 pm-12 midnight, Sala de Puerto Rico, Student Center



Mark Hamon, sophomore in mechanical engineering

I was going to go to a couple of classes, but they got cancelled. So now I am dropping in on classes-just learning for my own pleasure. And I'm reading books not relating to school, mostly in philosophy.

Saturday, January 25

4550 Automotive Engines 8 am-2 pm, building 31

4551 The Human Powered Vehicle Workshop 9 am-5 pm, 4-163. Preregister by Jan 24

4250 Introduction To Thoroughbred Handicapping 10 am, 36-372

4435 Art Classes And Facilities At The Student Art Association Transformations

10 am-5 pm, 431 Student Center 4506 Mystery Hunt '86

10 am-completion, lobby 7 4602 A Philippine Barrio Fiesta

12 noon-5 pm, Ashdown Dining Hall

(New) Chinese Classes 1-3:30 pm, 1-136

4653 Finnegans Wake, Thunderclaps And All 2-4 pm, 16-134.* Preregister by Jan 10.

(New) Hebrews 7-9 pm, W2A, third floor 4509 Chinese Chess Tournament 6 pm, CSC Library. Preregister by Jan 26.

(New) Intermediate Israeli Folk Dance 7-9 pm, 407 Student Center

Monday, January 27

80 Today's Biology For The Uninitiated The Cell 9 am, Whitehead auditorium

100 Glassblowing 9 am-12 noon, 66-157*

565Spectroscopy Laboratory Lecture Series: Applications Of Lasers in Spectroscopy, Medicine, and Industry: Lasers In Spectroscopy 9 am-12 noon, 4-370

630 Sloan School Faculty Open House: Tony Wong 9-11 am. E53-335

686 Workshop On Engineering Writing: A Review **Session For Graduate Students** Aeronautics and Astronautics 9 am-12 noon, 33-419

857 Marketing Techniques In The Real Estate

Industry 9 am-4 pm, W31-300. Preregister by Dec 10.

4203 Images Of Science: A Video Exploration 9 am, E51-218

4276 Ask SGNET, The Marine Information Network 9 am-12 noon, E38-306

4803 Inspiration, Prophecy, And Law 9:30-11:30 am, W2A

127 Chemical Crystallography 10 am-12 noon, Norris Room, 18-290

151 Analytical Solutions To Transportation Problems 10-11:30 am, location to be arranged

525 History Of The Ocean Engineering Department 10-11:30 am, 5-231*

652 The New Surveillance 10 am-12 noon, 1-132

806 Gorbachev And The Process Of Reform In The Soviet Union 10 am-12 noon, E38-615

828 Analytical Electron Microscopy 10 am-12 noon 13-3101

4652 Yiddish 10 am-12 pm, W2A.* Preregister by Dec 20.

4660 Beginning Hebrew 10 am-12 noon, W2A.* Preregister by Dec 20.

126 Principles Of Photochemistry 10:30 am-12 noon, 4-159*

664 Interactive Analysis Using Geographic Information System: 10:30 am-12 noon, 35-225.

180 Current Problems In The Earth Sciences Standing Waves 11 am, 54-100

573 What Does An Astrophysicist Really Do? 11 am-1 pm, Marlar Lounge, 37-252

1052 The Dilemma Of Modern Painting 11 am-1 pm, 24-612

1087 Magnetoencephalography: Detecting And Locating Electrical Sources In The Brain 11 am-12 noon, NW14-2209

3152 How To Avoid Becoming An Impaired Physician 11 am-12 noon, Mezzanine Lounge, Student Center

(New) Tie-Dyeing And Batik: Better Living Through

Chemistry 12 noon-midnight, Senior House

82 It Can't Happen To Me: Biology Department Accidents 12 noon-1:30 pm, 16-310

3153 Emergency Response 12 noon-1 pm, Mezzanine Lounge, Student Center

4441 Counted Cross Stitch 12 noon-2 pm, 10-280. Preregister by Jan 24.

4809 What Does It Mean To Be Born Again? 12:15-12:45 pm, location to be arranged

(New) Headaches 1-2 pm, 4-163

262 American Idioms For International Visitors 1-3 pm, 4-153

402 Theory And Computational Methods For Machine Dynamics 1-2 pm, 37-186.* Preregister by Jan 10.

754 Eating For Life: The Philosophy And Practice Of Vegetarianism 1-2 pm, 4-270

863 Voyager Encounters Uranus: The JPL Press Conferences



Patti O'Connor, campus activities advisor

Right now I am going to a course in Leadership, Teamwork and Productivity and I've gone to some others. I gave a session on eating disorders. This is my first IAP. I'm really into this.

1086 Magnetic Secular Variations 2-3 pm, NW14-2209

3010 Music Library Concert Series Open Orchestral Reading 2 pm, Music Library, 14E-109

3010 Music Library Concert Series A Haydn, Mozart, Schubert Mini-Marathon. 2 pm

3155 Medicine In Provincetown 2-3 pm, Mezzanine Lounge, Student Center

4207 Technology And Science Journalism: Toward Definition 2-4 pm, E51-125

4435 Art Classes And Facilities At The Student Art Association Batik

2-4:30 pm, location to be arranged

631 The Practice Of Negotiations 2:30-5 pm, E51-136

661 Macroeconomics: Theory And Policy 2:30-4 pm, 5-217

4435 Art Classes And Facilities At The Student Art Association Batik 2-4:30 pm, location to be arranged

(New) MIT And Military Research From 1969 To 1985: Confrontation, Controversy, And Self-Censorship 3-4:30 pm, 8-105

130 Chemistry Curriculum Suggestion Box 3-4 pm, location to be arranged

152 Seminar Series On Arctic Offshore Engineering Statistical Analysis Of Sea Ice 3-4:30 pm, 1-350

285 Social Conflict: Ten Historians View Its Causes And Nature Origins And Romanticization Of Conflict In The American West 3-4:30 pm, 2-190

356 Laser Engineering: From Crystal Growth To Laser 3-4 pm, 13-3101

1085 Magnetism Cures Acid Rain 3-4 pm, NW14-2209

4822 Islam: Arab Civilization Or Worldwide Way Of Life? 3 pm, 9-150

3 Private Pilot Ground School: Airplane And Glider 4-6 pm, 33-419*

4 Instrument Pilot Ground School 4-6 pm, 33-418*

389 Alternative Space-Times And The Physics Of Extreme Distances 4-5 pm, 16-310

4102 New Advances In Operations Research Software 4-5 pm, E40-298

4425 The New Scholarship On Women: The Impact **On Five Disciplines** vcholo Psychology 4-5 pm, Humanities Library

4600 Lectures On Mexico

4611 Media In Contemporary India The Cause And The Concern Of Community Television 7:30 pm, 4-231

4909 Coming Out At MIT 7:30-9:30 pm, 50-306

4753 Kayaking Classes 8-10 pm, Alumni Pool.* Preregister by Dec 5.

4900 What IS SDI All About? 8 pm, 8-20

Tuesday, January 28

80 Today's Biology For The Uninitiated The Organism And Genetic Disease 9 am, Whitehead auditorium

565 Spectroscopy Laboratory Lecture Series: Applications Of Lasers In Spectroscopy, Medicine, And Industry Lasers In Industry 9 am-12 noon, 4-370

659 Planning And Managing The Agricultural Transformation In Developing Countries 9-11 am, 10-400

857 Marketing Techniques In The Real Estate

182 Discovering And Developing New Drugs Linogliride And Methyl Palmoxirate: Novel Antidiabetic Therapy From McNeil Pharmaceutical

805 Countdown To Looking Glass

127 Chemical Crystallography 10 am-12 noon, Norris Room, 18-290

10 am, 66-110

566 Physics: Live

10:30 am-12 noon, 4-159

Information Systems

Synthesis

11 am. 66-110

11 am-1 pm, 24-612

Practical Materials 11 am-12 noon, NW14-2209

11 am, 5-23

3006 History Of Navigation

Chemistry 12 noon-midnight, Senior House

Counter-Countermeasure

385 Bridge Tournament

12 noon, Kolker Room, 26-414

(New) Measure, Countermeasure,

12 noon-6 pm, 2-290. Preregister by Jan 17.

10:30 am-12 noon, 35-225

9 am-5 pm, CIS Seminar Room I, E38-615

Industry 9 am-4 pm, W31-300. Preregister by Dec 10.

Applications Of Lasers In Condensed Matter 10 am-12 noon, 13-2010

126 Principles Of Photochemistry

1081 Advances In Superconductivity And New Thin-Film Materials Approaches 10-11 am, NW14-2209

630 Sloan School Faculty Open House: John Henderson and Michael Scott Morton 10:30 am-12 noon, E52-598

664 Interactive Analysis Using Geographic

132 Discovering And Developing New Drugs New Cyclofunctionalization Reactions Of Epoxy Alcohol Derivatives And Applications To Natural Products

11 am-1 pm, 14N-313. Preregister by Dec 3 in 14N-207.

1084 Applications Of Superconductivity And New

3152 How To Avoid Becoming An Impaired Physician 11 am-12 noon, Mezzanine Lounge, Student Center

(New) Tie-Dyeing And Batik: Better Living Through

255 Survival Russian In Six Hours

1052 The Dilemma Of Modern Painting

(New) Introduction To Chinese Music, Song, And Dance 8 pm, Kresge

5112 Midnite Movies 11 pm, second floor, Student Center

Sunday, January 26

4551 The Human Powered Vehicle Workshop 9 am-5 pm, 4-163 Preregister by Jan 2

(New) Women's LaCrosse Club Practice 10 am-12 noon, infield of indoor track

(New) Ultimate Frisbee 12 noon-3 pm, New Athletic Center, second floor

460 Beethoven's Ninth 1-5 pm, Kresge. Preregister by Dec 16.

257 Russian Music 2 pm, Mezzanine Lounge, Student Center

453 IAP Chorus 2-5 pm, Kresge.* Preregister by Jan 1.

4907 Contemporary Gay Issues History Of Gay Students At MIT 5 pm, 50-306

(New) Hebrews 6-8 pm, W2A, third floor

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1-3 pm, Marlar Lounge, 37-252

1056 Designing Physics Experiments For Fun 1-3 pm, 24-612

3154 How Not To Get Sick 1-2 pm, Mezzanine Lounge, Student Center

4901 Looking To Your Future: Balancing A Career And Family 1-2:15 pm, West Lounge, Student Center

565 Spectroscopy Laboratory Lecture Series: Applications Of Lasers In Spectroscopy, Medicine, And Industry Lasars In Medicine 1:30-4:30 pm, 4-370

(New) Some Main Problems Of Philosophy Can Machines Think? 2 pm, 37-212

4201 What Should A University Be? MIT in 1986 And Beyond How Can Students Have A Voice In Setting University Policy? 2-4 pm, 4-145

6 Highlights Of Aeronautics And Astronautics Assembly Of Large Space Structures: Results Of Shuttle Mission 61B 2-3 pm, 33-206

177 Ocean Disposal Of Boston Sewage 2 pm, 54-915

181 Magnetic Secular Variations 2 pm, NW14-2209

232 Nonlinear Waveguide Optics 2-3 pm, 34-302. Preregister by Jan 6.

4754 Winter School 6-10 pm, 407 Student Center; optional weekend trips.* Preregister by Dec 31.

4852 Hinterlands: Backgrounds And The African **Environment:** Abando ent, Investment, And Denominations Of State Politics To Desert-Prone Areas. 6-7:30 pm W2A

62 An Architecture Of Substance: A Design Symposium 7 pm, 9-150

4609 Boston Chinatown And The Case Of Long **Guang Huang** 7 pm, location to be arranged

4701 Middle Eastern Dance 7-8 pm, dance studio, third floor, du Pont

4705 Improvisational Comedy Workshop 7-10 pm, Mezzanine Lounge, Student Center. Preregister by Jan 3

4765 The MIT Ballroom Dance Club Crash Course Swing I 7-10 pm, dining hall, Burton

5103 Pagan Students' Group 7-9 pm, 1-136

5117 Forming A Telephony/Telecommunications Interest Group 7 pm, 36-156

4436 Quilting For The Beginner 7:30-9:30 pm, MacGregor seminar room 1* Preregister by Dec 15.

Greg Campbell, junior in nuclear engineering I am rehearsing for a tour with the

Gospel Choir and doing extra studying.

401 Biomechanics: How The Human Motor System Works And How To Fix It When It Doesn't 12 noon-1 pm. 3-133

1196 Feasting Twice 12 noon-2 pm, E51-017

3080 Artistic Collaboration 12 noon-2 pm, Media Laboratory

3156 Cancer Update 12 noon-1 pm, Mezzanine Lounge, Student Center

4441 Counted Cross Stitch -2 pm, 10-280. Preregister by Jan 24.

234 Strategies For Remediating The Effects Of Hearing Impairment 1-4 pm, 36-428. Preregister by Jan 6.

The Retirement of Speaker Of The House Tip O'Neill And How It Affects The Educational Community 4-6 pm, Mezzanine Lounge, Student Center

402 Theory And Computational Methods For Machine Dynamics 1-2 pm, 37-186.* Preregister by Jan 10.

563 Physics Flicks The Great Conservation Principles 1 pm, 6-120

566 Physics: Live Laser Row 1-3 pm, 26-241

863 Voyager Encounters Uranus: The JPL Press Conferences 1-3 pm, Marlar Lounge, 37-252

1164 Introduction To Micro Word Processing 1-3 pm, 3-343

1166 ISDN Architecture 1 pm, 10-250

3157 The Doctor As Detective 1-2 pm, Mezzanine Lounge, Student Center

4437 Quilter's Exchange 1-2 pm, 66-148. Preregister by Dec 30.

132 Discovering And Developing New Drugs A New Regioselective Synthesis Of 16B-Methyl Glucocorticoid Steroids 1:30 pm, 66-110

565 Spectroscopy Laboratory Lecture Series: On Applications Of Lasers In Spectroscopy, Medicine, And Industry Spectroscopy Laboratory Open House 1:30-4:30 pm, building 6A (enter from basement of building 6)

4205 Freedom Of Choice In Education 1:30-3 pm, E51-215

6 Highlights Of Aeronautics And Astronautics Are You Attracted To The Space Station? 2-3 pm, 33-206



Professor Hayward Alker of political science

I took a course by the CIS in Lancaster equation modeling because some of my students were involved in it. I'm preparing my courses. And I'm helping my daughter decide which college to go to. That's what all these xeroxes are for. It's the first time I haven't given an IAP activity in some time.

