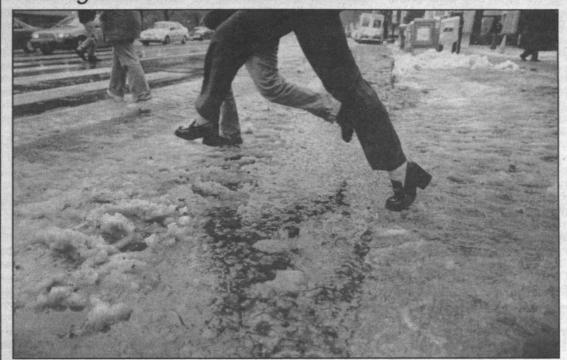


Making strides



These shoes were not exactly made for leaping... although they did manage to hurdle a deep puddle of slush at the 77 Massachusetts Ave. crosswalk during last week's early winter storm. Photo by Donna Coveney

Views sought on grading system

As part of an ongoing experiment on altering the MIT grading system, the Committee on the Undergraduate Program's Subcommittee on Intermediate Grades is asking all students and faculty to fill out a short anonymous survey.

When the current experimental grading system began in the fall of 1995, the Institute changed from a straight letter system (A, B, C, D, F) to one which uses plus/minus grade modifiers (A+, A, A-, etc.). These plus/minus modifiers are used only for internal grades—those reported on end-of-term summaries and grade reports. The modifiers are not recorded on official grade transcripts, nor are they reflected in student cumulative grade point averages (CUMs).

The student survey on various grading options is available on the webbased Feedback Forum at <http://

Author calls for manned Mars mission

By Denise Brehm

feedback.mit.edu>. A hard-copy version has been mailed to all faculty members. The faculty must vote on grading policy after the current experiment ends after the summer 1998 term. The survey seeks opinions about three grading system options:

• The current experimental system, where letter grades with plus/minus (continued on page 8)



IFC council sets alcohol restrictions

By Robert J. Sales News Office

The President's Council of the Interfraternity Council has voted to restrict the service of alcohol to guests at fraternity, sorority, and independent living group (FSILG) social functions, starting next semester. Until then, the ban on alcohol at all FSILG events remains in effect.

In addition, the presidents approved a strict enforcement policy last Wednesday that bars alcohol from social events for 120 days for the first violation, requires a house to be substance-free for 120 days for a second violation, and costs house members their rush if a third violation should occur while that house is still on probation from a second infraction.

"The consequences are very stern, very black-and-white," said IFC President Iddo Gilon. "We didn't have that before."

The policy requires alumni/ae supervision at parties with small guestto-member ratios and at least two monitors, probably graduate students, at larger parties with a higher guest-tomember ratio.

The severe sanctions and clear-cut monitoring requirements represent "an attempt to preserve the system," said Mr. Gilon. "If we can't be responsible, we'll be shooting ourselves in the foot."

While some students think these measures are extreme, Mr. Gilon noted the strong sentiment expressed for substance-free environments. "We can't have prohibition," he said. "It won't work." Mr. Gilon, a member of Phi Kappa Sigma, said he hoped these measures could become a standard for university-wide policy.

The President's Council—the legislative body for fraternities, sororities and independent living groups—is composed of the presidents of the 39 FSILGs at MIT.

Earlier Wednesday, President Charles Vest named four students and five faculty members to join co-chairs Professor Phillip Sharp and Dr. Mark Goldstein on the Working Group on the Prevention of Binge Drinking. President Vest charged the group

with surveying existing literature, programs and materials; consulting with experts; learning the physiology and psychology of campus binge drinkers; and recommending steps to prevent it. He said he expected their work to be completed by May.

"The Working Group will serve an important role as we begin to learn (continued on page 6)

Faculty votes today on revised motion

The Orientation/Residence Fall '98 Committee delivered an initial report to senior administrators on Friday as its chair, Professor Kim Vandiver of ocean engineering, prepared to discuss the recommendations at today's faculty meeting.

"It was our charge to advise the senior administration on potential decisions regarding orientation, residence selection, and associated matters affecting the admission, introduction to the campus, and housing of the Class of 2002," said Professor Vandiver, who is also a member of the Task Force on Student Life and Learning. "We hope to begin a period of experimentation in which the faculty and students work together towards improved orientation and residence selection programs for 1998 and future years."

The faculty meeting will also vote on a revised motion on the issue of freshman housing. The original "sense of the faculty" motion, sponsored by Professor Stephan Chorover of Brain and Cognitive Science at the October meeting, would have required freshmen to live on campus. The substitute motion says:

"1. MIT should move immediately to begin a comprehensive, deliberate examination of its residential system, including the suitability of undergraduate residences as freshman housing, with the goal of bringing the system into fuller alignment with MIT's edu-(continued on page 5)

nono onnoo

S peaking like a man with a mission, Dr. Robert Zubrin advocated his ideas for cheap, lightweight trekking to Mars in a presentation to the Massachusetts Space Grant Consortium at its annual forum on November 12.

Dr. Zubrin is co-author of The Case for Mars: The Plan to Settle the Red Planet and Why We Must as well as executive chairman of the National Space Society and president of Pioneer Astronautics. He maintains that NASA's former \$450 billion concept of Mars travel, which included a 30-year timeline and a spaceship dependent on as-yet-undeveloped technology, was the antithesis of a successful expedition. Instead, he models his plan for a Mars mission after the first successful European expedition of the Northwest Passage. "Travel light, (continued on page 8)



An artist's rendering of Robert Zubrin's vision of life on Mars. The nascent colony would contain the spherical living quarters, a truck, a beetle-shaped greenhouse, diverse scientific instrumentation and the Earth Return Vehicle. Art by Robert Murray/Courtesy of Pioneer Astronautics

INBRIEF

FACULTY MEETING

A regular faculty meeting will ne held this afternoon at 3:15pm in Rm 10-250. The agenda can be found on the Web at http://nimrod.mit.edu/depts/ archives/facmin/971119/ 971119.html>.

NO TECH TALK

There will be no Tech Talk on December 3 because of the Thanksgiving holiday. The deadline for submitting classified ads and announcements for the November 26 issue, which will cover the period from November 26-December 14, is Friday, Nov. 21 at noon.

Student Notices

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

11/19-11/30

ANNOUNCEMENTS

- **Career Services and Preprofessional Advis**ing Recruitment Presentations**-Nov. 19: Donaldson, Lufkin and Jenrette, 6:30-8:30pm, Rm 4-153. TRW Space and De-fense, 7-9pm, Rm 4-149. Xilinx 6-8pm, Rm 4-145. Nov. 20: Draper Lab, 6-8pm, Rm 4-159. Goldman, Sachs and Company, 6:30-8:30pm, Rm 4-163. Grant Thornton Management Consulting, 5-7pm, Rm 4-149. SH&E Consulting, 6-8pm, Rm 4-145. Nov. 23: Chromatic Research, 6:30-8:30pm, Rm 4-145. Synygy, Inc. 6-8pm, Rm 8-205. Nov. 24: Bayer Corporation 6-8pm, Rm 4-149. Cherry Semiconductor, 6:30-8:30pm, Rm 4-153. Moog, Inc., 7-9pm, Rm 4-145. Parametric Technology, 5-7pm, Rm 4-159.
- Attention International Scholars: If you plan to travel outside of the United States for the holidays, please stop at the International Scholars Office, Rm 4-105, at least 10 days before you leave. Please bring your passport and visa document (IAP-66 Form, I-797, I-20) with you when you come in to see us. Have a safe and pleasant trip.
- The \$30,000 Lemelson-MIT Awards Program presents: The Business of Inventing, an MIT Student Inventors Workshop. Wednesday, Nov. 19, 5:30-9:30pm, Faculty Club, Bldg. E52. Panelists include: David Levy (Founder, Th, Inc.), Robert Rines (MIT Patents and Entrepreneurship lecturer), Krisztina Holly (Co-founder, Stylus Innovations), Anthony Jules (Sapient Corp.), Jack Turner (MIT TLO), and Marcia Hooper (Partner, Advent Intl.). Opening remarks by Professor Lester Thurow. Moderated by Professor Ed Roberts. To register or for more information: x3-3352 or <invent@mit.edu>.

RELIGIOUS ACTIVITIES

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

- Baptist Campus Ministry**-Weekly events: Sunday Nights at the RAC, 6pm, Main Dining Rm, Bldg W11. Home-cooked meal at 6pm (cost; by donation), followed by Bible Study. Tuesday Vespers, 6-6:30pm, chapel. A quiet time for reflection. More info: x3-2328
- Baptist Student Fellowship*-Weekly meetings on Tuesdays, include dinner followed by Bible Study. 5:30-7pm, Bldg W11, small dining room. Sponsored by Baptist Campus Ministry. More info: x3-2328.
- Campus Crusade for Christ**-Weekly meeting on Wednesdays, 8pm, PDR 1 & 2, 3rd fl Student Center. Morning prayer, Tuesday and Thursday, 8:30am, Rm W11-080 (CFL). More info: x2-1781 or <bigbob@mit.edu>
- Tech Catholic Community**-Weekday Mass Tues & Thurs 5:05pm, Friday 12:05pm, Sat-urday 5pm, Sunday 9:30am & 5pm. Call x3-2981
- Graduate Christian Fellowship**-Weekly meetings in Student Ctr, PDR 1&2, Fridays at 5:30pm. Also weekly Bible studies and Responsible Technology discussion group. Andrew Crabtree 868-0488 or <crabtree@mit.edu>.
- Christian Science Organization**-Thursdays at 7pm. Call x3-8797 or <lnorford @eagle.mit.edu> for more information.
- Communitas-Life Together**-Protestant Worship Sunday at 11am. Sponsored by: American Baptist Church, United Church of

Christ, United Methodist Church, Presbyterian Church (USA). Chaplain John Wuestneck, x2-1780 or <chaplain@mit.edu>.

- MIT Hillel**—Tuesdays at 12:15pm Hebrew Conversation Tale in Morss Hall. 5:30pm Beginning Hebrew Class. 6:30pm Intermediate Hebrew Class. Wednesdays at 7pm Haftorah Class. Thursdays 12noon Taste of Torah. Fridays at 6pm Egalitarian Chavurah Services and Orthodox Minyan Services. 7pm Shabbat dinner. Saturdays 9am Orthodox Minyan Services. 12:45pm Shabbat lunch. More info x3-2982.
- Lutheran-Episcopal Ministry at MIT*-Regular Wednesday worship, 5:10pm, followed by supper in the Bldg W11 dining room. Bible Studies, Tuesdays 5:30-6:30pm, Bldg W11. More info: x3-0108.
- Meditation and Discourse on the Bhagavad Gita*-With Swami Sarvagatananda, MIT Chaplain and Head, Ramakrishna Vedanta Society of Boston. Every Friday, 5:15-6:30pm, MIT Chapel. Sponsored by the MIT Vedanta Society. More info: 661-2011 or <mehta@cytel.com>.
- MIT Muslim Students Association*-Five daily prayers, Bldg W11; also Friday con-gregation 1:10-1:45pm, Rm W11-110. Info: x8-9285.
- MIT Orthodox Christian Fellowship**-Wednesdays at 5:30pm in Student Ctr DR1 for dinner followed by Chapel Vespers. John Kymissis x5-7649 or Costa Sapuntzakis x5-7683

Special Events

MIT Hillel**-Nov. 21: Jewish faculty/staff forum with guest Prof. Hillel Levine, "In Search of Sugihara," 12pm. Nov. 23: Explore MIT Day for Olympiyeda competitors.

STUDENT JOBS

There are more job listings available at the Student Employment Office, Rm 5-119, or on the Web at <http://web.mit.edu/seo/>(student access only).

- On-Campus, Office: Part time help needed Assist in the Graduate Housing Office (E32-130A) with database maintenance, filing, room assignments and other tasks as needed. Need someone part time during academic year and full time in summer-this is a requirement. Basic Macintosh computing skills needed, particularly on FileMaker. \$7.25/hr, up to 4 hrs/day. Call Linda Patton at x8-8163 or e-mail <general@mit.edu>.
- Off-Campus, Non-Technical: An innovative online directory of Cambridge has openings for one or more highly motivated and outgoing sales people. Your role is to follow up with Cambridge merchants (restaurants night clubs, doctors, community groups, software companies) and get them listed on <http://Cambridge.zami.com/>. This is a full-commission position and a great oppor-tunity to learn about what goes on in Cambridge. Ability to explain the WWW to a lay audience is important. Please reply by email only. Hours are flexible, pay is on a comission basis. E-mail <zami@digitool.com>.
- Off-Campus, Technical Support: Experienced Microsoft Access database designer needed for research project at Harvard Business School. Project includes converting and normalizing previously collected data stored in Excel spreadsheets; designing input forms for new data to be entered and existing data to be updated; and setting up queries and reports. Understanding of statistical data processing an advantage. Wages commensurate with experience. Reply by email. Please attach resume or description of experience. Hours are flexible, on a project basis. Contact Katherine Lawrence at <klawrence@hbs.edu>.

Micheletti memorial service set

memorial service for sophomore A Michele Micheletti, who was killed October 31 when she was struck by two cars while crossing Memorial Drive, will be held on Sunday, Nov. 23 at 1:30pm in Wong Auditorium (corner of Amherst and Wadsworth Streets). Her parents, Elmer and Shirley Micheletti, will attend the service.

