December 4, 1985 Volume 30, Number 14

Dedication to honor pioneering Dean

Staff Writer
Dr. Gordon S. Brown, who in the 1950s and 1960s led MIT across new frontiers in research and instruction in electrical engineering, will be honored by his alma mater December 6 with the dedication of the Gordon Stanley Brown Building.

The building houses MIT's newest research facilities—a sophisticated complex of laboratories devoted to pushing back the presentday frontiers in microelectronics. The labora-tories form the cornerstone of MIT's education and research program in very large scale integration—VLSI—a field synonymous with modern electronics.

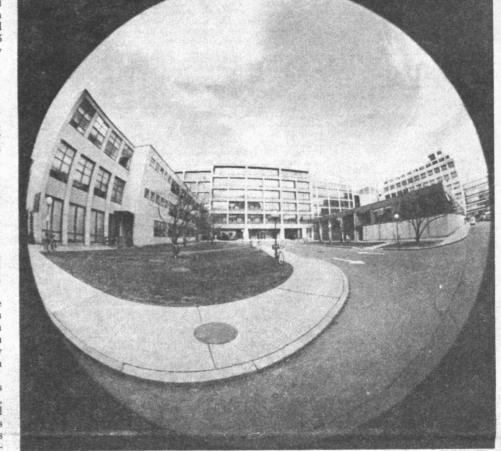
In connection with the dedication, the Microsystems Research Center, which coordinates the VLSI program at MIT, will sponsor a symposium, "Diamonds in the Sand," from 9am-1pm in the EG&G Education Center, Rm. 34-101. Professor Paul Penfield Jr., director of the Microsystems Research Center, said MIT faculty members speaking at the symposium "will describe some of the most exciting recent achievements in MIT's microsystems reseach program."

The MIT community is invited to join the celebration for the building dedication. Events include an open house and building tours on Thursday, Dec. 5, from 3-5pm; the symposium on Friday, Dec. 6, and the dedication ceremony itself, which begins at 3pm in the Edgerton Lecture Hall, Rm. 34-101.

Dr. Brown, 78, is Institute Professor Emeritus and professor of electrical engineering, emeritus, in the Department of Electrical Engineering and Computer Science. He has been associated with MIT for 56 years. As head of the Department of Electrical Engineering from 1952-59 and as dean of the School of Engineering from 1959-68, he placed

proaches to research problems, a concept that influences MIT and the department to this (continued on page 8)

great emphasis on interdisciplinary ap-



Building 39, at the center of this photograph made with a "fisheye" lens, will become the Gordon Stanley Brown Building Friday, Dec. 6, when the Institute honors the former head of the Department of Electrical Engineering and former dean of the School of Engineering. The extensively renovated building will be the major focus of MIT's microsystems

Holiday notes

Mark your calendars for:

The Tech Community Women's Christmas Crafts Faire which will be bigger and better than ever this year. Community members will be selling handmade crafts in Lobbies 10 and 13 Tuesday and Wednesday, Dec. 10 and 11, 8:30am-4:30pm.

You can expect to find jewelry, stained glass, needlework and quilting, pottery and, of course, edibles, all at reasonable

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

The MIT Women's League Holiday Party is scheduled for the Rogers Lobby (Building 7) at noon Thursday, Dec. 12. The traditional hot cider and cookies will be served and Shirley Brown and the Concord Bell Ringers will provide seasonal music for the hour-long party.

The Annual Christmas Concert by the MIT Women's Chorale will be presented Sunday, Dec. 15, at 3pm in Huntington Hall (Rm 10-250), open to the community free of charge. The Chorale, under the direction of Nancy K. Wanger, will perform works by Bach, Mozart, Brahms, Reger, Butler, and others, followed by traditional carols and songs of the season and refreshments.

Careers cancelled

Careers at MIT, a Personnel Development Seminar scheduled for Thursday, Dec. 5, noon-1:30pm, has been postponed. It will be rescheduled sometime in April 1986. Tech Talk and fliers will announce the new date in time for you to put it on your schedule.

Good skate

Children's skating lessons will be offered Saturdays beginning December 7 through January 19 (plus Tuesday, Dec. 31) by the Department of Athletics. Classes for beginners will be at 10am, and for advanced skaters at 11am.

Children 6-14 are eligible and classes are limited to 30 children. There is a \$20 fee (with a valid athletic card). Parents are urged to pay careful attention to proper fitting skates, which may be single blade hockey or figure skates. Registration forms are available at the du Pont equipment desk

IAP look

The Guide for Independent Activities Period '86 has arrived, filled with almost 700 activities. Open one up and find laser shows, Voyager to Uranus, Henry V, job possibilities, geothermal energy, chemistry in art, the Mexican crisis, French grand opera, social conflict, innovations in high-strength steel, talks on topology, a naval architect's tour of the Constitution, films about music, the inflationary universe, espionage in the 80's, tax planning, a Chinese chess tournament, plus trips, tours, workshops, labs, films, seminars, and. . . much, much, more.

IAP: Experience the challenge and joy of self-education. January 6-28, 1986.

PS-Hang on to your IAP Guide; it's the only one there will be this year and only limited copies will be available when IAP begins.

Who about some

more the readers to some

Seven to speak at VLSI symposium Friday VLSI," Professor Penfield said. "No university

"Diamonds in the Sand," a symposium whose title reflects the glittering accomplishments and the humble origins of the integrated circuitry which drives the computer age, will be held Friday, Dec. 6, from 9am to 1pm as part of the dedication of Building 39 as the Gordon Stanley Brown Building.

The MIT community is invited to attend the symposium, which will be held in Edgerton Hall in the EG&G Education Center, (Rm

The symposium is sponsored by the Microsystems Research Center, which coordinates MIT's broad and growing very large scale integrated (VLSI) research program. Professor Paul Penfield Jr. is director of the center and will open the symposium with an overview.

"Modern electronics is synonymous with

that strives for excellence in electrical engineering and computer science can neglect this fast-moving field.

The cornerstone of the VLSI activities is the new chip fabrication facility, the Microsystems Technology Laboratories, housed in the Brown Building. Professor Dimitri A. Antoniadis is director of the MTL which supports research in many areas, including electronic materials, devices, processes, models, manufacturing and circuits. Elsewhere on campus, other research programs focus on computer-aided design, VLSI theory, highly parallel computing and signal processing systems.

Seven MIT faculty members, in individual talks, will describe some of the most recent achievements in MIT's microsystems research program.

The symposium schedule: 9am-Introductory remarks by Professor Penfield.

9:15-A UV Write-Enabled PROM, Professor LanceA. Glasser. 9:45-SCHEMA: Knowledge Based CAD,

Professor Richard E. Zippel. 10:15-Logic-Level Simulation of VLSI

Circuits, Professor Christopher J. Terman. 11:15-Low Temperature Processing for Microelectronics, Professor L. Rafel Reif.

11:45-New Ceramic Processes for Microelectronic Packaging, Professor H. Kent

12:15pm-Submicron Structures and Quantum-Effect Devices, Professor Henry I.

12:45—Electron Velocity Overshoot in Ultrashort Channel MOSFET Devices, Professor Dimitri A. Antoniadis.

Help wanted

The MIT Army ROTC Department is seeking faculty and administrative staff to serve on institutional nomination boards that select ROTC scholarship recipients.

The boards will meet December through April, Captain Jeffrey Welch, technical instructor in Military Science, said. Selected volunteers will interview potential scholarship winners from MIT, Harvard University and Wellesley College for one hour. Each board member will then write a short narrative and quantitative critique of the applicant's potential for service as an Army officer. Board members may volunteer for as many, or as few meetings as desired.

An anticipated 40 to 50 students are

expected to apply this year.

Interested persons may call either Captain Welch or Lieutenant Colonel James Hassett at x3-4471, or send their name and telephone number to the Army ROTC office (20E-126) with times which would be most convenient for them to participate.

Space construction began here

When David L. Akin was a student during the late 1970s he spent more time in the MIT swimming pool than he did in some of his classes. His professors didn't mind because the swimming pool was where one of his classes met.

These days, David L. Akin is Rockwell International Assistant Professor of Aeronautics in the Department of Aeronautics and Astronautics at MIT and principal investigator for the space-construction experiment that was aboard the space shuttle Atlantis.

The construction techniques the shuttle crew used and the structures built were conceived in the 1970s under water at the MIT swimming pool and refined over the years at MIT and at NASA's Marshall Space Flight Center in Huntsville, Ala. Working under water simulates the weightlessness of space.

The experiment was the first in-space construction project. Data developed by Professor Akin's group indicates that humans can be more productive in space than on earth in such tasks. The success of the experiment may shorten the time schedule for building a permanent space station.

The MIT experiment is known as EASE, for

Experimental Assembly of Structures in Extravehicular Activity.

On hand for the launch last week were about 20 MIT students and two senior MIT faculty members from the Department of Aeronautics and Astronautics-Dr. James W. Mar, the Jerome Clarke Hunsaker Professor of Aerospace Education-and Dr. Rene H. Miller, the H.N. Slater Professor of Flight Transportation. They are co-directors of the MIT Space Systems Laboratory where Pro-fessor Akin studied and did research as a

Professor Akin's research group, the Laboratory of Orbital Productivity (LOOP, referred to as the LOOP group), is part of the Space Systems Laboratory.

The laboratory was begun with seed funding from NASA to tap the creativity of students to develop innovative experiments to fly on the space shuttle. As a doctoral candidate, Professor Akin was one of the three original students in the laboratory. Their studies of space industrialization led them to consider the questions of human productivity in space. This led to underwater tests, first using scuba

(continued on page 8)

INSTITUTE NOTICES

• - Open to public •• - Open to MIT Community only

Announcements

The Advisory Committee on Shareholder Responsibility, (ACSR) – will meet in the Maclaurin Room (10-300) at 4pm, Dec 11 for a discussion of issues related to MITs investments in corporations with activities in South Africa. For further information, contact the secretary of the ACSR, Walter Milne, v3.5678. Rp. 5.208.

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

Project Athena Survey – If you have returned the survey, thank you. If not, please do so as soon as possible. We need your returns. Karen, Rm E40-443.

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

Career Planning and Placement Company Recruitment Presentations** - Apple Computer, Inc, Dec 4, 5-7pm, Rm 4-153. Management Analysis Center, Dec 5, 4-6pm, Rm 4-370. Morgan Stanley & Co, Dec 5, 7-9pm, Rm 4-149.

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

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

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

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

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

Club Notes

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

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

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

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

MTT Students for Individual Freedom* – Topic presentation followed by discussion, concerning individual freedoms, defense of those freedoms and other conservative issues, Dec 4 & 11, 9pm, Rm 13-2010. Mailing address: Rm W20-401.

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

MIT/DL Bridge Club* - Duplicate bridge, Tues, 6pm, Student Center Rm 349. ACBL masterpoints awarded; come with or without partner, newcomers always welcome. Special tournaments monthly. Info call Gary Schwartz, x8-2459 Draper, or Mark Dulcey, 272-8428. Admission: \$.75/students, \$1.50/non-students.

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

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

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

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

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

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

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

MIT Wu-Tang Club* - teaches northern Chinese kung fu, Tues & Thurs, 8pm, Burton Dining Hall; Sat, 10am, Athletic Center. Beginners welcome. For info call Roger Walco, 262-5090. MIT Tae Kwon Do Club** - Tae Kwon Do is a Korean martial art. Meetings Sundays, 4pm, T-Club Lounge; Mon-Wed, 6pm, Burton Dining Hall; Fri, 6pm, T-Club Lounge. For infocall In Ho Kim, 266-2827.

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

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

Religious Activities

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

Moravian Christmas Service** - Sponsored by Baptist Student Fellowship, Sun Dec 8, 7pm, MIT Chapel.

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

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

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

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

Baptist Chapel* – Baptist Student Fellowship Services, Suns, 7pm, MIT Chapel.

Islamic Society* – Daily prayers, Ashdown House (basement), 5 times a day. Call x5-9749 dorm, for schedule. Friday prayer, Ashdown House 1-1:45pm, Khutba starts at 1pm, congregation at 1:25pm.

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

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

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

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

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

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

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

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

Edgar Cayce Study Group* - Tuesdays, 6:30-9pm, Edgar Cayce's Search for God material will be used as the basis for group discussion & meditation. For info: Douglas McCarroll, 876-7134 12-9pm or Scott Greenwald, x3-7423.

Graduate Studies

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

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

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

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

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

Bell Laboratories Graduate Research Programs for Women. Provides financial support for outstanding women students pursuing full time doctoral studies in the following fields: chemistry, computer science, economics, electrical engineering, experimental human psychology, materials science, mathematics, operations research, physics, and statistics. The Fellowship Program provides full tuition and fees plus a stipend of \$925/month for the academic year (9 months) plus an

Basketball trek: fun but...

By KEN CERINO

Sports Information Director
MIT's men's and women's basketball teams
each lost a pair of games at the University of
Chicago Coed tournament held over the
Thanksgiving holiday weekend.

The men lost to Chicago in the opening game Friday, 72-62, then dropped the consolation game to the University of Rochester Saturday, 78-63. The women, meanwhile, lost to Chicago Friday, 66-49, then fell victim to Washington University (Mo.) Saturday, 81-42.

Chicago won both championship games with the men downing Washington 69-53, and the women knocking off Rochester, 69-61.

It was a nice weekend for MIT junior Mike McElroy of Watsonville, Calif. The 6'6" forward was named to the all-tournament team after scoring 38 points with 25 rebounds in the two contests. He also shot 57 per cent from the field (16-for-28). On Friday, McElroy was mentioned as one of the top Division III players in the East by the national newspaper, USA Today.

Despite MIT's lack of success on the court, members of the two teams enjoyed participating in the tournament.

"It was a very good idea," said Stacy Thompson, senior guard. "It gave us a chance to see teams we ordinarily wouldn't play."

Senior forward Craig Poole added that "it was a good experience. It was nice traveling and meeting some alumni."

Martha Beverage, a junior forward, noted the tournament strengthened the friendship among the two teams. "When you practice for only two hours a day, you sometimes don't have an opportunity to know your teammates that well. Being together for four days gave us a chance to know one another a little better." Overall, Chicago officials did a fine job in meeting the needs of the eight teams in the

tournament.

"We were very privileged to host this tournament and have these fine student-athletes from such strong academic institutions," said Mary Jean Mulvaney, chairman of the UC Department of Physical Education and

Next year, MIT will host the second Coed Basketball Tournament with Chicago, Rochester, and Washington visiting the friendly confines of Rockwell Cage.

One of the highlights of the trip was an alumni reception Friday at the UC Faculty Club.

Approximately 75 persons—including several pre-frosh and their parents who braved slippery road conditions in the area—attended the event which was coordinated by Webb Elkins, Midwest Regional Director of the Alumni Association, and Lanier Leonard '80 and Harry G.A. Hall '68 of the MIT Club of Chicago. Bill Hecht, Executive Vice President of the Alumni Association, served as the Master of Ceremonies.

Matthew Deady (PhD, MIT Physics '81) gave a demonstration on the physics of basketball. Others attending included Karin Lohman '85 and Jill Porter '85, graduate students at the University of Wisconsin and Purdue University, respectively. "This was my first MIT basketball game and it was a lot of fun," remarked Ms. Porter.

allowance for books, fees and related travel expenses. The Grant Program provides an annual award of \$1,500 which the recipient may use during the academic year in any way that benefits her professional development. Fellowships and grants will be renewed on a yearly basis for the duration of the graduate program, provided the student maintains satisfactory progress toward the doctoral degree. Applications must be received by January 15, and all supporting material by January 31, 1986. Two fellowships and four grants are awarded annually in late March for graduate study beginning in September. Applications are usually submitted during the candidate's senior year in college.

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

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

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

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

Armenian General Benevolent Union (AGBU) Hirair & Anna Hovnanian Fellowships – two fellowships, each in the amount of \$3,000 given annually to assist Armenian-American students specializing in government, international affairs, or international law. Applicants must be graduate students with high academic standing. Written requests for application forms must be submitted to the Armenian General Benevolent Union, 585 Saddle River Rd, Saddle Brook, NJ 07662 (tel: 201.797.7600) by February 15. Decisions will be communicated to the applicants during July.

Other Opportunities

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

Department of Energy-Sponsored Activities. Administered by Oak Ridge Associated Universities: Faculty Research Participation Program — summer appointments which provide support for collaborative participation in ongoing energy research and development at designated DOE facilities. Stipends or salaries are based on the university salary of the applicant. Undergraduate Student Research Participation Program — summer appointments to participate in ongoing energy research at designated DOE facilities. Participations a weekly stipend. Graduate Student Research Participation Program — supports summer research in fossil energy technologies at the Pittsburgh, Penn. and Morgantown W. Va. Energy Technology Centers for beginning graduate students. A weekly stipend will be provided. Applications for the above are due January 20, 1986. Magnetic Fusion Energy Technology and Magnetic Fusion Science Fellowships and the Nuclear Engineering, Health Physics, and Radioactive Waste Management Fellowships — Competitive fellowships awarded to students for graduate study and research at designated universities in magnetic fusion energy technology, applied plasma physics, nuclear engineering, health physics, and radioactive waste management. The practicum is at a DOE

research facility. The basic student stipend for both fellowships is \$12,000 annually plus fees and tuition. The deadline for these fellowships is January 27, 1986. To request application materials or more information, contact the University Programs Division, Oak Ridge Associated Universities, PO Box 1127, Oak Ridge, TN 37831-0117, (615) 5765-3255.