106 Structuring A New Enterprise 2-4 pm, 66-319*

232 Nonlinear Waveguide Optics 2-3 pm, 34-302. Preregister by Jan 6.

658 Thesis Workshop 2-4 pm, 5-231. Preregister by Jan 10.

1050 Overcoming Writer's Block 2-4 pm, 24-612

1082 Novel Quantum Effects In Solid State Physics 2-3 pm, NW14-2209

1163 Technical Text Formatting On Multics: Part Two 2-4 pm, 1-390

1167 ISDN Switching Services 2 pm, 10-250

2059 Laboratory For Nuclear Science And Physics Department Lecture Looking At The Stars From Inside A Cave 2 pm. 4:149

3158 The MIT Patient Advocate And You 2-3 pm, Mezzanine Lounge, Student Center

4207 Technology And Science Journalism: Toward Definitions 2-4 pm, E51-125

4703 Israeli Folk Dance For Beginners 2-3 pm, 407 Student Center

132 Discovering And Developing New Drugs Asymmetric Synthesis In Industry 2:30 pm, 66-110

631 The Practice Of Negotiations 2:30-5 pm, E51-136 2062 Living The American Civil War 5:30-7 pm, 26-414

3002 The MIT Libraries' Online Information System: An Introduction 6-8 pm, 14S-334

4710 Dancing In Red Sneakers 6-7:15 pm, 1-125

5 Space Station Activities Series Station-Based Platforms
7 pm, 33-419
62 An Architecture Of Substance: A Design

Symposium 7 pm, 9-150

222 Build Your Own Computer 7-8:30 pm, 34-101.* Preregister by Jan 7.

801 Makioka Sisters, A Film By Ichikawa 7 pm, 10-250

4700 Winterliederfest 7-9 pm, 14N-313

4810 How To Answer A Cultist And Other New Testament Topics 7-8 pm, 66-319

4911 Marriage And Parenting From A Biblical Perspective 7-9 pm, 3-133*

4656 Introduction To New Testament Greek 8-9 pm, 66-319* 4762 Introduction To Square Dancing

8-11 pm, Sala de Puerto Rico, Student Center 4805 Talmud

8 pm, location to be arranged

4910 MIT Students For Individual Freedom 9 pm, 13-2010

Wednesday, January 29

80 Today's Biology For The Uninitiated Cancer And An Overview Of Biology 9 am. Whitehead auditorium

(New) American Revolution Battlefield Study 9 am-5 pm, meet in 20E-126*

90 Concepts And Design Of A Cooperative Biotechnology Business: Ten-Year Results 9 am-1 pm. Preregister by Jan 22.

659 Planning And Managing The Agricultural Transformation In Developing Countries 9-11 am, 10-400

686 Workshop On Engineering Writing: A Review Session For Graduate Students Aeronautics and Astronautics 9 am-12 noon, 33-419

858 Mechanical/Electrical Systems In Building Design 9 am-5 pm, W31-300. Preregister by Dec 10.

(New) Microcomputers: Beyond Basics 10 am-5 pm, 9-536

127 Chemical Crystallography 10 am-12 noon, Norris Room, 18-290

129 Tours Of The Chemistry Department Labs 10 am-2 pm, 2-325

151 Analytical Solutions To Transportation Problems 10-11:30 am, location to be arranged

476 Workshop On Nuclear Power Plant Simulation Using DSNP 10 am-12 noon, 24-115

3502 Nuclear Research Reactor Tour 10 am-12 noon, NW12-202. Preregister by day before.

4439 Behind The Scenes At The MFA 10 am, Museum of Fine Arts. Preregister by Jan 21.

4652 Yiddish 10 am-12 pm, W2A.* Preregister by Dec 20.

4711 Appalachian Dulcimer Playing 10 am-2 pm, 24-612

126 Principles Of Photochemistry 10:30 am-12 noon, 4-159*

664 Interactive Analysis Using Geographic Information Systems 10:30 am-12 noon, 35-225.

180 Current Problems In The Earth Sciences Appreciating The Aurora With Your Eyes And Your Mind 11 am, 54-100

355 Problems In Materials Economics 11 am-1 pm, 13-5002*

376 Seminar In Applied Mathematics 11 am-12 noon, 26-204

388 Waves In Combustion 11 am-12 noon, 12-102 528 Ship Design Competition

11 am 12 noon 5.314*

4326 Lies, Damn Lies, And Statistics 1-2 pm, E40-153

4806 Jewish Lab 1-2 pm, W2A

3162 Deciphering Today's Health Care Marketplace 1:30-2:30 pm, Mezzanine Lounge, Student Center

6 Highlights Of Aeronautics And Astronautics Fiberoptic Sensors 2-3 pm, 33-206

232 Nonlinear Waveguide Optics 2-3 pm, 34-302. Preregister by Jan 6.

658 Thesis Workshop 2-4 pm, 5-231. Preregister by Jan 10.

2059 Laboratory For Nuclear Science And Physics Department Lecture The Demonstration Of The Megatek 2 pm, 8-205

4203 Images Of Science: A Video Exploration 2-4 pm, E51-218

4708 Magic For Beginners 2-3 pm, W2A

631 The Practice Of Negotiations 2:30-5 pm, E51-136

661 Macroeconomics: Theory And Policy 2:30-4 pm, 5-217

10 Seminar Series On The History Of Aeronautics 3-5 pm, 33-319

227 Plex 3-5 pm, 34-401A

285 Social Conflict: Ten Historians View Its Causes And Nature Picasso's Guernica: Social Conflict In Art And Propaganda 3:4:30 pm, 2-190

356 Laser Engineering: From Crystal Growth To Laser 3-4 pm, 13-3101

3007 The Cambridge Public Library: What's In It For You. 3-5 pm, 491 Student Center

4709 Magic: Intermediate-Advanced 3:15-4:30 pm, W2A

3 Private Pilot Ground School: Airplane And Glider 4-6 pm, 33-419*

588 The US Food And Drug Administration: Agency Overview, Resources, Current Issues, and Laboratories 4-6 pm, E51-302

4101 Student Workshops In Operations Research 4-5 pm, E40-298

4425 The New Scholarship On Women: The Impact On Five Disciplines Philosophy 4-5 pm, Humanities Library

4854 Electrical Noise: Sources, Transmission, Consequences, Elimination 4 pm, 3-133*

4435 Art Classes And Facilities At The Student Art Association A Film: Monlegan and Artice and Association and Association 5:30-7:00 pm, 425 Student Center

(New) Ultimate Frisbee 7-10 pm, New Athletic Center, second floor

56 Phenomena: In Search Of Chinese Art Form Architectural Elements Seen In Japanese And Chinese Paintings Boston 7.9 pm, 3-133

62 An Architecture Of Substance: A Design Symposium 7 pm, 9-150

458 Films About Music Concerts 7 pm, 66-110

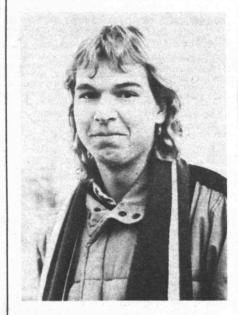
726 Getting The Job You Want In Industry: A Women's Guerrilla Guide To The Pin-Striped World 7-9:30 pm, 10-105*

4435 Art Classes And Facilities At The Student Art Association Drawing Seminar 7-9:30 pm, 425 Student Center

4486 O-1141--- Re- The Re-

4436 Quilting For The Beginner 7:30-9:30 pm, MacGregor seminar room 1.* Preregister by Dec 15.

4611 Media In Contemporary India Folk Theatre 7:30 pm, 4-231





Lisa Kaminsky, secretary in materials science and engineering I am working. I've gone to activities in the past, but this year I don't have the time.

Post-IAP

3503 Reactor Dynamics Thurs, Jan 30, 9-11 am, NW12-202. Preregister by day before.

(New) Microomputers: Beyond Basics Thurs, Jan 30, 10 am-5 pm, 9-536

Thurs, Jan 30, 12 noon-2 pm, Media Laboratory

661 Macroeconomics: Theory And Policy

4559 More Joys Of Advising Thurs, Jan 30, 2-4 pm, Center Lounge, Student Center

4555 Do-It-Yourself Income Tax Preparation Seminar

4800 Christian Science Organization At MIT: Weekly

4765 The MIT Ballroom Dance Club Crash Course

Thurs, Jan 30, 9:30 pm-12:30 am, second floor, Student

62 An Architecture Of Substance: A Design

Thurs, Jan 30, 7-10 pm, dining hall, Burton

(New) Microcomputers: Beyond Basics

62 An Architecture Of Substance: A Design

(New) The Ultimate Event: An Exhibition

4902 The Social Implications Of Rock And Roll Fri, Jan 31, 7:30 pm, 270 Student Center

Jan 6-Feb 3, 7-10 pm, Mezzanine Lounge, Student Center.

The Retirement of Speaker Of The House Thomas P. O'Neill And How It Affects The Educational

Tues, Jan 28, 4-6 pm, Mezzanine Lounge, Student Center; Wed, Jan 22, 3:30-4:30 pm, Bush Room

Tip O'Neill's retirement at the end of the current term of office ends an era and signals change for the eighth district. What is the impact on education? Sponsor/contact: Kevin G. Rhoads, High Voltage Research Lab, x3-2593, or

Recent Developments In Olefin Polymerization

Sat, Feb, 1, 11 pm, second floor, Student Center

James Roosevelt, congressional candidate (D)

1196 Feasting Twice Thurs, Jan 30, 12 noon-2 pm, E51-017

531 Risk And Safety In Shipping

3080 Artistic Collaboration

Thurs, Jan 30, 2-4 pm, 1-136

Thurs, Jan 30, 2:30-4 pm, 5-217

Thurs, Jan 30, 3-5 pm, 34-401A

Testimony Meetings Thurs, Jan 30, 5:45-6:30 pm, 4-145

Thurs, Jan 30, 3 pm, 3-133*

Symposium Thurs, Jan 30, 7 pm, 10-250

5111 Comedy Night

Fri, Jan 31, 10 am-5 pm, 9-536

Fri, Jan 31, 7 pm, 10-250

Fri, Jan 31, 7:30 pi

5112 Midnite Movies

5104 Candlemas Ritual

New Listings

Preregister by Jan 3.

Community

x5-9615.

Whatever Happened To Baby Jane

4657 What Is Science Fiction?

Fri, Jan 31, 5 pm, 473 Student Center

227 Plex

Rumb

Center

Symposium

661 Macroeconomics: Theory And Policy 2:30-4 pm, 5-217

(New) MIT And DOD Today: The Military Research Culture, Our Contribution To Humanity, And Overcrowding In Course VI 3-4:30 pm, 8-105

152 Seminar Series On Arctic Offshore Engineering Foundation Stability Of Arctic Silts 3-4:30 pm, 1-350

227 Plex 3-5 pm, 34-401A

390 Colliding Galaxies 3-4 pm, 4-270

1083 Semimagnetic Semiconductors: Probing Magnetism With Light 3-4 pm, NW14-2209

4278 Seafood Fest 3 pm, Legal Seafood, Kendall Square. Preregister by Jan 14.

(New): Discovering The American Dance Festival 4-5 pm, 201 Walker

11 De-Escalation Of The Space Arms Race 4 pm, 33-319

1054 Beguiling And Bewildering Physics 4-5 pm, 24-612

4100 Operations Research In The Real World 4-5 pm, E40-298 11 am-12 noon, 5-514

3159 Cocaine 11 am-12 noon, Mezzanine Lounge, Student Center

(New) Tie-Dyeing And Batik: Better Living Through Chemistry 12 noon-midnight, Senior House

3160 Life After Acceptance To Medical School 12 noon-1:30 pm, Mezzanine Lounge, Student Center

(New) Science Action Coordinating Committee Revival 12 noon-2 pm, 4-249

4441 Counted Cross Stitch 12 noon-2 pm, 10-280. Preregister by Jan 24.

4612 Nicaragua Needs Your Technical Assistance 12 noon-1 pm, 4-270

4819 Adam, Eve, Izanagi, And Izanami: Creation Accounts Of The Mid East and Far East 12 noon-1 pm, 441 Student Center

3161 Update On Skin Diseases Of Current Concern 12:30-2 pm, 4-159

4821 Videotape Sessions On Islamic Teachings 12:30 pm, 3-133

128 Project Athena Workshop For Chemistry 1-5 pm, undergraduate laboratory, fourth floor, building 4

402 Theory And Computational Methods For Machine Dynamics 1.2 pm, 37-186.* Preregister by Jan 10.

3008 Latin American Experiences 1 pm, Baker Engineering Library Conference Room

Don Hejna, freshman

I just got back from a tour of the USS Constitution. I'm doing kitchen work at Senior House. I'm sleeping 12 hours a day, lifting weights...doing everything I couldn't do during the term. Catalysis Dr. Frederick Karol, Union Carbide Thurs, Jan 23, 2 pm, 4-270

Recent progress in olefin polymerization catalysis and production of a whole new generation of low density polyethylenes are discussed. Sponsor/contact: Dietmar Seyferth, 4-382A, x3-1861.

Losing Someone You Love: Group Discussion On Death, Dying, And Bereavement Sharon Moran Jan 23, 4-6 pm, E51-218

Informal discussion of personal issues concerning bereavement. How does our culture dictate response to death? Is a death ever "timely"? Are there universal stages of mourning and acceptance? What strategies facilitate coping? Come familiar with Kubler-Ross' theories, as in On Death and Dying. Sponsor/contact: E51-003, x3-4036 or 497-9342.

Introduction To Chinese Music, Song, And Dance Republic Of China Student Association Sat, Jan 25, 8 pm, Kresge

Program will introduce the melodies of folk songs, musical instruments, as well as lively dances of some Chinese traditional arts.

-Photos by Leslie Rome of the IAP office.



Dara Norman, undesignated sophomore I took a course in holography and I am taking a course in silk-screen printing and one in self-defense. I am working on collages because I don't get to do that during the year.