A group of Ms. Micheletti's friends have written an open letter thanking members of the MIT administration for their support following her death. The text of the letter follows.

To Whom It May Concern:

On Friday, October 31, 1997, the loss of Michele Micheletti struck the MIT community. It especially struck all those who in one way or another knew Michele and were touched by the love she spread to all around her. This love, which saw no color, no race, no differences, was a never-ending fountain of happiness, inspiration, and joy, which we were blessed to have known.

Losing her was very painful and difficult for many of us to handle. However, the MIT administration was a powerful and effective force which provided strength, leadership, and guidance for all of us. We wish to thank Dean Osgood, Dean Henderson, Dean Bates, Dean Randolph, Professor John

Essigmann, Ellen Essigmann, Paul Parravano, Charles Vest, the counseling department, the chaplain's office, and the Medical Department and MedLINKS. They all worked together to provide a solid foundation for those of us affected by the passing of Michele.

It was on October 31 that Michele passed away, November 1 when the news spread, and November 4 that a group composed of 26 students, two faculty members and a floor tutor were on a plane heading to San Francisco in order to attend Michele's funeral.

If there is one great gift which can be bestowed upon any person, it is the gift of bidding farewell to those we love. Upon our arrival in San Francisco, we attended Michele's wake. We then attended a rosary service for Michele at St. Dunstan's Parish, where Michele had spent her elementary school years.

The next day, we accompanied Michele's friends and family to the funeral and burial services. Every moment, we felt like we were part of her family, sharing our thoughts, grievances, prayers, stories and laughter with family members and friends. Michele's mother said that one of Michele's goals had been accomplished with our presence: Michele had managed to bring the East Coast to the West Coast.

Our visit was incredibly meaning-

Race 2000 forum to examine Asian American experience

''T he Asian American Experi-ence," the next in the Race 2000 forum series, will be held Thursday, Nov. 20 at 7pm in Rm 10-250.

The discussion among students, faculty and staff will be augmented by film excerpts, a theatrical reading of laws discriminating against Asians and Asian Americans, and a substantial question-and-answer period. The

The following positions are for students with Federal Work Study eligibility (see <http:// tute.mit.edu/seo/wwwcl/sersum.html> or contact Student Employment Office for full details):

- Community Service: Administrative Assistant. Responsibilities include: mailings; working with volunteers, putting together Teacher Wordshops and materials; developing and maintaining databases; planning a festival; helping prepare funding proposals; help co-ordinate our adopt-a-school program for businesses; develop and maintain mailing list; taking minutes; filing; correspondence; financial records. Must know Word for Windows 7.0, EXCEL, Access, PageMaker, SPSS/ PC+ be helpful. 8 to 10 hrs/week, \$7.25/hour. Contact Christy Matte at Peace Games Inc., 240B Elm Street, Suite B10, Somerville, MA 02144. 628-5555 Fax: 776-5577.
- Community Service: Interns duties include: Support the vice pres. and resource development staff on special projects (6 staff mem bers), maintain files and materials in the resource development conference room, manage special mailings and take responsibility for the upkeep and replenishment of dept. info. packets. Qualifications: Excellent computer skills (MS Excel and MS Word). Proficient spoken and written Spanish helpful but not required. Submit cover letter and resume to Agnes Fiamma, Assistant, Resource Development, ACCION International, 120 Beacon Street, Somerville MA 02143 Phone: 492-4930 Fax: 876

evening will be moderated by Emma Teng, instructor in foreign languages and literatures.

The program was created through collaboration among the South Asian American Students, Sangam (the Indian Students Association), the Asian Pacific American Caucus, and the lecture subcommittee of the Committee on Campus Race Relations.

ter Square in the South End the nights of Thursday, November 20 and Monday, November 24. To sign up to help, call (617) 437-8871 as soon as possible.

Massachusetts Substance Abuse Information and Education Helpline is seeking volunteers to work on their 24-hour phone assistance program. Volunteers should be interested in helping others, working in a friendly and culturally diverse setting, getting clinical supervision and comprehensive training, and willing to commit to a minimum of four hours per month. To lend a hand, contact the Medical Foundation at 536-0501 ext. 201.

CABLE

For more information about cable at MIT, contact Randy Winchester at x3-7431, Rm 9-050, <randy@mit.edu>. World Wide Web: web.mit.edu/mitcable/www/schedule..html>.

- MIT Cable Television's free basic cable channel lineup is changing. For more informa-tion, see http://web.mit.edu/mitcable/www/ newchannels.html>.
- Continuously Running Programs-Channel 10: Physics 8.01 Review Sessions by Prof. Walter Lewin. Channel 11: NASA Television 24 hrs/day. Channel 12: Today at MIT -a listing of MIT events. To submit your

ful to all of us. When you love somebody and that person leaves you, the pain of their absence is like an open wound. But the process of healing this wound began when we arrived in California. Michele's family was not only happy to see us, but they were filled with joy to see how many lives Michele had touched in such a short time.

One of Michele's favorite phrases was Mi Amore, because that was exactly what she felt and expressed to all around her. She was the pride and joy of those who knew her, an exceptional person filled with qualities which many of us can only dream of. As Oscar Wilde once said, "To live is very rare. Most people exist, that is all." Michele not only existed, she lived and she helped us to live. She taught us the lessons of love without barriers and giving unselfishly of oneself.

The opportunity to travel to California granted to us more than we can fully express in words. We were able to communicate our feelings and love to Michele's family and to begin to lift the veil of sadness which had covered us. We saw the tremendous accomplishments which Michele had achieved before she arrived at MIT. We realized that Michele had lived a fuller life in 19 years than some people can live in a hundred.

We wish to express sincere gratitude to Dean Randolph and everyone who worked with him to make this trip possible. The generosity and caring he showed us are far above and beyond what was expected. This trip has touched all of our lives, and we truly thank Dean Randolph for enabling us to have had this experience.

Sincerely,

Ricci Rivera, Rosie Alegado, Damon Lewis, Shelby Savage, William Melendez, Sam Wong, Baruch Feldman, Jackie Baskin, David Dunmeyer, Ana Karina Claudio, Jennifer Grewen, Charles Morton, Anjli Chokriwala, Susan Rosenthal, Alberto Cividanes, Shawn Atlow, Xilonin Cruz, Allison Waingold, Danielle Hinton, Jomaquai Jenkins, Kareem Benjamin, Marcus Baynes, Debbie Cheng, Helen Hsu, Anna Orenstein and Aleksandra Markina.

MIT TECH TALK (USPS 002157)

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Crimewatch

The following incidents were reported to the MIT Campus Police November 7-12:

- Nov. 7: Bldg. 14: vacuum stolen \$300. Bldg. 2: laser printer stolen \$1,600. Bldg. E19: computer stolen \$ 4,470. Tang: laptop stolen from room \$1,300. McCormick: harassing phone calls. Bldg 5: suspicious activity.
- Nov. 8: Johnson Athletic Ctr: malicious destruction to a window. East Campus: wallet stolen from lounge area \$20. Tang: camera stolen from room \$500. Bldg. 2: suspicious activity.

Nov. 9: Bldg 56: three rooms broken into, file cabinets vandalized.

- Nov. 10: 500 Memorial Dr: noise complaint. Bldg E60: room broken into and several computers stolen \$6,715. Bldg. E15: male arrested for breaking and entering in the daytime and other related charges. Bldg. 20: label maker stolen \$100. Tang: jacket stolen from laundry room \$150. Bldg. E39: wallet containing \$7 cash and credit cards stolen.
- Nov. 11: Baker: noise complaint. MacGregor D lounge: unlocked bike stolen \$400. Johnson Athletic Ctr: four wallets stolen 1) \$10 cash and credit cards; 2) \$30 cash and credit cards; 3) credit cards and passport; 4) cash, \$800 check and credit cards.

Nov. 12: Bldg. 6: laser jet printer \$1,600. Student Ctr. coffee shop: jacket stolen \$85. Walkway to Albany Garage: attempted robbery. Bldg. 20: bike locked to itself stolen \$150.

REMINDER: The MIT Campus Police maintain a centralized Lost and Found. If you have recently lost an item, please call x3-9754 or <htp://web.mit.edu/cp/www/otherserv/ lost.html>.

9509 or <afiamma@accion.org>.

Community Service: Architecture student with good illustrating and layout skills for a work study position. Duties include: Illustrating urban design projects; Laying out a poster on place interpretation; and helping tp up date and organize the firm's library and slide collection. Located a 15 minute walk from Harvard Square. Please call to schedule in-terview: 491-8952. Contact: Ruth Shackelford, The Townscape Institute, 8 Lowell St., Cambridge, MA 02138.

VOLUNTEERS

The MIT Public Service Center (Room W20-311. x3-0742) has compiled the following volunteer opportunities.

Henry's Baseball Club needs players, coaches, volunteers and helpers for spring, summer, and fall programs. Interested individuals should contact Henry at (781) 891-0621 or 719 Moody St., Waltham, MA.

People Making A Difference is looking for volunteers to help fold, stuff, seal, and label for their upcoming annual fundraising mailing. The mailings will be done at 20 Worces-

- event listings for this channel, send email to <tv-messages@mit.edu>. Channel 13: International Channel: see <http://www.ichannel.com> for more information.
- Nov.19: Channel 8: 11am-12noon-Live coverage of the MIT EECS/RLE Optics and Quantum Electronics Seminar. 4:30-5:30pm-Live coverage of the "God and Computers" Minds, Machines, and Metaphysics Lecture Series. Channel 9: 5:30pm-2am-MIT EECS/RLE Optics and Quantum Electronics Seminar (prerecorded).
- Nov. 20: Channel 8: 3:30-5pm-Live coverage of the Laboratory for Computer Science Distinguished Lecturer Series. 5:30pm-2am-"God and Computers" Minds, Machines, and Metaphysics Lecture Series (prerecorded).
- Nov. 21: Channel 9:5:30pm-2am-Laboratory for Computer Science Distinguished Lecturer Series (prerecorded). Channel 10: 4pm—Physics 8.01 Review Assignment #12 with Prof. Walter Lewin. Program repeats every hour on the hour until 4pm, 12/5.
- Nov. 24: Channel 8: 4-5:30pm—Live coverage of the MIT EECS Colloquium. Channel 9: 5:30pm-2am-MIT EECS Colloquium (prerecorded)

http://web.mit.edu/ne officely w/ Office of the Arts URL: http://web.mit.edu/arts

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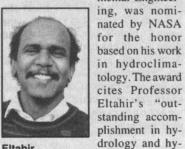
Recycled Paper

Researcher wins presidential award for work on rain forests and rainfall

By Denise Brehm **News Office**

n MIT scientist whose work provided evidence that deforestation of specific sections of rain forest increases the prospect of widespread regional drought was recently selected by President Clinton to receive a Presidential Early Career Award for Science and Engineering.

Dr. Elfatih Eltahir, the Gilbert Winslow Career Development Assistant Professor of Civil and Environmental Engineer-



Eltahi

droclimatology by combining theory and remote sensing observations to better understand the links between the biosphere and the atmosphere and their implications for regional water resources in the tropics.'

These gifted young professionals exemplify the best of our science and technology community and will help set the scientific pace for the United States and the world in the years ahead," said President Clinton in announcing the 60 recipients. The award includes up to \$500,000 over a fiveyear period and is "the highest honor

Retired CEO to give talk on leadership

William Weisz (SB '48), retired chairman and CEO of Motorola, Inc., will share his perspectives on leadership in management on Thursday, Dec. 4 at 4pm in Wong Auditorium (Building E51).

The 90-minute presentation, entitled "Leadership in a Dynamic Environment," is part of the Industry Leaders in Technology and Management lecture series, co-sponsored by the School of Engineering and the Sloan School of Management and hosted by the Center for Technology, Policy and Industrial Development

Mr. Weisz began his career with Motorola as a junior development engineer in 1948. He later became chief engineer and then manager for all mobile communications products, and general manager of the communications division. In 1970, Mr. Weisz was named president; he was later named chief operating officer

and became CEO in 1986. After his retire-

ment in 1989, he

bestowed by the US government on outstanding scientists and engineers at the outset of their independent research careers.'

Professor Eltahir studies how vegetative cover and soil moisture content affect land-atmosphere-ocean interactions at the regional level. Some of his recent work suggested that deforestation along the southern coast of West Africa could cause a collapse of the monsoon system and lead to notable decrease in rainfall for the entire Sahel region.

West Africa is a region that has seen both significant deforestation activity and a decline in rainfall. We're asking if the 30-year drought is part of the natural variation in the system or is caused by human activity," said Professor Eltahir.

He and postdoctoral assistant Xinyu Zheng published a paper in Geophysi-

"We're asking if the... drought is part of the natural variation in the system or is caused by human activity." -Professor Elfatih Eltahir

cal Research Letters earlier this year that described their model of the West African monsoon and its response to deforestation and desertification. Other researchers have suggested that deforestation has an effect on climate, but this was the first published study to suggest that the potential impact of the deforestation depends on the precise location of the loss of vegetative cover.

"Desertification along the border with the Sahara leaves a relatively minor impact on monsoon circulation and regional rainfall; deforestation along the southern coast of West Africa may result in complete collapse of monsoon circulation, and a significant reduction of regional rainfall," said the authors.