International Opportunities

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

Internships

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

Volunteer internships

Internships Offering a Stipend:

Student Jobs

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

Research assistant to help professional writer. Working book title: The Power of Information Technology Systems. Applicant should be able to communicate to author who lives in New York City via Electronic Bulletin Board System using an IBM-PC with WordStar. Should have excellent writing skills with a strong interest in business application systems such as "just-in-time" inventory. Hours: flexible. Wage: \$5.50/hr. Contact Pamela R. Pfair, Coopers and Lybrand, 1252 Avenue of the Americas, New York, NY 10020, 212-903-3146.

Part time typist needed, must be experienced, local area at Grolier Bookstore, approximately 16 hrs/wk, 2-6pm. Salary: \$4.50-\$5 after 3 months. Contact Management, 6 Plimpton St, Cambridge, MA 02139, 547-4908.

MIT Press Computer Graphics Dept seeks student with good typing skills (60wpm), a command of English grammar to do text entry with CRT terminal. Only interested in students who will work throughout school year. 10-20 hrs/wk, F-F betw 8:30am-4:30pm. Salary: \$5.50/hr. Contact Mirriam Palmerola, x3-6119, Rm E38-100L.

Help clean up hazardous waste dumpsites. Join the holiday season staff of MassPIRG, the state's leading public interest group. We will work to pass the Emergency Clean-Up bill in the state legislature. Hours: 2-10pm, M-F, flexible. Salary: \$1.85-225/wk. Contact Leslie, 29 Temple Pl, Boston, MA, 357-9016.

UROP

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

Interactive Video for Language Learning. Athena Language Learning Project needs UROPers to work on interactive video system of educational system. Some programming experience necessary, and if possible, French and/or German. PAY or credit. IAP and spring. Faculty supervisor: Janet Murray, x3-2094, Rm 20B-231.

Writing and Computers. Programmers with experience with "C" wanted for design and implementation of new compositional environment on Athena. Experience with GNU emacs and interest in extending emacs with e-lisp helpful. PAY or credit. IAP and spring. Project Director: Janet Murray, x3-2094, Rm 20B-231.

TECH TALK



December 4, 1985 Volume 30 Number 14

Tech Talk is published 35 times a year by the News Office, Massachusetts Institute of Technology. Assistant Directors: China Altman, Charles H. Ball, Robert C. Di Iorio, Joanne Miller, Tech Talk editor, and Calvin D. Campbell, photojournalist; Editorial Assistant: Sharon Davis; Reporter: Lynn Heinemann (Institute Calendar, Classified Ads, Institute Notices).

Address news and editorial comment to MIT News Office, Room 5-111, MIT, Cambridge, MA02139. Telephone (617) 253-2701.

Mail subscriptions are \$18 per year by first class mail. Checks should be made payable to MIT and mailed to Business Manager, Room 5-113, MIT, Cambridge, MA 02139.

Page 2, Tech Talk, December 4, 1985

←Here & There→

Do you know that standard statement in works of fiction that any resemblance of the characters to persons living or dead is coincidental? Well, consider that inoperative in the case of Palmer Joss, a minister in Carl Sagan's best-selling novel, Contact. Sagan consciously modeled the character after MIT physics professor Paul C. Joss.

Dr. Joss came to know Sagan both personally and professionally at Cornell University about 15 years ago, where he was a graduate student and Sagan was on the faculty. But Professor Joss isn't about to sue, or anything like that. In fact, he's pleased and honored, he said, and appreciative of the fact that the famous astrophysicist asked his permission while writing the book. "Boy, that was OK by me," said Dr. Joss. "You don't get a chance like that every day."



The story is about the receipt of the first signal from an extraterrestrial civilization, and its impact on the world's scientific, religious and political communities. The character Palmer Joss starts out as a television evangelical minister with set, conservative views on religion. But he has an open mind, and allows himself to reexamine his beliefs as new information becomes available.

And how does that relate to Professor Joss? "I also came from a religiously con-servative background," he explained, "and I went through a similar transition myself as I was exposed to physics and astronomy. It was the same kind of transformation. Dr. Joss, a theoretical astrophysicist who lives in Burlington, said he is now actively involved in the Unitarian Universalist denomination.

And what happens to Palmer Joss, the fictional minister? "To be honest," Pro-fessor Joss said, "I haven't gotten to the end of the novel yet."

Fundamental Neuroanatomy by Walle J. H. Nauta, Institute Professor, and Michael Feirtag, an editor at Scientific American magazine, has just been published by W.H. Freeman and Co. Dr. Nauta, a physician, is professor of neuroanatomy in the Department of Psychology. The publisher's announcement cites Dr. Nauta's 'legendary, inspiring approach to the teaching of neuroanatomy" and says the book is a "lively, authoritative and highly readable journey through the central nervous system." Mr. Feirtag formerly was an editor at Technology Review.

Dr. Alexander H. Levis (SB '65, SM '65, ScD '68, mechanical engineering), senior research scientist with the Laboratory for Information and Decision Systems, has been elected president of the IEEE Control Systems Society. He will serve as president-elect in 1986 and as president in 1987.

Herbert Lin, a postdoctoral research fellow in the Center for International Studies, has an article in the December issue of Scientific American magazine on "The Development of Software for Ballis-tic-Missile Defense." Developing reliable software for a "Star Wars" defense—which would depend on computers to control an unprecedentedly complex array of weapons systems-may be impossible, he writes.

When Dr. Irwin W. Sizer, professor of biochemistry, emeritus, and president of the Whitaker Health Sciences Fund, climbed to the pagoda overlooking the Summer Palace on a recent visit to the People's Republic of China, who should he meet but Professor Gerald N. Wogan, head of the Department of Applied Biological Sciences. Dr. Sizer was in China for an international conference on the sterilization of medical products. Dr. Wogan and two researchers from his department, Paul R. Donahue and John D. Groopman, were visiting colleagues at two universities.

The Harvard Medical Area newsletter, Focus, devoted much of a recent edition to a tribute to Dr. Irving London on his retirement after 15 years as director of the Harvard-MIT Division of Health Sciences and Technology. Dr. William S. Beck, Harvard Medical School professor of medicine and chairman of the admissions committee, called Dr. London "an extraordinary successful founding director. Specifically, he said Dr. London had "high standards and a sense of the first rate; a broad approach and interest, not only in scientific medicine, but in the development of students' ethical and cultural resources; a great sense of fun and adventure; and he genuinely cared about each student and faculty member." Dr. London continues his association with HST as a Harvard Medical School professor of medicine, MIT professor of biology and as Grover M. Hermann Professor of Health Sciences and Technology.

A US News and World Report survey of college presidents—788 out of 1318 responded-named Stanford University No. 1 among 192 major universities in the nation (Harvard and Yale were tied for second. with Princeton close behind). MIT didn't make it into the top 10, but was listed immediately below them under a "Noteworthy" category, along with the University of Michigan, Wesleyan and the University of Virginia. The magazine said the respondents had given "special attention to strong, broad-based studies." In another survey conducted by Forbes magazine to determine the colleges and universities that have graduated the largest number of persons among "The Forbes Four Hundred" wealthiest Americans, MIT ranked third with 10 graduates, trailing Yale (25) and Harvard (12).

Which headline do you believe? Or, putting it another way, is the glass half full or half empty? Two Vermont newspapers, reporting on a speech by David L. Birch, senior research scientist in the Laboratory of Architecture and Planning, to the Vermont Industrial Development Authority, came away with different messages. The Burlington Free Press, emphasizing Dr. Birch's conclusion that the rate of startup businesses in Vermont is below New England averages, headlined its story: "Vermont Lags New England in Business Starts." The Rutland Herald, focusing on Dr. Birch's statement that the state's business climate has many positive factors, used the headline, "MIT Professor Says Future Very Bright."

If you find yourself in the Detroit area sometime and lonesome for Tech Talk, tune in radio station WXYT between 5 and 8 on a Sunday night and listen to its fouryear-old call-in program called Tech Talk. We learned of the program when its producer called the News Office to check a story lead. We know about USA Today's occasional column called Tech Talk. We'd like to hear about other publications that share our name. -0-

-0-

PRESS CLIPPINGS:

-A Boston Magazine article on expert witnesses in court cases asks, "Who rates?" and answers, "MIT scientists, Harvard scholars and honchos from think tanks like Arthur D. Little. . .in short, virtually anyone who has carved out an area of expertise and can communicate that knowlt." An example, th says, is MIT associate professor of mechanical engineering Igor Paul "whose knowledge of product design makes him number one when it comes to football and motorcycle helmet safety."

-MIT's Haystack Observatory played an important role in making possible what appears to be the first measurement of distance between earth and a faraway galaxy using straightforward trigonometry, according to The New York Times. The measurement was made through an analysis of observations of a star explosion, or supernova, maps of which were produced at the observatory in Westford, Mass., through computer processing of observations made simultaneously at radio astronomy sites in the US, Spain, Sweden and West Germany. The achievement also has been reported in Nature in an article coauthored by several scientists, including Alan E. Rogers, assistant director at

(Do you have something to contribute to Here & There? We're on the lookout for short items, preferably of a personal nature. They can be sent to Here & There, News Office, Rm 5-111.)

Kleppner named to 2nd Wolfe Chair

Dr. Daniel Kleppner, recognized widely for his research in atomic, molecular and optical physics, has been named



Mr. Wolfe, who died in 1983, declared his intention to establish the professorship in his will. In 1979, he established the Lester Wolfe Professorship in Molecular Biology which is held by Dr. Maurice S. Fox, head of the Department

the first holder of the

Lester Wolfe Professor-

ship. He is a member of

the Department of Phys-

of Biology. The new Wolfe Professorship will focus on teaching and research in physics and its holder will be appointed by the Dean of the School of Science. Professor Kleppner's appointment was announced by Professor John M. Deutch, MIT provost, who was Dean of the School of Science when the chair came into existence. Professor Deutch said Dr. Kleppner's selection reflected his demonstrated ability to teach and do research in spectroscopy.

Mr. Wolfe, a member of the Class of 1919 at MIT, was former president of William J. Rountree Co., Inc., a New York holding company which was involved in the revolutionary changes in the shipping industry brought on by containerization. Mr. Wolfe also invented instruments that aided American armed forces in World War II, among them the Sono-buoy, a radio device that helped find enemy submarines, and the Radiation Fuel Quality Gauge, which measured the mass of any homogeneous substance, solid or liquid, independent of acceleration. It was used in place of a fuel gauge in fighter planes.

His interest in biology was stimulated by his association with Rockefeller University, where he was a Council member and where Professor Fox was once a faculty member.

Professor Kleppner's research includes high precision measurements of the fundamental constants, atomic and molecular scattering processes, spin-polarized hydrogen and the physics of highly excited atoms. He is coinventor of the hydrogen maser, a device that serves as an atomic clock for relativity experiments and in radio astronomy for the global very long baseline interferometry system. His recent research on the spectroscopy of highly excited atoms has centered on problems of atomic dynamics and quantum optics. Several lines of his research in these areas have been taken up by research groups around the world. Professor Kleppner is the author of two textbooks and is active in teaching in both the undergraduate and graduate programs. He has served as chairperson of the Division of Electron and Atomic Physics of the American Physical Society, and on numerous advisory panels.

Professor Kleppner received the BA in 1953 from Williams College, the BA in 1955 from Cambridge University, England, and the PhD in 1959 from Harvard University. He joined

the MIT faculty in 1966.

Tanaka wins prize for polymer work

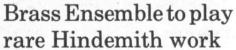
Dr. Toyoichi Tanaka of the Department of Physics, recognized internationally for his

pioneering work on polymer gels, has been named the 1985 recipient of the Nishina Memorial Prize given by the Nishina Foundation in Japan, the highest award given in the Physical Society of Japan.

The award announcement cited his discovery of phase transition and critical phenomena of polymer gels, and establishment of the physical and chemical basis

of the phenomena. His discovery has led to a more general and unified understanding of this important material. It also has opened a door to a wide variety of technological applications of polymer gels.

The award, announced by Ryogo Kubo of



Pianist Myron Romanul will join the MIT Brass Ensemble, under the direction of Greg Hopkins, to present Hindemith's rarely performed Concert Music for Piano, Brass and Harps. The free concert is at 4:30pm Sunday, Dec. 8, in Kresge Auditorium.

The Hindemith work, Opus 49, was described by Mr. Hopkins as a "20th century style Brandenburg (concerto)," with a contrapuntal style drawn heavily from the baroque. Commissioned in 1930 for the influential music patron, Elizabeth Sprague Coolidge, the work is considered to present an ingenious exploration of the sonorities of instruments not usually grouped together.

The two harps in the Hindemith piece will be played by guest musicians, Martha Moore and Janet Saiki, both of the Boston area, making their first appearance with the MIT

Guest pianist Romanul is principal conductor of the Boston Ballet and pianist and conductor of the Stuttgart Ballet. He has had an active career as pianist and conductor since he won the Harry Dubbs Memorial Award at the age of 11. More than 300 appearorchestras, including the Bo Pops, head his list of performance credits. His chamber music appearances include concerts with the Boston Symphony Chamber Players, the Chamber Music Society of Lincoln Center, and the Romanul Chamber Players, a piano quartet he formed with his three brothers.

Ragtime lovers will note that he is the pianist of the New England Conservatory Ragtime Ensemble featured on Angel's Grammy Award winning record, Scott Joplin:

The Red Back Book.

The program also will include Florent Schmitt's Fanfare for Anthony and Cleopatra, Gabrielli's Canzona Primi Toni, Perci Grainger's Australian Up-Country Tune, William Schmidt's Short'nin' Bread Variations, and Greensleeves arranged by E.

Following is the Brass Ensemble roster for this concert. Trumpets: Lee S. Tavrow '86, Richard A. Berg '89, Scott I. Berkenblit '86 and David Bondelevitch '85. French horns: Steven H. Kroft '86, Christopher R. Sklarin '88, Sheila Keirnan of Wellesley College and Joseph Staubenav of the Berklee College of Music. Trombones: graduate student Craig Petty, Craig A. Jungwirth '88, plus Michael I. Silverglate, Laura E. Baldwin and Curt Jones, all '89. Tuba: graduate student Douglas J. Carlson, and percussion by Frank C. Verhoorn the Foundation, recognizes "exceptional scientific achievement in the field of nuclear physics and related areas." The award is named after Yoshio Nishina, one of the founders of modern physics in Japan. Although Professor Tanaka's work is not in nuclear physics or related areas, it has been recognized as a fundamentally important contribution to physics. The prize consists of a citation, silver medal and \$3,000.

The finding that a polymer gel, consisting of polymer network and liquid, undergoes a discontinuous volume change (up to 1,000 times) upon infinitesimal changes in temperature, solvent composition and small electric field has raised a great interest among a wide variety of scientists, medical doctors and technological engineers. It indicates that gels can function as switches, memories, display units, selective absorbants and mechanical actuators for robots and artificial muscles. Since his discovery, more than a score of groups have been formed to carry out research along this line of applications.

Professor Tanaka, 39, has been a member of the Department of Physics and also of the Center for Materials Science and Engineering since 1975. Graduated from the University of Tokyo in 1968 with a BS and in 1972 with a DSc in physics, he came to MIT as a research associate of Professor G.B. Benedek. He was appointed assistant professor in 1975 and professor of physics in 1982. He was Joint Visiting Professor at Universite Louis Pasteur and Center de Recherches sur les Macromolecules in Strasbourg, France, on his sabbatical year in 1980-81.

Dr. Tanaka and his wife, the former Tomoko Tahira, live in Newton. Their son, Kazunori, is a student at Newton South High School, and their daughter, Ayako, attends Memorial-Spaulding School.

Richardson named

Margaret S. Richardson, since 1979 executive officer for undergraduate academic sup-



Dean for Student Affairs, has been named assistant dean for undergraduate education. The appointment, effective December 1, was

announced by Professor Margaret L.A. Mac-Vicar, dean for undergraduate education. 'Ms. Richardson's

broad knowledge of the Institute's undergraduate curriculum and her wide acquaintance with faculty from all of MIT's academic depart-

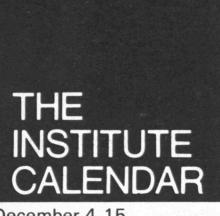
ments will be a great help to me and my office," Professor MacVicar said. "Her indepth knowledge of the freshman-year experience is especially welcome. She has the right combination of personal and professional strengths to be effective."

In her new position, Ms. Richardson will be the dean's key link with department and Institute undergraduate education officers and academic committees. She will work with faculty to develop programs to support undergraduate teaching, and will be responsible for developing and maintaining the office's network of communications and collaborations.

Ms. Richardson will also provide an important tie to the Office of the Dean for Student Affairs.

Ms. Richardson came to MIT in 1970. She and her husband, Robert Enders, live in Cambridge with their 16-month-old daughter

Tech Talk, December 4, 1985, Page 3



December 4-15

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

MISS THE TECH TALK DEADLINE?