David Blanc, graduate student in mathematics

I helped organize Talks on Topology, a series by the Math Department and I went to some other Math Department programs.



Hawoong Hong, graduate student in physics

I'm doing the same thing as ever: working in the lab (in the Center for Materials Science and Engineering).



Discovering The American Dance Festival

Tues, Thurs, Jan 28, 30, 4-5 pm, 201 Walker

Leader will share her experiences as student in American Dance Festival Summer School in Durham, NC. Informal discussion and movement workshop. Talk and dance. Sponsor: Dance Workshop. Contact: Nicole Chuang, W16-015, 354-4663.

(New) Microcomputers: Beyond Basics

Simon Lewis Wed-Fri, Jan 29-31, 10 am-5 pm, 9-536* Sponsor: Joe Ferreira. Contact: Simon Lewis, 9-152, x3-3535.

(New) American Revoluton Battlefield Tour Major Richard J. Kury

Wed-Fri, Jan 29-31, 9 am-5 pm, meet in 20E-126. Preregister by Jan 24.

Open to all students but a prerequisitie for MS41 military history. Local historical sites, including Hancock Observatory, Boston Tea Party Ship, Raul Revere House, Old North Church, USS Constitution, Lexington and Concord, Bunker Hill, Freedom Trail. Participants pay own Admission fees and lunches. Sponsor/contact: Major Richard Kury, 20E-126, x3-4471.

Changes

1100 Trip To Haystack Observatory Thurs, Jan 23, 12 noon, Haystack Observatory (new time)

Millipore Co. Bedford Plant Tour Fri, Jan 24, 9:15 am, meet in Lobby 66 (time arranged)

155 Finance In The Construction Industry Fri, Jan 24, 2-4 pm, 1-350 (schedule arranged)

5112 Midnite Movies

Sat, Jan 25, second floor, Student Center

Whatever Happened To Baby Jane Sat, Feb 1, second floor, Student Center (film titles)

582 Central America: Developing Alternatives To U.S. Policy

Soviet Interests In Central America (seminar) Thurs, Jan 23, 12 noon-2 pm, E52-321

Impact Of Revolution On Health Care In Central America (presentation) Thurs, Jan 23, 4:30-6 pm, 4-270

U.S. Interests In Central America (seminar) Fri, Jan 24, 12 noon-2 pm, E52-321

Alternatives to U.S. Policy In Central America (presentation with Prof. Noam Chomsky) Fri, Jan 24, 4:30-6 pm, 10-250 (schedules arranged)

Voyager in real time (continued from page 1)

Press conferences live via satellite from JPL will be aired over MIT Cable TV as new findings come in.

The Voyager Plasma Science team, led by Professor Herbert Bridge of the Center for Space Research, are eager to know if Uranus has a strong magnetic field. If it does, it will indicate that the planet has an electrically conductive interior, explains Fran Bagenal, visiting scientist at the CSR.

Besides its interior and atmosphere, scientists anticipate learning about Uranus' rotation, and, particularly intriguing, its rings and "shepherding" moons, which corral the particles within the rings, said Professor John Belcher of the CSR.

Cameras on the Voyager 2 have already taken many pictures of the planet but most of the scientific measurements from the 11 experiments on board the spacecraft will be made during the few days around its closest approach.

For people looking for a "hands-on" experience of the Voyager 2 encounter with Uranus, a computer simulation in the Project Athena potluck directory allows the user to ride on the spacecraft and view the planet, its rings and moons as the satellite passes through the Uranian system and beyond into the outer solar system ("/usr/potluck/uranus" on a



"Capitol Reef," by Minor White, taken in Utah in 1964. This photograph is part of an exhibition of 102 prints now at the MIT Museum (265 Massachusetts Avenue) until March 29. In referring to works such as the one above, art historian Meyer Schapiro said "Minor White's photographs are works of an extraordinary craftsmanship applied to an image that calls for precision, scale, and finish. . . The qualities of his best prints are inseparable from the beauty and mystery of his objects; print and scene alike are discoveries by an inspired and loving perception. Through them we divine the man behind the picture, his solitude, his awed vision of a purer world."



Bonnie Walters, coordinator of the Writing Requirement I haven't done anything for IAP yet. But I plan to go to this week's program on Central America.

-Photos by Calvin Campbell

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graphics terminal).

JPL Press Conferences MIT Cable TV and locations below: Wednesday, Jan. 22, 1-3pm Rm 37-252. Friday, Jan. 24, 1-3pm, Rm 34-101. Saturday, Jan. 25, 1-3pm, Rm 37-252. Monday, Jan. 27, 1-3pm, Rm 37-252 Tuesday, Jan. 28 (wrap-up), 1-4pm, Rm 37-252

Central America

In an effort to provide an alternative view of political life in Central America and present other approaches that US policy might take, the MIT Committee on Central America is sponsoring a series of seminars, lectures and films this week on topics ranging from human rights to global interests in the area. Speakers include scholars and other professionals, may of whom have first-hand experience in Central America. Consult the Time Table for the daily topics of noon-time seminars and late afternoon presentations. Minor White in a 1973 portrait by Robert F. Haiko. Mr. White taught at MIT from the early sixties until his death in 1976. In a pamphlet published by the Museum, former students discuss his "enthralling presence" during his MIT years. A discussion of the exhibition has been running this week on National Public Radio.

anatal for anti-latence



Tech Talk ads are intended for personal and private transactions between members of the MIT community and are not available for commercial use. The Tech Talk staff reserves the right to edit ads and to reject those it deems inappro-priate. MIT-owned equipment may be dis-posed of through the Property Office, x3-2776.

INSTRUCTIONS: Ads are limited to one (of approximately 30 words) per per-son per issue and may not be repeated in successive issues. All must be accom-panied by full name and extension. Persons 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 publication.

For Sale

7' yellow couch w/stripes, gd cond, \$75; big blck naughyd easy chr, \$35; 2 tierd end/nght tbls, \$30; mapl cffee tbl, gd cond, 2 legs nd tightning, \$20; RCA b&w tv, no UHF, \$15; 26" Royal Traveller suitcase, gd cond, \$20; M's suits sz 44 reg: greg pinstripe wool blnd, \$35, nvy bl polyestr \$10: bl & red suit jckt, v 60' s, \$5; L's blck slcks, sz 7, \$7.50; grey cowl nck swtr sz M, \$7.50; maroon & grey ski jckt, gd cond, sz M, \$25; 2 lthr pcktbooks, wine, bone. Kim, x3-1740 or 242-0804 eves.

Nakamichi 700 Tri-Tracer 3-head cass dck, orig \$850, nds some wrk, \$200. Dan, 495-4034.

Okidata 192P prntr, nw, nvr usd, IBM cmptbl, \$325 or bst. Mary Beth, 646-3977.

W's lng sheepskn coat, brwn, sz 6-8, v nice cond, \$250 or bst. Eva, x3-3145.

Pr snw trs, exc cond, 3.5K, Sears Best mud & snw rd handlr rads, w/w, P155/8R13/M&S, \$50/both. David, x3-6335 or 245-1171.

Canon Typestar 5 elec typewrtr, like nw usd 5X, (worth \$190), complt w/rechrgbl batts (\$40), adptr (\$20), carry case (\$20), \$270 totl cst, \$190 or bst; Thermo Rador elec htr, mdl 1508, exc cond, 26½Hx7½ "W, worth \$50, sell for \$30 or bst; Persn Afghan Belouch rug, 4'8" main colrs red, bl & bge, 100% x3'1 wool, all hndmd, nvr usd, btfl uniq dsgn exc qlty, worth \$600, sell for \$400 or bst. Call 577-8266 aftr 6pm.

BSO tckts for remainder of Series B seasn, 2pm perfs, 1/24, 2/7, 2/28, 3/21, 4/4, 4/18, 1st balcny lft, Sec B-17, \$25.50 ea. Margaret Peterson, 729-3250

9 RK-06 dsk packs, askg \$50 ea. Jim, x3-3791 or 787-5564.

Ski boots: Garmont Comp sz 9½, exc cond \$75; Tregeta sz 8½ begnnr boot, \$20; San Marco Turbo, usd 1X, sz 10½, \$90. Gene, x5-7449 dorm, lv mssg.

W's 10-spd bike, hrdly usd, w/Krypt lck, \$160 or bst; Canon Typestar 6, \$299 Coop, w/case (sold sep for \$30), 5 mo old, \$250 or bst. Call x5-6171, keep trying.

RCA CED video dsc playr, usd 1½ yr, mnt cond, pd \$290, sell for \$100. Joe, x2702 Line

Rst/brwn brim crushd velvt trad styl 80" sofa, perf cond, \$150. 734-9150 eves/wkends. rf cond, \$150. Call x3-5915 or

Concept 108 trmnl, Anderson-Jacob tripl modm, mnls, phone eqpmnt, grt for 6.170, all for \$650 or bst. Joon Song,

Magee 30" gas stv, wh, exc cond, \$175 or bst. Louie, x4939 Linc or 289-4218.

Upr Chickering piano, md in Bos 1915, mahog could use refnshng, gd in-strumnt, \$500. Laurie, x3-2281 or 321-4372 eves.

Lrg wh tailrd drapes, 2 can be divided in-to 4 w/no sewng, bordr of green, yellw & pink rbbns, bst offr ovr \$40. Call x3-4380 or 868-5140 to 10:30pm, keep tryng.

Persn hnd-wyn tapstries & hndicrfts; wdgrain formica china cbnt, \$150; lrg bge Scand sofa, \$300; ktchn tbl & 4 chrs, \$95 5; twi bkshlf, \$30; lmps, shlvs & lots more. Call 491-1044 aftr 6pm.

Boots: Alpine sz 7½, \$15; Raichle, sz 5½, \$25; Hanson, sz 8, \$25; X-entry boots: sz 42, nw, \$25; sz 43, usd 2X, \$20; sz 45, \$10; Head skis, 180, \$15; X-entry skis, 210, Mean anis, 100, 410, Actinity anis, 210, \$15, teak steree obt. \$45; var tbis: effec, \$15; sm rnd, \$10; 2 mtchng side tbis w/drwrs, \$45/both; steree w/trntbl, AM/FM & 2 spkrs, \$55; trntbl, \$35; amp, \$25. Call x3-3175 or 332-8251.

Ice skts, M's sz 10, \$15; Ambassador 9" b&w tv, \$40. David Tarboton, x3-1691 or

Vehicles

'68 Valiant, slnt 6, real bombr, always strts, rns well, well-maint, \$200 or bst Chris, x3-3545.

'74 Ford Mustang, 4 cyl, 100K, trs/batt gd cond, exc radio, rns well, looks ok con-sidrng Boston drvrs, askg \$700. Carol, x3-0551.

'75 Chevy Malibu, 350 V8, rns ok, not btfl but trstwrthy, \$400 or bst. Dave, x3-2375 or 444-4297 eves.

'75 Volvo 242 DL, lt bl, 76K, 1 ownr, 4-spd, nw exh sys, rcnt tune-up, w/reg & std snw trs, nds some mech & rst rpr, \$800 or bst. R.W. Ralston, x7866 Linc or 275-2115.

'76 Honda CVCC wgn, 4-spd, stereo, a/c, nw trs & exh, rcnt cltch job, some bdy rst, \$500 or bst. Keita, x3-5334.

'78 Malibu Classic, ps, pb, a/c, colr, 2-tone bge, no dnts or rst, gd cond, mst see, \$1,500 or bst. Nimfa, x3-5915 or 429-6046

⁷⁸ Jeep Wagoneer, fair cond, 74K, \$3,000 nego. Lance Taylor, x3-6182 or 547-2206.

'78 Datsun B210, 4-dr, a/c, ZBart, lo mi, \$1,995 or bst. Call 629-2169

'78 Ford LTD wgn, 60K, v gd cond, no dnts, ps, pb, a/c. Moon Seo, x3-2223 or 494-1401.

'81 VW Rabbit, LF, 4-dr, 4-spd, diesl, 53K, nw cltch, brks. Call 890-7668

'82 Subaru GL, 4-dr sdn, 5-spd trans. FWD, AM/FM/cass stereo, nw rad trs, 60K, exc cond, askg \$4,400 or bst. Ann, x8.2657 Draper

'83 Datsun Sentra sdn. 26K, rstprfd, rads. exc mpg, mech sound rcnt tune-up, movd frm NY, no lnger nd car, \$3,500 or bst. Mark, x3-3932 or 268-0456 eves.

'83 Honda Accord, 4-dr, a/c, 5-spd, 65K, nw trs, like nw, \$6,300. Call x3-1723 or 468-7944 wkends.

'84 BMW 318i, auto, sunrf, on-brd cmptr, a/c, mnt cond, \$13,500 or bst. Call x3-8105 or 438-3045 aftr 7pm.

'85 Cadillac Cimarron, 4 cyl, 8K, silvr bl, rdstr pckg, mny xtras, \$12,900. Call 327-5486 aftr 6pm.

Housing

Newton, 5 rms cmpltly renovtd, frnt & bck prch, nw htng sys, nice area, no pets, refs req, \$750/mo+ utils. Call x4503 Linc or 332-7152 aftr 6pm.

Ski 93, fully accmmdtd twnhse, sleeps 6-8, 2 full bths, mins to Waterville Valley, Loon & Cannon Mts, rec facilts & more. Joanne, x8-2608 Draper or 599-0463 eves

N Conway area twnhse, sleeps 8, 2 full bths, 2 mis frm Attitash, Ski Wildcat, Cranmore, Brenton Wds, rnt now wks/wkends, rsnbl rates. Call x8-2806 Draper or 395-9154

Killington, Woodstock, VT, lux 2100 sq ft, 3 lvl condo, sleeps 11, 3BR & loft, sauna & jacuzzi in unit, x-cntry ski dr, priv dwnhill ski area, indr pool, views, all ap-pliancs, rnt by wk/wkend. Call x3-1660.

Sunny spacious rm in N Camb fmly hm. ktchn priv, no smkng, conv to Porter Sq Sta, avlbl 1/25 for spring semstr, \$250/mo. Eve Sullivan, x3-7182 or 864-3802.