To create their model, Professor Eltahir and Dr. Zheng used data obtained by NASA satellites and other sources. Among the variables used by the model are surface temperature, rainfall, wind and humidity, as well as atmospheric temperature and water vapor.

The research team is also modeling the hydrological cycle of the American Midwest by studying atmospheric variables, soil moisture and ground water levels in Illinois. Professor Eltahir hopes that a clearer understanding of that cycle will help to determine if an increase in greenhouse gases will cause drier summers in that major agricultural region.

"Understanding these process in the current climate should eventually help us to project the impact of future climate change on water resources in the region," said Professor Eltahir, who plans to present this work in December at a meeting of the American Geophysical Union.

His assessment of the consequences of human activity on regional climate will likely contribute to a broader understanding of global climate change and its impact on water resources. "If we can understand how the natural system works with regard to soil moisture and rainfall, it will help us later to identify how any global change scenario may impact the regional hydrology and water resources. Such impacts represent a serious threat to the sustainability of water resources," he said.

Libraries acquire collected papers of Fischer Black

The MIT Libraries now house the collected papers of the late Fischer Black, a former MIT professor of economics whose work was closely linked with that of this year's Nobel Prize winners in that field.

The two 1997 economics Nobelists also had MIT connections. Robert Merton (MIT PhD'70) was a Sloan School of Management faculty member from 1970-88, and Myron Scholes was at Sloan from 1968-73. When they were awarded the Nobel Prize on October 14, Dr. Merton said, "It's all been a blast. My only regret is that Fischer Black isn't here to share the prize.

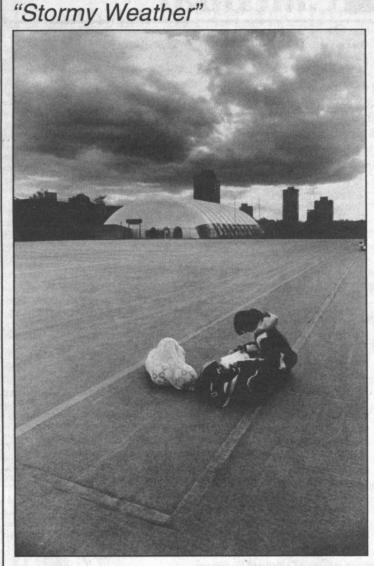
In the late 1960s, Drs. Merton, Scholes and Black developed a formula, known as the Black-Scholes model, on which the prize-winning work was based. Published in 1973 in the Journal of Political Economy, their work, according to the October 15 New York Times, "enables investors to price accurately their bets on the future, a breakthrough that has helped power the explosive growth in financial markets since the 1970s and played a profound role in the economics of everyday life."

facilitated the archives' contact with Goldman, Sachs. Terri Mullan, Dr.

Black's assistant at the bank, and Beverly

Black collection to the Institute earlier this vear.

The Fischer Black collection, now housed in Institute Archives and Special Collections, demonstrates Dr. Black's remarkable and influential career. At 57 cubic feet, the rich and extensive collection illustrates how he went about his research, the wide range of topics that intrigued him, and the great pleasure he took in his work. The collection spans his career and includes his writings, talks, notes and drafts. Dr. Black's work with Professors Merton and Scholes is documented, and includes a file titled "Holes in Black-Scholes" which refers to the Black-Scholes formula. Also of interest are his files of extensively annotated and summarized articles by others, mingled with correspondence between Fischer Black and the authors. Institute Archives and Special Collections are located in Rm 14N-118 and are open Monday through Friday from 9am-5pm. For more information, call x3-5690 or e-mail <archives-net-lib@mit.edu>.



Karen Murray, a sophomore in civil engineering, sits alone under a darkening sky waiting for her soccer teammates. Photo by Donna Coveney

EAPS establishes new program in atmospheres, oceans and climate

By Sarah H. Wright News Office

The Department of Earth, Atmo-spheric and Planetary Sciences has created a new program, the Program in Atmospheres, Oceans, and Climate (PAOC), Professor Thomas Jordan, head of EAPS, has announced.

The program represents the latest development of a major aspect of the earth sciences at MIT. "The study of the Earth's climate-past, present, and future-is one of the most active research areas in the geosciences and also one of the most challenging, because the understanding of climate, and related issues like human-induced climate change, requires an integration across the full spectrum of disciplines that concern the Earth system," said Professor Jordan.

"The EAPS department has been deeply involved in climate research for some time through its activities in atmospheric science oceanography leoclimatology and other fields. These activities continue to broaden, and our faculty and students are now interacting with a number of other MIT units, ranging from the Department of Civil and Environmental Engineering to the economics department and Sloan School," he said. "The PAOC initiative will set up a much-needed framework for integrating the department's program in climate education across all of these disciplines, providing both graduate and undergraduate students from EAPS and other departments with enhanced opportunities for studying the fascinating problems of climate and climate change.' PAOC is the successor organization to the Center for Meteorology and Physical Oceanography (CMPO) within EAPS.

raphy, as director of the new program.

PAOC includes all of the faculty and students constituting CMPO, but with the addition of faculty and students in hydrology, chemical oceanography, paleoclimatology and geophysics. These additions have been made in recognition of the importance of these fields in understanding Earth's climate. The disciplines involved in understanding climate also include fluid dynamics, statistical inference, computer science and applied mathematics.

PAOC faculty will continue to supervise existing degree programs in atmospheric sciences (including atmospheric chemistry and dynamics), and MIT's end of the physical oceanography part of the Joint Program in Oceanography with the Woods Hole Oceanographic Institution.

MIT has a long and distinguished history in the earth sciences. The Institute's founder, William Barton Rogers, was a well-known geologist, and the first meteorology d in the United States was established at MIT by the eminent Swedish meteorologist Carl-Gustav Rossby in the 1930s. The field has continued to evolve at the Institute, with the merger of the Department of Meteorology and Physical Oceanography and the Department of Earth and Planetary Sciences in 1983. A Center for Global Change Science was established within the department in 1990, and the research carried on there will help support the educational programs within PAOC. Professor Jordan thanked Professor Kerry Emanuel, outgoing director of CMPO, for his distinguished service as the director. "For the last nine years, he has provided excellent leadership, both administratively and scientifically, to a superb organization. I am sure that, in the years ahead, PAOC will maintain CMPO's excellence and traditions," Professor Jordan said.



Bell, his editor and vice president in Goldman, Sachs's Fixed Income Division, worked with MIT archivists to transfer the



served on the board as chairman and vice chairman until last May. He left behind a \$28 billion company that is the world's largest supplier of

equipment for cellular telephones, paging and two-way radios, as well as a leading semiconductor maker and developer of high-speed Internet access products.

Mr. Weisz, who earned his MIT degree in electrical engineering, has served as chairman of the Sloan School Visiting Committee and is a life member of the Corporation. He received the MIT Corporate Leadership Award in 1976.

The lecture is open to the MIT community; seating is limited to a firstcome, first-served basis. For more information, call x3-0404 or refer to the CTPID homepage at <http:// web.mit.edu/ctpid/www>.

At the time of their collaboration, Dr. Black was a mathematician at Arthur D. Little. In 1975, he came to MIT, where he taught at the Sloan School as professor of finance until 1984, when he went to work for Goldman, Sachs and Co., a New York investment bank. He was a partner at Goldman, Sachs when he died at age 57 in 1995.

After his death, Dr. Black's widow, Cathy Tawes Black, contacted Sloan Professor John C. Cox and indicated an interest in seeing her husband's papers go to the MIT Archives. Professor Cox then

Elisabeth Kaplan Institute Archives and Special Collections

Professor Jordan has appointed Professor Carl Wunsch, the Cecil and Ida Green Professor of Physical Oceanog-



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

(For arts-related listings, see page 7) November 19-30

SPECIAL INTEREST

Asian and Asian American Experiences: A Forum on the Racial Climate at MIT*-Moderated by Emma Teng, of History and Foreign Languages and Literatures Nov. 20: Forum of students, faculty and staff Film excerpts, theatrical reading of laws discriminating against Asians and Asian-Americans, discussion, Q&A. Sponsored by Race 2000, 7pm, Rm 10-250. Info: x3-0764 or <racerel@mit.edu>

SEMINARS & LECTURES

WEDNESDAY, NOVEMBER 19

- **Optical Networking: Status and Technology** Inhibitors*-Paul Green, Tellabs. EECS/ **RLE Seminar Series on Optics and Quantum** Electronics, 11am-12noon, Grier Room, Rm 34-401B. Info x3-8504.
- Radar: The Invention that Changed the World*-Bob Buderi, author. Security Studies Seminar, Center for International Studies, 12-1:30pm, Rm E38-615. Bring a bag lunch. More info: x3-0133 or <llevine@mit.edu>
- The Cross Shelf Transport Of Heat By Instabilities, and The Parameterization Of Lateral Eddy Fluxes*-Dr. Jamie Pringle, MIT/WHOI Joint Program. Oceanogra-phy Sack Lunch Seminars, EAPS, 12:10pm, Rm 54-1411.
- Long-term Climate Change and Short-term Mitigation Strategies: the Dilemma of Optimizing Greenhouse Gas Emis-sions*—Prof. Klaus Hasselmann, Max-Planck Institute for Meteorology. EAPS 19th Annual Victor Paul Starr Memorial Lecture, 4pm, Bartos Theater, Rm E15-070. Reception following in Rm 54-923.
- Intelligence and God: Shankara's View of the World and its Implications for Cognitive Science*—Bijoy Misra, Faculty in Computer Science, Harvard Extension School; Consultant in Radiology and Neurology, Harvard Medical School and Brigham and Women's Hospital. God and Computers: Minds, Machines, and Metaphysics, sponsored by the Artificial Intelligence Lab, 4:30pm, Rm 34-101.

THURSDAY, NOVEMBER 20

- The Protection of Valuable Information*-Robert Morris, National Security Agency, retired. Laboratory for Computer Scient Distinguished Lecture Series, 3:30pm Rm 34-101. Refreshments at 3:15pm.
- A Variable Passive Control Technology for Seismic Vibration Reduction*-George C. Lee, Earthquake Eng., State Univ. of NY. CEE, Engineering & Environmental Mechanics Group Colloquium Series, 4-5:30pm, Rm 1-350. Refreshments 3:45pm. Info x3-7186.
- Some Recent Results in the Control and Design of Broadband/ATM Networks*-Debasis Mitra, Bell Labs. Operations Research Center Seminar Series, 4-5pm, Rm E40-298. Refreshments follow, Rm E40-106. More info: <http://web.mit.edu/orc/ www> or <jayc@mit.edu> or x3-7412.
- Random Walking During Quiet Standing*-James Collins, Boston Univ. Mechanics & Materials Seminar Series, Dept. of Mech. Eng., 4-5pm, Rm 5-234. Refreshments at 3:45pm. More info <l_m@mit.edu>.

FRIDAY, NOVEMBER 21

- The Legacy of Thomas S. Kuhn*-Dibner Institute Symposium, organizers: Jed Z Buchwald, John L. Heilbron, George E. Smith. Continues Nov 22. More info: <dibner@mit.edu> or x3-6989.
- The Relative Importance of Internal (molecular and developmental) and External (geo-logical and ecological) Factors in Shaping the Course of Evolution*-Charles Marshall, UCLA. EAPS Lecture Series, 4pm, Rm 54-915. Refreshments at 3:30pm in Ida Green Lounge.
- New Methods for Cooling Below 1 Kelvin*-Prof. John Brisson, MIT. Mechanical Engineering Seminar, 3pm, Rm 3-270. Re-freshments, 4pm, Rm 1-114. More info: x2-1490 or x3-1925.

SATURDAY, NOVEMBER 22

The Legacy of Thomas S. Kuhn*-Dibner Institute Symposium, organizers: Jed Z. Buchwald, John L. Heilbron, George E. Smith. More info: <dibner@mit.edu> or x3-6989.

MONDAY, NOVEMBER 24

- Forefronts of Imaging Technologies**-HST Imaging Symposium. Speakers: Winfried Denk, Bell Laboratories, Lucent Technologies; Scott E. Fraser, California Institute of Technology; David E. Clapham, Harvard Medical School; James G. Fujimoto, MIT; Alan P. Koretsky, Carnegie Mellon University.8:30am-2:30pm, Harvard Medical School, Building B Room 122. Contact: Pat Cunningham at 432-1738
- MITR Clinical Trials in BNCT*-Dr. Paul Busse, Beth Israel Deaconess Hospital. American Nuclear Society/Nuclear Engineering Dept. Seminar, 3:30pm, Rm NW12-222. Refreshments, 3pm.
- The Smell of Germs**-David S. Barnes, Harvard Univ. Sponsored by the Program in Science, Technology, and Society, 4pm, Rm E51-095. More info: x3-4062.
- Some Simple Ideas for Modeling Packet Interactions in Complex Data Networks* Balaji Prabhakar, Visiting prof, EECS and LIDS, MIT. EECS Fall Colloquium Series, 4-5pm, Edgerton Hall, Rm 34-101. Refreshments at 3:45pm.
- The Roles of Soft Computing and Fuzzy Logic in the Conception, Design and Deploy-ment of Intelligent Systems*-Lotfi A. Zadeh, University of California, Berkeley. d'Arbeloff Laboratory for Information Systems and Technology Distinguished Lecture Series, 4pm, Rm 1-390.
- Theoretical Models of DNA*-Prof. Maxim Frank-Kamenetskii, Center for Advanced Biotechnology and Department of Biomedical Engineering. Applied Math Colloquium, 4:15 pm, Rm 2-105. Refresh-ments served at 3:45pm in Rm 2-349. Contact: Prof. Michael Brenner x3-3661.
- NGOs in War Zones: Problems, Prospects and Future Research*—Thomas Weiss, Watson Inst., BU. Inter-University Seminar in International Migration, CIS, 4:30-6pm, Rm E38-714. More info: x3-3121 or <lauries@mit.edu>

TUESDAY, NOVEMBER 25

- The Composition of Kepler's'Astronomia Nova'**-James Voelkel. Sponsored by the Dibner Institute for the History of Science and Technology, Noon-2pm, Rm E56-100. Call if planning to attend: x3-6989 or <dibner@mit.edu>.
- Structural Studies of Proteins Controlling the Cell Cycle*-Nikola P. Pavletich, Cornell University Medical School and Sloan Kettering Memorial Cancer Center. Spon-sored by Dept. of Biology, 4:15pm, Rm 10-250.