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

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

Note: If you have met the Tech Talk deadline, your an-

nouncement is automatically put on cable (except for exhibits and some multimeetings programs).

Events of Special Interest

UNICEF Card Sale* - Technology Community Association Sale of Chanukah, Christmas and note cards, through Dec 6, 10am-3pm, Lobby 10. All proceeds donated to UNICEF.

Community Menorah Lighting* – Hillel's special test tube menorah, lit Mon, Dec 9, 4pm, Lobby 7.

Winter Crafts Fair* - Tech Community Women Sale, Dec

Holiday Open House** - \$D01President and Mrs Gray invite you and your family to join them, Wed, Dec 11, 4:30-6:30pm, President's House (111 Memorial Dr).

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

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

Seminars and Lectures Wednesday, December 4

The Twin-Core Fiber Optic Sensor and Applications' J. Dunphy, United Technologies, EECS/RLE Seminar on Optics and Quantum Electronics, 11-12noon, Rm 36-428.

Effect of Temperature and Morpholoty on the Crack Propagation of the Semi-Crystalline Polyester-Poly (1,4-dimethylene-trans-cyclohexyl Suberate)* - J.M. Pochan, S.C. Johnson & Sons, Inc, Program in Polymer Science and Technology Polymer Seminar, 11am, Rm 66-319. Info: Prof Wnek, x3-5291, Rm 15-5094.

Trans Critical Forcing of Long Nonlinear Internal Waves*
- Ken Melville, MIT, Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.

Residential Photovoltaic Systems Development at MIT* Ed Kern and Miles Russell, research engineers, MIT Northeast Residential Experiment Station, Joint Program for Energy Efficient Buildings and Systems Seminar, 1-2pm, Rm 1-214. Bag lunches welcom

Control of PWRs Using Moderator Displacement and Fuel Assembly Reconstitution** - Galal Abu-Zaied, Seminar in Nuclear Engineering, 3-4pm, Rm 24-213.

Paleogeographic Evolution of China** - Prof Alfred Ziegler, Dept of Geophysical Sciences, University of Chicago, Dept of Earth, Atmospheric, and Planetary Sciences Colloquium, 4-5pm, Rm 54-915. Tea served, 3pm, Rm 54-923.

Photophysical Studies of Polymer Morphologies* - Prof Curtis Frank, Dept of Chemical Engineering, Stanford University, Program in Polymer Science and Technology Polymer Seminar, 4pm, Rm 66-360. Refreshments served, 3:30pm. Info: Prof Suter, x3-4590, or Ms. Allen, x3-3115.

Failure in Welded Structures* - Prof Masubuchi, MIT Dept of Ocean Engineering, Constructed Facilities Division Seminar, 4-5pm, Rm 1-350. Refreshments served, 3:30pm.

Molecular Dynamics of Water** - Jon Anderson, PhD candidate, Radiation Science and Technology Doctoral minar, 4pm, Rm 24-121.

Modeling of Acid Deposition in Eastern North America** Subramanyam Kumar, doctoral candidate, Mechanical Engineering Doctoral Thesis Presentation, 4pm, Rm 1-150.

Nehemiah: Affordable Housing in the Big Cities* - I.D. program to rebuild one of the nation's worst slums in Brooklyn with affordable homes for familiar and the state of the nation's worst slums in Brooklyn with affordable homes for familiar and the state of the nation's worst slums in Brooklyn with affordable homes for familiar and the state of the nation's worst slums in Brooklyn with affordable homes for familiar and the state of the nation's worst slums in Brooklyn with a state of the nation's worst sl affordable homes for families with annual incom \$20,000 can be implemented elsewhere. Sponsored by Urban Studies and STS, 4-6pm, Rm E51-144.

Thursday, December 5

Fast Wave Current Drive in U.C. Irvine Torus* - Dr. Roger McWilliams, U of California, Irvine, Plasma Fusion Center Seminar, 1pm, Rm NW17-218.

Corporate Planning for a US Domestic Airline in 1985* -William Swan, manager, Strategic Planning, American Airlines, Inc, Flight Transportation Laboratory Seminar, 2-3:30pm, Rm 33-319

The Sinking of the Ekofisk Field** - Dr. F.G. Nielsen, Norsk Hydro, Bergen, Norway, Depts of Civil Engineeing/Ocean Engineering Seminar, 3pm, Rm 48-316.

Self Similar Shock Reflections in Two Dimensions** - Dr P. Collela, Courant Institute of Mathematical Sciences and Lawrence Berkeley Lab, Special Applied Mathematics Colloquium, 4pm, Rm 2-338. Refreshments served, 3:30pm, Rm 2-349.

The Cosmos According to IRAS (Infrared Astronomical Satellite** - Dr. Michael Hauser, Goddard Space Flight Center, Physics Colloquium, 4pm, Rm 26-100. Refreshme served, 3:30pm, Rm 26-110.

Aging of Polyurethane Foams* - Aleksandar Ostrogorsky, doctoral candidate, Mechanical Engineering Doctoral Thesis Presentation, 3:30pm, Rm3-343. Numerical Simulation of Charged Particle Rings* - Dr.

Galen Gester, Los Alamos Natio

sion Center Seminar, 4pm, Rm NW17-218.

Peace Movements in Israel: Voices from the Religious Left* - Debbie Weissman, Hebrew University and Hartman Institute, Hillel Seminar, 4pm, Rm 8-105.

Gene Replacement in P. aeruginosa** - Dr. Sunial Kadam, Dept of Applied Biological Sciences Seminar, 4-5pm,

High-Definition Television* - Robert Hopkins, National Association of Broadcasters; Kerns Powers, RCA; Edward Horowitz, Home Box Office, MIT Communications Forum Seminar, 4-6pm, Rm E15-070.

The Individual Context and a Macroeconomic Model of Internal Migration* - Prof Jerome Rothenberg, Economics Dept, MIT-Harvard Research Seminar on Migration and Development, 4-6pm, Harvard Ctr for Population Studies, 9 Bow St.

Prediction of Functional Motor Performance* - Michael J. Rosen, PhD, principal research scientist and lecturer, MIT Dept of Mechanical Engineering, HST 590 Biomedical Engineering Seminar, 4:10-5:30pm, Rm E25-117

Using Articles (a, an, the)** - Writing and Communication Center English as a Second Language workshop, 4:15-5:15pm, Rm 14N-317.

Friday, December 6

Adaptive Methods for High-Speed Flow* - Dr. Phil Col-lela, Courant Inst, N.Y., The Computational Fluid Dynamics Informal Seminar, noon-1pm, Rm 33-206.

Theory of Glass Transition. - Prof Alf Sjollander, Chalmers Institute of Technology, Center for Materials Science and Engineering Colloquium, 12:15pm, Rm 12:132.

Financial Management of the New York City Transit System* - Mortimer L. Downey, chief financial officer, Metropolitan Transit Authority, Center for Transportation Studies Luncheon Seminar, 12:45-2pm, Student Ctr West Lounge. Optional luncheon, 12-12:45pm. Luncheon fee: \$2/students: \$4/non-students

Soft X-Ray Laser Experiments at Livermore* - Dr. Barbara Whitten, Lawrence Livermore National Laboratory, Plasma Fusion Center Seminar, 1pm, Rm NW17-218.

Imperfect Micromixing in Turbulent Reacting Flows** – Andreas Kridiotis, Chemical Engineering Seminar, 2pm, Rm

An Application of Knowledge-Based Expert Systems to Detailed Routing of VLSI Chips** - Rostam Joobbani, Carnegie-Mellon University, Pittsburgh, PA, VLSI Seminar, 4pm, Rm 34-101. Refreshments served, 3:30pm

Pump Limiter and Edge Physics Experiments in the TEX-TOR Tokamak and their Physical Interpretation* – Prof Robert W. Conn, co-director, Center for Plasma Physics and Fusion Engineering; UCLA, Mechanical, Aerospace and Nuclear Engineering Dept, Plasma Fusion Center ninar Series, 4pm, Rm NW17-218.

Calculation of Linearized Unsteady Transonic Flows in Turbomachines* - Mr. K. Hall, Dept of Aeronautics and Astronautics, Gas Turbine Laboratory Seminar, 4pm, Rm 31-161. Refreshments served.

Islamic Fundamentalism in Egypt Under Sadat and Mubarak*—Dr. Rudolph Peters, Netherlands Institute in Cairo and author of *The Place of Jihad in Islamic His-*tory, Emile Bustani Middle East Seminar, 4:30pm, Rm E38-615. Prof. Philip Khoury, history faculty, will chair

eptual Change in Childhood* - Prof Susan Carey, MIT Dept of Psychology, Cognitive Science Seminar Series Program #4, 7:30pm, Rm 34-401. Commentary: Prof Thomas Kuhn, MIT Dept of Philosophy; Prof Elizabeth Spelke, Dept of Psychology, University of Pennsylvania.

Wednesday, December 11

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

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

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

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

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

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



A photo exhibit, "MIT Field Hockey," by Gary Agranat '85 is open at the Wiesner Student Art Gallery in the Student Center. Mr. Agranat, a Technique photographer, received his SB in aeronautics and astronautics. His photographic essay about the women's field hockey team was created during last year's fall term. The exhibition will be at the Wiesner until December 21.

Limitation of Microbial Growth Rate by Two Complementary Nutrients** - Prof Arnold Fredrickson, University of Minnesota, Chemical Engineering Seminar, 3pm, Rm 66-110.

A Collage of Design Experiences and Their Underlying Philosophies* - Ernesto Blanco, adjunct professor, MIT Dept of Mechanical Engineering, Mechanical Engineering Den Hartog Award Lecture, 3pm, Rm 3-133. Refreshments follow, Rm 1-114.

Transient and Accident Analysis of Nuclear Power Plants with the Modular Simulation Language: the DSNP* – Prof David Saphier, Nuclear Engineering and Health Physics Program, Georgia Institute of Technology, Nuclear Engineering Seminar, 3-4pm, Rm 24-115.

On the Wind and Buoyancy-Driven Ventilated Thermocline** - Joseph Pedlosky, Woods Hole Oceanographic Institution, Center for Meteorology and Physical Oceanography Seminar, 4pm, Rm 54-915.

Monday, December 9

The Design of Distributed Ingres** - Prof Michael Stonebraker, University of California-Berkeley, Information Systems Seminar, 9:30am, Rm 1-390. Refreshments served, 9-9:30am outside Rm 1-390.

Television Covrage of Weather, Environment, and Science* - Bruce Schwoegler, meteorologist, WBZ-TV, Boston, Writing Program Lecture, 1:30-3pm, Rm 5-232.

Size-minimizing Curves* - Mike McCutchan '86, Dept of Mathematics Geometry Seminar, 3-4pm, Rm 2-143.

The Search for Randomness** Stanford University, visiting MIT & Harvard 1985-86, Applied Mathematics Colloquium, 4pm, Rm 2-338. Refreshments served, 3:30pm, Rm 2-349.

Flow and Dispersion in Spatially Periodic Porous Media** - Howard Brenner, MIT Dow Professor of Chemical Engineering, Dept of Civil Engineering Division of Water Resources and Environmental Engineering Seminar, 4pm, Rm

Tuesday, December 10

Depression: Problems and Research Directions** - Dr. Jerrold G. Bernstein, MD; Dr. Dermot A. O'Rourke, MD, Clinical Research Center Seminar, 10:30-11:30am, Rm E25-401

Angiosurgery: A Study in Physics, Spectroscopy and Medicine** - Carter Kittrell, MIT, Laser Research Center/George R. Harrison Spectroscopy Laboratory/Research Laboratory of Electronics Seminar on Modern Optics and Spectroscopy, 11-12noon, Rm 37-252. Refreshments served following

Oscillatory Flow Around Marine Structures** - Prof B. Pettersen, ocean engineering & Marine Institute, Trond-heim, Civil Engineering/Ocean Engineering Informal Hydrodynamics Seminar, 3:30pm, Rm 5-314.

Thursday, December 12

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

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

Friday, December 13

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

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

Stanislaw Olbert, MIT Dept of Physics, Plasma Fusion Center Seminar, 4pm, Rm NW17-218.

Readings

Toni Cade Bambara* – author of *The Salt Eaters*, 1981 National Book Award winner, MIT Women's Studies Freedom, Fiction, Family: Black Women Today Seminar, Wed,

Films

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

Community Meetings

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

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

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

Narcotics Anonymous* - Meetings at MIT, every Mon, 1.2pm, Rm E23-364 (MIT Medical Dept). Call 569-8792.

MIT Faculty Club** - The Club is open Mon-Fri. Luncheon hours: noon-2pm; dinner hours: 5:30-8pm. For dinner and private party reservations, call x3-4896 9am-5pm daily.

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

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

Wives' Group** - Morning Group: Dec 4, New England Aquarium, inc dolphin and sea-lion shows, and Caribbean Coral Reef Exhibit – info: Catarina Bacos, 723-3449 or Francine Peytrignet, 367-9141. For all trips, meet at 9:15am, Eastgate (60 Wadsworth St). Children welcome. Afternoon Group: Dec 4, Alaska: A Slide Presentation – Mrs Arthur Ippen, chairman, MIT Honorary Matrons, All meetings, 3-5pm, Student Ctr. Rm. MIT Honorary Matrons. All meetings, 3-5pm, Student Ctr Rm 491. Babysitting provided in Student Ctr Rm 407.

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

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

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

MIT Activities Committee

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

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

(x3-7990), 10am-3pm. Mon through Fri and Lobbies 10 and E18 on Fri, 12-1pm. Lincoln Lab employees may purchase tickets in Rm A 270 from 1-2pm, Tuesday through Friday only. Check out our table of discounts for camping, dining, musical and cultural events available to you through MITAC and MARES (Mass Assoc of Recreation and Employee Services). Messiah. Thurs, Dec 5, 8pm, Symphony Hall. Decorate the

mantel with holly and jaunt over to Symphony Hall to complete the holiday trimmings. A Boston tradition since 1815, the Messiah is a holiday treat, this year performed in the 1753 version. Tickets: \$23.50/pp (reg \$28) and can be purchased in Rm

Tech Model Railroad Club Fall Open House. Sat, Dec 7, 2-5:30pm, 7:30-10pm, Rm 20E-214. Free

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

Camping and Recreational Vehicle Show. Sat-Sun, Jan 18-26. Stock up on the trail mix and granola bars, load up the backpack, tack the bikes onto the back of the Winnebago and gear up for this show of over 600 of the current year's models in trailers, motor homes and vans, and a large representation of campgrounds and campsites. Show covers 205,000 square feet of the Bayside Exposition Center, M.Sat, 1-10pm; Sun, 12-7pm Tickets: \$2/adults (reg \$4); \$1/children ages 6-12 (reg \$2); under 6 free, available in Rm 20A-023.

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

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

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

Council for the Arts Museum Passes. On campus, there are 10 passes employees may borrow for free admission to the Museum of Fine Arts. To check on availability, call x3-5651. At Lincoln Lab, passes are available in the Lincoln Lab Library, Rm A-150. NOTE: The Renoir exhibit is a separate admission price, and one must designate a day and time one wants to see the exhibit. Please call the Museum of Fine Arts directly for more information. MITAC is not offering Renoir Tickets.

Museum of Science Tickets. Available for only \$1. Pay another \$1 at the door, for a total savings of 33/pp/adult; 1/pp/child (reg 5/pp/adult; 3/pp/child).

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

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

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

Social Activities

Christmas Potluck Dinner** - Tech Community Women dinner, Dec 6, 7:30pm, Rm 10-340. Semi-formal attire required. Bring a main dish, dessert or salad. For more info, call Peck Ha Tan. 494-8582 eves.

Chanukah Party for Grad Students** - Hillel/GSC party with live music and latkes, Tues, Dec 10, 4:30pm, Rm 8-205

Table Francaise** - sponsored by Foreign Languages & Literatures Section. Venez dejeuner avec nous et parler fran-cais! Votre hote: Christophe Lecuyer. Tous les Lundis, de 12:15 a 13:45, Muddy Charles Room a Walker Dining Hall GAMIT Sunday Discussion Meeting* – Gays at MIT, Suns, 5pm, GAMIT Lounge, Walker Memorial Rm 50-306. Dinner served at 6:30pm.

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

Movies

The Lavender Hill Mob** - LSC Classic Movie, Dec 6, 7:30pm, Rm 54-100. \$1/MIT-Wellesley ID.

ad Warrior . LSC Movie, Dec 6, 7&9:30pm, Rm 26-100. \$1/MIT-Wellesley ID.

And Now for Something Completely Different** - LSC Movie, Dec 7, 7&9:30pm, Rm 26-100. \$1/MIT-Wellesley ID.