Spring Hill, Somerville, 2-3BR apt in duplx, btflly remodlld by prev arch ownr, carptd thru-out, eat-in ktchn w/skylghts, LR, DR, wshr/dryr, dshwshr, dispsl, fridge, avlbl 2/1, \$850. Susan, 489-3355 7-10pm/wkends.

Cambridge, Inman Sq area, btfl contmpry loft apt, subit or ing lease, curr \$650/m Barbara, x3-6925 or 876-9310 utils eves/wkends

Wanted

Chld's wh 2-rnnr ice skts, sz 8-9 or strapon styl for sm chld. Ginny, x3-1598 or 1-263-3201.

1 lrg (4-5 litr), wide-mouth Dewar flask, or similr, suitbl for LN2. Dave Genereux, x3-1619 or 782-9732 eves.

Surplus Property

The Property Office has the following ex-cess MIT equipment for transfer within MIT. Unless noted, items are at the Equip-ment Exchange, 224 Albany St, open Tues & Thurs, 11am-3pm. After 30 days, items are sold to individuals. Where noted, bids ted, bids and offers go to Tom Donnelly, Property Disposal Officer, E19-429, x3-2779, with envelope so marked Always reference case number on envelope. MIT reserves the right to reject any and all bids.

Case 1619 - Transfer of funds required. To inspect call Nancy Lombardi, x3-5913: Dec-Mate I word processors

Case 1617 - Transfer of funds required To inspect call Tom Donnelly, x3-2779: Norelco electronic air filter, mdl CAM50.

Case 1639 – Transfer of funds required To inspect call Lois Malone, x3-4867: NEC spinwriter printer, mdl 3550, with cut sheet paper feeder, dual bin adapter, Gates acoustic hood, security anchor pad & thl

Case 1646 - Available immediately Computer system transfer of funds re-quired. To inspect call Prof Jerome Milgram, x3-5943: 1 MNC 11-EA MINC 23 computer system; 1 MNC AD 16 Chan nel A-to-D converter; 1 MNCKW pro grammable real time clock; 1 IBV 11-A IEEE-488 interface; 1 MSV 11-LK 128K word memory board; 1 VT-105 terminal; 2 MNCAM multiplexers, 16 channels each

Case 1598: 4-seat sofa; tbl, 30x30.

Case 1587: Pitney Bowes postage meter

Case 1573: 3M microfiche reader.

Case 1566: Tektronix oscilloscope.

Case 1622: Steelcase desks. Case 1623: chrs; desk

Case 1640: misc chrs.

Case T-271: IBM Selectric II typewriter.

Case T-326: IBM Exec typewriter. Case T-328: IBM Selectric I typewriter

Case T-329: Royal typewriter



criminate against individuals on the basis of race, color, sex, sexual orientation, religion, handicap, age, or national or ethnic origin in the administration of its programs and activities.

Persons who are NOT MIT employees should call the Personnel Office on extension 3-4251.

Employees at the Institute should co tinue to contact their Personnel Officers to apply for positions for which they feel they qualify.

they feet mey quanty.	
Ken Hewitt	3-4267
Dick Higham	3-4278
Virginia Bishop	3-1591
Appointments:	
Therese McConnell	3-4274
Oveta Perry	3-1594
Kenneth W. Chin	3-4269
Sally Hansen	3-4275
Appointments:	3-4268
Maureen Howard	3-4268
Kim Bonfiglioli	3-4076
	1.87.13

Administrative and

Academic Staff

3-4077

Nancy Collins

the ODSA and/or the Student Assistance Services Section at the Institute func-tions/meetings and contributing to internal ODSA staff development activities. A Master's degree (preferably in counseling, student personnel or related areas) and at least three years of counseling experience are required. Excellent human relations skills, tact, and ability to deal with sen-sitive information are required as well as the ability to initiate, plan, organize, and follow through on projects while working in a high-pressure environment. A86-665

Space Analyst, Office of Facilities Management Systems, to provide a cen-tral source of information about all MIT trai source of information about an Mil physical facilities by maintaining ac-curate and timely space inventories. Will gather and interpret information about room function, intensity of use, and physical configuration by field checking all MIT facilities and by tactful contact with departmental faculty and adminis trators. Following the field audit, the ce Analyst will code all data relevant Spa to MIT space use; input it into the IN-SITE computer system; and learn to use IBM's job control language required to run the system. Will produce all output from the system, interpreting information requests to determine what regular or ad hoc reports are needed. Will provide his-torical statistical analysis of the space data and special analyses upon request from senior management, sometimes con-verting data to graphic forms. Duties will from senio vill also include special field audits for the Space Committee and Comptroller's Of-fice, and space utilization studies. Respon-sibilities also include creating and updating MIT's scaled floor plans in ink on mylar, on a timely basis, and m ering, using and demonstrating a 2D CAD sys tem for all floor plans, as well. Supervi-sion of a part-time draftsperson is required. Some experience in facilities management and computerized systems is highly desirable. The ability to learn how to manipulate a large data base manage-ment system and 2D CAD system, and provide appropriate audit trails and historical data without gaps, is necessary. provide Ability to interpret construction draw ings, drafting experience including ink on mylar drawing, and skill to communicate well in written and graphic summary forms with data users, is essential. A Bachelor's degree or equivalent experi ence, including a basic college math course is required. A86-664

Systems Administrator, Office of Laboratory Supplies, to oversee and im plement the operation of automated and manual systems within the Office of La-boratory Supplies. Automated systems include cylinder control, stockroom sales reporting, inventory control and internal billing. Will supervise the performance of administration and processing re-quirements of automated and manual sys-tems, and will assist the Manager of Systems with the planning, design and implementation of refinements and fur-ther automation. Will also be involved with financial administration and internal marketing and customer services re lated to a large, multi-stock room service operation. Experience requirements in-clude several years of related supervisory and automated systems experience within business operations areas and participation in the conversion of manual systems to automation, from systems analysis through implementation and operation. Related experience in an educational/institutional environment and a working and some technical knowledge of interactive, online business information systems in the DEC VAX/VMS environment are pluses. Bachelor's degree in Business, Ac ounting, Information Systems or related field, or the equivalent combination of education and experience and very strong written and oral communication skills are necessary. A86-663

Systems Programmer I, Information Systems, to work for MIT's Information Systems, in the VM/OS support group, which supports a network of three pro-cessors, one 4341, one 4381, and one 3083, unning VM/SP, CMS and VS1. Work will entail generation and maintenance of system control programs and Program Products, problem determination, tailor-ing, documenting changes and user consulting. A Bachelor's degree or equivalent experience and 1-3 years programming experience in a time-sharing enviro required. Experience with 370-BAL pre-ferred, VM/370 and VS1 experience desirable. A86-662

Analyst Programmer III, Office of Facilities Management Systems, to parti-cipate in the ongoing maintenance, docuation and enhancement of INSITE 3, mentation and emancements of a MIT-developed facilities data base system written in PL/1 and running on TBM'a OS/VS 1 operation system. Will IBM's OS/VS 1 operation system. analyze user systems problems to deter-mine needs, develop external specifications for new computer programs or modifications and enhancements to the present systems, ensure testing of new or programs, and rele tation according to prevailing standards. Must prepare scheduling and time loading estimates for tasks assigned, insuring their proper execution, act as an applica tion programmer, and interpret sys to users assuring understanding of systems and their use. General sup sion will be received from the Technical Supervisor. A Bachelor's degree or equivalent combination of education and expe rience is required. Two to four years expe rience programming PL/1 is required as is familiarity with advanced data structure concepts and on-line editing systems. Knowledge of IBM's CMS, TSO and OS/VS1 and JCL is extremely desirable. A86-661

puter science background is extremely desirable. Reasonable experience in com-puter programming is necessary, and fa-miliarity with IBM microcomputers helpful. A86-660

Assistant to the Director, Telecom munications Systems, to provide technical and administrative support to the Direc-tor, Telecommunications Systems, in the implementation of an integrated teleco munications system. Will be the ministrative and control data adminis trator for Telecommunications systems and implement special projects as desig-nated by the Director. A Bachelor's degree in Telecommunications or Infor-mation Systems-Computing is required. 1-3 years related work experience in telecommunications or information systems-computing preferred. Good com-munication skills both written and oral are required. A85-656

Sponsored Research Staff

Research Engineer, Applied Biological Sciences, to work on independent research in the areas of fermentation technology, mammalian cell culture and protein re-covery. Duties will include laboratory research either independently or in cooperation with postdoctoral fellows and graduate students. In addition, will have responsibility for overseeing and main-taining laboratory facilities in fermenta-tion and cell culture research. Master's degree in Biochemical Engineering and at least one year of postgraduate laboratory experience required. R86-898

Technical Assistant, Center for Canc Research, to perform laboratory research on molecular and cellular analysis of mammalian genes. Will take care of tissue culture of adhesive as well as suspended cells, such as lymphocytes. Also will work on various types of bio chemical preparation and analysis of nucleic acids and proteins, including cloning of mammalian genes by recombinant DNA technique. Will handle mice for injection of cells and chemicals and for preparation of antisera. BS and minim of 2-3 years of experience in at least some of the techniques described required. Experience in tissue culture essential. R86-897

Technical Assistant, Department of Biology, to work in human molecular biology. Work will involve recombinant DNA chnology, with emphasis on cloning and DNA sequencing. Specific tasks include preparation of plasmid and bacteriophage DNA, electrophoresis, DNA sequencing, and bacteriological manipulations. Ap proximately 1/4 of time will be spe basic laboratory maintenance, such as preparation of media and other materials, and administrative duties. BS in Biology or related field required. Experience with DNA sequencing desirable, but not required. R86-894

System Manager, Center for Cognitive Science, to oversee operation of the Co tive Science Laboratory, a computer-be Cogni facility for experimental research in perception, cognition, and language. Will purchase, install, and maintain computer equipment and supplies; supervise pro-grammers, students, and assistants; imers, develop and document programs for real time control of experiments. Expertise with the Unix operating system, DEC PDP 11 and VAX 11 computers, and the with programming language is essential. Fam-iliarity with the RT-11 operating system and LSI-11 and Rainbow computers is desirable. Bachelor's degree in Engineering Computer Science, or Psychology, equivalent experience required. R86-893

Technical Assistant, Laboratory for Electromagnetic and Electronic Systems, to be responsible for electronic circuit con-struction and biochemical measurements in a cellular biophysics research laborato Laboratory for Electromagnetic and ectronic Systems. Candidate must have a BS in a biological/engineering science and, preferably, at least one year experience. Must have the ability to work closely with graduate students, undergraduate students and faculty. Punctuality is essential. R86-892

Research Specialist, Laboratory for Electromagnetic and Electronic Systems, to be responsible for cell culture and organ culture of several cell and tissue types, perform experiments involving cell organ culture and perform mical measurements. Requirements include BS or higher degree in a biological or engineering science and two or more years of research experience and knowledge of cell culture methods. Ability to work closely with students and faculty; punctuality is essential. R86-891

Secretary/Staff Assistant

quality presentation materials and type manuscripts, proposals and technical reports from handwritten drafts; do library searches for reference material; handle extensive telephone contacts, make travel arrangements, schedule meetings and seminars and maintain the office calendar. Considerable interaction ornice calendar. Considerable interaction with faculty, students and staff. Good to excellent technical typing skills required. Knowledge of word processing (MASS11) or willingness to learn essential. Ability to work with other people and meet deadlines, work under pressure and initiate actions for the overall efficiency of office operations is important. Minimum 2.5 years direct/related experience required. B86-207

Sr. Secretary, Research Laboratory of Electronics, to provide secretarial support for one professor and the research staff of ech Communication Group, Will the Sp type and format correspondence, course materials, articles and other documents; photocopy materials and prepare view-graphs; maintain filing systems, student records and mailing lists; answer telephone; schedule appointments and update calendar; sort and distribute inc mail; send outgoing mail; maintain and order office supplies; prepare various In-stitute forms; make travel arrangements; and interact with students and receive outside visitors. Excellent interpersonal skills essential; experience or willingness to learn computer typesetting required; some familiarity with math symbols preferred. Minimum 2.5 years direct/related experience required. NON-SMOKING **OFFICE B86-206**

Sr. Staff Assistant, Research Laboratory of Electronics, to assist Group Leader in Documents and Publications Group. Will type manuscripts, technical reports, correondence, etc., on text editor; assist in preparation of annual report and other publications; maintain mailing lists; prepare purchase orders, process books and journals; maintain collections, and develop familiarity with all phases of Document Room operation. Provide back-up coverage within group. Minimum 2.5 years direct/related experience and a knowledge of/or willingness to learn com puter text editing and formatting essen tial. Flexibility, strong office and interpersonal skills vital in this busy office. Act curate typing skills required. NON-SMOKING OFFICE B86-205

Sr. Secretary, Electrical Engineering and Computer Science-Microsystems Technology Laboratories, will provide supplementary support to and under the eral direction of the Administrative cretary. Duties will include typing, editing/proofreading memos and correce; answering telephones; making sponde appointments, arranging meetings, and maintaining complex calendar; coordinating travel arrangements; maintaining general account and project files; copying, and ordering supplies. Will type technical manuscripts, proposals, budget and finan-cial statements, reports, and presentation materials; write general correspondence/memos according to established guidelines for own or supervisor's signature; provide secretarial coverage for Technical Manager and technical staff as assigned) may review accounting state ments and related reports, and prepare requisitions and vouchers. High School graduate or equivalent and a minimum of 2.5 years direct/related experience is required. Must type 60-65 wpm and have word processing experience and/or technical typing. Close attention to detail and the ability to see complex project to completion necessary. B86-204

Sr. Secretary, Literature Faculty-Humanities (perm. 10 month position - academic year), to serve as Film/Media Coordinator and to assist Literature Faculty Administrative Officer. Will oversee rental, screening, and shipment of feature films used by faculty, maintain pertinent schedules, files and bookkeeping records. Will coordinate use of film and audiovisual equipment, maintain a small videotape library, and hire/supervise student projectionists and film assis-tant. Will assist Literature Faculty Ad-ministrative Officer with secretarial and clerical duties. Will use IBM XT (wordperfect program) and DECmate I and II word processors. Will learn to set up and operate video cassette recorders and sound/film projectors and oversee mainte nance of all equipment. Typing, knowlof computers, basic bookkeeping edge skills and ability to operate audiovisu equipment essential, plus a minimum of 2.5 years of secretarial or related skills re quired. Interest in film/media and a knowledge of MIT preferred. Must also have good interpersonal skills and ability to work autonomously as well as with a wide variety of people. B86-203

Sr. Secretary, Sloan School of Management, to perform secretarial duties for the Management Science Area Head, Area Coordinator, and two faculty members. ties will hulor freadin and editing correspondence and technical manuscripts; coordinating schedules; arranging meetings; making travel arrange-ments, and acting as an information source for the Area. Will have considerable and often complicated telephone contact as well as daily contact with outside visitors and others seeking information and/or appointments with the Area Head. Other duties will include composing and initiating correspondence for the Area Head; maintaining chronological correspondence files and other files for papers and information; helping with the preparation of course materials; and aiding the Area Coordinator with Areawide duties such as reservation of the con ference room and audiovisual equipment and maintaining Area equipment and assisting in the smooth operation of the Area. Good organizational skills; professional manner and ability to maintain ntiality regarding correspondence, confide appointments and telephone conversations: ability to work under pressure in a busy office with many interruptions, and the ability to set priorities necessary. Knowledge of MIT preferred. Word processing ability (Wang or IBM PC) a strong desire to learn preferred. Mini-mum 2.5 years direct/related experience required. NON-SMOKING OFFICE B86-194

It is Institute policy not to dis-

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 Office (E19-239).