MIT research, inventions in the news

From smart gels to wearable com-puters, MIT research has figured prominently in several recent news stories. Some examples:

WHEELCHAIR/BED

Popular Science wrote about an MIT invention in its October issue. A new "wheelchair/bed" developed by Ford Professor of Engineering Harry Asada and colleagues "eases the shift from chair to bed. The wheelchair portion docks into a horseshoe-shaped frame and reclines to form a twin bed. The chair is controlled by joystick or remotely via the unit's onboard computer." Work on the prototype Reconfigurable Holonomic Omnidirectional Mobile Bed with Unified Seating (RHOMBUS) is through the Department of Mechanical Engineering.

(MIT Tech Talk, April 3, 1997)

SMART GELS

Physics Professor Toyoichi Tanaka's work with "smart gels" was featured in an October issue of Fortune magazine. Writes Gene Bylinsky: "Unlike the 'dumb' gels used in, say, diapers, which expand only slightly as they absorb moisture, these high-IQ ones will expand to 1,000 times their volume, then shrink to original size." Applications currently on the market include the soles of golf shoes "which when heated by the foot conform for a perfect fit. Another likely use: coating for esophageal tissues damaged by stomach acid.'

SELF-ASSEMBLING PEPTIDES A recent patent issued to Shuguang Zhang at the Center for Biomedical

News Office creates guide

to MIT's medical experts new guide published by the News AOffice shows the scope of medically related research being conducted at the Institute.

The MIT Media Guide to Experts on Medicine, Physiology, and Health features almost 200 MIT faculty and scientists involved in research ranging from aging to laser medicine to Z-DNA. It includes a brief description of each person's work, plus information on how to contact the researchers.

Though not a comprehensive listing of all MIT researchers doing medically related research, the guide does

and use of the software, and the new Insti-

tute business processes that SAP supports.

There will be a computer on hand to do a live

give a feel for the scope of such research at the Institute. It contains sections on bioengineering, brain science and cognitive science, cancer, computers in medicine, diagnostics, diseases/ conditions, general health, genetics, health-care policy and economics, physiology, space medicine and therapies.

The cross-indexed guide is being distributed to members of the media. It is also available to members of the MIT community. If you would like a copy, please contact LaKeitha Evelyn of the News Office at x3-2700 or <lakeitha@

a new language while helping someone practice English. English speakers needed! On-going: Meetings held every Wed. in W20-400 at 3 pm unless noted otherwise. Childcare provided. Info: Jennifer x3-1614.

SENIOR FOCUS

Association of MIT Retirees**-Fall seminar on Housing Choces for Seniors, a presen-tation by Nancy Peters of Elder Choice, I lam Wednesday, Nov. 19, Bartos Theater (Rm E15-070). Coffee and pastry at 10:30 in the Bartos Lobby.

MITAC

The MIT Activities Office (MITAC) is a non-profit employee service that serves the cultural and recreational needs of the MIT community (including MIT's retirement community), their families, and friends. Two locations: (1) Room 20A-023, 18 Vassar St, Cambridge, 9:30am-3:30pm, Monday, Wednesday, Thursday, and Friday (closed Tues-day and all Institute holidays); (2) Room LLA-218, x6130, Lincoln Lab., Lexington, 1:15-4pm Thursday and Friday only. Call x3-7990 at 20A-023 or e-mail <julieh@mit.edu> for further information. MITAC accepts only cash or a per-sonal check (with a valid MIT ID) made payable to MIT. (Include MIT ID#, room number, and extension on checks.) Credit cards not accepted. MIT IDs must be presented.

- Boston Classical Orchestra (Faneuil Hall, Boston)**-Fri., Dec. 5, 8pm or Sun., Dec. 7, 3pm. Ticket: \$14 (reg. \$18).
- A Child's Christmas in Wales (Lyric Stage, Boston)**-Thur., Dec. 11, 8pm. Ticket:

Engineering and colleagues prompted a story in Bio/Med Technology Alert newsletter. The self-assembling peptides being developed by the researchers "may have applications in tissue engineering and drug delivery," according to the newsletter. "The peptide is a viable substrate for cells to attach and differentiate." Animal cells tested include those from skin, liver, kidney, bone and pancreas. (MIT Tech Talk, April 28, 1993)

WEARABLES

The Media Lab's recent conference on wearable computers (MIT Tech Talk, October 22, 1997) generated intense media coverage, including stories in The New York Times and Newsweek. Wrote Newsweek's Steven Levy: "Some of it seemed frivolous, like wigs that change shape as your emotions shift ... But underneath it all was some serious technology." For more on the International Symposium on Wearable Computers, go to <http://mimel.marc.gatech.edu/ wearcon/graphical_wearcon/ wearcong.html>.

Attention: retirees

When changing from summer to winter residences, please send the change of address notice directly to the Benefits Office, MIT Rm E19-411, 77 Massachusetts Ave., Cambridge, MA 02139-4307. The Benefits Office maintains the Tech Talk mailing list for retired members of the community.

Discount Movie Tickets**-Sony Theatres, Showcase Cinemas \$5; General Cinemas, adults \$5.50, children \$3.25; Kendall Square Cinema tickets, \$6.50.

ALUMNI ACTIVITIES

3 days in Bermuda*-Feb 14-16. An all inclusive package (airfare, luxurious room, scrumptious meals, unlimited beverages, use of beach club, tennis courts, pool, sauna admission to dance and bar clubs, and much more) for an unbelievable \$627! Deposits required by Dec. 7. Contact Suzanne Garber at suzanne@alum.mit.edu or 492-7970.

SOCIAL ACTIVITIES

MIT Ballroom Dance Team: Mondays until Nov 24. Professionally taught Mambo-Salsa 7-8pm, Merengue 8-9pm. No experience or partner needed. Nov 10, 17: Student Center, 84 Mass Ave, Rm. 407; Nov 24: La Sala, Student Center. \$7 per lesson. Discount and free pass to the Opera Club and Cafe when signing up for four weeks. Sundays 11:30am-12:30pm until December 7. Pr fessionally taught Intermediate Hustle. Working knowledge of hustle required. \$7 per lesson. Discount and free pass to the Opera Club and Cafe when signing up for four weeks. 3rd floor of Walker Memorial, corner of Ames St. and Memorial Dr. Information: <http://web.mit.edu/mitbdt> or (617) 776-0065.

MOVIES

MIT-Germany Program Movies*-Nov. 20: Wings of Desire, 1987, Dir. Wim Wenders,

- demo any SAP features of interest to the group. Contact: Robert Murray x8-7318 or <rmurray@mit.edu>. Children's Skating Classes**-Registration is open for MIT community children's skat-ing lessons (ages 6-12 years) to be held Saturday mornings beginning December 6 in the
 - Johnson Athletic Center rink. Classes will run December 6, 13, January 10, 17, 24, and 31. Beginner classes meet at 12pm and Intermedi ate classes at 1pm. The fee is \$40 (\$30 if parent is an Athletic Card holder) payable at the time of registration. Information n: Physical Education Office x3-4291, W32-125.
- Family Resource Center Seminars*-Nov 20: Parenting Teenagers, 12-1:30pm, Rm E19-758. Preregistration requested, call x3-1592 or e-mail <frc@mit.edu> or see <http:// web.mit.edu/personnel/www/frc>. Sponsored by the Family Resource Center.
- Health Education Special Programs**-\$50 "Reward": Participate in the 8-session stop-smoking workshop offered at the Massachusetts General Hospital. More info: 726-7443 or x3-1316.
- Health Education Services Workshops**-Ongoing: Women's Whole Life Maintenance Group. Thursdays, 4-5pm, free. Women's "Rollercoaster" Exercise Group Thursdays, 5:15-6:15pm. Unless otherwise noted, all workshops cost \$70 (\$65 MIT Health Plan, students, retirees), preregistra-tion required, limited enrollment. Workshops open to MIT, Draper and Whitehead comm nities and their families. More info: x3-1316.

mit.edu> for SAP users at MIT to discuss the features Languague Conversation Exchange: Learn

The Wear Mechanics of Elastomeric Seals Operating in Abrasive Slurries*-Hugo Ayala, Graduate Research Asst., MIT. Sloan Automotive/Reacting Gas Dynamics Laboratories, 4:15-5:15pm, Rm 31-161 Refreshments, 4pm.

From Photons to Perception*-Prof. William Bialek, NEC Research Institute. Special Physics Colloquium, 5th Annual David H Harris '22 Lecture, 4:15pm, Rm 10-250. Refreshments in Rm 26-110 at 3:45pm.

The Legacy of Thomas S. Kuhn*-Dibner Institute Symposium. Organizers: Jed Z. Buchwald, John L. Heilbron, George E. Smith. Nov. 20-22. Thomas Kuhn, Physics and Revolutions in the Social Sciences: Plenary Lecture by Kenneth Wilson, Ohio State Univ. 5pm, Rm E56-100. More info: <dibner@mit.edu> or x3-6989.

Asian and Asian American Experiences: A Forum on the Racial Climate at MIT*-Moderated by Emma Teng, of History and Foreign Languages and Literatures. Forum of students, faculty and staff. Discussion will be provoked by film excerpts, theatrical reading of laws discriminating against Asians and Asian-Americans, Q&A period. Sponsored by Race 2000, 7pm, Rm 10-250.

Computational Mechanisms for Visual Grouping"-Jitendra Malik, Berkeley. LIDS Colloquium, 4pm, Rm 35-225. Refreshments at 3:45pm.

Turbine Design: Yesterday, Today and Tomorrow*-Dr. Richard Price, Gas Turbine Laboratory Seminar, 4:30pm, Rm 31-161. Refreshments at 4:15pm. Contact: Lori Martinez x3-2481 or <dragonl@mit.edu>.

WEDNESDAY, NOVEMBER 26

Temporal Changes In Eddy Energy Of The Oceans*-Dr. Detlef Stammer, MIT. Oceanography Sack Lunch Seminars, EAPS, 12:10pm, Rm 54-915.

COMMUNITY CALENDAR

Lunch Time Craft Fair*-Nov. 21: 11:30am-1:30pm, Draper Laboratory, 1 Hampshire St. entrance. Info: Claudia at 258-4871.

MIT SAP User Group**-Nov. 20: 2-3:30pm, Rm 56-114. All members of the MIT community are cordially invited to attend. The group was formed to provide an opportunity Health Education Services Thursday Programs for Parents-to-Be**-Nov 20: Massage for the Expectant Parents and Babies, 7-9pm. Except where noted, programs are from 7:30-9pm, Rm E23-297, free, and preregistration is required. More info: x3-1316.

Infant-Toddler Child Care Briefings**-Nov 25, Dec 8: Introductory discussions for expectant parents and those new to parenting or child care, covering types of care, costs finding and evaluation care, and parental leave. Sponsored by the Family Resource Center, 12-1:30pm, Rm 4-144. Preregistration required, call x3-1592.

Informal Needlework Group**-Sponsored by the MIT Women's League, 10:30am-1:30pm, Rm 10-340 (Emma Rogers Room). Upcoming meeting: Nov.19.

Tai Chi Classes**-Tuesdays: Sponsored by MIT Women's League. Classes open to all levels. 5:15-6:30pm, Rm W31-225. To register, call x3-9436.

Wives Group**-Nov. 19: World Wide Web presentation, Meet in E40-302 at 3p.m. Nov. 26: Ice Skating. Meet at W34 at 11:45am. Children welcome, \$5 entrance fee without athletic card. Skate rental available for \$2.

\$16.50 (reg. \$24). Purchase by 12/4.

Disney's Aladdin on Ice (FleetCenter, Bos ton)**-Sun., Dec. 28, noon. Ticket: \$20 (reg. \$22.50). Purchase by 12/5.

Yo-Yo Ma (Symphony Hall, Boston)**-Sun., Jan. 11, @ 3pm: ticket: \$40 (reg. \$45). Purchased by 12/12.

Sesame Street Live (Lowell Memorial Audito-rium, Lowell)**—Sun., Jan. 18, 1pm. Ticket: \$13.50 (reg. \$14.50). Purchase by 12/18.

BlueMan Group (Charles Playhouse, Bos-ton)**-Fri., Jan. 23, 10:00pm. Ticket: \$37 (reg. \$45). Purchase by 12/19.

The Peking Acrobats (Symphony Hall, Bos ton)**-Sun., Feb. 12, @ 3pm. Ticket: \$31 (reg. \$35). Purchase by 1/2.