1985-86 Committees of the Institute

Standing Committees of the Faculty

Committee on Academic Performance

Committee on Curricula

Committee on Discipline

Committee on Faculty-Administration

Faculty Policy Committee

Committee on Graduate School Policy

Committee on Industrial Liaison

Committee on the Library System

Committee on Nominations ‡

Committee on Outside Professional Activities

Committee on Student Affairs

Committee on Undergraduate Admissions and

Financial Aid

Committee on the Undergraduate Program

Special Faculty Committees

Harold E. Edgerton Faculty Achievement Award Selection Committee for 1985-86 James R. Killian, Jr., Faculty Achievement Award Selection Committee for 1986-87 Committee on the Writing Requirement Ad Hoc Committee on MIT's Military Involvement

Committee Appointed by the Corporation

Corporation Joint Advisory Committee on Institute-Wide Affairs

Committees Appointed by the President (and Reporting to Senior Officers)

Committee on Animal Care

†Committee on Assessment of Biohazards

Athletic Board

Committee on the Center for Materials Science

and Engineering

Classification Review Committee

Commencement Committee

Community Service Fund Board

Committee on Copyrights and Patents

Executive Committee of the Council for the Arts

at MIT

Dining Advisory Board

Endicott House Board of Governors

†Institute Council on Environmental Health and

Equal Opportunity Committee Faculty Club Advisory Board

Committee on Foreign Scholarships

Committee on the Hobby Shop

IAP Policy Committee

Advisory Committee to the Institute Personal

Assistance Program

Committee on International Institutional

Commitments

Standing Committee on the Lincoln Laboratory

MIT Hospital Board

MIT Medical Management Board

MIT Press Editorial Board

MIT Press Management Board Committee on the MIT Sea Grant College

Program

MIT-Wellesley Upward Bound Joint Steering

Committee

MIT Working Group on Support Staff Issues

Medical Consumers' Advisory Council

Committee on Operations Research

Prelaw Advisory Council Premedical Advisory Council Committee on Privacy

†Committee on Radiation Exposure to Human

Subjects

†Committee on Radiation Protection

Committee on Radio Astronomy

†Committee on Reactor Safeguard

Committee on the Research Laboratory of

Electronics

Committee for Review of Space Planning (CRSP)

ROTC Committee

†Committee on Safety

Student Activities Development Board

Technology Broadcasting Corporation

†Committee on Toxic Chemicals

Committee on Transportation and Parking

†Committee on the Use of Humans as

Experimental Subjects

Committee on the Visual Arts

Wellesley-MIT Joint Committee

Advisory Committee for Women Students'

Interests

Women's Advisory Board

Ad Hoc Committees

Ad Hoc Committee on MIT and Intelligence Agencies

Ad Hoc Advisory Committee for the Secondary

Technical Education Project

Advisory Committee on Shareholder

Responsibility

Standing Committees of the Faculty

Committee listings are preceded by a brief description of each committee function. The listings include regular members (appointed or elected), ex officio members (see footnotes below), and associate members who are members and/or who perform staff duties in support of the committee work. Student members are identified by undergraduate class numerals or G (Graduate Student status). The dates to the right, in parentheses, indicate the year in which the term of appointment expires. For the formal descriptions of the committee mandate, see Rules and Regulations of the Faculty.

The listings in this supplement reflect information as of November 15, 1985, therefore, several committees do not have full memberships. Appointments of members (including student members) take place continuously throughout the year. Updated information on committees is always available from the Information Center, Room 7-121, Ext. 3-1475.

Ex officio non-voting. The names of ex officio

(Des. Rep.), are indicated in parentheses next to

members, or their designated representatives

the listing of the ex officio position in all

Performance

Committee on Academic

The Committee is concerned with the academic performance of undergraduates, and may make recommendations to the faculty on such matters as minimum scholastic standards, examinations, and grading. The Committee acts with power on petitions from individual undergraduate students relating to exceptions to established academic standards, and reviews the records of undergraduate students at the conclusion of each regular examination period. The Committee presents to the faculty its recommendations on candidates to be awarded bachelor's degrees.

Vernon M. Ingram (1986), Chairman Dean for Student Affairs§ (Des. Rep. - Robert M. Randolph)

Registrar§ (Warren D. Wells)

Medical Director§ (Des. Rep. - Peter B. Jenney) Director of Student Financial Aid§ (Des. Rep. - Dorothy

Head, Undergraduate Academic Support Office§

(Holliday C. Heine) Stephen C. Graves (1986) Robert I. Hulsizer, Jr. (1987) William T. Peake (1987) Fred C. Schweppe (1988)

Ted C. Johnson, '86 Brian T. Miller, '86 D'Juanna O. White, '86

Brian H. Smith (1988)

Staff to the Committee: Stephen M. Patterson

Committee on Curricula

This Committee's activities center on the implementation of the General Institute Requirements and course curricula for undergraduates. They include: 1) considering proposals for changes in the Institute requirements, and making suitable recommendations to the faculty; 2) acting with power on proposals for Science Distribution and Laboratory subjects; 3) acting with power on requests from individual students for exceptions to the General Institute Requirements; 4) acting with power on proposals for changes in undergraduate subjects of instruction; 5) acting with power on proposals for new curricula and changes in existing curricula; and 6) reviewing reports by departments on individual students' programs which include major departures from an approved curriculum, and summaries of all minor departures.

June L. Matthews, (1987), Chairman Registrar§ (Warren D. Wells) Head, Undergraduate Academic Support Office§ (Holliday C. Heine) Judith W. DeCew (1986) Ralph A. Gakenheimer (1986) Jeffrey H. Shapiro (1987) Edgar H. Schein (1988) Jeremy M. Wolfe (1988)

Students:

Alan S. Hilibrand, '86 John R. Kenny, '86 Christopher G. Saito, '88

Ronald P. Smith, Executive Officer

Safety Committee

committees.

Appointed by the President

Committee on Discipline

This Committee adjudicates cases of alleged misconduct by a student brought to its attention by the Dean for Student Affairs or by any other member of the MIT Community. The accused student has the right to be present at a hearing scheduled by the Committee. If the findings of the Committee include a recommendation that the student be suspended or expelled from the Institute, the recommendation is made to the President for approval or disapproval; otherwise, the Committee acts with power.

Elias P. Gyftopoulos (1986), Chairman Dean for Student Affairs* (Des. Rep. - Leo Osgood) Susan Carey (1986) John G. Kassakian (1987) William C. Wheaton (1987) Amy Lang (1988) Paul C. Joss (1988)

Students: Stephen W. Altes, G Erik H. Bettez, '87 Kevin R. Foote, '87 Cynthia R. McIntyre, G

Sarbani B. Thakur, '87

Committee on Faculty-Administration

This Committee considers issues involving relationships between Administration and Faculty and other academic staff with teaching responsibilities. The Committee develops ad hoc arrangements to ensure that academic staff not of Faculty rank are adequately represented in discussion and debate of issues with special impact upon their interests.

Faculty: Arnoldo C. Hax (1988), Chairman David Dollenmayer (1986) Jeffrey H. Lang (1986) Jane Betts (1987) Bernard J. Frieden (1987) James A. Fay (1988)

Administration: Gene M. Brown Ann F. Friedlaender Constantine B. Simonides Kenneth A. Smith

Faculty Policy Committee

The Faculty Policy Committee maintains a broad overview of the Institute's academic programs, deals with a wide range of policy issues of concern to the Faculty, and coordinates the work of the Faculty committees.

Chair of the Faculty* (Mary C. Potter) (1987), Chair Associate Chairman of the Faculty* (J. Kim Vandiver) (1988), Deputy Chair

Previous Associate Chairman of the Faculty* (Thomas J. Allen) (1986)

Associate Provost for Educational Programs and Policy§
(Samuel Jay Keyser)

Associate Provost§ (Kenneth A. Smith) Vice President§ (Constantine B. Simonides) Robert V. Whitman (1986) Mark S. Wrighton (1986) Irene Tayler (1987) Alar Toomre (1987)

Phillip L. Clay (1988) Peter Elias (1988)

Students:

Daniel J. O'Day, '86 Graduate Student to be appointed

David S. Wiley, Executive Officer

- Ex officio voting . The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ** Non-MIT member
- § Ex officio non-voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ‡ Appointed by the President
- † Safety Committee

Committee on Graduate School Policy

Each member of this Committee representing a department or the Whitaker College shall be a member of the Committee on Graduate Students of the departmental or college faculty. The Committee exercises general overview of graduate programs and of students working for advanced degrees. It reports to the faculty recommendations on matters of policy in these areas requiring faculty action. The Committee acts with power on proposals for changes in graduate level subjects of instruction, on requests from graduate students for approval of minor departures from general requirements for advanced degrees, and in evaluating the academic performance of graduate students. The Committee makes recommendations to the faculty for the awarding of advanced degrees.

Dean of the Graduate School* (Frank E. Perkins),
Chairman
Associate Dean of the Graduate School* (Jeanne E.
Richard), Secretary
Associate Dean of the Graduate School and Assistant
Provost* (John B. Turner)
Director of Admissions* Michael C. Behnke
Dean for Student Affairs* (Des. Rep. - Robert M.
Randolph)
Associate Chairman of the Faculty* (J. Kim Vandiver)

Members for 1986: Nesmith C. Ankeny Glenn A. Berchtold Robert L. Bishop David Botstein H. Frederick Bowman Sylvain Bromberger Paul E. Brown Charles C. Counselman William M. Deen David J. Epstein Merrill F. Garrett Leon B. Groisser Allan F. Henry Charles D. Hollister Gordon M. Kaufman George F. Koster Francois M. M. Morel Alan C. Nelson T. Francis Ogilvie Harvey M. Sapolsky J. Mark D. Schuster Ain A. Sonin Steven R. Tannenbaum

Registrar* (Warren D. Wells)

Students: Bernard L. Palowitch, Jr., G Jonathan E. D. Richmond, G

Harold Y. Wachman

Bernhardt J. Wuensch

Committee on Industrial Liaison

The Committee is concerned with the relationship of the activities of the Industrial Liaison Program to the activities of the members of the faculty.

Lawrence E. Susskind (1986), Chairman
Director, Industrial Liaison Program* (James M.
Utterback)
John B. Heywood (1986)
Robert S. Kennedy (1987)
Thomas B. King (1987)
Richard L. de Neufville (1988)
Malcolm L. Gefter (1988)

Committee on the Library System

This Committee shall formulate policy for the administration of the Library System, with the advice of the Director of Libraries, consistent with the objectives of the Institute. It serves as a liaison between the libraries and their users. The Committee shall review budget allocations as prepared annually by the Director of Libraries.

Henry S. Marcus (1987), Chairman Provost* (John M. Deutch) Director of Information Systems* (James D. Bruce) Director of Libraries* (Jay K. Lucker) David H. Friedman (1986) Thomas B. King (1986) Frederick D. Greene II (1987) John C. Henderson (1988) M. Roe Smith (1988)

Library Staff Members: Shirley K. Baker Micheline Jedrey

Committee on Nominations‡

This Committee consists of six faculty members appointed by the President. The President designates the chairman from among the membership. The Committee nominates the following officers of the faculty: a chairman, an associate chairman, and a secretary; it also nominates candidates for the elected membership of the Standing Committees. It circulates the list of nominees to all members of the faculty not later than the April meeting of the faculty. The Committee has the power to fill any vacancies that may occur during the year in the offices of chairman, associate chairman, and secretary, and in the elected membership of the Standing Committees

Felix M. H. Villars, (1986) Chairman Deborah A. Stone (1986) Mary Lou Pardue (1987) Leon Trilling (1987) John G. Kassakian (1988) Karen R. Polenske (1988)

Committee on Outside Professional Activities

This Committee will inform itself of potential conflicts of interest, counsel the interested parties, and report periodically to the faculty. It will recommend appropriate modifications of policies and procedures to the faculty.

Robert A. Alberty (1986), Chairman George W. Rathjens (1986) Eugene E. Covert (1987) Ira Dyer (1987) J.D. Nyhart (1988) Robert T. Sauer (1988)

Committee on Student Affairs

This Committee is concerned with student life and the quality of the learning and living environment at MIT. The Committee is concerned with the range, availability, and effectiveness of Institute-wide support services to students and with the formal and informal relationship between the Institute and the student. The Committee serves as the standing faculty advisory body to the Office of the Dean for Student Affairs.

opecial beculty

Alvin W. Drake (1987), Chairman
Dean for Student Affairs§ (Shirley M. McBay)
Suzanne H. Corkin (1986)
James L. Elliot (1986)
Michael E. Geisler (1986)
Marilyn Richardson (1987)
Isabelle de Courtivron (1988)
Richard K. Yamamoto (1988)
Sidney Yip (1988)

Students:
Janet C. Desaulniers, '87
Tae J. Pak, '88
Simone J. Pottenger, '86
Carey M. Rappaport, G
Alec R. Rodney, '88
Finley R. Shapiro, G

Committee on Undergraduate some

This Committee is responsible for formulating and reviewing policies on admission of all undergraduate students (including college transfers but not students applying for readmission) and on financial aid to students, including undergraduate scholarships, loans, and student employment. The Committee also exercises prior review of MIT publications and formal releases directed toward the prospective undergraduate student.

Kenneth R. Manning (1987), Chairman
Director of Admissions* (Michael C. Behnke)
Director of Student Financial Aid* (Leonard V.
Gallagher)
Head, Undergraduate Academic Support Office*
(Holliday C. Heine)
Lotte L. Bailyn (1986)
John W. Belcher (1987)
Leonard A. Gould (1987)
Kenneth N. Stevens (1987)
Claude R. Canizares (1988)
Richard M. Douglas (1988)
Harold Y. Wachman (1988)

Students: Michael D. Fox, '88 Yvonne Y. Mao, '86 Christopher G. Saito, '88

Committee on the Undergraduate Program

This Committee is responsible for encouraging experimental innovation in undergraduate education and formulating proposals for changes in undergraduate educational policy. It exercises oversight responsibility or undergraduate education, including the freshman year and other interdepartmental programs, giving pecial attention to long-term directions. The Committee exercises authority to approve and supervise limited educational experiments.

Dean for Undergraduate Education* (Margaret L. A. MacVicar), Chairman Associate Chairman of the Faculty* (J. Kim Vandiver)

ssociate Provost for Educational Programs and Policy§

(Samuel Jay Keyser) ean for Student Affairs§ (Shirley M. McBay)

auline R. Maier (1986) ames R. Munkres (1986) Robert J. Silbey (1987) lan J. Grodzinsky (1987)

ack L. Kerrebrock (1988) dward B. Roberts (1988) onathan H. Gruber, '87 Carey M. Rappaport, G

David S. Wiley, Executive Officer Chair, Student Committee on Educational Policy1 (Carl A. LaCombe, '86)

Official Interim Guest, Non-voting

Special Faculty Committees

Harold E. Edgerton Faculty Achievement Award Selection Committee for 1985-86

ach year the Selection Committee chooses one dividual from among the junior members of the MIT culty to be awarded the Harold E. Edgerton Faculty chievement Award.

The Award, resulting from contributions by faculty uring the Leadership Campaign, was established in the ill of 1982 as a permanent tribute to Institute Professor meritus Harold E. Edgerton for his great and enduring apport for younger faculty members over the years.

he purpose of the Award is to recognize exceptional istinction in teaching, in research, and in scholarship. he Selection Committee consists of four faculty nembers elected by vote of the faculty from a slate repared by the Nominations Committee.

Thomas A. Kochan, Chairman Rafael Reif dith J. Thomson ohn B. Vander Sande

James R. Killian, Jr., Faculty Achievement Award Selection Committee for 1986-87

ach year the Selection Committee chooses one member f the MIT faculty to be the Killian Award Lecturer for he following academic year. The Award was established the spring of 1971 as a permanent tribute to Dr. James Killian, Jr., President of the Institute from 1948 to 959 and Chairman of the MIT Corporation from 1959 o 1971. The purpose of the Award is to recognize xtraordinary professional accomplishments by MIT aculty members and to communicate these ccomplishments to members of the MIT community. he recipient of the Killian Award holds the title of (illian Award Lecturer for one academic year and during he course of this year presents one or more lectures to he MIT community on his or her own professional activities. The Selection Committee consists of faculty nembers elected by vote of the faculty from a slate repared by the Nominations Committee.

William L. Porter, Chairman runo Coppi David H. Marks Bruce Mazlish dward B. Roberts

Committee on the Writing Requirement

The Committee is concerned with the writing proficiency of MIT students. It oversees implementation of the Writing Requirement under the General Guidelines set by the faculty, specifies standards and criteria for satisfying the requirement, and promotes development and coordination of appropriate services and programs.

Kenneth M. Hoffman (1986), Chairman Associate Provost for Educational Programs and Policy* (Samuel Jay Keyser) Director of Writing Program* (Kenneth R. Manning) Michael J. Driscoll (1986) Suzanne Flynn (1987) James C. Keck (1987) Anthony P. French (1988) John Van Maanen (1988)

Ted C. Johnson, '86 Christopher G. Saito, '88

Staff to the Committee: Bonnie J. Walters

Ad Hoc Committee on MIT's Military Involvement

The Committee will advise the faculty regarding changes in military funding and influence at MIT and their effects on the education of our students. It will gather facts, organize them in a suitable form, and present them to the faculty for discussion. The Committee expects to report to the faculty during the 1985 fall term.