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

Head Targa ST skis, 175cm, br nw, nw mntd w/bindngs, reg price \$240, sell for mntd w/bindngs, reg price \$240, sell for \$140. John, x8-2001 Draper.

Shop mnl for Honda Civic, circa "70s, \$10. Tom, x4212 Linc or 245-9187

Antq dbl bed w/mttrss & bx sprs, \$65; 2 prtbl Hotpoint a/c, \$75 ea; M's EMS dwn parka, sz M, almst nw, \$40; bureau, \$15; swingng wall brass 1mp, \$25; assortd M's clothng, boots, rnning shoes & hsehld itms. Jim, x3-3751 or 625-9431.

22 combo storm & screen wndws, gd cond, sz 30x52, \$200. Call x3-4136.

Coupp exchagel for confirmd rnd-trip flight on NYAir, any destinata. Call or ly mssg, x3-8906 or 876-0950.

Drum set: 5-pc Slingerland wden drum set incs 2 cymbls (crash & ride), hi-hat (all 3 Zildjian) & hrdwre, exc cond, \$685. Dave, x3-7548 or 603-893-9169 aftr 6pm.

Acme juicerator w/citrus attchmnt, br nw w/10 yr grntee, \$225. Michele, x3-3601.

5-pc dinette set, exc cond, \$100; mod styl e seat, exc cond, \$75. Tom, x4165 Linc or 536-8737.

NEC-APC HO3 colr mntr, 128K, 2 8" flppy dsk drvs, sftwre, CPM 86, Wordstar DBase II, Microplan, 20 flppy dsks & case, prntr cabl, like nw, value, \$4,000, sell for \$2,000. Norma, x7062 Linc.

Roommates

2 M/F wntd for 2/1, stunning hse, 10 mins to Hrvd Sq, foreign, domstc, oldr grads, post-docs, etc. Call x3-4074 or 868-9593

F wntd to shr 1BR in Back Bay, inc ht, h.w. all utils, \$360/mo. Karen, x3-2042.

Carpool

Wntd, rd frm Everett-MIT, 8:30-5, will pay. Mary Ann. x3-1319.

Lost and Found

Found: 3 nw MIT Press books on LL Shuttle Bus frm campus. Someone in-quired before they were found; call again. Charlie Aker, x2040 Linc.

Miscellaneous

Typng, IBM corr Sel II; wrd prcssng, Wang; theses, corrspndnc, propsls, resumes, tech paprs, etc, 17 yrs exp. Debhie x3.3386

Wrd prcssng, typng, editng, 10 yrs MIT exp, theses, paprs. Marie, x3-7309.

Typng on wrd pressor, all knds inc tech. Lynne, x3-4012.

1 year appointment), to be responsible for conducting research and writing brief introductory documentation on DOS, UNIX, and their languages and utility packages Will write conversion guides between DOS and UNIX. Will oversee the distri-bution of standard DOS and UNIX documentation. At least three years professional technical writing experience re-quired. Knowledge of MS-DOS, UNIX and at least one year programming language from among C, FORTRAN, Pascal, or Lisp. Experience with an applications a such as graphics preferred. Excep-al technical facility may substitute for one of DOS or UNIX experience. A86-666

Assistant Dean, Office of the Dean for Student Affairs, to counsel and advise students and student groups, with a ma-jor responsibility for providing support services to minority students. Will con-tribute to the development and implement tation of policies and procedures in the broad areas of responsibility encompassed by the Office of the Dean for Student Affairs and will assist the Associate Dean for Student Affairs and Head of the Student Assistance Services Section in carry ing out the goals of that section. Speciwill include counseling and ally, duties advising students about their personal, academic, and social concerns which may involve interactions with faculty, staff, doctors, family, and friends; and coun ing and advising student groups which may involve organizing group meetings as needs are perceived. More general reponsibilities may include representing

Analyst Programmer I, Office of Facilities Management Systems, to trans-late external specifications for a variety of ed facilities management pro-MIT-developed facilities management p grams. Will also translate external sp ecifications into internal program specifica-tions for new or modified programs; write pseudo code, program, test and debug computer programs in C language; docu ment new programs or changes in existing programs as per the Office of Facilities Management System's stan-dards that will be taught. Additionally, assist users with program problems and answer questions; and attend classes, seminars and the like to develop and maintain know-how in programming. Supervision will be received from the Technical Supervisor. A Bachelor's degree equivalent combination of education and experience is necessary, while a com-

Administrative Secretary, Office of the Dean for Student Affairs, will provide a variety of secretarial and administrative upport services. Will have considerable interaction with students, parents, faculty and staff. Excellent secretarial, comnication and organizational skills necessary; knowledge of word processors highly desirable. Ability to work both indently and as part of a team imp tant. Position requires good judgment, pa tience, tact and understanding. The abil-ity to deal with confidential information necessary. Thorough knowledge of MIT Some overtime work may be desirable. necessary. Minimum 4.5 years direct/re-lated experience required. NON-SMOKING OFFICE B86-193

Administrative Secretary, Chemistry, to perform secretarial duties for a faculty member and research group. Will handle correspondence, telephone calls and sages and give general assistance to members of the group. Ability to take dic-tation is desirable but not essential. Strong typing and general office skills are essential. Will type technical essential. type technical manuscripts, periodic research reports of the group members, and applications for research grants using a word processor. Strong organizational skills necessary. Minimum 4.5 years direct/related experience required. B86-178

Sr. Secretary, Energy Laboratory, to per form diverse secretarial duties for faculty and research staff in the Sloan Automotive Laboratory. Will prepare high-

Sr. Staff Assistant, Industrial Liaison Program, to be responsible for assisting the Manager in ensuring prompt processing of publications orders and maintain-ing all aspects of work flow in the Publications Office of the Industrial Liaison cations Office of the industrial Linkon Program. Will assign work to clerical and student personnel and maintain efficient work flow. Advise Manager on work flow problems and recommend changes in pro-cedure to ensure prompt processing of all orders. Will supervise mailings and distri-lutions for acting department including: butions for entire department, including coordinating large domestic and overseas shipments and maintaining contact with US Postal Service regarding changes in mailing regulations and procedures. Will respond to inquiries form internal staff, faculty, and outside corporations on policies and procedures of the department. Will respond to requests for lists and labels ge labels generated from computer database. Oversee inventory of all office and mailing supplies and maintain equipment including photocopier, postage meter, and electronic scale. Provide general assis-tance as needed to Manager to ensure that all requests are accurately and promptly filled and that all inquiries receive response. Excellent organizational skills required. Ability to train clerical personnel essential. Ability to set priori-ties and to adapt to new procedures neces-sary. Ability to work independently and take initiative, and interest in office systems important. Willingness to learn and estensively use computer system nec and extensively use computer system necessary. High school graduate and a minimum of 2.5 years direct/related experience is required. Typing of 50 wpm es tial. B86-192

Sr. Secretary-Editorial, Acquisitions, MIT Press, to type materials and correspondence pertaining to publication pro jects; process rejected proposals (writing letters, returning manuscripts, logging information on rejections); duplicate and distribute materials in house and throughout the Institute; process travel forms, readers' fees, book orders and other internal documents for acquisition edit-ors; assist Acquisition Coordinator in maintaining contract, rejection, and out-of-print files; and assume primary respon-sibility for answering phones. Excellent secretarial skills including 65 wpm typing, familiarity with office procedures, memory for detail, knowledge of English grammar, usage and spelling necessary. Must have good telephone manner and an ability to prioritize work from a group of editors. Will be expected to make several trips a day to pick up and deliver mail, distribute in-house correspondence, and maintain stock of office between main Press building and Acquisition Office. Familiarity with and/or willingness to learn DECmate II word processing desirable. Minimum 2.5 years direct/related experience required. B86-191

Sr. Secretary, Medical, to be responsible for a wide variety of secretarial and clerical tasks within the Medical Department. Duties will include relieving in medical secretarial offices in case of illness, vacation periods, lunch hours, etc. Will be asked to assist secretaries in time of heavy work loads which may involve ranscription, typing correspondence, reports, preparation of mailings, and fil-ing. Will be asked to transcribe reports for part-time physicians as necessary, and generally perform typing and clerical tasks as related to any area in the Department. Although primarily the sec-retarial floater, individual will be asked to cover in reception areas and business office as necessary. Must be an excellent typist; speed and accuracy important. Position requires considerable flexibility, ability to learn procedures quickly; adapt readily to changing assignments. Previous secretarial experience is required, preferably with some exposure to a medical setting. Minimum 2.5 years direct/related experience required. B86-188

Sr. Secretary, Biology (part-time), to per-form diverse secretarial duties for biology professor and research group. Primary duties include preparation of grant pro posals and monitoring of funds in active grants; processing and follow-through of purchase orders for office and laboratory supplies; typing and editing scientific manuscripts, class material, grant and manuscript reviews and correspondence, and arranging travel. Good typing and organizational skills required. Experience with word processing equipment helpful Should feel comfortable working with figures. Minimum 2.5 years direct/related experience required. B86-187

Sr. Staff Assistant, Nuclear Engineer ing, to assist the Administrative Officer and Administrative Assistant to the Administrative Officer in preparing and maintaining payroll, accounting, and pur-chasing records. Will provide administrative support in preparing and submitting appropriate materials and interact frequently with a variety of MIT of-fices, vendors, and others when com-pleting transactions. Will utilize word processor in accomplishing processor in accomplishing required tasks. High level of personal, telephone, and written interaction with MIT faculty, staff and students required. Will provide other office support as needed. Minimum 2.5 years direct/related experience required. Attention to detail and ability to follow through in an environment with frequent interruptions necessary. Good com-munication, interpersonal, and typing skills a must. Will utilize a word processor for accounting and related assignments. Good opportunity for growth and development. NON-SMOKING OF-FICE B86-181 Sr. Secretary, Materials Science and Engineering, to perform secretarial duties including typing general correspondence, preparation of technical reports and journal papers from handwritten manuscripts, distribution of reports, ad handwritten ministration of project budgets, review of monthly statements, coordination of departmental seminars (scheduling akers, rooms, AV equipment), RA/TA appointments for graduate students, and planning both domestic and international travel for projects in Spain, Egypt and Switzerland. Will order goods and services from outside vendors, arrange appointments; telephone messages, file, maintain office supplies and perform general office tasks. Dictaphone or shor-thand skills desirable. Ability to interact

effectively with many people in a busy of-fice necessary. Accuracy in recording messages, expenditures, reviewing month-ly budget summaries, monitoring paper flow, and the ability to organize and con-trol moth form multiple sources and set trol work from multiple sources and set up and maintain effective information storage and retrieval capacity essential. Fluency in Spanish highly desirable. Minimum 2.5 years direct/ related experience required. B86-180

Sr. Secretary, Biotechnology Process Engineering Center, to join our team and provide secretarial and administrative support to Center Director and his assis-tant. Responsibilities include answering telephone; greeting and assisting visitors and students; typing correspondence, reports and manuscripts from dictaphone and/or hand written material; filing and maintaining accurate office records; c ing forms, correspondence, notes; sorting and distributing mail, ordering and maintaining office supplies; and hand deliver-ing mail when needed. Will use electronic mailing system to send/receive correspondence and telexes. Ability to work independently and to recognize and priorities necessary. Knowledge of DEC Mate II and IBM PC-XT desirable; willingness to learn essential. Minimum 2.5 years direct/related experience required. B86-177

Staff Assistant, Center for Advanced Engineering Study, to provide support for the Center's Conference Seminar Program. The program runs 10 to 15 conferences annually. Will give logistical support interacting with MIT services and/or other vendors for each program. Responsibilities include preparation of registration materials, arranging and providing on-site coverage to monitor and maintain the quality of services and ma-terials at each program, and performing other related administrative duties as required. Requires at least 1 year of direct/related experience. Excellent organizational and interpersonal skills required. Will utilize a microcomputer (DEC Rainbow) in performing related duties. B86-179

Technical Support Staff

ssistant Communications Console **Operator III**, Physical Plant, to answer erations Center telephones used by the MIT Community to report fire, trouble maintenance requests and other related information Will monitor the Institute's Auto Call Alarm System and operate the Facilities Control System to include monitoring of alarms, diagnosing prob-lems and taking corrective action. Will maintain daily log of all Operations Center calls and alarms and indicate what action was taken. Dispatch mechanics to investigate maintenance problems: operate various pieces of communications equipment including paging system, radio network, telephone and intercom. Will perform clerical duties in support of Work Control and various Physical Plant Shops including typing, shut-downs, overtime lists and assisting in maintaining work order systems. Will work 40 hr/week irregular schedule. T86-197, T86-199