Bruins vs. Pittsburgh Penguins (FleetCenter, Boston)**-Thurs., Jan. 29, @7:30pm. Ticket: \$27 (reg. \$29) and each ticket comes with a \$5 concession stand coupon good at any of the FleetCenter concession stands. On Sale Soon!

Museum Passes**-Children's Museum, \$4 (reg \$6-7); Museum of Science, \$4 (reg \$5.50-\$7.50).

130 min. Movies at 7 pm in 2-105. German with English subtitles. Free.

Admission to Lecture Series Committee Movies is \$2.50, and MIT or Wellesley identification is required. For the latest Lecture Series Committee movie and lecture information, call the LSC Movieline, x8-8881, or see <http:// lsc.mit.edu>.

Nov 21: Air Force One (1997), 7 & 10pm, Rm 26-100. Strangers on a Train (1951), 7:30pm, Rm 10-250. Nov 22: Pulp Fiction (1994), 7 & 10:30pm, Rm 26-100. Nov 23: Air Force One (1997), 4pm, Rm 26-100. Pulp Fiction (1994), 7pm, Rm 26-100.

LOOKING AHEAD

Next deadline for listings: 12 noon Friday, November 21. Covers events from Wednesday, November 26 through Sunday, December 14. Listings for the Institute Calendar and Student Notices should be e-mailed to <ttcalendar@mit.edu>. Hard copy also accepted (send to Calendar Editor, Rm 5-111), but e-mail preferred. Please use appropriate Calendar formatting. Faxes are not accepted. Early submissions encouraged.

ABC lauds crew for community service

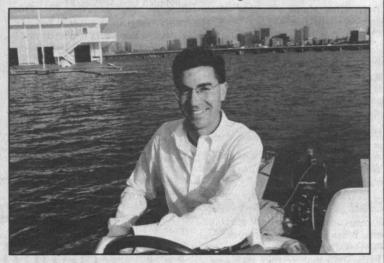
By Donna Coveney **News Office**

IT's service to the commu-M nity through its athletic program was featured recently on ABC World News Tonight when an inner-city crew coached by MIT, the Mandela Crew of Roxbury, was named as "Person of the Week." The Mandela Crew has been coached by MIT director of rowing Stuart Schmill and some of his varsity crew for the past six springs.

Mr. Schmill says that working with students is the best part of his job, be they from MIT or elsewhere. "The Mandela kids are really great kids," he said. "Rowing is not really the main thing here. I think the chance for them to see that other worlds aren't closed off to them is the important thing. They're eagerthis activity, rowing, is unique in their world. Their eagerness is refreshing.'

The varsity athletes that volunteer to coach the Mandela crew and other youth groups also enjoy working with the kids. The community involvement makes them feel good, he said.

"MIT is one of the most community-minded boathouses on the river,"said Kate Sullivan, public affairs coordinator for the Metropolitan District Commission, which pa-



Director of Crew Stu Schmill heads off in the launch with the MIT boathouse and Boston skyline behind him. Photo by Donna Coveney

trols the river and riverside parkland.

"Hands down, MIT does more for everybody than anybody else on the river. For example, a while back there was a sewage leak that kept folks from Community Rowing from using their boathouse," she said. "Stu let them use MIT's until the problem was cleared up. When gold medalist Holly Metcalf started a 'To the River' program out of Community Boating, Stu donated an eight-oared rowing shell. The stories go on and on. Every time you turn around, MIT's doing something else

for someone. I'm on the river myself, so I hear about it that way.'

MIT has opened its doors to various other rowing clubs over the years, loaning equipment and access to indoor tanks. The US national team has trained out of Pierce Boathouse, most recently in 1994. MIT offers service to various community and youth programs each year, and allows both the Walk for Hunger and the AIDS Walk to set up in front of the boathouse and use its electric supply.

Medical staff answers questions on drinking

By Sarah H. Wright News Office

S tudents and other members of the MIT community have asked some interesting and helpful questions about alcohol use during the past month. Below are their questions along with answers provided by the MIT Medical Department and Health Education staff.

Q: Isn't drinking a personal, private matter?

A: It is a personal choice, but it is not an isolated one. Alcohol use has effects not only for the drinker but also for many other people. Ripple effects of alcohol use include messiness, noise, vandalism, drunk driving, unsafe or unwanted sex, fights and unwanted changes in personal relationships.

Q: Isn't asking about how much someone else drinks an invasion of privacy?

A: Our goal in building a healthy community is to make sure everyone has a voice and a place it can be safely and respectfully heard.

Again, if you are concerned about behaviors resulting from someone else's drinking, rather than ask directly how much they drink, you might communicate your feelings of concern either to the drinker or to someone other than the drinker.

One tip: Talking to someone about drinking while they are drinking alcohol is known as "talking to the bottle." Your time is better spent focusing on the safety of the drinker and those around him or her.

Q: Is it true that beer is safer than shots or hard liquor?

A: It is safer to drink beer slowly than it is to drink shots rapidly. But per drink, both contain the same amount of alcohol (a 12-ounce beer, a 5-ounce glass of wine or a 1-ounce shot of hard liquor).

Q: What foods can I eat before or during drinking alcohol so I won't get too drunk?

A: Your liver can metabolize about one drink per hour. If you are drinking alcohol, sip the drink and alternate drinks of alcohol with uncarbonated beverages (carbonation speeds absorption of alcohol into the bloodstream). Eating non-salty, high-protein foods such as cheese can slow the rate of absorption of alcohol into the bloodstream.

Q: My friend's drinking has gone up and up since she broke up with her boyfriend. She also is asking me to cover for her a lot. What is really helpful? I don't want to get her in trouble. And I want to stay friends.

A: Among the ripple effects of alcohol use are changes in personal relationships. You are describing a typical kind of change that can occur. Your question about what's helpful shows you are concerned for her and for your relationship with her. Talking with a counselor can help you clarify your own standards and values and suggest how to aid most effectively your friend and your friendship.

Q: Isn't talking to someone else about my concern for a friend's drinking also known as gossip and backstabbing?

A: An honest expression of concern, shared with an appropriate person, is not gossip. MIT has many resources for those who would like to clarify their own feelings and ideas about drinking and about what kinds of action to take if anyone's alcohol use is troubling.

Q: Why should anyone who drinks listen to me, a non-drinker?

A: In this community, each person has a valuable voice. Also remember that not everyone wants to drink, even if they do so. Your offers of other activities and your example of living without alcohol can be very helpful.

Q: I am not American, but after (continued on page 6)

Faculty to vote on freshman housing motion

(continued from page 1) cational mission.

². The introduction of freshmen to MIT should be characterized by: a proper orientation to the Institute's academic environment, a sense of belonging to the larger MIT community, greater opportunity for interaction with faculty and each other, and the ability to make a calm, informed choice of living group, including a delay of rush for those students who want it.

"3. The Institute should commit significant funds to the design and implementation of new initiatives that strengthen the ties between faculty and students, and enhance the living and learning experience for all students.

"4. The newly promised undergraduate dormitory should be seized upon as an opportunity to experiment with the design-programmatic and physical-of a residence that consciously integrates student life and learning.

"5. These initiatives should have significant input from students, staff, faculty and alumni/ae.

"6. Timely reports should be given to the faculty about the design, implementation and evaluation of these initiatives, beginning in April 1998."

The O/R Committee's report was given to President Charles M. Vest, Provost Joel Moses, Dean of Students Rosalind Williams and Vice President William Dickson, who will make the final decision on O/R changes. The policies should be established by December 15, the deadline for early-decision applicants. The committee, named by Dean Williams on October 30, consists of four students and six faculty and staff members. The report was delivered by Professors Vandiver and John Essigmann of toxicology and chemistry, Associate Professor Charles Stewart of political science, and William Shen, one of the students on the committee

The IFC report suggested that a variety of topics be covered during O/R under five general headings-interpersonal skills, health, emergency options, risk behaviors and legal responsibilities.

The report calls for at least three and preferably six hours to be devoted to these programs, in addition to a seven-hour first aid course. "The program should be given in groups of no

should allow the freshmen ample opportunity to get to know the people in their group as well as allow for further questions and discussion."

Draft suggestions on alcohol and housing problems by members of the Dormitory Council and the Interfraternity Council are posted on the Alcohol and Campus Environment web page at <http://web.mit.edu/president/ace/>. Developments also can be followed on

web.mit.edu/newsoffice/www/> and a special page on alcohol-related news at http://web.mit.edu/newsoffice/nr/ 1997/krueger.html>.

Other matters before the faculty meeting include a report on the Ad Hoc Committee to Review Alcohol Policies, by Associate Provost Philip Clay, and a vote on a motion to approve changes in the Rules and Regulations of the Faculty.

Robert J. Sales

more than 25," the report says. "This the News Office home page at <http://

United Way clothing drive, bake planned

To benefit the MIT United Way campaign now going on, there will be a clothing drive and bake sale next month.

MIT's fourth annual United Way clothing drive will be held December 8-19. Clothing and other items donated will be given to CASPAR, the Salvation Army and Shelter, Inc. There will be collection bins in Building E52 (the Sloan School), Walker Memorial, the Stratton Student Center, the Building E23 atrium (Medical Department), Lobby 7, Building NW16 (the Plasma Fusion and Science Center) and Rm 20A-023 (United Way campaign headquarters in the Office of Special Community Services)

Agencies are requesting clean, warm winter cloth-

ing-coats, hats, socks, long underwear, etc.-as well as towels, sheets, and clothing and furniture for babies and children. Do not leave furniture by the collection bins; call x3-4605 for pickup.

The bake sale will be held on Friday, Dec. 12; the time and location will be announced. Food contributions from chief solicitors and other members of the MIT community are welcome; call x3-7914 for more information.

As of November 18, the campaign had received pledges totaling \$93,174 from 398 donors, including 19 Leadership Givers pledging at least \$1,000 apiece. The amount represents 32 percent of the \$315,000 goal for the campaign, which runs until December 31.

Samsung to license MIT's digital TV technology

Mr. Shen, president of Phi Delta Theta and a senior in economics, also chaired the Interfraternity Council's committee on O/R proposals, which delivered its report to the IFC Presidents Council meeting Wednesday night

The IFC presidents voted to submit the committee's recommendations to the faculty and administration.



S amsung Electronics Co. Ltd. of Seoul, Korea, has signed a nonexclusive licensing agreement with the Technology Licensing Office (TLO) for 17 patents that cover various aspects of advanced television products, including digital television sets, cable and satellite video receivers, video recorders and video cameras.

The TLO has offered the same license arrangement to more than 60 other firms. Many of these firms have expressed interest and are expected to execute agreements before they begin shipping digital TV products in 1998. Many broadcasters are expected to begin transmitting digital TV signals in selected major markets next summer. The broadcast industry is scheduled to discontinue transmission of current analog TV signals by 2006.

We're prepared to license these patents, on a non-exclusive basis, to any and all manufacturers," said Jack Turner, assistant director of the TLO.

The MIT standard license agree-

ment sets forth terms and conditions related to standard-definition digital television consumer products, highdefinition digital television consumer products, and commercial products. These terms include an initial license issue fee, an annual fee creditable to product royalties, and a per-product royalty ranging from \$1 to \$1.50 for many consumer products, to more than \$100 for some professional broadcast studio equipment. MIT's standard license agreement can be found in its entirety on the TLO web page at <http:// web.mit.edu/tlo/www>.

The MIT patents were developed at the Advanced Television and Signal Processing group in the Research Laboratory of Electronics, directed by Professor Jae Lim of the Department of Electrical Engineering and Computer Science. These patents cover many inventions related to

digital TV. Of particular significance are those patented inventions that cover aspects of some key elements of the digital television standard adopted by the Federal Communications Commission (FCC).

The Advanced Television Systems Committee (ATSC), chartered by the FCC Advisory Committee to document the digital TV standard, has not undertaken the task of determining which firms have the intellectual properties required to implement the digital TV standard. Nontheless, the ATSC has included Mr. Turner among the persons whom manufacturers may wish to contact regarding patent issues for digital TV products.

MIT is a member of the Grand Alliance, a consortium of seven institutions formed in 1993 to recommend a digital television standard to the FCC. MIT was the only university involved in this process. A system developed by MIT in conjunction with General Instrument Corp. was chosen as one of four finalists by the FCC. The Grand Alliance digital TV system that served as the basis for the US standard was designed by combining the best features of the four finalist systems.

Digital television offers greatly improved image quality by overcoming the degradation that analog signals suffer as a result of transmission-path anomalies and interference. Moreover, high-definition digital images have greater clarity than conventional television images because they can provide five times as many picture elements. As a result, a viewer can sit as close as six feet from a two-foot-high screen and not see the horizontal lines so evident in today's television images. Through this improved resolution, in combination with CD-quality multichannel audio, large-screen highdefinition TV sets offer dramatically improved realism.

Student questions on drinking addressed by medical staff

(continued from page 5) living here it seems that drinking alcohol is a necessary social skill. How can I learn to drink?

A: Drinking alcohol is not a course you want to get an A in. It is not a skill at all. It is a risk that many people take, and there is no magic formula for determining your tolerance or limit. But if you analyze the risks compared to the benefits of drinking alcohol, the risks outweigh the benefits. Compare the benefits of drinking for one night with, say, the risks associated with behavioral changes-such as injuries or pregnancy-that may last well beyond the party.