Carl Kaysen, Chairman Herman Feshbach Allan F. Henry James L. Kirtley, Jr. Vera Kistiakowsky James R. Melcher

Students: Louisa Koch, G Daniel J. O'Day, '86

Committee Appointed by the Corporation

Corporation Joint Advisory Committee on Institute-Wide Affairs (CJAC)

CJAC was established in March 1969 by vote of the Corporation as a new special committee of the Corporation. Its purpose is to associate with the Corporation a broadly representative group at the Institute to which the Corporation can turn for consideration and advice on special Institute-wide matters requiring Corporation attention, such as the long-range planning of MIT's campus, the improvement of the institutional environment, and MIT's relations with Cambridge and metropolitan Boston. CJAC provides an additional means for bringing representatives of the student body, both graduate and undergraduate, and of the faculty into regular communication with the Corporation on matters of long-range importance to the entire Institute community. CJAC also serves to acquaint the MIT community more fully with the role and work of the Corporation, but it does not in any way modify the role of existing Corporation Visiting Committees.

Emily V. Wade, Chairman (Corporation) President, Alumni Association* (E. Milton Bevington) Chairman of the Faculty" (Mary C. Potter) President, Graduate Student Council* (Janine M. Nell) President, Undergraduate Association* (Bryan R. Moser) Harl P. Aldrich, Jr. (1986) (Corporation) Elisabeth M. Drake (1986) (Corporation) June L. Matthews (1986) (Faculty) Michael Scott Morton (1986) (Faculty) Arlene F. Roane (1986) (Corporation) Stephanie L. Scheidler (1986) (Undergraduate Student) Holly L. Williams (1986) (Undergraduate Student) Ann M. Graybiel (1987) (Faculty) Karen R. Polenske (1987) (Faculty) Gregory Smith (1987) (Corporation) Donald R. F. Harleman (1988) (Faculty) Rhonda E. Peck (1988) (Corporation)

Committees Appointed by the President (and Reporting to Senior Officers)

Committee listings are preceded by a brief description of each committee function. The listings include regular members (appointed or elected), ex officio members (see footnotes below), and associate members who are members and/or who perform staff duties in support of the committee work. Student members are identified by undergraduate class numerals or G (Graduate Student status). The dates to the right, in parentheses, indicate the year in which the term of appointment expires.

Committee on Animal Care†

The Committee's purpose is to monitor the provision of proper care and humane treatment to animals used as experimental subjects, and to ensure the protection of human health as it might be affected by animal experimentation.

John M. Moses (1986), Chairman Clinical Veterinarian* (Christian E. Newcomer) Paul F. Barrett (1986) Herman N. Eisen (1986) James G. Fox (1986) Padmakar P. Lele (1986) Paul M. Newberne (1986) Adrianne E. Rogers (1986) Gerald E. Schneider (1986) Carol E. Van Aken (1986) David J. Edell (1987)

Committee on Assessment of Biohazards†

The Committee will review investigations involving potential health and safety problems associated with biological research.

Michael A. Marletta, Chairman James G. Fox Bernice Joyal** Daniel F. Liberman Harvey F. Lodish John M. Moses Michael P. Paskind William G. Quinn Robert Sweeney* Annamaria Torriani-Gorini

Nancy J. Gorelick, G

Athletic Board

The Athletic Board, composed of faculty members, alumni, students, and ex officio members of the administration, is appointed by the President to advise on matters of policy and procedure related to the Institute's athletic program.

Thomas J. Allen (1986), Chairman Vice President* (Constantine B. Simonides) Director of Athletics* (Royce N. Flippin, Jr.) Assistant Director of Athletics* (John G. Barry) Assistant Director of Athletics* (Jane Betts) Dean for Student Affairs* (Shirley M. McBay) (Des. Rep. - Peter H. Brown) Chief of Student Health Programs* (Mark A. Goldstein) Director of Planning* (O. Robert Simha) Dorothy L. Bowe (1986) William F. Brace (1986) J. Karl Hedrick (1986) William P. Reynolds, '49 (1986)** Lisa A. Steiner (1986)

Students:

David R. Wilson, '73 (1986)**

David G. Jansson (1987)

Carolyn E. Beer, '86 (Intramural Council Chairman) Leo F. Casey, G Corey L. Kerstetter, '87 (M.I.T.A.A. Secretary) Joseph K. Lo, '86 (M.I.T.A.A. President) Michael C. Murphy, G Craig N. Poole, '86 (Undergraduate Member at Large) Megan J. Smith, '86 (Undergraduate Member at Large) Stacy A. Thompson, '86 (Varsity Club President)

Committee on the Center for Materials Science and Engineering

This Committee advises the director of the Center on matters of policy and reviews past performance.

J. David Litster, Chairman Associate Provost and Vice President for Research* (Kenneth A. Smith) Richard B. Adler Jonathan Allen William F. Brace Gene M. Brown Merton C. Flemings Jerome I. Friedman Jack L. Kerrebrock David H. Marks Joel Moses Neil E. Todreas Christopher T. Walsh James Wei Gerald L. Wilson Peter A. Wolff David N. Wormley

Classification Review Committee

This Committee was established in 1975 to work in conjunction with a subgroup of the Academic Council in reviewing the Staff Salary Administration Program to ensure that equity in salary administration is maintained. This Committee and the subgroup of the Academic Council will serve as an appeal route to any decision made by the Compensation Office regarding staff classification.

Nelson C. Lees Kathryn W. Lombardi John P. Leonard Marilyn A. McMillan Evelyn L. Perez Thomas L. Wilding

Staff Support: Susan A. Lester Kerry B. Wilson

Commencement Committee

This Committee, composed of members of the faculty, administration, and student body, has charge of the arrangement and conduct of commencement exercises.

Donald R. F. Harleman (1986), Chairman Mary L. Morrissey,* Executive Officer for Commencement Dean for Student Affairs* (Des. Rep. - Judith M. Douglis) John C. Berlinguet, Jr.* Dorothy L. Bowe* Royce N. Flippin, Jr.* William J. Hecht* Walter L. Milne* Constantine B. Simonides* Warren D. Wells* Martin Schlecht (1987) John H. Slater (1987) Richard de Neufville (1988)

Students:

Senior Class President* (Vivienne Lee, '86) President, Graduate Student Council (Janine M. Nell) William M. Hobbib, '86

Community Service Fund Board

The Community Service Fund Board provides financial support to charitable organizations in which MIT student/employee/faculty volunteers participate. The Board solicits contributions from all members of MIT and outside sources, and then reviews requests for help from projects utilizing MIT volunteers. The Board consists of representatives from the Corporation, faculty, students, administration, support and service staff, alumni, Technology Community Women, the MIT Women's League, and Lincoln Laboratory.

Gregory Smith (1986), Cochairman (Corporation) Woodie C. Flowers (1986), Cochairman (Faculty) Ronald P. Suduiko, Secretary Raymond A. Battistelli (1986) (Lincoln Laboratory) Sherry L. Capano (1986) (Technology Community Women) Bonny S. Kellermann (1986) (Alumna) Nelson C. Lees (1986) (Administration) Carla Lele (1986) (MIT Women's League) Lease A. Plimpton (1986) (Lincoln Laboratory) Robert A. Sherwood (1986) (Administration) Charles J. Sbuttoni, Jr. (1986) (Union) Carmen N. Besterman (1987) (Administration) Thomas H. Farquhar (1987) (Alumnus) Robert S. Langer, Jr. (1987) (Faculty) Louis Menand III (1987) (Administration) Joanne Miller (1987) (Administration)

Students:

Pamela J. Loprest, '86 (Urban Action Representative) Stephen H. Pasternak, '87 (Alpha Phi Omega Representative) Molly S. Shoichet, '87 (Urban Action Representative) K. T. Shum, G To Be Appointed (Inter-Fraternity Conference Representative)

Committee on Copyrights and **Patents**

This Committee recommends to the administration policy guidelines for the processing of patents and copyrights. It also recommends policy for the licensing of such patents and copyrights. It takes the initial step in the determination of ownership of patents and copyrights when applications are submitted by the faculty and staff.

Kenneth A. Smith, Chairman George H. Dummer,* Executive Secretary Samuel A. Goldblith* Jay K. Lucker* John A. McCook* David C. White (1987) Clifton G. Fonstad, Jr. (1988) David G. Jansson (1988) Phillip A. Sharp (1988) Daniel I. C. Wang (1988)

Executive Committee of the Council for the Arts at MIT

The Executive Committee presides over the Council's general activities and consists of the Chairmen of the Council's committees, representatives elected from the Council membership, and ex officio members appointed by the President.

Jerome B. Wiesner, Chairman Catherine N. Stratton, Vice Chairman Luis A. Ferré, Honorary Chairman Paul Tishman, Honorary Chairman John P. de Monchaux* Ann F. Friedlaender* Vernon R. Alden Leo Beranek Harold E. Edgerton **Bradford Endicott** Vincent A. Fulmer Kenneth J. Germeshausen Paul E. Gray Ernest A. Grunsfeld III **Bartlett Hayes** Roy Lamson Nelson C. Lees Vera G. List William L. Porter Ida Ely Rubin Gregory Smith Max Wasserman Toni Wyman

Dining Advisory Board

This Board provides a forum for addressing diningrelated issues on campus and facilitating a greater degree of dialogue and mutual support between those who provide food services and those who use them. The Board is composed of faculty, students, and staff.

Robert A. Sherwood, Chairman Dorothy L. Bowe Harmon E. Brammer Judith M. Douglis Marianne Hatton S. Edward Leonard, Jr. Lawrence E. Maguire Robert M. Rose

Students: Karen J. Baker, '86 Carolyn E. Beer, '86 Christine A. Chu, '88 Juhaina N. Hussain, '86 John R. Kenney, '87 Glen J. Kissel, G Jeffrey T. Kung, '87 Karen L. Lee, '86 Robin L. Maury, '86 Mark D. Neumann, '86 John F. Pitrelli, G Gregory D. Troxel, '87

Endicott House Board of Governors

The Board of Governors of Endicott House was established in 1955. The duties of the Board include: to set policies that will maximize the use of this conference center, within prescribed bounds; to review and approve the operating budget; and to select and support the management of this facility. The Board also approves capital improvements to the property.

William R. Dickson (1986), Chairman Vincent A. Fulmer (1986) Mary L. Morrissey (1986) O. Robert Simha (1986) Gene M. Brown (1987) John A. Currie (1987) Richard M. Douglas (1987) Woodie C. Flowers (1987) Robert L. Bishop (1988) Erich P. Ippen (1988) Frank E. Perkins (1988) Zenon S. Zannetos (1988)

Associate Members: Bradford M. Endicott Howard F. Miller

Institute Council on Environmental Health and Safety†

This Council is responsible to the President for coordinating the policy development and the assessment of procedures of the several Institute committees concerned with specific areas of environmental health and safety. The Council serves as a forum in which overlapping and joint areas of concern of these committees are reviewed and clarified and wherein questions in dispute by individual committees will be resolved. The Council is also responsible for identification of those new environmental health and safety matters which may emerge as new activities are undertaken and as new technologies develop or old ones change direction. In instances where such new activities do not fall within the purview of an existing committee, the Council may expand the area of concern of an existing committee or recommend the creation of a new committee.

Robert A. Alberty, Chairman Richard I. Chamberlin (Industrial Hygiene Officer) John M. Fresina (Director of Safety Office) Thomas R. Henneberry (Insurance and Legal Affairs Michael A. Kane (Acting Medical Director) William R. Dickson (Chairman, Committee on Safety) John M. Moses (Chairman, Committee on Animal Care)

Commi

Frederick D. Greene II (Chairman, Committee on Toxic Chemicals) Alan Davison (Chairman, Committee on Radiation

Protection)

Michael A. Marletta (Chairman, Committee on Chairman, Chai Assessment of Biohazards) Willard S. Putnam (Chairman, Committee on Radiation

Exposure to Human Subjects) Norman C. Rasmussen (Chairman, Committee on Reactor Safeguard)

George Wolf (Chairman, Committee on the Use of Humans as Experimental Subjects)

Equal Opportunity Committee

This Committee was established in 1970 to give support, coordination, and direction to the Institute's programs for equal employment and educational opportunity. The Committee advises the President and senior academic and administrative officers on matters pertaining to equal opportunity, reviewing existing programs, and recommending new ones.

Herman Feshbach, Chairman Equal Opportunity Officer* (Constantine B. Simonides) Special Assistant to the President and Assistant Equal Opportunity Officer* (Clarence G. Williams) Special Assistant to the President* (Mary P. Rowe) Stephen H. Crandall Mary Z. Enterline Wade M. Kornegay Heather N. Lechtman

Raphael C. Lee Salvador E. Luria John A. McCook Lester C. Thurow Gerald N. Wogan

Students: Yvonne Y. Mao, '86 David V. Tribble, '87

Faculty Club Advisory Board

The Advisory Board shall provide general policy guidance, issue rules and regulations affecting the membership, and facilitate communications between the membership and the management. It shall also be responsible for the adoption of changes to the constitution and bylaws of the MIT Faculty Club by a vote of at least two-thirds of the Board.

Charles C. Ladd (1988), Chairman
Associate Director of Housing and Food Services*
(Lawrence E. Maguire)
Director of Finance* (John A. Currie)
Manager, MIT Faculty Club (David J. Lanni**), Secretary
Jack B. Howard (1986)
Kim Molvig (1986)
Ascher H. Shapiro (1986)
Holliday C. Heine (1987)
Dorothy G. Adler (1988)
Royce N. Flippin, Jr. (1988)
Paul H. Quinn (1988)

Committee on Foreign Scholarships

This Committee was established in 1964. Its members conduct interviews with applicants for various international scholarships in October and November. The Committee then meets to evaluate and rate the applicants for the Fulbright-Hays Grants; to select two nominees for the Churchill Scholarship; and to nominate one or more principal candidates and alternates for the DAAD Scholarship.

Eugene R. Chamberlain (1988), Chairman David J. Epstein (1986) Paola M. Rizzoli (1986) Martin A. Abkowitz (1987) David H. Friedman (1987) Gretchen Kalonji (1987) Campbell L. Searle (1987) Janie Vanpee (1987)

Student Kevin B. Fitzgerald, G

Committee on the Hobby Shop

The Committee encourages and promotes the use of the Hobby Shop by students.

Benjamin L. Averbach, Chairman A Local A local A Alan H. Epstein
Irving Fischman
Woodie C. Flowers
Clifton G. Fonstad
John S. Whitaker

Students: Arthur B. Gregory, '87 Dana M. Takaki, '87

IAP Policy Committee

This Committee was established by a faculty vote in 1971 to deal with policy matters and the continued evaluation of the Independent Activities Period, and to work closely with the Faculty Policy Committee and the Committee on the Undergraduate Program in reviewing IAP within the context of the total academic program. It reports to the faculty at intervals of not more than four years.

Shaoul Ezekiel (1986), Chairman Mary Z. Enterline* Samuel M. Allen (1986) Deirdre A. Dow-Chase (1986) Andrew M. Eisenmann (1986) Steven Gass (1986) Mary R. Jasinski (1986) Gordon V. Kelly (1986) Margaret S. Richardson (1986) Janet Romaine (1986) Maryglenn Vincens (1986) James Higginbotham (1987) Garth Saloner (1987) David H. Raulet (1987) Steven R. Bussolari (1988) Maher Aziz El-Masri (1988) Louis Menand III (1988) Keith A. Nelson (1988)

Students: To Be Appointed

Advisory Committee to the Institute Personal Assistance Program

The Committee reviews and advises on issues related to IPAP. It may also make recommendations on relevant personnel policy and procedures.

Thomas B. Sheridan, Chairman Cheryl L. Birchette-Pierce William P. Borge John A. Currie John J. Dunn James J. Fandel Ronald C. Fleming Alfred J. Koumans Joan F. Rice Donna R. Savicki

Committee on International Institutional Commitments

Jointly appointed by the Chairman of the Faculty and the President, this Committee reviews the scale and nature of MIT's international contractual commitments for education and/or research or service and consults with the administration and initiators of international projects.

Eugene E. Covert (1987), Chairman
Virginia D. Lyons, Executive Officer
Provost* (John M. Deutch)
Associate Provost* (Kenneth A. Smith)
Chair of the Faculty* (Mary C. Potter)
Director, Office of Sponsored Research* (George H. Dummer)
Lotte L. Bailyn (1986)
Jack Ruina (1986)
Suzanne D. Berger (1987) (sabbatical 1985–86)
Richard K. Lester (1987)

Students: John B. Searles, '86 Kevin B. Fitzgerald, G

Standing Committee on the Lincoln Laboratory

This Committee was first appointed on recommendation of the Ad Hoc Review Panel on Special Laboratories. It was established in 1975 as an Advisory Committee to the President and is charged with reviewing the program of the Lincoln Laboratory and recommending policy regarding the relationship between the Laboratory and the teaching and research programs of the Institute.

Louis D. Smullin (1986), Chairman Judson R. Baron (1986) Michael S. Feld (1987) Karl U. Ingard (1987) Erich P. Ippen (1987) Thomas S. Kuhn (1987) James R. Melcher (1987) John L. Wyatt, Jr. (1987)

MIT Hospital Board

According to the by-laws of the MIT Medical Department, adopted by the Corporation in the fall of 1984, the MIT Hospital Board consists of seven members of the MIT Medical Management Board and is responsible for the MIT hospital as an operating unit of the MIT Medical Department, including the responsibility to review and approve clinical privileges granted to MIT staff members.