Office Assistant

Administrative Assistant, Mechanical Engineering, to assist the Administrative Officer in the fiscal affairs of a major academic department. Will assist in the development, preparation and monitoring of department budgets. Will maintain and adjust when necessary payroll records for academic and nonacademic staff. Will assist faculty in the preparation and mon-itoring of research budgets. Will perform other administrative functions quested, such as preparing correspon dence and reports, arranging for study and recommendations to purchase office equipment. A knowledge of institute ac counting procedures preferred. Attention to detail and the ability to work independently are important. Experience in using a personal computer is desirable, will-ingness to learn essential. Minimum 4.5 years direct/related experience is required. S86-202

Administrative Assistant, Physical Plant, to provide general office support to veral staff members. Duties will include the preparation of various operating re-ports and budgets, maintenance of files and records, and general administrative, secretarial and clerical functions as re-quired. Good organizational and interpersonal skills as well as the ability to man age data and text on several different PC systems essential. Minimum 4.5 years direct/related experience required. S86-196

Administrative Assistant, Chemical Engineering, to work for the Department Head of Chemical Engineering. This posi-tion offers a varied selection of interesting responsibilities including meeting and function planning, coordinating travel itineraries, monitoring accounts, and in-teracting with MIT faculty, students, and others. Will perform related secretarial duties and utilize a DECMate II word pro-cessor in related processes. Will coordicessor in related processes. Will coordi-nate and facilitate the duties for the Offices of the Department Head and of the Executive Officer. Must be discreet in handling confidential material. Will coordinate meetings for faculty searches, reviews and promotion cases. Will ensure smooth operation of and supervise other support staff in Headquarters Office. Min-imum 4.5 years direct/related experience with a solid background in office/secre tarial procedures required. MIT experi-ence preferred. Ability to maintain con-fidentiality and deal with sensitive issues with tact and discretion necessary. Good interpersonal skills and the ability to adapt to a variable work environment with a minimal amount of supervision essential. S86-182

Sr. Office Assistant, Personnel-Employment, to provide support for several employment activities. Duties inseveral employment activities. Ducies in-clude preparing job postings for *Tech Talk* and *Positions Available*; monitoring of ad process; preparing monthly bills; editing, typing and proofreading correspondence, ads and *Positions Available*; assisting with Executive Committee work and unemployment claims, providing coverage for reception areas as needed, monitoring employment budget and other related duties as needed. Excellent typing, and experience with word processing (DECmate II) as well as other office automation equipment, familiarity with data entry procedures, excellent organizational skills, interpersonal skills, and written skills necessary. Ability to work well under pressure and independently essential. Attention to detail and ability to set priorities desirable. Minimum 2.5 direct/related experience required. ted experience required. NON-**SMOKING OFFICE S86-209**

Sr. Office Assistant, Office of the Secretary of the Corporation, to work in the Visiting Committee Office for the Assistant to the Secretary of the Corporation. This office is responsible for the scheduling of meetings, and arrange-ments and logistics for the 27 Visiting Committees of the Corporation. Duties will include some typing of correspon-dence: copying; filing; maintaining records; processing travel reimburse-ments; answering phones, and other duties as required. Position involves a good deal of PR and external interaction Some overtime may be necessary; overall flexibility is important. Familiarity with word processing and/or willingness to learn necessary. Excellent organizational rn ne and proofreading skills essential. Ability to work under pressure and a good sense of humor are essential in this busy office. Minimum 2.5 years direct/related experience required. S86-198

Sr. Office Assistant, MIT Press Promo tion Department, to assist publicity manager. Will solicit endorsements for books by mail and phone; handle page proofs; order review copies; maintain com-puterized media lists; answer phones; make copies and file. Must become familiar with backlist and forthcoming titles. A strong interest in publishing, ability to coordinate several projects simultaneously, good organizational skills, and ability to work well under pressure essential. Must be able to meet all deadlines and work well with others. Minimum typing speed of 60-65 wpm required. Minimum 2.5 years direct/related experience required. S86-186

Office Assistant, Provost's Office, to form the following duties: typing of Program correspondence; arranging/coor-dinating meetings and functions; handling office mail and telephones; processing voucher payrolls; maintaining files and records; ordering and maintenance of supply inventory; handling petty cash; interfacing with Program clients and familterracing with Frogram chemis and nami-ies, and operating office equipment. The Frogram is the MIT/Wellesley Upward Bound Program, a coeducational, multi-racial, multiethnic, educational program serving 70 Cambridge High School stu-dents. The goal of the Program is the motivation of these students so that they finish high school and pursue a college education. Upward Bound has a key staff of four persons in addition to seasonal staff and all members are expected to function as part of the Program. Must have the ability to work with adolescents and persons from varied ethnic, cultural, and racial backgrounds. Must be able to type 40 wpm. Should be willing to either mute to Wellesley College during the sion or reside the Program's summer se five days per week during that period. Must be able to drive and possess a valid Mass. drivers license. Own transportation written inquiries, assist in salary verifica-tion and review processes, and assist in the preparation of various reports and other projects. Work will include contact with other parts of the Institute and with outside agencies on a daily basis. High school deres or its eminalent and a minschool degree or its equivalent and a min imum of 1 year direct/related experience is required. Attention to detail and basic office skills/experience preferred. Good typing and proficiency with computer ter-minals and/or word processing as well as absolute discretion in handling confidential material desirable. S86-190

Office Assistant, Laboratory for Com puter Science, to perform a variety o routine tasks including operation of a copying machine – keeping it in good working order – collating, stapling and binding. Will order supplies and perform additional related duties as necessary. additional related duties as necessary. High School graduate or equivalent with a minimum of one year direct/related ex-perience required. Must be flexible and willing to learn and perform repetitious work in a busy office. Proficiency with copy machines preferred. S86-185

Second Cook, Endicott House, to report directly to Executive Chef. In abs directly to Executive Chef. In absence of chef will supervise kitchen staff and as-sume leadership of department. Will pre-pare food as outlined and according to recipes for all meals with high standards of applied and presentation and main of cooking and presentation; and main-tain high standards of personal and work hygiene for self and staff. Will purchase, stock and issue food as directed by chef, and work toward creative improvement of menus. Will price menus as directed by chef; maintain food control program with regard to receiving, stocking and issues; and publish food control reports as directed by chef. Must be capable of ordering food, food costing, menu-making, and sanitation control. Must be able to provide own transportation as Endicott House is located in Dedham, MA. Depen-dability is essential. S86-183

Service Staff

Technician B (Electro-Mechanical), **Electrical Engineering and Compute** Science - Microsystems Technology Laboratories, to assist in laboratory research, or analytical work under the direction of scientific personnel or techni-cians of a higher grade. Must be able to work for periods of time without supervision. The individual will be assisting in various aspects of the thermal processing area. This includes process development operation and maintenance of diffusion and oxidation furnaces, LPCVD deposi-tion systems, chemical cleaning stations, and other related semiconductor process ing equipment. This position requires the ability to work with sophisticated measurement equipment, and to gather data from this equipment and enter it in to a CAF system. The individual must be able to keep accurate laboratory notes and maintenance logs, and to assist in preparation of process documentation. The individual will be working in a stateof the art semiconductor fabrication area and will be required to follow strict proce dures regarding cleanliness and the safe handling of gases and chemicals. The in-dividual must possess willingness to be flexible regarding temporary tasks or when needed to provide technical support outside of the designated area, such as to huilding support systems Graduation building support systems. Graduation from a two-year day technical school or its equivalent and a minimum of one year of applicable experience are required. Experience with microprocessor-controlled equipment desirable. H86-321

Pantry/Salad, Faculty Club, as directed. to prepare and serve desserts, dessert dressing, dessert sauces, appetizers, salads, salad dressings, beverages and hors d'oeuvres. Will assist cooking staff in preparing menu items, and perform other preparing menu items, and perform other duties as required. Will keep area clean and orderly. Ability to speak and under-stand the English language and a mini-mum of 1 year direct/related experience is required. Experience in quantity food preparation preferred. (40 hrs/week, M-F, 11:00-8:00pm) H85-299

Heat and Vent Mechanic, Physical Plant (irregular shift). Should have a broad range of experience in building heating, ventilating and air conditioning (HVAC) operations and maintenance Specific experience in the operation of steam heating system, HVAC controls, boilers, water treatment, and refrigeration systems with hands-on experience in the repair, replacement, and adjustment ce in of their operating components is a re-quirement. High School education and a minimum of five years experience in the operation and maintenance of building HVAC systems required. Formal trainin in mechanical operations and mainte nance may be considered as a substitute



ACADEMIC STAFF

A86-657, Property Auditor, Property

Why not learn your

- A86-656, Assistant to the Director, Telecommunications Systems 86-655, Communications Officer, Media
- Laboratory A86-653, Facilities Coordinator, Division
- of Comparative Medicine C86-171, Librarian I/II, MIT Libraries
- C85-170, Chief of Environmental
- A85-652, Manager, Microcomputer Center, Information Services A85-651, Donor Relations Coordinator, Office of Communications/Resource
- Development 85-650, Medical Director and Depart-ment Head, Medical Department
- A85-527, Systems Programmer II, Infor-mation Systems A85-516, Assistant Manager,
- Maintenance, Housing and Food
- C85-169, Postdoctoral Associate, Applied
- Cost 105, rostatoctaria Associate, Applied Biological Sciences A85-647, Assistant Bursar/Information Systems, Bursar's Office A85-646, Assistant to the Bursar/Loan Collection, Bursar's Office A85-642, Assistant Bursar/Student Ac-counts Russar's Office
- 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 C85-167, Librarian III, MIT Libraries-
- Preservation and Collections 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, Ar-chival/Manuscript Specialist, MIT
- Libraries (temp. 2 yrs) C85-164, Archival Assistant, Ar-chival/Manuscript Specialist, MIT
- Libraries (temp. 2 yrs) A85-633, Assistant Director, Research
- Development Officer A85-631, 630, Sr. Editor, Alumni
- Association 285-163, Assistant Acquisitions Librarian
- I, The Libraries A85-624, Analyst Programmer II, Alum-ni Association
- A85-616, Systems Programmer II-
- Operations and Software Development, Project Athena C85-161, Postdoctoral Associate, Applied
- Biological Science C85-159, Records Management Officer, The Libraries
- The Libraries C85-158, Sr. Dental Hygenist, Medical A85-583, Director-Graduate Alumni Pro-grams, Alumni Association C85-154, Nurse Practitioner-Dermatology, Medica
- C85-152, C85-153, Postdoctoral Scientist,
- Spectroscopy Laboratory C85-143, Assistant Dewey Librarian I, MIT Libraries
- Mil Lloraries A85-553, Sr. Analyst Programmer, Comptroller's Accounting Office C85-149, Director of Health Education Service, Medical C85-147, Academic Staff-Technical In-
- structor, Electrical Engineering C85-146, Postdoctoral Associate, Applied Biological Sciences
- Biological Sciences C85-144, Audiologist, Medical (parttime) C85-139, Clinical Veterinarian, Division of Comparative Medicine C85-137, Postdoctoral Associate, Harvard-
- MIT Division of Health Sciences,
- Technology C85-136, Postdoctoral Associate, Applied C85-136, Postdocuras Biological Sciences A85-513, Secretary of the Alumni Association
- Association, Alumni Association A85-512, Systems Programmer, Informa tion Systems
- A85-500, Director of the News Office,
- News Office C84-130, Postdoctoral Associate, Nutri-

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

- R85-846, Manager of Computer Services (Research Engineer), Aeronautics and Astronautics
- R85-844, Research Engineer, Energy Lab
- Laboratory R85-839, Technical Assistant-Molecular
- Biology, Applied Biological Sciences R85-831, Research Specialist (temp-1yr), Materials Science & Engineering R85-822, Research Scientist, Research
- Robotz, Research Scientist, Research Laboratory of Electronics R85-800, Systems Programmer, Laboratory for Nuclear Science R85-796, Research Scientist, Laboratory for Electromagnetic and Electronic Content of Science Sc
- R85-776, Research Staff, Francis Bitter
- R85-776, Research Stati, Frankovsky National Magnet Laboratory R85-770, Research Specialist, Center for Materials Science and Engineering
- 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
- R85-723, Scientific Research Staff, Center ace Research for Sr
- R85-721, Scientific Researcher, Center for Space Research
- R85-715, R85-716, Electrical Engineer, Center for Space Research R85-714, Mechnical Engineer, Center for
- e 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 Fusion Center R85-645, Principal Research Scientist,
- Materials Processing Center R84-475, Postdoctoral Associate, Energy
- Laboratory R84-549, Research Scientist, Energy
- Laboratory R84-492, Research Associate, Energy
- Laborat R84-433, RF Engineer, Plasma Fusion Center
- R84-426, Research Scientist, Plasma Fu-
- sion Center R84-381, R84-383, R84-384, SRS Postdoctoral Positions, Spectroscopy Lab R84-373, Research Engineer, Aeronautics
- & Astronautics
- R84-370, Research Scientist, Artificial Intelligence Laboratory R84-358, Principal Research Scientist,
- Lab for Nuclear Science R84-340, Research Scientist, A.I. Lab. R84-333, R84-332, R84-331, Research
- Staff and Principal Research Staff, Electrical Engineering and Computer Science
- R83-210, Research Specialist, Artificial Intelligence Laboratory R83-135, Research Scientist, Earth, At-
- mospheric & Planetary Sciences R83-988, Experimental Physicist, Center for Space Research

L86-166, 167, Library Assistant IV, Retro-

L86-162, Library Assistant III, Dewey

L85-137, Library Assistant III, The

Libraries-Institute Archives and Special Collections, Part-time
 L85-090, Library Assistant IV, Rotch Visual Collections-MIT Libraries
 L85-069, L85-070, Library Assistant III, MIT Libraries-Catalogue Department

SECRETARY/STAFF ASSISTANT

spective Conversion, Libraries,

LIBRARY SUPPORT STAFF

part-time

nporary)