O: Is it true that a hangover is the body's way of saying it needs more alcohol?

A: No, it is not. It is a myth. A hangover (headache, queasy stomach, jitters, dry mouth) is the body's way of reminding us that alcohol is a toxin. A hangover is the result of ethanol's dehydrating and toxic effects.

Q: My living group has certain traditions that include drinking. I don't drink that much, but I don't want to be left out. What can I do?

A: Perhaps you are not alone in your discomfort with the traditions that have built up around alcohol use. Expressing your unease to a trusted friend, a MedLINK or a tutor may help you find support for suggesting changes for how your living group does things.

O: During the week I'm very tense and competitive. I like who I am when I've had a few drinks. Why is this bad?

A: "Bad" is not the issue here. "Risky" may be. A pattern of relying on alcohol to lift your self-esteem can become problematic because (a) alcohol is basically a depressant, so its euphoric effects don't last, and (b) relying on it or any substance to feel good about yourself or to relax can lead to dependence.

Q: I've been going to off-campus parties where alcohol is available. What about designated drivers?

A: Designated drivers are people who have had no alcohol at all. Generally, they volunteer at the beginning of a party to remain alcohol- and drugfree and to drive others home safely. Remember that having a designated driver does not give anyone a license to drink excessively.

For people who are not relying on cars, alcohol can still have very risky effects on those traveling through the city on foot or by public transportation. It can compromise judgment, reflexes, balance and common sense.

Q: How does the buddy system work?

A: Like the designated driver system, the buddy system involves making a choice about how much control of your own life you want to place in another's hands. The buddy system itself relies on setting up a relationship in which one person who remains alcohol-free assumes responsibility for the safety of others who have not made that choice.

Q: Does coffee get rid of alcohol-at least, its effects-so one can drive?

A: No. Caffeine is a drug which increases alertness, but it does not "get rid" of the negative effects of alcohol on judgment, coordination or common sense. You are never safe to drive with alcohol in your blood.

Q: How about vomiting-does that get rid of alcohol?

A: No. Alcohol is primarily absorbed beyond the stomach through the small intestine. Once in the bloodstream, alcohol will run its unpredictable course of physical and psychological effects. Vomiting will remove the contents of the stomach. Only the vomitus is unavailable for absorption.

Q: How can I find out what effect alcohol will have on me if I'm taking other medications?

A: You can ask your doctor or pharmacist. Remember, alcohol is a drug. No one can afford to be confused about this. When you take one drug, including over-the-counter cold medicines. and add alcohol, you are taking two drugs. Drug interactions can be lethal.

Q: I'm over 21 and I've been asked to buy alcohol for 20 yearolds. What can I say? What should I say? These are my friends.

A: Just say no. Buying alcohol for people under 21 is illegal.

Q: When I got to MIT, I stopped doing the hobbies I had at home and started into partying with my new friends. Now I'm sick of it but have no other friends. Who can I talk to without being laughed at?

A: It is quite normal to let go of old behaviors in a new environment, and it is a positive sign that you can have strategies and activities that have reduced stress in the past. You may want to use your friends or an adult to brainstorm which activities you might like to try again. And in the meantime, invite others to join you.

Q: I've heard all about the pressures on students to drink. Adults advertising, media, etc.), but they give in, while we're expected just to study and not to drink. Isn't there a double standard here?

A: Many students have challenged current MIT alcohol policies on various grounds. It is important and very positive that you are aware of cultural and media pressures to drink alcohol. It is also important to be aware that those very powerful pressures seek to affect all age groups, from minors to adults. Awareness of outside influences is the best way to

face the same pressures (i.e., from make responsible personal decisions.

O: I think about drinking a lot. Am I an alcoholic?

A: Anything that weighs on your mind deserves attention. You do not need to diagnose yourself. The first step here is to talk to someone in our Mental Health Services or Counseling and Support Services. Health Education (Rm E23-205) and MedSTOP (fifth floor, Student Center) have excellent materials. The MedLINKS web site is at <http://web.mit.edu/medlinks/www/ home.html>.

IFC council approves new alcohol restrictions

(continued from page 1)

about the problem of binge drinking and seek ways to educate the community about its dangers," President Vest said in a letter to Professor Sharp. "While I expect that the focus will be on the context and needs of the MIT community, I hope that your work will serve the needs of other campuses."

President Vest said he expected the Working Group to meet on a weekly or biweekly basis and asked them to invite experts to campus to meet with them and speak with others on campus, arranging public events and lectures if they think it appropriate.

Faculty named to the working group are Professors Suzanne Corkin of brain and cognitive sciences, Edward Farhi of physics, Alan Oppenheim of electrical engineering and computer science, Kenneth Oye of political science and John Essigmann of toxicology and chemistry, housemaster at New House.

Students on the Working Group are Pascal Chesnais, a graduate student at the Media Laboratory; Ritu Gupta, a junior in biology; Juan Rodriguez, a senior in biology and a member of Sigma Phi Epsilon; and Susan Rushing, a junior in brain and cognitive sciences and a member of Alpha Phi.

Professor Sharp, head of the De-

partment of Biology, and Dr. Goldstein, the Medical Department's chief of pediatric and student health services, had already been named.

The IFC President's Council vote was 21 in favor and nine against, with eight abstentions. Under the new policy, alcohol will be available only through an outside vendor or at functions designated as BYOB (a person must be over 21 to bring their own alcohol).

The policy, recommended in a report by the IFC Committee on Social Responsibility, Liability and Risk Management, also calls for:

 Events organized for new members to be alcohol-free.

• All FSILGs to have a risk management and safety officer who works with the IFC risk management officer to create and enforce a risk management policy for the living group.

 A ban on tap systems and kegs for IFC members with MIT-approved housing status.

 A prohibition against purchasing alcoholic beverages through a living group's treasury.

 A ban on members coordinating or undertaking the purchase of alcohol for members or guests in the name of or on behalf of the chapter.

Classified Ads

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

INSTRUCTIONS: Ads are limited to one (of about 30 words) per issue and may not be repeated in successive issues. Ads may be resubmitted after skipping a week. Ads/renewals are not accepted via telephone or fax. All must be accompanied by full name and extension (or proof of MIT affiliation).

- · E-mail address (return address must be mit.edu): <ttads@mit.edu>
- Interdepartmental/walk-in address: Calendar Editor, Rm 5-111.

Please note that all Tech Talk ads are provided to the Internet on the date of publication, which makes them accessible world-wide

All extensions listed below are campus numbers unless otherwise specified, i.e., dorm, Lincoln, Draper, etc.

MIT-owned equipment may be disposed of through the Property Office.

Deadline is noon Friday before publication.

- Two round-trip tickets, economy class, Virgin Atlantic, Boston to London, England, valid until Oct 98, \$1000 negot. Call 569-5468 betw 6-8pm.
- Exercise equipment: Lifestyler Cardiofit Plus, orgi \$250; Firmflex "Body by Jake", orig \$125. Call x3-2772 or 396-4221 eves.
- M's 10-sp bike, \$45; rocking (Boston) chair, \$50; baby stroller, \$15; crib & mattress, \$45; desk w/side drawers, \$55; golf cart, \$10; maple Capt's chair, \$35. Call 332-8251.
- Star Trek-cover TV Guide issues, editions for 5/ 14/94, 1/14/95 and 10/8/94; each has several articles about Star Trek, mint cond, \$10/lot. Roger x3-7144 or <rkolb@mit.edu>
- Girls 24" Univega 10-sp bike w/racing bike handles, lt purple color, \$50. Contact <rparry@mit.edu> or x3-3844.
- Full size mattress, \$140; 5-piece flexible couch set, \$120; both for \$230. Call 508-653-0977.
- VEHICLES
- 1984 Saab 900, red/beige, 5-sphatchbk w/sunrf, Camb/ Newton, gd parts car, all records, 1-yr-old batt & \$1100 or nist/dent 226K/2

- 1994 Nissan Pathfinder XE, 5-sp, 4WD, 69K, 6-CD changer, exc cond, \$15,500 firm. Jim 508-345-1124.
- 1995 Ford Sport explorer, 2-dr, 36K, black, 4WD, \$15,000. Pam x3-3123.
- 1996 Ford Explorer Sport, 4x4, 5-sp, 2-dr, pw, pl, 45K, exc cond, \$16,900. Contact 978-544-5450 or <doughty@mit.edu>.
- Mercury Tracer sta wgn, white, exc condition, 77.5 kmiles, \$2500. Also playpen, \$20; elec-tric sterilizer, \$15; bathtub, \$5, Call 617-868-2726 or e-mail <choonlay@aol.com>

HOUSING

- Arlington Hts: 2BR apt on 1st fl of a house, 1 block to bus sta, w/d, d/w, shared bsmt, no pets, non-smkg, avail 11/16, \$975/mo. Al 617-643-1494.
- Bethel, ME: luxury lakefrt condo, 15 min to Sunday Rvr ski area, downhill, x-c, ice skating, 2BR, fplc, mod ktchn, cable, slps 4-5, \$1000/mo or \$3800/ season. Cheryl 252-1111 or 978-664-3646.
- Cocoa Beach, FL: direct oceanfront 3 BR 2b condo, end unit, w/d, cable, htd pool, 2 tennis courts, clubhouse, one sm pet allowed, incl 2-car garage

Awards & Honors

Robert Clark Jr., audit manager in MIT's internal audit department, has received the Association of College and University Auditors' Member Excellence Award. The award recognized Mr. Clark's "contribution as an instructor in ACUA's professional continuing education efforts as well as his impact on ACUA's extensive information exchange programs."

Anne M. Mayes (SB '86), the Class of '48 Assistant Professor of Polymer Physics, has been awarded the inaugural Joseph Lane Award for Excellence in Teaching in the Department of Materials Science and Engineering. The biennial prize was recently established with a gift from Joseph R. Lane (ScD '50) who was a senior staff metallurgist with the National Academy of Sciences' National

JR East Professor Joseph M. Sussman of the Department of Civil and Environmental Engineering was recently selected to receive that department's annual Effective Teaching



Award, based on student course evaluations for 1996-97. Professor Sussman, who is director of the Association of American Railroads Affiliated Laboratory at MIT, re-



FOR SALE

Tires, radial (2), Sears all weather, Michelin Roadhandler Plus, ww, P205/75R14, <20K miles, \$35/pair. Ron 781-981-5512 (MIT x181-5512).

PowerMac 5400/120, 603e processor, 32 megabytes of RAM, 1.6 GB hard drive, CD player, SRS 3D surround sound, incl Stylewriter Color Printer, 1 vr old, \$1,000. Contact <cindyl@mit.edu>.

Lincoln Fiberglass canoe, 17', wood seats and braces, built-in flotation, paddles, \$350. Contact 508-358-4064 or <jnn@mit.edu>.

Kodak Super 8 movie camera, GAF movie projector, screen, film editor, all for \$50. Call 258-3841.

Firewood, dry, seasoned, bug-free, hdwd, \$80/cord, you pick up, easy Boston location; Head skis and size 7 1/2 boots almost nvr used, \$50. Donna x8-5275, <donnamul@mit.edu>.

Built-in-dishwasher, GE Potscubber 900, 5 yrs old, works grt, \$30 or bst. Contact <grimm@LL.mit.edu> or 781-981-3835.

bst. Call 617-492-1398 or <sgarfunk@mit.edu>.

1984 Lincoln Mark VII (LSC), 89K, nw brakes/rotors/ trs, custom 400 watts Kenwood stereo sys (6 spkr, 3 sep amps, 1 crossover), remote radar detector \$2150 or \$1750 w/out stereo. Call 508-535-0270.

1985 Honda Civic, 4-dr sedan, 5-sp, well-maint, runs grt, has a lot more life, new exhaust pipes, all records, 175K miles, \$1,225 or bst. E-mail <kkpirani@mit.edu> or call 431-8804.

1987 Mazda 626 LX Touring sedan, 5-dr hatchbk. white, 90K, runs very well, 1 ownr, \$2,700. Call x3-3239 or 617-455-0796 eves.

1987 Saab 900 Turbo, 5-sp, 3-dr, charcoal gray, leather int, SPG wheels, nw trs, anti-theft, mech sound, \$4800 or bst. Andrew <a dixon@hq.lcs.mit.edu>, x3-5891 or 973-4862 (eves).

1988 Toyota Corolla, 4-dr, 5-sp, maroon, exc cond in & out, runs grt, 120K, can be seen in Acton MA, \$2200. Call 978-263-3609 eves, 981-5574 days.

1991 Plymouth Colt GL, 32K, htchbk, auto, red, 1 owner, manufactured by a Japanese company (Mitsubishi), \$4300. Call 738-1905 lv mssg or <jsk@pabo1.mit.edu>.

\$174,900. Call 781-933-8507.

Dedham: Mother Brook Condo, 1BR, \$115K, 1st fl. corner unit, d/d, prkg, lrg bath, laundry, cent a/c, pool, spa, tennis, 10' beamed ceilings. Robert x3-6289, <dunnr@mit.edu>, 781-326-7027.

Everett: 1BR w/study, LR, DR, mod ktchn & bath, priv prkg, on T, pleasant nbrhd, no pets, no smkrs, avail Dec 1, sec dep, \$625/ mo + utils. Trudy x3-4954.