W. Gerald Austen, Chairman (Corporation)
Constantine B. Simonides* (Vice President)
Acting Medical Director* (Michael A. Kane)
Acting Department Head and Executive Director, MIT
Medical Department* (Laurence H. Bishoff)
John Pratt (1987)
Willard S. Putnam (1987)
Mitchell W. Spellman (1987)

MIT Medical Management Board

According to the by-laws of the MIT Management Board, adopted by the Corporation in the fall of 1984, the MIT Management Board serves as a board of directors for the MIT Medical Department, operating within the MIT structure.

W. Gerald Austen (1988), Chairman (Corporation)
Constantine B. Simonides,* Vice Chairman (Vice
President)
Acting Medical Director* (Michael A. Kane)
Acting Department Head and Executive Director, MIT
Medical Department* (Laurence H. Bishoff)
James J. Culliton (1986)
Mary Frances Wagley (1986)
Thomas J. Allen (1987)**
John Pratt (1987)**
Willard S. Putnam (1987)
Mitchell W. Spellman (1987)
Warren E. C. Wackert (1988)**

MIT Press Editorial Board

The members and chairman of the Editorial Board are members of the Institute faculty. The director of the Press, the vice president to whom the Press reports, and the director of Libraries are ex officio, non-voting members; the Board meets at three- or four-week intervals throughout the year. The Editorial Board is responsible for the imprint of the Press, and all projects for publication must have its approval. In addition to reviewing publishing proposals, the Editorial Board reviews and participates in the formulation of Press editorial policy and provides guidance and support to the Press Acquisitions Department.

of saine Land to test time t

Ascher H. Shapiro (1986) Chairman
Vice President§ (Constantine B. Simonides)
Director, MIT Press§ (Frank Urbanowski)
Director of Libraries§ (Jay K. Lucker)
Loren Graham (1986)
John P. Longwell (1986)
Daniel N. Osherson (1986)
Harold Abelson (1987)
John P. de Monchaux (1987)
Richard M. Held (1987)
Robert M. Solow (1987)
Carl Wunsch (1987)

MIT Press Management Board

The Management Board was initially established in 1972, to supply guidance on management and fiscal matters. Its role has evolved to that of a Board of Directors of the Press, within the Institute framework. The chairman of the Editorial Board and the director of the Press are ex officio members, and the Management Board is chaired, ex officio, by the vice president to whom the Press reports. The other Board members are MIT faculty and staff and outside publishers. The Board ordinarily meets twice a year to review Press operations, to receive reports, and to consider strategy and policies for the Press's future.

Vice President* (Constantine B. Simonides), Chairman Director, MIT Press* (Frank Urbanowski)
Chairman, MIT Press Editorial Board* (Ascher Shapiro) (1986)
Ann F. Friedlaender (1986)
Norman Pomerance (1986)**
Jack Schulman (1986)**
Alvin J. Silk (1986)
W. Bradford Wiley (1987)**
Jeremiah Kaplan (1988)**
Arthur L. Singer, Jr. (1988)**
Christopher T. Walsh (1988)

Committee on the MIT Sea Grant College Program

This Committee provides advice on policy issues, program goals, and program evaluation to the Provost and provides policy guidance and advice on program goals and objectives to the Director.

James M. Utterback, Chairman Chryssostomos Chryssostomidis§ Dean A. Horn§ Marcus Karel* Alfred A. H. Keil* Keith D. Stolzenbach§ Arthur B. Baggeroer (1986) Robert S. Langer (1986) John P. Longwell (1986) Zenon S. Zannetos (1986) David M. Gossard (1987) Margaret L. A. MacVicar (1987) David N. Wormley (1987) Stanley Backer (1988) Peter S. Eagleson (1988) James W. Mar (1988)

- Ex officio voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ** Non-MIT member
- § Ex officio non-voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ‡ Appointed by the President
- † Safety Committee

orburs)

MIT-Wellesley Upward Bound Joint Steering Committee

This Committee, created in 1969 as a joint MIT and Wellesley College faculty committee, is charged with overseeing the implementation of the Upward Bound Program, a coeducational, multiracial, multiethnic educational program for Cambridge youth of high school age. In this role, the Committee meets regularly to review program performance, and to ensure that the program's administration meets Federal Office of Education guidelines and delivers services in a manner consonant with the standards of excellence of both institutions.

MIT

(To Be Appointed), Chairman Ronald S. Crichlow,* Director, Upward Bound Program Vincent C. DeBaun Charles H. Fine Leo Osgood Clarence G. Williams

WELLESLEY

Vanessa L. Allyne Mary S. Campbell Joy Renjilian-Burgy Rosamond V. White

MIT Working Group on Support Staff Issues

The Working Group for Support Staff Issues is a group made up of employees throughout the Institute who have a special interest in working together toward creative solutions to problems of concern to support staff.

Katherine R. Cochrane, Co-convener (Alumni Association)

Joyce R. Cooper, Co-convener (Plasma Fusion Center)A. Lucy Allen (Department of Electrical Engineering and Computer Science)

Gladys Barron (Educational Video Resources)
Rebecca G. Bisbee (Laboratory for Computer Science)
Dorothy L. Bowe (Financial Aid Office)
Ann Braden (Office of Dean for Student Affairs)

Richard J. Caloggero (Department of Electrical Engineering and Computer Science)

Elaine J. Cook (Department of Electrical Engineering and Computer Science)

Annie L. Cooper (Sloan School of Management)
Nanci A. Drago (Quarter Century Club)
Jayne E. Gardini (Lincoln Laboratory)

Deborah A. Hannon (Sloan School of Management)
Therese Z. Henderson (Sea Grant Program)
Ruth B. Hobbs (Resource Development)

Janet R. Husson (Admissions Office) Ruth McGrath (Libraries)

Paula A. Mosher (Lincoln Laboratory)
Wanda Osborn (Sloan School of Management)
Marion D. Redonnet (Alumni Association)
Lanice A. Smith (Department of Chemistry)

Janice A. Smith (Department of Chemistry)
Marie A. Stuppard (Department of Mechanical
Engineering)

Engineering)
Jean M. Sucharewicz (Admissions Office)
Linda B. Suter (Department of Nuclear Engineering)
Elaine M. Vallante (Department of Psychology)
Anna W. Verhulst (MIT Women's League)
Trudy L. Zakin (Financial Aid Office)

Resource Persons:

Ornah Becker (Personnel Benefits) Susan P. Gaskell (Personnel Office) Richard Higham (Personnel Office) Joan F. Rice (Personnel Director) Constantine B. Simonides (Vice President) Susan Warshauer (Personnel Development)

- Ex officio voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ** Non-MIT member
- Ex officio non-voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- † Safety Committee

Medical Consumers' Advisory Council

This Council serves as a communications link between the Medical Department and its users. Its objectives are to keep the MIT community informed of the services available through the Medical Department and to discuss criticisms and suggestions for the modification or addition of services to meet the changing needs of the community. The Council reports annually to the Medical Management Board, which is the governing board of the Medical Department within the MIT structure. All meetings are open to the MIT community.

Robert D. Rosenberg (1986) (Faculty), Chairperson Medical Director* (Michael A. Kane) Chief of Student Health Programs* (Mark A. Goldstein) Executive Director, Medical Department* (Laurence H. Bishoff) Coordinator for Health Information and Education* (Constance A. Bean)

(Constance A. Bean)
Vera J. Ballard (1986) (Minority Community)
William P. Borge (1986) (Union)
Dorothy L. Bowe (1986) (Administration)
Priscilla K. Gray (1986) (MIT Women's League)
Charles W. Kazules (1986) (Lincoln Laboratory)
Leo Osgood (1986) (Office of Dean for Student Affairs)
Virginia Pochetti (1986) (Support Staff)
Ann M. Guilfoy (1987) (Draper Laboratory)
Rosanne Kumins (1987) (MIT Health Plan)

Robert T. Sauer (1988) (Faculty)
Technology Community Women Rep. (To Be Appointed)
One Faculty Member (To Be Appointed)
Maria de Marco, Secretary

Students:

Steven M. Griffiths, '87 Craig S. McConnell, '88

Committee on Operations Research

The Committee was established in 1953, and is made up of individuals from various academic departments who are either active in operations research or are users of its methodologies. The Committee provides interdepartmental coordination and liaison on matters related to the field, and furnishes guidance for the Operations Research Center.

Richard C. Larson, Cochairman Jeremy F. Shapiro, Cochairman Fred C. Schweppe (1986) Alvin J. Silk (1986) Gabriel R. Bitran (1987) John R. Hauser (1987) Pierre A. Humblet (1987) Harilaos N. Psaraftis (1987) Charles H. Fine (1988) Robert M. Freund (1988) Steven R. Lerman (1988) John D. C. Little (1988) Thomas L. Magnanti (1988) Martin L. Weitzman (1988) M. Anthony Wong (1988)

Prelaw Advisory Council

This is a group of advisors specially selected on the basis of professional background and interest in legal education.

J. D. Nyhart, Chairman Nicholas A. Ashford Gordon F. Bloom Charles C. Caldart Judith W. DeCew Alan Hein Jeffrey A. Meldman Louis Menand III James L. Powell Martha W. Weinberg

Students:

Douglas M. Bank, '88 Darrell S. Mavis, '88 Anthony P. Polito, '86

Premedical Advisory Council

This is a group of advisors specially selected on the basis of professional background and interests in medicine or medically related areas.

Lisa A. Steiner, Chairman Eugene Bell Cheryl L. Birchette-Pierce John H. Brandt Melvin H. Chalfen Ernest G. Cravalho Charles S. Davidson William M. Deen Richard M. Douglas Stan N. Finkelstein Rochelle R. Friedman Lee Gehrke Jeannette L. Gerzon Mark A. Goldstein Stephen J. Healey Alan Hein Michael F. Holick H. Walter Jones, Jr. Michael A. Kane Alfred J. Koumans John C. Kryder Robert S. Langer Robert S. Lees Padmakar P. Lele Bernard Levy** Robert W. Mann Roger G. Mark Borivoje B. Mikic John M. Moses Walle J. H. Nauta Paul M. Newberne Barbara L. O'Pray Chester M. Pierce Barbara K. Prazak Melvin H. Rodman Adrianne E. Rogers Robert D. Rosenberg Margaret S. Ross William A. Ruth William M. Siebert Anthony J. Sinskey Irwin W. Sizer Jeffrey I. Steinfeld Cynthia M. Stevens Felix M. H. Villars Robert K. Weatherall Michael S. Weidman Leonard Wolsky

Committee on Privacy

This Committee was established in 1971 by vote of the faculty. It examines the policies and procedures of the Institute concerning the collection, security, disclosure, and use of information, including that obtained for administrative purposes or in the course of behavioral research.

Kenneth M. Hoffman (1988), Chairman Elizabeth A. Northrup, Executive Secretary Samuel Jay Keyser* Jeffrey A. Meldman* Fred Moavenzadeh (1986) Joanne E. Murray (1986) Irwin Oppenheim (1987) Jerome H. Saltzer (1987) Louis Menand III (1988)

Students: Sanjoy Mazumdar, G Robert S. Weiner, '86

Committee on Radiation Exposure of to Human Subjects†

The responsibilities of this Committee, established in 1974, are to: 1) review for authorization applications involving ionizing radiation exposure to human subjects for research purposes, insofar as the proposed study applies to radiation exposure; 2) review for approval the procedures that will ensure radiopharmaceutical quality of materials for human administration; 3) advise the Committee on the Use of Humans as Experimental Subjects relative to the radiation risk to research subjects; 4) conduct general surveillance of medical use of radiation; and 5) ensure compliance with Nuclear Regulatory Commission (NRC) broad medical license conditions, including periodic reporting to the NRC.

Willard S. Putnam, Chairman
Francis X. Masse, Executive Secretary
Gail A. Magenis**
Bruce J. Biller
Gordon J. Brownell
Frank P. Castronovo, Jr.**
Robert S. Lees
Vernon R. Young

Committee on Radiation Protection†

This Committee is responsible for the establishment and continuing review of an adequate radiation protection program at the Institute and its off-campus sites. The Committee is also responsible for the Institute's compliance with radiation protection regulations promulgated by state, Federal, and local agencies.

Alan Davison (1986), Chairman
Murray M. Bolton, Jr.,* Executive Secretary
Radiation Protection Officer* (Francis X. Masse)
Rep. of Medical Dept.* (Richard I. Chamberlin)
Rep. of Division of Comparative Medicine* (Christian E. Newcomer)

Rep. of Office of Sponsored Programs* (Paul C. Powell)
Rep. of Whitehead Institute* (Gerald R. Fink)
Reactor Radiation Protection Officer§ (Edward Karaian)
Assistant Radiation Protection Officer§ (Mitchell S.

Assistant Radiation Protection Officer§ (James L. Jones)
Rep. of Lincoln Laboratory§ (Jean L. Ryan)
David E. Housman (1986)
John G. King (1987)
Harold F. Hemond (1988)
Vernon R. Young (1988)

Committee on Radio Astronomy

The Committee acts as a vehicle for interdisciplinary discussion on planning for large radio telescopes.

Bernard F. Burke, Chairman Irwin I. Shapiro** Jonathan Allen Alan H. Barrett Charles C. Counselman III John W. Dreher Gordon H. Pettengill David H. Staelin

Committee on Reactor Safeguard†

The primary concern of this Committee is with matters of nuclear safety related to the MIT Research Reactor, including the safety of personnel on and off site.

The Committee reviews and approves prior to implementation all new operating plans and policies, all significant modifications thereto, and all new experiments involving significant changes in procedure. The Committee verifies that nuclear reactor operation is consistent with MIT policy, rules, approved operating procedures, and license provisions.

Norman C. Rasmussen, Chairman John A. Bernard, Jr., Secretary Associate Provost and Vice President for Research* (Kenneth A. Smith)

Physician in Charge of Environmental Medical Service* (William A. Ruth)

Director, Nuclear Reactor Laboratory* (Otto K. Harling)
Director of Operations, Nuclear Reactor Laboratory*
(Lincoln Clark, Jr.)

Reactor Radiation Protection Officer*
(Edward Karaian)

Radiation Protection Officer* (Francis X. Masse) Director, Safety Office* (John M. Fresina) Arthur Foster**

Arthur Foster**
James W. Gosnell**
Samuel Levin**
Constantine J. Maletskos**
Mujid S. Kazimi (1986)
Ronald G. Ballinger (1987)
Peter Griffith (1987)
David D. Lanning (1988)

Committee on the Research Laboratory of Electronics

The Committee is available for consultation by the Laboratory directors on general questions of policy affecting RLE. Members include representatives of the administration and the heads of departments with major student and faculty participation in the research program.

Jonathan Allen, Chairman Gene M. Brown Richard L. Cartwright Ronald C. Davidson Ann F. Friedlaender Jerome I. Friedman J. David Litster Joel Moses Neil E. Todreas Christopher T. Walsh Gerald L. Wilson Peter A. Wolff

Committee for Review of Space Planning (CRSP)

This Committee originates, reviews, evaluates, and/or coordinates all proposals of requests for new space, space assignments, or requests for major alterations and renovations of existing spaces.

John M. Deutch, Chairman
William R. Dickson, Vice Chairman
Victoria V. Sirianni, Secretary
Paul F. Barrett
Gene M. Brown
James J. Culliton
John P. de Monchaux
Daniel H. Gould
O. Robert Simha
Kenneth A. Smith
Kenneth L. Thompson
Gerald L. Wilson

ROTC Committee

The function of the Committee, which was established in 1970, is to monitor the policy and operations of the office of ROTC Programs and to deal with all matters pertaining to ROTC.

Robert E. MacMaster, Chairman President* (Paul E. Gray) Assistant Provost* (John B. Turner) Jane Betts Alvin W. Drake James P. Hassett Frederick D. Massie Vincent P. McDonough Stephen M. Meyer David B. Ralston Emmanuel J. Scivoletto

Committee on Safety†

This Committee, established in 1962, is responsible for reviewing current practices with regard to general safety, and for formulating and implementing broad safety policies for the Institute. The Committee works closely with the Safety Office.

William R. Dickson (1986), Chairman
Director, Safety Office* (John M. Fresina)
Industrial Hygiene Officer* (Richard I. Chamberlin)
Stephen D. Immerman (1986)
Saul A. Rappaport (1986)
Paul F. Barrett (1987)
Susan P. Gaskell (1987)
Gary E. Wnek (1987)
Anthony Colozzi (1988)
Robert W. Hagerty (1988)
John A. McCook (1988)
James Olivieri (1988)
Michael A. Kane (1988)

Student: Sharon D. Moran, G

Student Activities Development Board

The Student Activities Development Board, in its present form, was established in 1970 to allocate funds to student and community activities for items of capital equipment and the expense involved in minor space changes. Applications for funds are solicited in February.