Libra

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Administrative Assistant, Biology, to provide administrative and office support to the Biology Finance Office. Will serve as coordinator of proposal submissions, in cluding budget development, review for correct and thorough preparation, routing through necessary institute channels, and maintenance of sponsor information files. Will prepare payroll reports including verification of personnel appointments, termination, special actions, vacation and sick leaves. Will serve as primary facil-itates for seachution of navroll norbhems itator for resolution of payroll problems including preparation of related correspondence for documentation; maintain information systems concerning departmental and research activities; and p ticipate in special projects as directed by the Administrative Officer. May provide limited assistance with support tasks associated with grant administration including statement reconciliation and mon-thly account forecasts, purchases, and payments. Share office support tasks such as typing, telephones and mail. Should be willing to assume responsibility, take initiative, and handle several projects simultaneously. Job is heavily financial and requires ability to handle detailed work with accuracy. Familiarity with and/or willingness to learn use of an IBM personal computer for routine activities within the first six weeks on the job essential. Good interpersonal skills, expe rience in office procedures, and the ability to compose memos and short letters is necessary. Minimum 4.5 years

direct/related experience required.

helpful, but not required. Should be flexible to work some evenings and week-ends. Minimum 1 year direct/related experience is required. S86-200

Office Assistant, Registrar, to assist in the registration of students, maintenance of student permanent records, use of record-keeping terminals (IBM), handling uests, registration correction student r (drops/adds), typing of form letters, and filing. Should be versatile and able to work in a busy environment. Good typing, accuracy with figures, and some College experience preferred, either as a student or employee. Minimum 1 year direct/re-lated experience required. S86-208

Office Assistant, Cell Culture Center (temporary, part-time, 20 hr/wk for 6 months to a year). Duties will include fil-ing and processing all incoming and outgoing mail. Will handle reprint requests and other general office work; assist supervisor in processing shipping materials and invoicing, and minimal ac-counting procedures. Ability to type 45 wpm with accuracy and neatness and work independently essential. High school graduate and a minimum of 1 year graduate and a minimum of 1 year direct/related experience required. NON-**SMOKING OFFICE S86-195**

Office Assistant, Personnel - Faculty and Staff Information Services, to process and maintain employment information ncerning Faculty and Staff, under the supervision of the Assistant Manager. Will use word processing equipment or will type notification letters, update com-puter files daily, respond to telephone and

the experien ment. H86-332

MIT Writing and Communication Center

The MIT Writing and Communication Center has an opening for a part-time writing tutor(s) during the spring semester, 5-13 hours per week. Available hours are as follows: Tuesdays 10am to 3pm; Thursdays 10am to 1pm; and Fridays 10am to 3pm (a candidate does not have to work a whole block of time; for example, he or she might work Tuesdays 10am to 1pm, or 12 to 3pm). Candidate(s) must have at least a BS (MA preferred) and must be a good writer Must be able to interact easily with others on a one-to-one basis. Must be able to analyze a piece of writing quickly and to explain concepts. Must have either om experience teaching writing or cla experience tutoring writers, preferably in a writing center environment. Experies tutoring non-native speakers of English and/or technical writers is desirable but not required. Good possibility of continuaase send resume and tion next year. Ple short writing sample (2-5 pages, excerpts are fine) to Steven Strang, 14N-317, MIT, 77 Massachusetts Ave., Cambridge, MA 02139.

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 beginning of Positions Available section.

C84-129, Postdoctoral Associate, Nutrition & Food Science C84-128, Nurse Practitioner (pt), Medical C84-126, Nurse Practitioner, Medical Department

SPONSORED **RESEARCH STAFF:**

R86-890, Technical Staff, Physics R86-889, Technical Assistant, Center for **Cancer** Research

R86-887, Staff Engineer, Harvard-MIT Division of Health Sciences

R86-886, Research Engineer, Energy

Laboratory R86-882, Research Specialist, Research

Laboratory of Electronics R85-881, Technical Assistant, Center for **Cancer** Research

R85-880, Research Engineer, Earth, At-mospheric, and Planetary Sciences R85-879, Research Engineer, Earth, At-

mospheric, and Planetary Sciences R85-878, Technical Assistant, Statistics Center

R85-876, Research Staff Scientist, Center

for Space Research R85-875, Fiscal Officer, Laboratory of Ar-

chitecture and Planning R85-871, Chief Operator, Sponsored Research Technical Staff, Laboratory

for Nuclear Science R85-870, Sponsored Research Technical

Staff, Psychology R85-869, Research Staff/Programmer, Haystack Observatory (Westford, MA) R85-862, Technical Assistant, Chemical

Engineering R85-861, Research Scientist, Earth, At-

B86-176, Sr. Secretary, Bursar's Office B86-173, Sr. Secretary, Laboratory fo Nuclear Science/Center for Theoretical Physics B86-169, Sr. Secretary, Whitaker College of Health Sciences, Technology and Management (part-time) B86-157, Sr. Secretary, Sloan School of Management B86-153, Sr. Secretary, Humanities-History (part-time) B86-147, Sr. Secretary, Harvard-MIT Division of Health Sciences and Technology B86-165, Secretary, Center for International Studies (part-time) B86-164, Secretary, Center for International Studies (part-time) B85-144, Sr. Secretary, Center for Space Research

B85-138, Sr. Secretary, Mechanical Engineering B85-145, Secretary, Aeronautics and

Astronautics (part-time) B85-130, Sr. Secretary, Biology (part-time) B85-120, Sr. Secretary-Technical, Chemistry B85-024, Sr. Secretary, Treasurer's Office

B85-134, Secretary, Energy Laboratory B85-133, Secretary, Media Laboratory B85-115, Sr. Secretary, Fiscal Planning and Budget

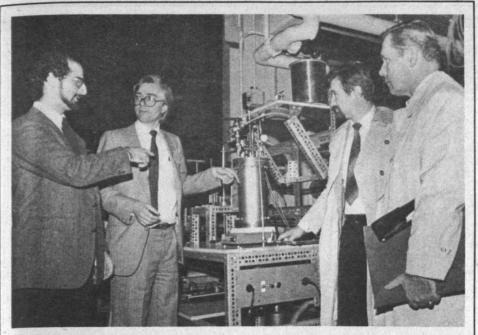
B85-114, Sr. Secretary, Whitaker College B85-109, 110, Sr. Secretary, Sloan Scho

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Engineering and Computer Science B85-081, Sr. Secretary, Electrical

Engineering and Computer Scien



The Laboratory for Electromagnetic and Electronic Systems recently conducted a transformer monitoring workshop in connection with its three-year research program to develop advanced technologies for improving the monitoring of large power transformers while in service. The program is sponsored by Allegheny Power System, American Electric Power Service Corp., Boston Edison Co., Empire State Electric Energy Research Corp., New York Power Authority, Northeast Utilities Service Co., Southern California Edison Co., and Tokyo Electric Power Co. Tours of some of the laboratory's research projects followed the workshop. Examining the transformer-oil moisture sensor project above are, from the left, graduate student Mark Zaretsky, Dr. Chathan Cooke, principal research engineer at LEES, Siegfried Tennert of Braun Boveri and John Provanzana of American -Photo by Calvin Campbell **Electric Power Service Corp.**

Artery substitute aids research

(continued from page 1)

because, unlike real arteries taken from experimental animals that last only a few days in the laboratory, artery equivalents can be kept alive indefinitely," Dr. Bell said. "Thus, the artery equivalent constitutes a totally defined system and, hence, a controlled testing environment.

"For example, we could test how cholesterol levels affect plaque formation on artery walls by running blood with varying amounts of cholesterol through a loop of artery equivalent. Or we could test the effects of prolonged high blood pressure, or other variables."

The artery equivalent is made of three living tissue layers that are roughly the same as the layers in a mammalian artery, Dr. Bell said. The layers are cast, step by step, in a hollow cylindrical mold with a smaller solid cylinder inside.

The gap between the outer and the inner cylinders determines the thickness of the artery's wall. The diameter of the inner cylinder determines the diameter of the opening through which the blood flows.

The mold can also be made any length, depending on how long the artery equivalent needs to be, said Dr. Bell.

The middle layer is cast first. It is made of living smooth muscle cells, taken from a biopsy of an artery. The cells are cultivated to produce large numbers and then combined with proteins, mainly collagen, that comes from calf or pig skin.

Dan Bromaghim

Dan Bromaghim, a staff member at Lincoln Laboratory from 1954 until his retirement in 1977, died January 4. A resident of Burnham, Maine, he was 63. He is survived by his widow, Priscilla, a son and a daughter.

Amedee Gauthier

Amedee Gauthier, 78, of Lowell, a project technician in the Department of Nutrition and Food Science from 1958 until his retirement in 1972, died December 20. He is survived by his widow. Germaine.

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B85-501, Secretary, MIT Press

Within a few days the smooth muscles

cells have interacted with the protein mixture so that together with it they form a tissue that has contracted around the inner cylinder," Dr. Bell said.

Then a loose Dacron mesh is slipped over the middle layer, which makes the artery more sturdy.

"The Dacron mesh is the only layer of the artery equivalent that isn't living," Dr. Bell said. "The Dacron mesh in the artery equivalent takes the place of the protein elastin in a normal artery. But elastin is hard to work with in the laboratory, and the Dacron mesh works as well.'

After the Dacron mesh is in place, Dr. Weinberg and Dr. Bell add a third layer made of collagen containing connective tissue cells, called fibroblasts.

"Like the smooth muscle cells, the fibroblasts act as collecting machines by pulling the strands of collagen tightly together into a tough lattice around the smooth muscle tissue layer that already hugs the inner cylinder,' Dr. Bell said.

After two weeks in the mold the lattice is fully contracted, having squeezed out fluid in the process. The artery is ready for the final layer-the inner lining.

Before adding the final layer, the researchers first remove the inner cylinder from the mold. Then they take arterial lining cells called endothelial cells, also cultivated from the original biopsy, and put them inside the artery equivalent as a suspension.

The lining cells attach to and spread out on the artery wall, and become part of the living artery equivalent, Dr. Bell said. The lining cells are alive and function normally, producing proteins usually made by such cells.

Dr. Bell and Dr. Weinberg expect that within five years the artery equivalent will be suitable for human grafting.

(Ms. Seeley is a senior in humanities and science from Newton. She wrote this article while serving as an intern in the MIT News Office.)

cial Aid Office

S85-936, Sr. Office Assistant, Alumni B84-231, Receptionist/Word Processing ciation

Private ownership of highways proposed at transportation forum

(continued from page 1)

of decaying due to lack of sufficient maintenance." He cited a Congressional study that estimated the need to spend \$720 billion on highways and bridges by the year 2000. But this great need is occurring, Professor Moavenzadeh said, at a time when "governments at all levels are under strong public pressure to not increase taxes. Indeed, this may lead to further tax reduction... It is not at all clear whether sufficient funds will be available to properly maintain our highway system (and) it is not clear that what we do allocate to maintaining our highways will be spent very efficiently.

The institutions responsible for maintaining the highway system—"in many respects. . the greatest civil engineering accomplishment of our time"-were established primarily for the purpose of building roads, Professor Moavenzadeh said. But now we have passed from the highway-building epoch to the highway-maintaining epoch and it is not clear, he said, that the institutions which built the highways can switch gears and concentrate effectively and efficiently on maintaining them. In addition, political-bureaucratic incentives tend to work against the maximization of long-range cost-effectiveness in high-

way maintenance, he said.

"This transition from highway building to highway maintaining certainly calls for a fundamental review of the institutional framework we use to manage our highways," the MIT professor said.

Private highway owners would be driven by the incentive to maximize profits. This, in turn, would require cost-minimization, leading to long-run cost effectiveness of highway maintenance, Professor Moavenzadeh said.

'This is exactly the kind of of objective and incentive structure that we need in order to improve the efficiency of our highway main-tenance expenditures," he said. A simplified regulatory control system can be established to ensure that tolls are not necessary and that highways will be maintained to the correct level of physical quality. Private highway owners would be paid by the government for unlimited public access rights

"In summary, it seems to me that the economic arguments in favor of at least experimenting with some forms of highway privatization appear quite strong. Against these arguments of at least potential economic advantage, I see very little risk of any major calamity resulting from highway privatization. Such unanticipated problems as might manifest themselves would probably be correctable or, if they weren't, we could probably back out' of the experiment before any serious damage was done, since highways don't tend to fail suddenly or catastrophically.

Professor Moavenzadeh's paper, "Private Highways: A Proposal to Help Resolve the Highway Infrastructure Crisis," acknowledged the assistance of David Geltner, research assistant at MIT.

Weatherall: Job market is mixed (continued from page 1)

Reed, responsible for advising students in this area.

The end of January marks the beginning of the busy season for the center. Each year more than 2,000 MIT students, alumni, staff and visitors seek assistance there. "We only have 12 souls in all, two here half of the year, who work in this office-too few actually, Mr. Weatherall said.

One third of students using the office are in MIT's graduate and postdoctoral programs, he said. "Unfortunately, many who did their undergraduate work elsewhere believe our service is only for undergraduates. It's not," he noted.

The center resembles a library, where people can sit at large tables, and pore over annual reports, newspaper advertisements and other job hunting aides. "People can find what they need here. All they have to do is ask," he said.

Each spring and fall, the center publishes 2,800 copies of the Careers Handbook, a collection of career guidance and job hunting tips alphabetized from A to W-starting with "A" for action verbs, i.e., administered, advised and analyzed. . . to use in resumes—and ending with "W" for working abroad.

Two other booklets it publishes are How to Get There from MIT, a collection of pagelength success-story essays written by MIT alumni, and the resume book. These thick volumes of resumes from graduating students and alumni are published annually and sold to firms for a \$200 fee. "These are very popular with companies," Mr. Weatherall noted.

Career counseling is also a vital part of the office. Many students seek help finding a suitable career. Unfortunately, after four years, some students discover they dislike their major, he noted. "In these cases, we sit students down and tell them to relax, think, and find the courage to admit what they want," he said.

One senior, he remembers, was about to graduate with a degree in computer science, but loved art. Mr. Weatherall suggested he merge his interests and look at advertising companies for a computer graphics position.

"He would have a better chance than a straight arts major because he received his degree from MIT. MIT skills are valued," Mr. Weatherall believes.

Difficulty arises when the office tries to find employment for foreign students in the United States. Depending on their visas, they can work here a year or 18 months, but then must go home. Many American companies require US citizenship or a working visa.

Assistance with medical school applications is provided at the center. Jeannette Gerzon, who coordinates preprofessional advising, stated that MIT graduates have a "very high acceptance rate." An average of 100 MIT graduates enter medical school annually. The center also assists potential law students. Ms. Gerzon urges students to discuss their plans if they are very uncertain what they want to do.