WANTED

Opportunity wanted to house-sit for faculty on leave spring semester, resp, neat grad student, grt w/pets, flex time frame. Corinne x3-3940 or <cbenders@mit.edu>.

Used baby crib & mattress set in gd cond wanted for when grandchild comes over to sleep at Nana and Papa's house. Dawn < dbeaulieu@ draper.com>

Old vibrating Elect Football games from the 60s and 70s wanted. Looking for both the vibrating fields & little men. John Mann <mannj@LL.mit.edu>, 781-981-2295 days, 978-250-0644 eves.

Materials Advisory Board. The award recognizes development of imaginative new courses, improvement of current curricula, research efforts which enhance teach-

Mayes

ing excellence, and demonstrated effectiveness in the classroom. Professor Mayes, who researches the dynamics and thermodynamics of macromolecular systems, was honored for her work in revamping 3.081 (Materials Structures Laboratory).

searches the planning, investment analysis, operations, management, design and maintenance of largescale transportation systems.

Dr. Reinhard Goethert, a research associate in the Department of Architecture, is one of two winners of the Habitat Scroll of Honour Award for his "outstanding contribution in the development of innovative methodologies, training and field practice in Community Action Planning." The award from the United Nations Centre for Human Settlements in Nairobi recognizes the work of Drs. Goethert and Nabeel Hamdi, authors of Action Planning for Cities. Their work has been used in Sri Lanka, Bangladesh and other countries to build national policy and to empower communities to design and manage their own settlement programs.



Perrone reflects on career at MIT

Pianist Eleanor Perrone has taught piano to MIT students for 11 years in conjunction with music theory courses, offering training to advanced musicians and beginners alike. Ms. Perrone, whose playing has been praised by the Boston Globe for its "clarity, definition and energy to spare," performs her last affiliated-artist concert next week as she completes her final semester as affiliated artist at MIT.

Trained at the Juilliard School and Boston University, Ms. Perrone also teaches at the Walnut Hill

School and the Brookline Music School. Lynn Heinemann of the Office of the Arts asked her about her life as a pianist and her experiences at MIT.

Arts at MIT

How did you decide to be a pianist?

I first went to the piano at the age of four. I had perfect pitch, so I would pick out tunes and try to copy my brothers, who were taking lessons. It



teacher heard me massacring a set of Beethoven variations and insisted I take lessons. I went to it naturally and always knew this was what I was going to do. I suppose I rebelled

Perrone

against that for a while because you want to feel that you have some say in what you're going to do with your life. I think it's important to rebel and then decide for yourself that this is really what you love and what you want to spend your life doing.

How did you come to MIT?

In 1984 I won a competition at BU and part of that prize was that I got to perform in the music library at MITthis was before there was a Killian Hall. It was very strange-I remember the phone ringing in the middle of the recital. This was when I discovered there was such a thing as music at MIT. I'd certainly never even thought that anyone even listened to music at MIT. My whole image, at that point, was of computer people, science and math.

What do you like about teaching at MIT?

The students and their diversity are

fascinating to Some. me. when they start with music, want something that's loose and free. They're

startled to realize how precise music theory can be.

How do MIT students tend to be different from other students?

Just getting into MIT takes so much work and dedication, and I see that in their approach to music. It's always inspired me, when I'm struggling, to find time to practice myself, to see them practicing and coming in for lessons even with their heavy course loads. I'm thrilled that they pursue music while

Arts News

A technical writer in the Center for Technology, Policy and Industrial Development, Richard St. Clair is also an active and prolific composer and pianist in the Boston area. This weekend, the Somerville Community Chorus premieres his Flower Of The Dharma, a cantata for chorus of Buddhist sacred literature set to music in traditional Western classical style. The concert takes place on Sunday, Dec. 7, the traditional date of the Buddha Shakayamuni's enlightenment under the bodhi tree, at 3:30pm at St. Catherine's Church in Somerville. For information and tickets, call 666-8447.

struggling with finals and everything else because it's obviously out of a real love.

How many students do you teach at MIT?

Normally it's 12-15 students in the piano labs which have a piano in a soundproof cubicle. Students sign up for an hour-long lab when they come in and work on assignments. I go around to the five labs and work with each student during the hour. At this time, I also have five private students.

What's a typical day like for you?

This semester has been hard because I have approximately 30 students [in my various teaching posts]. Trying to find time to practice has been a real challenge. I keep trying to get up earlier-that's my goal every morning-and I practice as much as I can for three or four hours. Usually I start teaching around 2 or 3pm and often go until 7 or 8pm. Then I eat dinner way too late and go to bed way too late and struggle to get up earlier the next morning.

What was your most exciting performance experience?

Winning a BU competition to perform with the Boston Pops when I was a freshman there and getting to perform the Saint Saëns G minor concerto in Symphony Hall. When I was told that I'd won, I was completely out of my mind and didn't know what was happening. I still remember turning to one of my competitors-who was probably heartbroken at that pointand saying, "Congratulations." After winning the competition at BU I had to play for John Williams and Harry Ellis Dickson. I guess they wanted to be sure BU knew what they were doing in picking me. As a result, they asked me to also perform at the BU Night at Pops, and my first Pops concert led to two other concerts. So I got four performances out of the contest.

Ms. Perrone will perform Haydn's Sonata in Ab Major; Chopin's 6 Preludes, Fantasie in F Minor and Barber's Sonata on Monday, Nov. 24, at 8pm in Killian Hall.



MIT Concert Choir

Dr. William C. Cutter, newly appointed director of the MIT Concert Choir, will lead the group in an all-Bach performance on Friday, Nov. 21, at 8pm in Kresge Auditorium. The performance features Cantata 191, Mass in F Major and "Singet dem Herrn ein neues Lied." Tickets (\$5 at the door or \$2 in advance for the MIT and Wellesley community with ID, \$5 for senior citizens and \$10 for the general public) will be available at the door on concert night. Advance tickets are available in Lobby 10. Photo by Gábor Csányi

Authors to discuss two new books: Formless and October

) osalind E. Krauss, the Meyer R Schapiro Professor of Modern Art and Theory at Columbia University, joins Yve-Alain Bois, the Joseph Pulitzer Jr. Professor of Modern Art at Harvard, to discuss their new books Formless: A User's Guide and October: The Second Decade, 1986-1996, on Wednesday, Nov. 19 at 7pm in Bartos Theater (Building E15).

Formless, published by Zone Books, develops an understanding of avant-garde and modernist art practices, presenting "formless" as a concept along with form and content.

October co-editor Benjamin H.D. Buchloh will join Professors Krauss and Bois in a discussion of the journal, which has become the premiere forum for exploring the intersections of culture, art and theory. Professor Buchloh is associate professor of art history at Barnard College/Columbia University. October is published by The MIT Press.

"authors@mit" is sponsored by the MIT Humanities and Dewey Libraries and the MIT Press Bookstore. A reception will follow in the List Visual Arts Center. For more information, call x3-5249 or e-mail <authors@mit.edu>.

Institute Arts

For more arts-related information call the 24-hour hotline at 253-ARTS or consult the World Wide Web at <http://web.mit.edu/arts>.

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

11/19-11/30

MUSIC

Chapel Concerts*-Nov 20: La Fontegara. Medieval, Renaissance and Baroque music of England and Germany. 12noon, Chapel. x3-2906

MIT Brass Ensemble*-Nov 20. Lawrence Isaacson, director. 8pm, Killian Hall. x3-2826

Heritage of South Asia) presents classical music and dance of India. Ravi Kiran, chitravina with Sriramkumar, violin and Satish Kumar, mridangam. Performing on a rare type of slide-lute called the chitravina, Ravi Karan's concerts in India of South Indian classical music have generated a great appetite to hear him in the US. Tickets: \$15, \$12—MITHAS members & students, \$10— MIT students. Available at the door only. 6pm, Killian Hall. x8-7971

Live Jazz at Muddy Charles Pub*-Mondays. "Open reharsals" by Moto Nakamura group. Every Monday, 8-10:30pm. x3-4012 or moto@rossby.mit.edu

MIT Guild of Bell Ringers*-Change ringing on hand bells. Beginners always welcome Will also ring for occasions. Meets Mondays, 6:30pm, 2nd floor balcony of Lobby 7

Fri-Sat—8pm, Sun—3pm, Philippe Villers Experimental Media Facility ("The Cube," E15). Claudio Pinhanez, x3-0485 or <pinhanez@media.mit.edu>.

Ruddigore*-Nov 20-22. MIT Gilbert & Sullivan Players production. Tickets: \$10, \$8 students, srs, children & MIT/Wellesley community, \$6 MIT & Wellesley students; \$1 off/ticket for groups of 7+. 8pm (except 2pm Nov 16), Sala de Puerto Rico x3-0190 or e-mail <savoyards-request@mit.edu>.

Roadkill Buffet*-Nov 22. MIT's improv comedy troupe serves up "Penguin a la tapenade de boeuf a l'ail frites des demoiselles d'Avigion." 8pm, Rm 6-120. 816-4446 or email rkb@mit.edu>.

FILM/VIDEO

Game and Allen Steele, author of Orbitral Decay. Third in new series sponsored by the Communications Forum and Film and Media Studies with a grant from John and Mary Markle Foundations. Both will read selections and engage of discussions of "media and imagination," including questions and comments from the audience. 7-10pm, Rm 26-100. x3-3599

poetry@mit*-Nov 20. Jennifer Moxley and Lisa Jarnot. 7:30pm, Bartos Theater. x3-9469 or poetry@mit <http://web.mit.edu/ humanistic/www/poetseri.htm>.

EXHIBITS

List Visual Arts Center (E15)*: The Art of Detection: Surveillance in Society, Video, photographic and installation work by con-

Inventors; MIT Hall of Hacks; Light Sculptures by Bill Parker; Math-in-3D: Geometric Sculptures by Morton C. Bradley, Jr.; MathSpace. 265 Mass Ave. Tues-Fri 10-5, Weekends 12-5. x3-4444

- Hart Nautical Gallery-Ships for Victory: American Shipbuilding's Finest Hour. Shipbuilding production during World War II. Permanent Exhibition of MIT Museum's Ship Models. Ongoing. Daily 9-8pm. x3-5942
- Wolk Gallery-Allies and Morrison: Architects. Models, relief models, line drawings and photographs of projects by the Londonbased firm which has built 22 projects in the past 12 years, having won numerous commissions through competitions. This past year, they have been unique in winning three Royal Institute of British Architects awards

really annoyed them. When I was six, the piano

MIT Concert Choir*-Nov 21. William Cutter, director. All Bach program. Cantata 191, Mass in F Major; "Singet dem Herrn ein neues Lied." \$5 at the door. 8pm, Kresge Aud. x3-2826

MIT Chamber Music Society*-Nov 22. Students coached by David Deveau perform Beethoven's Piano Trio No. 5, Opus 70 No. 1 ("Ghost") and Shostakovich's Piano Trio No. 2, Op. 67. 4pm, Killian Hall. 253-2826

The Chorallaries of MIT Annual Fall Concert*-Nov 22. MIT's co-ed a cappella ensemble with guest groups, the William Eflats and the Boston Univ Terpsichore. 7:30pm, Rm 10-250. 267-1282 or choral@mit.edu

MIT Festival Jazz Ensemble*-Nov 22. James O'Dell, director. \$2 at the door. 8pm, Kresge Aud. x3-2826

MIT Affiliated Artist Concert: Eleanor Perrone, Piano*-Nov 24. Haydn's Sonata in Ab Major; Chopin's 6 Preludes, Fantasie in F Minor, Barber's Sonata. 8pm, Killian Hall. x3-2906

MITHAS Concert*-Nov 29. MITHAS (MIT

Roberta Young, x3-3573 or rey@mit.edu o <http://web.mit.edu/bellringers/www/>

DANCE

MIT Folkdance Club* Sun-International Dancing: 7-11pm, Lobby 13. Tues-Advanced Balkan Dancing: Regular teaching & requests, 8-11pm, Student Ctr Rm 491. Weds-Israeli Dancing: 7-11pm, Lobby 13. MIT/Wellesley students free, \$1 others. Call x3-FOLK or <fdc-request@mit.edu> or see <http://www.mit.edu:8001/activities/ fdc/home.html>

THEATER

Fuenteovejuna*-Nov 20-22. Collective Shakespeare Ensemble creation, directed by Asst Prof Brenda Cotto-Escalera, based on the Spanish Golden age play by Lope de Vega. \$8, \$6 students with ID (\$1 off for eniors of groups of 10+). Fiesta-7:30pm; Play-8pm, Kresge Little Theater x3-2903.

It/I*-Nov 21-23. Written and directed by Claudio Pinhanez (G), inspired by three Samuel Beckett plays. Part of a Media Lab project to integrate computers into theater.

Evening of Dario Fo, 1997 Nobel Prize Winner in Literature*-Nov 20. Screening of Monologhi from Fo's Mistero Buffo (Fo's 1986 New York performance, with English translator). Followed by discussion with Walter Valeri, Fo's personal assistant for the past 15 years. Refreshments served. Presented by MITALY, the Italian Assn at MIT. sponsored by the Office of the Arts. 6pm, Rm E51-345. Antonio Bruno. <abruno@MIT.EDU >or <http:// <http:// www.mit.edu/people/maxm/fo.html>.