Kenneth C. Russell, Chairman
Barbara M. Fienman,* Executive Secretary
Dean for Student Affairs* (Des. Rep. - Margaret S.
Richardson)
William J. Hecht
Jeffrey A. Meldman
Judah L. Schwartz

Students:

Janine M. Nell, G (Graduate Student Council President) Bryan R. Moser, '87 (Undergraduate Association President)

Kalyanaram Gurumurthy, G (Graduate Student Council Co-Treasurer)

Steven C. Semken, G (Graduate Student Council Co-Treasurer)

Michael S. Kelley, '87 (Finance Board Chairman, Undergraduate Association) Lisa Y. Bell, '86 (Chairman, Association of Student

Peggy C. Chang, '88 (Undergraduate Student at Large) Bernard C. Teh, '86 (Undergraduate Student at Large)

Technology Broadcasting Corporation

Technology Broadcasting Corporation acts as a nonprofit trustee for the MIT radio station, WMBR.

John H. Kosian (1987)** President Todd S. Glickman (1987)** Vice President Kenneth T. Pogran (1987)** Treasurer Thomas L. Higgins (1986)** Allan R. Kent (1986) Andrew Lippman (1986) Morton Berlan (1987) Barbara M. Fienman (1987) Edward Hyson (1987)** ("Oedipus") Larry A. Parmenter (1987)** Walter L. Milne, Secretary

Committee on Toxic Chemicals†

This Committee is responsible for reviewing current practices with regard to the effects on human subjects of toxic chemicals, including carcinogens. The Committee is also responsible for formulating policies necessary to control the risks and exposure to personnel working with such agents, and for compliance with governmental regulations.

Frederick D. Greene II (1987), Chairman Medical Director* (Michael A. Kane) Director, Safety Office* (John M. Fresina) John P. Longwell (1986) Michael A. Marletta (1986) Steven J. Burden (1987) William H. MacLachlan (1987) George W. Boylen, Jr. (1988) Alan Davison (1988) James G. Fox (1988) Alexander M. Klibanov (1988)

Student: David P. Genereux, G

Committee for Transportation and Parking

This Committee reviews and advises upon policy governing the operation of the parking system at MIT. It further serves to monitor and make recommendations concerning transportation-related issues which affect the MIT community.

Moshe E. Ben-Akiva, Chairman Peter H. Brown William R. Dickson James J. Fandel Bruce R. Musicus James Olivieri O. Robert Simha Lawrence E. Susskind Michael E. Treacy

Staff to the Committee: Marshall V. Cheverie

Committee on the Use of Humans as Experimental Subjects†

The Committee is responsible for reviewing every research project utilizing humans as research subjects, and for devising effective procedures to ensure the adequate review of all protocols. Its principal role is to determine whether subjects used in any research project are protected against undue risk and to ensure that their rights, privileges, and privacy are also protected.

George Wolf, Chairman Bruce J. Biller Stephen L. Chorover Thomas B. Duff Eliot Hubbard** Alfred J. Koumans Robert W. Mann Francis X. Masse Jeffrey A. Meldman Barbara L. O'Pray Jerome Rothenberg Daniel Shevitz Annamaria Torriani-Gorini Leonard Wolsky Mildred Zanditon**

Students: Ronald E. Becker, '87 Lynne T. Haber, G

Committee on the Visual Arts

The Committee acts as an advisory body for all aspects of the visual environment and arts at MIT. Its work includes review of and advising on plans for exhibitions at the List Visual Arts Center (including the Hayden Reference and Bakalar Galleries), for public non-curricula programs, and for major visual arts events; and advising on acquisition policy for MIT and on major acquisitions for the MIT art collection.

Boris Magasanik (1987), Chairman Executive Assistant to the President* (Kathryn W. Lombardi)

Special Assistant to the President for the Arts* (William

L. Porter)
Director of Exhibitions, CVA* (Kathy Halbreich)
Executive Director of the Council for the Arts* (Helvi M.

McClelland)
Director of Planning* (O. Robert Simha)
Heather N. Lechtman (1986)
Walter A. Rosenblith (1986)
Peter A. Wolff (1986)
David H. Friedman (1987)
Leo Marx (1987)

Walter S. Owen (1987) Jerome Rothenberg (1987) Peter S. Eagleson (1988)

Students: Andrea M. Ghez, '87 Robert J. Webster, '87

Ansel M. Spoerri, G

Wellesley-MIT Joint Committee

The Committee monitors and coordinates the Wellesley-MIT Exchange Program to ensure that it constitutes a meaningful diversification in the learning experience of the undergraduates of both schools.

Robert J. Silbey (1987), MIT, Cochairperson Maud H. Chaplin, Wellesley, Cochairperson

MIT

Manager, Wellesley-MIT Exchange* (Mary Z. Enterline) Associate Provost* (Samuel Jay Keyser) Associate Dean for Student Affairs* (Holliday C. Heine) Woodie C. Flowers (1986) Kathryn J. Crecelius (1987) Louis Menand III (1988)

Students:

Russell M. Basch, '86 Mark S. Caylor, '86 John R. Kenny, '86

WELLESLEY
Dean of Students* (Molly Campbell)
Marjorie Lucas
Sabine Raffy
Margaret Thompson

Adjunct Member: Exchange Coordinator* (Dawn L. Monmouth)

Students: (To Be Appointed)

- Ex officio voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- ** Non-MIT member
- Ex officio non-voting. The names of ex officio members, or their designated representatives (Des. Rep.), are indicated in parentheses next to the listing of the ex officio position in all committees.
- Appointed by the President
- † Safety Committee

Advisory Committee for Women Students' Interests

This Committee advises the Coordinator for Women Students' Interests in her role as a special resource for graduate and undergraduate women on campus. The Coordinator plans programs, organizes women's groups, and provides support to existing women's organizations. The Committee is composed of graduate and undergraduate students, faculty, and staff.

Margery Resnick (1987), Chairman Special Assistant to the President* (Mary P. Rowe) Associate Dean of the Graduate School* (Jeanne E. Richard) Priscilla K. Gray* Holly B. Sweet* Laya W. Wiesner* David J. Anick (1986) Lotte L. Bailyn (1986) Robert I. Hulsizer, Jr. (1986) Kathryn W. Lombardi (1986) Shirley M. McBay (1986) Shirley M. Picardi (1986) Marilyn A. Pierce (1986) Cheryl L. Birchette-Pierce (1987) Mildred S. Dresselhaus (1987) Lois S. Eichler (1987) Keith D. Stolzenbach (1987) Dorothy L. Bowe (1988) Vernon M. Ingram (1988)

Staff to the Committee: (To Be Appointed)

Mary K. Bayalis, '86 Katherine L. Boyd, G Elizabeth De Mille-Barnett, G Denice D. Denton, G Theresa M. Flood, '87 Sharon E. Klotz, '86 Sonia Leon, '86 John M. Lucassen, G Sean P. Manns, '86 Yvonne Y. Mao, '86 Leslie G. Melcer, '88 Janine M. Nell, G Nirmala J. Panicker, G Susan C. Scott, G Karen R. Sollins, G Deborah L. Thurston, '87 Sarah C. Tasker, '87 Julia L. White, '87

Women's Advisory Board

This advisory Committee is representative of many women at MIT. Its members are elected from various constituencies and from various areas of the Institute. The Committee works with and advises the Special Assistant to the President on areas of concern to the constituent groups and serves as a communications link with her office. Members of the Committee are appointed for one-year terms, and the Chair rotates.

Marguerite E. Ampolo (Lincoln Laboratory Support Personnel) Isabelle E. Barclay (Women's Forum) Staff Associate, Dean for Student Affairs Office (To Be Appointed) Gwendolyn Biggert (Working Group on Support Staff

Issues)
Sheara R. G. Biron (Lincoln Laboratory, Professional

Women's Network)
Toby Bloom (Women Graduate Students in Computer Science)

Catherine M. Boone (Women Graduate Students in Political Science)

Dorothy L. Bowe (MIT Women)
Jean Broderick (Chemical Engineering)
Kathryn A. Bushnell (Quarter Century Club)
Margaret T. Coleman (Association of MIT Alumnae)
Jahde Collins (Lincoln Laboratory Support Staff)
Christine Cousineau, G

Barbara A. DiPalma (Lincoln Laboratory Support Personnel)

Amy G. Epstein, G (Graduate School Council)
Susan P. Gaskell (Personnel Women)
Marilee Jones (Ad Hoc Committee on Women's
Admissions)

Jennifer Lin, '87 (Association of Women Students)
Margaret F. Mann (MIT Women's League)
Sylvia A. McDowell (American Association of University

Fanya Montalvo (Computer Science Women)
Patricia R. Murray (Technology Wives Association)
Ruth Perry (Director, Women's Studies)
Jeanne E. Richard (Women's Forum)
Kimberly E. Ritrievi, G (Sloan School Graduate Student

Women)
Lynn A. Roberson (Women's Coordinator)
Charlotte N. Schell (Lincoln Laboratory Women's Forum)
Elizabeth Smela, '85 (Pro Femina Group)
Gail M. Sullivan, G (Women in Architecture)
Holly B. Sweet (Experimental Study Group Women's

Sharon Traweek (Women Faculty)
Mary T. Wasilewski (Society of Women Engineers)
Elizabeth Y. Wattenberg, G (Graduate ABS Women)
Mary P. Rowe* (Special Assistant to the President)

Ad Hoc Committees

Ad Hoc Committee on MIT and Intelligence Agencies

The Ad Hoc Committee on MIT and Intelligence Agencies will consider and develop recommendations for policies and procedures pertaining to potential involvement of MIT and members of the MIT community with intelligence agencies.

Kenneth M. Hoffman, Chairman Louis Menand III Ascher H. Shapiro Phyllis A. Wallace Myron Weiner

Ad Hoc Advisory Committee for the Secondary Technical Education Project

The Committee is composed of members of the faculty and administrative staff. Its task is to act in an advisory capacity to the Director of the Secondary Technical Education Project, who will cooordinate MIT's collaboration with the Boston School System in developing the Mario Umana Harbor School of Science and Technology into a city-wide, magnet school as described in the Phase II Desegregation Order of Federal Judge W. Arthur Garrity on May 10, 1975.

Louis L. Bucciarelli, Chairman
Director, Secondary Technical Education Project* (Alford Dyson, Jr.)
Harold Abelson
Dorothy L. Bowe
Phillip Clay
Marcia E. Conroy
Ronald Crichlow
Ira Dyer
Woodie C. Flowers

Woodie C. Flowers
Jonathan A. King
Phyllis R. Klein
Steven R. Lerman
Walter L. Milne
Edwin F. Taylor
Myron Tribus
Bruce D. Wedlock
Clarence G. Williams

Advisory Committee on Shareholder Responsibility

The Advisory Committee on Shareholder Responsibility serves to advise the Executive Committee of the MIT Corporation on matters concerned with MIT's votes and other actions as a socially responsible owner of stocks in businesses and industries.

D. Reid Weedon, Jr.,** Chairman Treasurer* (Glenn P. Strehle) William R. Dickson Allan F. Henry Daniel M. Holland C. Vincent Vappi** Walter L. Milne, Secretary

Students: Pamela J. Loprest, '86 Lance E. Murrah, G Chitty-Chitty Bang-Bang** — Student Ctr Committee movie, Dec 7, 11pm, Student Ctr 2nd flr (Lobdell). Free/MIT-Wellesley ID.

Casablanca** - LSC Movie, Dec 8, 6:30&9pm, Rm 26-100. \$1/MIT-Wellesley ID.

Episode 4: A New Tradition** - LSC Movie, Dec 12. \$1/MIT-Wellesley ID.

de 5: The TBA Strikes Back ** - LSC Movie, Dec 13.

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

04Episode 6: Return of the TBA** - LSC Movie, Dec 14. \$1/MIT.Wellesley ID.

Music

Noon Hour Chapel Series* – Charles Mokotoff and Robert Strizich, classical and baroque guitar perform Coble, Rodrigo, Koshkin, Foscarini, Corbetta, Pellegrini, De Visee and De Murcia, Thurs, Dec 5, 12:05pm, MIT Chapel. Free.

MIT Concert and Festival Jazz Bands* - Jamshied Sarifi and Everett Longstreth, directors, with guest bands, Fri, Dec 6, 8pm, Kresge Auditorium. Admission \$1.

MIT Concert Band* – John Corley, director, performs works by Milhaud, Guppy, Mahr, McGah, Williams, & Caiazza, Sat, Dec 7, 8pm, Kresge Auditorium. Free – tickets available the week before in Lobby 10.

MIT Brass Ensemble* - Greg Hopkins, conductor and Myron Romanul, pianist, Sun, Dec 8, 4:30pm, Kresge Auditorium

MIT Chamber Music Society* - conductors Marcus Thompson, Jean Rife, John Buttrick and Melissa Howe, Mon, Dec 9, 5:15pm, Music Library. Free.

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

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

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

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

MIT Gospel Choir* – Rehearsals: Dec 7, Student Ctr Rm 491; Dec 14, Student Ctr Rm 491. All rehearsals, 11-1:30pm. Info, x5-8563 dorm.

Theater

Interviews for MTG's January Production, Babes in Arms* – Non-paying positions for director, musical director, choreographer, set, light and costume designers. Interviews held Dec 4-5, 7-9pm. Call for appointment, x3-6294.

Dance

MIT Dance Workshop* — An evening of student works-in-progress, presented by director Beth Soll, Dec 6-7, 8pm, Kresge Little Theatre. Free.

MIT Ballroom Dance Club Workshops* - Dec 8: Beginning Charleston, 12:30-1pm; Intermediate Hustle, 1:30-2:30pm; Advanced Viennese Waltz, 4-5pm. All classes at Student Ctr Sala de Puerto Rico. Admission: Beginning - \$.25/members, \$.50/non-members; Intermediate \$.50/members, \$1/non. Exhibits members; Advanced - \$2/members, \$3/non-members. Info: x5-9171 dorm.

Western Square Dancing* - Tech Squares 10-week class now in progress, Tues, 8-11pm, Student Ctr 2nd Floor. Combined

club/class level dancing. Dennis Marsh, club caller & instructor; Veronica McClure, club cuer. Modern Dance Workshop** – Beth Soll, director. Workshop, Regular meetings: Beginning Technique, M/W, 3-5pm, DuPont Ctr T-Club Lounge; Composition/Improvisation, Thurs, 3-5pm, T-Club Lounge; Intermediate Technique, T/Th, 5:30-7pm,

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

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

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

Sculpture Archives Gallery - Henry Moore: Figures and Forms. Examines one of the most important topics in the British sculptor's work: the figure in relation to the natural setting, through Jan 5.

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



A scene from the MIT Spanish Drama Workshop production of El Arquitecto y el Emperador de Asiria, with Neil D. Cudmore '87, left, and Victor Sleury. Students of this workshop will present another evening of Spanish language drama this Friday, Dec. 6, at 8pm in the Mezzanine Lounge of the Student Center. There will be three one-act plays by contemporary dramatists representing some of the most recent and significant theatre of Chile, Argentina and Mexico. Workshop director Manuel Delgado, assistant professor of Spanish, gave the following assessment: "Through scenes of sometimes light-hearted, and sometimes ironic humor, these plays shed light on the social and human conditions in Latin American culture." They are: El Delantal Blanco by Sergio Vodanovic, Historia de un Flemon by Osvaldo Dragun and Elanso by Emilio Carballido. Refreshments will be served in this cafe teatro production and donations will be accepted.

-Photo by Maria Elena Lara '84

MIT Folk Dance Club* – weekly dancing-Sundays, Interna-tional Dancing, 7:30pm, Student Center Sala de Puerto Rico; Tuesdays, Balkan and Western European Dancing, 7:30pm, Rm 407 Student Center; Wednesday, Israeli Dancing, 7:30pm Sala

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

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

THE MIT MUSEUM

MIT Museum Bldg - Berenice Abbott: Vision of the 20th Century. Five decades of photographs by Berenice Abbott, including portraits from the '20s, images of a vanishing NY City from the '30s and scientific photos illustrating waves and light refraction, through Dec 27. I.M. Pei: Selected Projects, through December. The United Nations: A Photographic Retrospective. Photographs documenting UN involvement in agriculture, education, health and scientific programs, through Dec 31. DA03Red Weights: Sculptor Carol Keller and painter Kathleen Soles use a variety of materials to explore spatial am biguity as a metaphor. Through Jan 31, 1986. Light Sculptures by Bill Parker 74, Changeable, touchable plasma sculptures, ongoing. Gjon Mili '27: A Tribute, Born in Rumania, world famous photographer Gjon Mili studied elec-

trical engineering at MIT and pioneered in the use of electronic flash and multiple exposure photographs. In 1938 he began doing stories for Life magazine, ongoing. Of Aerostatic Machines: Early Ballooning in France and Britain, Prints from MIT's Vail Collection illustrate the development of ballooning as a science and sport including fanciful inventions for steering balloons, and aerial views of Paris and other cities, ongoing. Physics at the Laboratory for Nuclear Science: 35 Years at LNS, ongoing. Hours: Weekdays 9am-5pm, Saturdays 10am 4cm.