Still another career office function is matching students with foreign universities. Only 50 students participate. "I wish more students would look into this program because it is a mind-opening experience. It is also cheaper than attending MIT for a semester," Mr. Weatherall said.

Students from other colleges are also welcome to use the center. And, if an MIT graduate wants to relocate to California, for example, an MIT career officer will call Stanford University's Career Placement Office for assistance. "We work together all the time,' he noted.

"We have an open door policy here and do everything we can to help everybody," Mr. Weatherall said. The office, located in Rm 12-170, is open from 9am-5pm Monday through Friday.

Cross-country team in nationals

MIT's men's cross-country team finished eighth among 21 teams at the National Collegiate Athletic Association (NCAA) Divi-

placing 34th among 176 competitors. Others participating in the race were graduate student Will Sauer of Naperville, Ill., junior Turan Erdogan of Bethlehem, Penn., Junior Terry McNatt of Middleton, Wis., sophomore Anton Briefer of Millford, N.J., and sophomore Rod Hinman of Lewiston, Idaho. 'We went out conservatively and worked our way into the thick of things," said MIT coach Halston Taylor. "Our goal at the beginning of the season was to finish in the top 10 at the nationals and we did it." "We had more depth this year, and two or three lead runners which we've lacked in the past. Our time spread from runners one through five was consistently in the 20-second range. MIT posted an 8-0 record in dual/tri-meet competition for its second straight unbeaten season. In addition, the Engineers finished ninth among 30 teams at the open New England Championships held in Boston. MIT also won the Engineer's Cup over RPI and WPI for the third straight year (and fourth time in five years, and 15 of the 23 times the meet has been held). In four years as head coach, Taylor's teams have compiled a 24-4 record for an impressive 85.7 winning percentage. Since 1976, MIT is 51-20 in men's cross-country (71.8 percent).

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Engineering & Computer Science

sion III Championships held recently in Atlanta, Ga.

This was the team's second best showing ever in the national competition and the highest finish by a MIT squad since the NCAA divided the nation's colleges into three divisions in 1973. A total of 258 schools compete on the Division III level in men's cross-country.

Junior Gordon Holterman of Petersburg, Va., was MIT's top runner at the nationals

Evans is honored

Robley D. Evans, professor of physics, emeritus, has received the William D. Coolidge Award from the American Association of Physicists in Medicine. Dr. Evans, whose contributions to medical physics have spanned half a century, made significant contributions in both radiological and nonradiological areas. An authority on radium poisoning, he pioneered ways of measuring radium exposure and developed techniques for the control of radium exposure in industrial areas. He also played a key role in initiating the nuclear medicine program at Massachusetts General Hospital, using radio-iodine for diagnosis ant therapy of thyroid disease.

←Here & There→

MIT political scientist Richard J. Samuels is the new editor of a newsletter-on freshwater fishing, of all things. After enjoying fishing in a casual way much of his life, he called the Massachusetts Division of Fisheries and Wildlife several years ago to find out how he could learn more about the sport. That plugged him into a program called "Urban Anglers" and ever since he and his son, Brad, now eight, have been active anglers for bass, trout and the like. Recently Professor Samuels took over the program's "Short Casts" newsletter and Brad, "who likes to draw," became the "staff artist." What's their favorite fishing spot? "We like to go out in our small canoe in the Sudbury River," Professor Samuels said, adding that the river yields "a lot of different fish." Dr. Samuels, one of the nation's leading experts on Japan, was instrumental in organizing the MIT-Japan Science and Technology Program. He's the Mitsui Career Development Professor and associate professor of political science. -0-

Morgan Memorial Goodwill has elected MIT economist Lester C. Thurow to its board of directors. Morgan Memorial helps handicapped and disadvantaged people by expanding their opportunities and occupational capabilities through various services it sponsors. -0-

Postcript: Two MIT faculty members are back home after taking part in a joint US-China expedition on what had been the world's second-highest unclimbed mountain, Ulu Muztag in China, near the Tibetan border. Professors Burrell C. Burchfiel, 51, a structural geologist, and Peter Molnar, 42, a seismologist, were a day away from reaching the peak when two Chinese members of the group who already had reached the peak fell onto a glacier while returning to camp. Burchfiel and Molnar helped rescue them, but the lost time meant that the US group's assault on the peak had to be called off.

"We were at the highest camp, about 21,000 feet, and were going for the peak the next day," Professor Burchfiel said. But that disappointment did not spoil an otherwise "exciting" adventure that produced some interesting scientific data-the real reason the two MIT faculty members were on the trip. "We discovered some very peculiar types of granite never before found in northern Tibet," Dr. Burchfiel said, 'and we also located an oceanic suture line where pieces of the continental crust had closed, and some remnants of oceanic rock in between."

Professor Burchfiel said the group slept in tents-clothed and in sleeping bags-in temperatures that went to 10 below zero. We were cold for so long," he commented, "that I can barely feel the ends of my toes even now." -0-

A cable television film adapted from a geopolitical scenario by political science Professor Lincoln P. Bloomfield was the winner in the Dramatic Special category at the Awards for Cable Excellence presentation in Los Angeles last month. The movie, "Countdown to Looking Glass," in which Professor Bloomfield appears as a com-mentator, also won a Venice Film prize. The HBO-produced, 90-minute drama tells the story of nine days of international intrigue that propel the world toward nuclear war. It will be shown for IAP by the Center for International Studies from 9-5 on Tuesday, Jan. 28, in the CIS Seminar Room 1 (E38-615). -0-

Mark Harvey, lecturer in music, recently presented a paper on "Charles Ives and American Civil Religion" at the annual meeting of the American Academy of Religion. He also was recently named a Fellow of the Society for the Arts, Religion and Contemporary Culture. -0-

Dr. Thomas H. D. Mahoney, MIT professor of history, emeritus, will become a member of the board of directors for the Centre International de Gerontologie Sociale in Paris at the organization's annual meeting this month. Dr. Mahoney, who has served as New York and Washington representative for the organization, was a panelist at the 1985 World Health Organization and Nongovernmental Organizations joint session at the World Health Assembly in Geneva. As a consultant to the United Nations, Vienna, he was its Aging Unit's representative at the Inter Parliamentary Union conference in Ottawa and will serve in a similar capacity at IPU's spring meeting in Mexico Ĉity. As a member of the UN's Nongovernmental Organizations Committee on Aging, New York, he recently coordinated a symposium in connection with the XIIIth Congress of the International Association of Gerontology. -0-

An MIT alumnus, Dr. Carl S. Schneider, has been appointed director of research at the United States Naval Academy. Dr. Schneider, a member of the academy faculty since 1968, received a BS degree from Johns Hopkins University in 1963, and both an SM and PhD in physics from MIT. -0-

PRESS CLIPPINGS:

-The Worcester Telegram reports that management professor Michael S. Scott Morton, director of the Sloan School's "Management in the 1990s" program, looked ahead to the year 2000 for a New England Council conference on New England's business future. To be successful, he said, corporations will have to adapt to changes in information technology related to the advancement of video conferencing, personal computers, fiber optics technology and related products. The amount of in-formation power available to a company is increasing at a rate of 20 to 30 per cent a year, he added.

-MIT computer scientist Joseph Weizenbaum has struck another blow for literacy in a letter to The New York Times responding to a statement by a National Science Foundation official that public schools should devote considerably more time to mathematics and science. "If our lives are not to be controlled by chemicals and computers," Professor Weizenbaum wrote, "our schools had better get on with what is their overwhelmingly most important task: teaching their charges to express themselves clearly and with precision in both speech and writing; in other words leading them toward mastery of their own language. Failing that, all their instruction in mathematics and science is a waste of time."

-In a talk at the University of Dubuque, reported in the Des Moines, Iowa, Register, MIT economist Paul Samuelson had this to say about farming in that state: "Many people are going to be leaving farming and many (farms) are bankrupt. Those that are not will have to be restructured. What will be left will be some very efficient Iowa farms. But a lot of marginal farms once thought to be prosperous-often with new grads going onto them—aren't going to be viable.

Beverly Times columnist Hazel Davenport reports that Weston Burner, who was director of MIT's Information Processing Services before his retirement in 1984, has been doing double duty as a volunteer in the town of Hamilton, where he lives-teaching woodworking in a 'School's Out" program at the Hamilton Community Center, and serving as a surrogate "grandfather" in a program for grade-school children. He also put his expertise in computers to good use, the columnist writes, working on the town's computer study committee and helping install three computers in the Town Hall.



CREWEL WORLD-Milda Richardson, center, a staff member at the Laboratory for Nuclear Science, demonstrated embroidery stitches for Jean Flanagan, also of LNS and Carolyn Lee, a senior in mechanical engineering in an IAP class last week. -Photo by Calvin Campbell

Anouilh melodrama to open Feb. 6

An unusual melodrama which will have its own orchestra for musical effects will be presented on two successive weekends in February as the IAP major production of the MIT Drama Program, directed by Dr. Robert N. Scanlan.

The Cavern, by contemporary French playwright Jean Anouilh, features a cast of 12



MIT students and one staff member, supported by the Drama Program's professional staff and 16 other students working on the special two-level sets, costumes and lighting.

Dates are February 6-8 and 13-15 at 8pm, with a matinee performance February 9 at 2pm, in the Little Theatre in Kresge Auditorium. Admission: \$5; \$4 students/seniors. Information: x3-2877.

The play was written in modern times but is set in the late 19th century as an exploration of the murder mystery melodramas prevalent then. The "Cave" of the title represents the below stairs habitation of servants who work for the aristocratic family living in luxurious surroundings upstairs.

Dr. Scanlan considers it to be a little-known master work. There is a duality in the way it's put together that makes it extremely stimulating intellectually, he said.

"The real genius lies in having—on the one hand—pure theatricality which draws on both the cheap tricks and great discoveries of the old melodrama convention—and on the other hand-the rather intense intellectual exploration of the art of playmaking," he said.

Dr. Scanlan said it provides the audience with two real focuses of attention. "You watch a play being made by a modern playwright who is showing you the elements of the craft and you get a great potboiler, too.'

One of the characters is the author of the play being staged-he constantly intrudes, even starting it over at one point. Among other things that involves bringing back to life a cook who has been murdered and trying various other approaches to solving the dilemma being created.

A new element being introduced will be a live chamber orchestra to accompany the action and heighten the melodramatic elements. The orchestra will be conducted by Astrid Kral '89, who is designing and arranging special music and musical effects.

The production uses Lucienne Hill's translation.

Graduate student G. Albert Ruesga plays the butler, while Sue Downing-Bryant '86 is the "Lazarus" cook. The author is played by Wayne Heller '86.

Other roles are taken by Jean Alpers, David Altshuler and Kerry O'Neill, all '86; Brian Linden and Julie Theriot '88; Amy Dewling Mitchell, Wellesley College '88; Derek Clark, Michael Malak and Matthew McCarty '89; and Lincoln Lab staff member Brian C. Pierce.

Sets have been designed by William A. Fregosi and technical director is Edward S. Darna, both technical assistants in the MIT Drama Program. Coordination and production assistance comes from Jeanette Mitrano, administrative assistant for the drama program. Stage Manager is Greg Greeley '86. Light crew chief is Samuel Lippert '88, who works with student light designer David Waldes '89 and Frank Revi '86, Andrew Miklich, Drea Brandford, Ms. Theriot and Patti Zeitler, all

An MIT management professor, Thomas J. Allen, has begged to differ with a collegiate athletic official who suggested in a New York Times opinion piece that the sale of skybox tickets-threatened by the elimination of tax deductions for corporate purchasers of the boxes-is essential to the survival of intercollegiate sports.

"Many schools are able to support extensive intercollegiate programs without the benefit of big-time revenue producing programs," Professor Allen, chairman of the MIT Athletic Board, said in a letter to the Times. He added that MIT supports "36 varsity intercollegiate teams, 13 for women and 23 for men (in addition to 35 club teams). This is without the benefit of skyboxes or even season tickets. In fact, we charge no admission to any of our events. Our football team will never play in a Rose Bowl, and our basketball team is unlikely to make the NCAA Final Four. Nevertheless, our overall won-loss percentage is well above .500, and when it comes to participation of the student body we are at the top.' -0-

-The Boston Herald reported that a 14vear-old Holyoke boy whose parents left the Soviet Union to give him better educational opportunity has been offered admission next fall to MIT. Alexander Gorodisher, who came to this country when he was five and now attends Wilbraham-Monson Academy, told the newspaper he plans to study math at MIT. along with a "second major," perhaps "in physics or laser optics." The Associated Press distributed the story, along with a picture of the youth.

"Self-Portrait 1981" by the artist Mary Ahrendt, one of the works in the "Nude Naked Stripped" exhibition on view until February 2 at the Hayden Gallery of the List Visual Arts Center on the entry floor of the Wiesner Building. The concluding programs in a special lecture/discussion series accompanying the exhibit will occur today and tomorrow (Jan. 22-23). "Leathergirls Just Wanna Have Fun," a slide/tape work by artist Suzanne C. Shepherd and writer Donna Turley, a co-founder of Feminists Anti-Censorship Task Force (FACT), will be presented tonight at 7 pm in the Wiesner Building's Bartos Theatre. "The Art and Politics of the Nude-Past and Present" by George Stambolian from Wellesley College's Department of Art History will be presented in the Hayden Gallery tomorrow at 1 pm. Students and all members of the community are invited to these events. The exhibition and programs were organized by the MIT Committee on the Visual Arts, which also published a special catalog.

Other backstage leaders are properties master Robert Gates '89, properties assistant Jo Ellen Tuttle, and student set designer Sanjay Govindjee '86.

The costume crew, led by Margaret S. Hall, technical assistant in the Drama Program, includes Yasmine Eleftherakis, Maria Tavla and Shava Nerad '89.

The set crew includes Karen Rothkin '87, Shawn Mamros, Amitabh Lath and Tracy Holloway King, all '88 and Aaron McPherson

Rubin heads new group

Lawrence W. Rubin is the first chairman of the new, 750-member Instrument and Measurement Science Group organized within the American Physical Society. Dr. Rubin is head of the Instrumentation and Operations Division at the Francis Bitter National Magnet Laboratory.

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