READINGS

authors@mit*-Nov. 19. Formless and October: The Second Decade, 1986-1996. Rosalind E. Krauss & Yve-Alain Bois Krauss is Meyer Schapiro Prof of Modern Art and Theory at Columbia. Bois is Joseph Pulitzer Jr. Prof of Modern Art at Harvard. They are both authors of Formless, published by Zone Books, and editors at the journal October. Reception follows. 7pm Bartos Theater. x3-5249 or email authors@mit.edu

Media in Transition Sci Fi Readings*-Nov 20. Orson Scott Card, author of Ender's

temporary artists, including Bill Beirne, Diller and Scofidio, Laura Kurgan, Richard Lowenberg, Steve Mann and Julia Scher addressing the role of institutional surveillance in the post Cold War era - its pervasiveness, our responses to it and the new and sometimes invisible forms of watching provided by the digital revolution. Recovering Lost Fictions: Caravaggio's "Musicians. A project by contemporary artists Joseph Grigely and Kathleen Gilje that explores the ways we authenticate, value and appreciate fine works of art, using the recently recovered Caravaggio painting, "The Musicians" as a case study.Both shows run through Dec 28. Hours: Tues-Thurs & Weekends 12-6pm; Fri 12-8pm; closed holidays. Curatorial Office Hours-Meet the curatorial staff for informal discussions and questions about art-Weds, 12:30-1:30pm. x3-4680

MIT Museum* (N52): Unfolding Light: The Evolution of Ten Holographers. Organized by guest curator Rene Paul Barilleaux, this show explores the work of holography's first generation of artists, juxtaposing selections by ten innovators from the Museum's permanent collection with recent works by these same artists. Through Feb 22 Ongoing: Gestural Engineering: The Sculpture of Arthur Ganson; LightForest: The Holographic Rainforest; Holography: Artists and

and being voted "Up and Coming Architectural Practice of the Year." Exhibition supported by the British Council. Wolk Gallery (Rm 7-338). Nov 6 through Dec 15. Mon-Fri, 9-5pm or by appointment. x8-9106

The Dean's Gallery-George Herman: Found Paintings. Recent abstract paintings on wood. Opening Reception-Nov 20, 5-6:30pm. Show runs through Jan 23. The Dean's Gallery, Sloan School of Management, E52-466. Weekdays 9-5pm. x3-9455 or <http:// web.mit.edu/deans-gallery/www/>

Rotch Visual Collections-The Revival of Mamluk Style in Architecture. Selected examples of secular and religious buildings from Egypt, Saudi Arabia, India and and Bosnia, Through Dec. 20, Rotch Visual Collections, Rm 7-304. x3-2955

Women's Studies. Permanent exhibition of archival photographs documenting the role of women at MIT over the decades. Rm 14E-316. x3-8844

Doc Edgerton Strobe Alley. Photographs, instruments and memorabilia that document Harold Edgerton's invention of the strobe light. Also, several hands-on corridor experiments. Bldg 4, 4th floor corridor. x3-4629

Group issues recommendations on aiding academic services

By Janet Snover **Community Involvement Team**

The Academic Administrators Net-work (AANet) team celebrated the release of its final report by gathering to crack open geodes that Melinda Cerny, team captain, had given to each team member last year as a symbol of their project.

Rough-textured and unremarkable on the outside, a geode often contains a surprisingly beautiful crystal within. "Our project was a difficult one, and the geodes were a reminder that our work could result in something remarkable and positive

for MIT students," Ms. Cerny said.

The AANet's final report focuses

on ways to ensure consistent, highquality service to all students and faculty within each academic department at MIT while also reducing the cost of these services.

The report makes recommendations in five broad areas: advising, the role of the academic administrator, MIT's culture of overwork, collaboration and partnership, and improving technology. In order to identify the issues and concerns of academic departments, the team conducted interviews and surveys with faculty, academic administrators, students, and staff from the Registrar's, Bursar's, Admissions and Dean's Offices. In addition, team members did research on the best practices at institutions that are comparable to MIT.

The team found that MIT faculty and staff are deeply committed to serving students well, but the following concerns surfaced repeatedly: the advising system needs to be revised, faculty and staff feel isolated and overloaded with responsibilities, and better use of technology is crucial to providing better service to students.

In response, the AANet team developed recommendations intended to address these themes while also creating a more productive, satisfying and costeffective environment. In particular, the team believes that a spirit of collaboration and partnership between faculty and staff is critical to improving services to students. Below are the AANet's recommendations for each of the five areas.

ADVISING

The advising system at MIT needs to be examined, redefined and revised. Faculty have full responsibility for this service to students but cannot successfully address all aspects of advising without support from and involvement by staff, alumni/ae and students.

Recommendations:

· Develop an Institute mission statement on advising that defines the term so there is a shared understanding of what it means across the Institute

• Define the role and responsibilities of the advisor and advisee so that all students can expect consistent, quality service from each academic department · Involve faculty, staff, alumni/ae and students in the advising process so all students receive sound advice in the areas of academics, administration, careers and personal support

· Develop incentives and awards for advising so it's universally perceived as worthwhile and important

· Create an ongoing process to review, revise, update and improve the advising system.

THE ROLE OF THE ACADEMIC ADMINISTRATOR

The academic administrator role is pivotal because this individual represents and responds to the interests and concerns of faculty, students and Insti-

Reengineering

tute staff. Academic administrators are perceived by faculty and students as an

important source of wisdom and knowl-

ten the first person students will go to when they are in crisis or in academic trouble. These administrators are on the front line, playing a vital role in the lives of our students," Ms. Cerny said. **Recommendations:**

provide consistent service to all faculty and students

· Review and revise academic administrator job descriptions, titles and compensation

· Encourage the career development tive in their roles

· Appoint a special assistant to the Provost to initiate, coordinate and overacademic administrators to ensure condepartments.

CULTURE OF OVERWORK

Throughout the Institute, a culture of "busyness" is apparent. A feeling permeates the Institute that if faculty staff and students are not working long hours all the time, we are not working hard enough.

Recommendations:

 Review and revise work processes within each academic department, taking into account seasonality of work and the skills of individuals so that work can be divided equitably among staff

· Reorganize staff into teams, where appropriate, so seasonal work and special projects can be shared among staff.

COLLABORATION AND PARTNERSHIP

Academic administrators, students and faculty all report feelings of isolation and disassociation with other colleagues within the Institute.

Recommendations:

 Improve communications among students, faculty and staff at the depart-

AANet team members gather in Killian Court as team captain Melinda Cerny of Educational Services mimics the group's geode-smashing ceremony. Left to right: Holly Sweet, Experimental Study Group; Debra Luchanin, toxicology; David Weber, Educational Services, Dean's Office; Debbie Shoap, Sloan School; Joanne Jonsson, mathematics; Anne Hunter, EECS; Ms. Cerny; and Tobie Weiner, political science. (Team member Henry Chong, Photo by Donna Coveney a student in EECS, graduated in June and was not present.)

ment and Institute level so that all are aware of other people's roles and responsibilities and the interconnections

 Provide spaces (offices, study areas, etc.) conducive to interactions between faculty, students and staff so that natural relationships can form and evolve · Include academic administrators on department and Institute committees so

they may share their knowledge and perspectives on policies and procedures they will ultimately support and enforce.

IMPROVING TECHNOLOGY

Faculty and staff need more continually updated, easily accessible information to support their commitment to quality education and advising of students.

live off the land and go on a shoestring

budget," he said. "It is only by looking

at how humans have successfully ex-

plored the Earth that we can tell how

they can successfully explore Mars."

The reason for such a mission, he said,

is to determine if Mars did, does or

Martin Marietta Astronautics Co. (now

Lockheed Martin) in 1989 when the

firm was asked to put together an alter-

native to NASA's Mars plan. The Mars

Direct plan that he and his colleagues

came up with was the "the most radical"

alternative to the NASA approach, he

said. It calls for launching a ship from

Earth directly to Mars, rather than from

It also advocates going to Mars in

the moon, as some plans require.

Dr. Zubrin was a senior engineer at

could support life.

(continued from page 1)

Recommendation:

• Enhance our current technology to allow departments to download and modify information from the Registrar's database so that departments will no longer have to hand-enter the same information into their own databases.

The AANet team was formed in June 1996 as part of the Financial and Academic Services Transition effort of Student Services Reengineering. Team members included several academic administrators, representatives from the central services offices, and an MIT student.

The team presented its findings and recommendations to the Reengineering Steering Committee, Academic Council, Provost Joel Moses, and Deans Rosalind Williams, Ike Colbert and Kip Hodges. The Provost and these deans have encouraged the team to proceed with implementing the recommendations.

The team also has shared its complete report with department heads, undergraduate and graduate academic administrators, staff in the central service offices, faculty undergraduate and graduate officers, administrative officers in academic departments, and faculty on Institute committees whose work relates to students. Others in the community who would like to read the entire report may contact Ms. Cerny at x8-7232 or <cerny@mit.edu>.

Zubrin urges manned Mars mission

could be ready by 2005, he said.

It would also carry with it the chemical plant and 6 tons of liquid hydrogen to use in manufacturing fuel for the return trip. The nuclear reactor would be used to energize the chemical plant after landing so it could begin its workcombining the hydrogen with the carbon dioxide in the Mars atmosphere to produce methane fuel for the return trip, and water and oxygen for the crew's use when they arrive.

This payload would be joined by two separate launches in 2007: another package of supplies, and four crew members in the "Beagle" ship. The crew would live on Mars, exploring and conducting scientific experiments. After 180 days, the crew could come back to Earth, leaving behind living quarters (the "hab"), a greenhouse for experiments, a land rover, cher power plants, a stockpile of fuel and most of their scientific instruments. Everything could remain in readiness for the next group of scientist/astronauts.

Dr. Zubrin does not see Mars as a short-term venture. He believes it could easily become an enduring project if we send a launch up every two years. The experiment could be transformed into a colony, staffed with people who could learn "the craft of living on Mars," he said. Using supplies from Earth, they could build small factories and rely upon Mars's natural resources to manufacture other necessities such as additional building materials, he added.

Dr. Zubrin estimates the cost of the mission at \$20 billion initially and \$2 billion for each additional launch, which he calls "a very small price to pay for a new world." He encourages people who believe strongly in the need for Mars travel to contact elected officials in Washington and/or join the new Mars Society, established to promote and nev for a missi

edge in the areas of advising, department policies and procedures, and Institute rules and regulations. Academic administrators are of-

· Provide training and mentoring for academic administrators so they can function at an increased skill level and

of academic administrators and their involvement in professional organizations so they remain fresh and innova-

see the training and development of sistent student service, parity of workload and compensation across

Students asked for opinions on Institute grading system

(continued from page 1)

modifiers appear on internal grade reports but not on official transcripts. A system which would expand the above to include plus/minus modifiers on official transcripts.

• The pre-1995 system which used A, B. C. D and F without modifiers on both internal reports and official transcripts.

Surveying all three groups (faculty, undergraduates and graduate students) about a single issue is rare. It's also the first time that Feedback Forum has been used to survey the student population about an important Institute issue.

Feedback Forum is a web-based tool designed by two graduate students in electrical engineering and computer science, Jacob Seid and Andy Tian, to let users give and receive anonymous feedback. If the effort is successful,

this mechanism could be used for other important Institute issues, saving money now spent on paper-based surveys. The system is now being used successfully in subjects such as 8.01, 3.091 and 8.02, and also by the Student Committee on Educational Policy.

Responding to the survey is voluntary, but faculty and students are strongly encouraged to fill it out. This will help ensure that the subcommittee will have enough information to make recommendations for a grading system that meets the needs of faculty and students.

The response period will close on Friday, Dec. 12. Questions or comments can be e-mailed to <survey@ mit.edu>. A discussion site, where further and more detailed views can be voiced, is being planned.

the next few years, using available technology and methods previously employed only in unmanned missions. The crew and their habitat can be sent directly to Mars by the upper stage of the same booster rocket that lifts them out of Earth's orbit," he said

By reducing the total mass being sent to Mars, we can get there in 10 years or less using off-the-shelf propulsion systems, Dr. Zubrin said. For example, the proposed Mars Direct booster rocket, called Ares, could be "built out of things found in junkyards today," he said.

A reduction in mass can be achieved by sending the mission in segments and by producing fuel for the return flight on Mars, instead of carrying it from Earth. Dr. Zubrin said a working In-Situ Propellant Production chemical plant has been built, and proves that making the fuel on Mars is a viable concept.

The first launch, an unmanned payload from Earth to Mars containing an Earth Return Vehicle and a small truck with a nuclear reactor mounted on it,

Not going to Mars by 2005, he said, is "an abdication of human responsibility. We shouldn't leave it until the year 3005."

CIS announces grant program for study of refugee issues

The Center for International Studies has announced a new grants program for graduate students and faculty, supporting applied research and training on refugee issues in collaboration with nongovernmental organizations (NGOs) working in the field.

Awards will range from \$4,000-\$6,000 for graduate student research projects. Faculty and senior researchers may receive awards up to \$10,000. Grants may be used alone or in conjunction with other funding sources for purposes such as travel, materials, research expenses, student "research internships" in NGO or UNHCR settings, or the organization of workshops on topics related to the overall objectives of the program.

The program was established by the Inter-University Committee on International Migration and is supported by the Andrew W. Mellon Foundation. For more information, contact William Keller, x3-9861 < bkeller@mit.edu>or Laurie Scheffler, x3-3121, <lauries@ mit.edu>. The application deadline is Jan. 1, 1998.