Compton Gallery - Piece By Piece, Works by Italian ar-chitect Renzo Piano 1964-84, MIT Dept of Architecture exhibit, through Jan 11, 1986. Hours: Weekdays 9am-5pm, Saturdays 10am-4pm

Hart Nautical Gallery

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

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

Corridor Exhibits

Corridor Exhibits: Building 1 & 5, 2nd floor: John Ripley Freeman Lobby, Building 4: Rogers Building, Norbert Wiener, Karl Taylor Compton. Community Service Fund,

Ellen Swallow Richards. Women at MIT. An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Building 6: Laboratory for Physical Chemistry. Building 8: Solar Energy, Society of the Sigma XI. Building 14N, across from Rm 14N-118.

Sports

HOME EVENTS: Dec 4: Wrestling vs Bowdoin, Wesleyan, 4pm; Squash vs Navy, 5pm; M's Ice Hockey vs Hartford, 7pm. Dec 5: W's Basketball vs Colby-Sawyer, 5:30pm; M's Swimming vs Coast Guard, 7pm. Dec 7: Rifle vs Boston U, Coast Guard, Northeastern, Norwich, Wentworth, 8am; M's Fencing vs Penn, 12:30pm; Indoor Track vs Reandais Holy Cross WPI 1pm; M's Gymnastics vs Harvard. Brandeis, Holy Cross, WPI, 1pm; M's Gymnastics vs Harvard, 2pm; W's Basketball vs Elms College, 2pm. Dec 9: M's Ice Hockey vs Tufts, 7pm. Dec 14: Indoor Track vs Alumni, 2pm.

Wellesley Events

Jewett Arts Center* - Psintings, Drawings and Sculpture from the Permanent Collection, continuing. Contemporary Prints from the Permanent Collection, opens Dec 7,

Women Writers* – Caroline Williams, assistant professor, English, Boson University, Lecture, Dec 4, 4:15pm, Library Lecture Rm.

The Meaning of Mutuality* - Judith Jordan, PhD, McLean Hospital, Stone Center Women's Psychological Development: Theory and Application Lecture, Dec 4, 8pm, Science Ctr Rm 377.

Christmas Vespers Concert* - Wellesley College Choir and Columbia University Glee Club, brass instrumentalists and organ, Dec 8, 8pm, Houghton Memorial Chapel.

*Open to the MIT community only

***Open to members only Send notices for Wednesday, December 11 through Sunday, December 22 to Calendar Editor Rm 5-111, before noon, Friday,

discussion Undergraduate education under

Discussions are now fully under way within the School and Institute committees described below to strengthen the academic program and overall experience for MIT's undergraduates. According to Professor Margaret MacVicar, MIT's Dean for Undergraduate Education, "these deliberations have the potential of galvanizing thoughtful, bold changes in the undergraduate academic program and in its relationship to the overall undergraduate experience.'

Dean MacVicar and the various committee chairs invite members of the academic community "to communicate with members of the committees, to offer ideas and concerns to these deliberations, and above all, to seize imaginatively upon the special opportunity the Institute has before it."

Committee on the Humanities, Arts, and Social Sciences Requirement

The charge of this Committee is to develop a well-thought-out proposal for a new HASS and interests of the faculty within the School of Humanities and Social Science, but that also will address the concerns expressed by faculty in the Schools of Science and Engineering who want their technically educated students to receive a liberal education that will serve them in good stead throughout their Requirement that not only will meet the concerns adult lives. The Committee expects to prepare a preliminary report for discussion in the spring. The Committee reports jointly to Ann F. Friedlaender, Dean, School of Humanities and Social Science, and to Dean

The Committee members are: Pauline Maier, History, Chair; Lotte Bailyn, Management; Alan Guth, Physics; John Hildebidle, Literature; Stephen Lippard, Chemistry; Gary Marx, Urban Studies and Planning; Louis Menand, Political Science; Merritt Roe Smith, STS and History; George Stephanopoulos, Chemical Engineering; Bernhardt Wuensch, Materials Science and Engineering, and Mark Curtiss,

Integrative Education Committee

The charge of this Committee is to design an integrative program in the liberal arts that is suitable to the MIT context and culture. In defining the goals of such a program and how they might be reached, the Committee hopes to provoke wider discussions about the desirability of bringing the "new liberal arts" to a self-selected group of MIT undergraduates.

By "new liberal arts" the Committee has in mind the establishment of dual competency in a technical discipline (science or engineering) and a humanities, arts, or social science discipline. The Committee reports to Dean Friedlaender.

The Committee members are: Leo Marx, STS and Literature, Chair; John Harbison, Music; Philip Khoury, History; Arthur Mattuck, Mathematics; Marsha Rosner, Applied Biological Sciences; Francis Ogilvie, Ocean Engineering; Joseph Sussman, Civil Engineering; Irene Tayler, Literature; Martin Weitzman, Economics, and Jeremy Wolfe, Psychology. Graduate student member and undergraduate member to be appointed. **School of Science Education Committee**

The charge of this Committee is to: a) initiate and respond to proposals bearing on undergraduate education; b) provide the Dean with information and counsel on departmental views of undergraduate education; c) look at the science core subjects (Institute Requirements), and assess the quality of teaching, subject matter, effectiveness, and whether they provide a coherent basic education in the sciences; and d) explore whether the Institute Science Requirements should be changed. The Committee reports to Gene M. Brown, Dean, School of Science.

The Committee members are: Robert Silbey, Chemistry, Chair; Robert Jaffe, Physics; Arthur Mattuck, Mathematics; Marsha Rosner, Applied Biological Sciences; John Southard, Earth, Atmospheric, and Planetary Sciences, and Robert Weinberg, Biology.

Commission on Engineering **Undergraduate Education**

The Commission is charged with conducting a comprehensive review of the MIT program of undergraduate engineering, including those aspects of the Institute's core and of the Institute's environment which influence engineering education. The four-member Commission is assisted by three subgroups focused respectively on the Institute core, the engineering curricula, and the Institute environment. The Commission is coordinating its review closely with those being conducted by the School of Science Education Committee and by the Committee on the Humanities, Arts, and Social Sciences Requirement. The Commission is working with these committees as well as with departmental groups from the School of Engineering to develop, by January, a set of goals for engineering education. It will

then address implementation, and produce a preliminary report with recommendations by May 1986. The Commission reports to Gerald L. Wilson, Dean, School of Engineering.

The Commission members are: Jack Kerrebrock, Aeronautics and Astronautics, Chair; Hermann Haus, EECS; Lawrence Lidsky, Nuclear Engineering, and Borivoje Mikic, Mechanical Engineering.

Three of the members chair the following subgroups, whose memberships at this time

Subgroup on Institute Core: Hermann Haus, Chair; Edward Crawley, Aeronautics and Astronautics, and Ulrich Suter, Chemical Engineering.

Subgroup on Engineering Curricula: Lawrence Lidsky, Chair; Raymond Baddour, Chemical Engineering; Rafael Bras, Civil Engineering; Shaoul Ezekiel, Aeronautics and Astronautics and EECS; Louis Smullin, EECS, and Bernhardt Wuensch, Materials Science and Engineering.

Subgroup on Institute Environment: Borivoje Mikic, Chair; Jeffrey Lang, EECS; James Melcher, EECS; Jerome Milgram, Ocean Engineering, and Fred Moavenzadeh, Civil Engineering.

Bambara to read

Writer Toni Cade Bambara will give a reading from her work today (December 4) at 8pm in Rm 34-101, sponsored by the Women's Studies Program as the third speaker in the series, "Freedom, Fiction, and Family: Black Women Today.'

Ms. Bambara, who lived in Atlanta for many years but now makes her home in Philadelphia, is most well known for her book, The Salt Eaters.

The concluding appearance of the series will be given by psychologist Helen Boulware Moore, who will speak on "The Black Woman: Revisions of a Distorted Image," on February

Weinberg speaks at Forum

'The Search for the Origins of Cancer," will be discussed by Professor Robert A. Weinberg of biology and the Center for Cancer Research, tonight at 8pm in the Cambridge Forum, 3 Church St. The program is open to the public free of charge.

Ernesto Blanco to give Den Hartog Lecture

Adjunct Professor Ernesto E. Blanco of the Department of Mechanical Engineering is the recipient of the 1985 Jacob P. Den Hartog Distinguished Educator Award and will deliver the Den Hartog Lecture at 3pm Dec. 6 in Rm 3-133.

The award is given annually for "excellence in teaching mechanical engineering which has fostered the development of physical insight and engineering judgment." It is named for Professor Emeritus Jacob P. Den Hartog of MIT, one of the most distinguished mechanical engineering educators in the world.

Professor Blanco is widely recognized as an outstanding industrial practitioner of mechanical engineering design and deeply respected for his commitment to teaching and research.

Since 1974 he has been president of Universal Textile Machine Corp. and has been involved in the development of special textile machines. He has designed a faulty needle sensor for knitting machines for which a patent has been issued. He also has been involved in the development of a Braille cell display system for the blind under a contract from the National Science Foundation and is presently technical director of the ophthalmic division of Acutex Microsurgical Inc. of Norwood, Mass.

Professor Blanco holds the BME from Rensselaer Polytechnic Institute. He was also educated at La Salle Academy, Havana Intitute and Havana University, all in his native Havana, Cuba, and at the Cuban Naval Academy in Mariel, Cuba.

From 1960-64 he was an assistant professor in the Department of Mechanical Engineering at MIT. From 1964-69 he was associate professor at Tufts University in the Department of Engineering Graphics and Design. From 1969 until 1974, when he became head of Universal Textile, Professor Blanco was corporate staff consultant at Malden Mills, Inc., where he was involved with research and development of special textile machines for proprietary processes and supervised technical development in five corporate mills.

He is an elected member of the Sigma Xi Honorary Research Society and the Tau Beta Pi Honorary Engineering Society. He was associate editor of the Journal of Engineering Graphics and Design of the American Society for Engineering Education.

Tech Talk, December 4, 1985, Page 5

CLASSIFIED

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

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

Deadline is noon Friday before

For Sale

Ovr-the-range hood for vntd or vntless instlltn, all s/s, pwrful variable spd fan, lghts, 30° W, v gd cond, \$30. Len, x8-2714 Draper.

Xmas trees: cut your own Nottingham Tree Farm, E Rindge, 45 mi frm MIT, Rte 2 to Concord, then Rte 119 to "Welcome to NH" sign, 2nd rd on rght aftr - Wood Ave. Call 603-899-6646

All nw: lrg bl Viking glss vase, \$10; Kodak Pleaser instnt camra, \$10; elec ktchn clck, wd frm \$10; bxed set books – Little House by L.I. Wilder, \$20; bxd sockt wrnch, \$10; wine crock, \$3. Call 484-0802

Bos Symphny tckts, 2/5/86, \$14/pr. Marty,

Hcky skts, CCM Mustang, sz 7 (shoe sz 8), hrdly usd, exc skts, bght for \$75, will sell \$35. Call 735-9370 eves.

Whirlpool gas dryr, fmly-load sz mst sell, \$90. Nelia, x3-1334 or 237-5125

Like nw forst grn velour couch & lv seat w/plnty of pillows, \$800 or bst. Donna, x3-1315 or 427-0429.

Fully wtrprf durable padded camra bag, lifetime grntee, purched in Sept for \$73.45, mst sell for \$40 or bst. Call

x5-9284 dorm or 494-0138. JBL K140 15" musical instrmnt spkr, \$40; Peavey B.W. 18" bass spkr, \$40, bth nd recone job. Dave, x3-4682 or 749-3101

Stereo sys: Tandberg TR 3030 AM/FM rcvr, \$150; Dual CS515 trntbl, \$75; Rega

Camber 2.5 spkrs, \$200, 1 yr old, seldm usd. Steve, x3-6533.

Complt BR set: sgl bed, drssr, mirror, nght tbl, \$200; Anne Klein W's shoes, sz 7½M, taupe, low heels, bst offr. Linda,

Magnavox b&w tv, \$30; Olympiette elec typwrtr, nds rpr, free. Carrie, x3-3567.

2 Sears snw trs, unmntd, D78-14, gd cond, \$48. Call x3856 Linc or 244-6336.

Q-sz mttrss, cstm-md by Mystic Bedding

of Arlington, usd jst 6 mo, mst sell, orig \$199, \$150 or bst. Julia, x3-5642. Lrg wh tailrd drapes, divide 2 into 4 w/no

sewng, bordr of grn, yellow & pnk rbbns, bst offr ovr \$40. Call x3-4380 or 868-5140 to 10:30pm, keep tryng.

Danish mod couch, bl/wh/brwn stripes, gd cond, \$125. Call 729-7612 aftr 4pm.

Silvr bl pwr Peralta skatebrd, exc cond. barely usd, all parts inc, valued \$65, askg \$40; Kent dirt bike, gd cond, 435. Judith, x3-5133.

High End Audio compnents: dbx 228 dynmc range expndr & Noise Redctn Unit, nw \$500, sell for \$250; Gemini EQ1500 stereo graphc eqlizr, 12-bnds/chnnl, mny more featurs, nw \$400, sell for \$200. Paul, x3-6330 or

Apple II+, 2 drv, 16K RAM card, Integer card, RF mod, \$650; CP/M & 80 col cards also avibl. Call x5-8771 dorm or 494-5201 for mssg.

Brokn trmnl, Hazeltine 1500, \$50. Call x5-9415 dorm or 494-0251 anytime

2 girl's bikes, grt Xmas presnts age 4-7: bl, begnnr, 20" whl, banana seat, exc cond, \$35; yellow 3-spd Columbia, 24" whls, v gd cond, \$25. Call 861-0093.

Pr usd chldrn's Elan skis, 100cm w/Tyrolia Stepin bindngs, Alpina buck ski boots, chldrn's sz 12, chldrn's Kerms ski poles, 31", \$40 for set. Lucy, x3-4971.

American Airline tckt, rnd-trip Bos-LA-Bos, lv Sat 12/21, retrn Sun 1/5, nonstop bth ways, \$358. Alexana, x3-6886.

Fender Precision bass guitr, '72, wh w/blck pick guard; '57 Ampeg V4 amp w/KLH 12" woofr; bth music indstry stds, \$800/both. Ted, x8-2218 Draper.

Rossignol, K2, Olin, Hart skis, 150-195cm, \$10-65; boots sz 7, 9½, 12, \$25-75; poles, \$10; hcky skts, sz 7, 9, 12, \$15-25; x-cntry skis & boots; 2 twn mttrsses & bx sprngs, \$50; Norwegian hndmd sweatrs, \$35-85; GE tstr ovn, \$18; elec htr, \$18; Westbend nw humdfr, \$65; Westbend usd humdfr, \$45; AT&T rotry phone, \$10. Call 332-8251.

Nw tr for Volvo 142 + rim, \$45 or bst; sidekck for IBM PC, \$35. Call x3-6164 or 522-7639 aftr 8pm.

Mechatron daisy whl prntr, lttr qlty#Diablo 630, v gd cond, w/xtra rbbns & prnt whls, askg \$500. Call x5-8242 , 7-11pm.

Pr CCM Super Tack hcky skts, sz 6 (?), \$20; pr Nordika 2-buckl ski boots, sz 7½, lt grey, \$25. Call 547-5357. Boy's hcky skts, sz 12, like nw, usd 2X, \$20 or bst. Gabriela, x3-7001 or 332-7776

Hoover Dial-a-Matic w/auto pwr drv, perf

cond, like nw, \$150. Call 876-1940. Applnces: wshr, \$65; dryr, \$45; 40" elec range, \$60; 36" range hood, \$20. Phil, x3-7422 or 522-7310.

Couch & 3 chrs, \$100; DR set, \$150; K-sz bed, exc cond, \$350; 190cm skis w/b

\$10. Call x3674 Line or 275-2599 \$100 gft cert to Fancy Flee Antqs, Lexington, \$90. Bill x4493 Linc.

Roll-away bed, opn 185x75cm, close 75x40x105cm, \$35. Jean-Luc, x3-3222.

2 stdded snw trs & 2 wntr steel bltd rad trs frm '77 Pinto sta wgn, usd only 1 wntr, \$80 or bst. Susan, x3-2285 or

Dble Mattress, nice, 80" x50", \$40. Call Jirka, x3-1828 or 868-8873.

Sofa & love seat, bge tones, zig zag dsgn, \$450: bdrm set: full sz headboard, chst. ireau, \$350; two end this & cocktl thi, oak fnsh, \$275. All exc cond. Can be seen in Malden. Pat, x8-3513.

Vehicles

71 Opel wgn, 4 cyl, 4-spd, AM/FM/cass, halogen hdlghts, all-seasn rads, 2 xtra rims, no rst, rns grt, gd mpg, \$800. Call x4902 Linc or 584-6279 eves.

"72 Lincoln Continental, brwn, 133K, carb nds wrk, \$550 or bst. Call x3-7282 or 332-0767.

72 Olds Cutlass, 76K orig, grn w/wh int, rns grt, bdy gd, \$1,100 or bst. Glenn, x5738 Line or Kathy, x3842 Line.

73 Dodge Dart, slnt 6 eng, a/c, no rst, rns grt, 2 snws, \$800 or bst. Deborah, x3-2341 or 547-1711 eves.

'74 Chevy Luv w/campr shell, no rst, gd trs, nw frnt brks & whl bearngs, gd cty trnsprtn. Tim, 229-6349 or 524-8176.

'74 Karmann-Ghia, exc rnning cond, lttl rst, 70.5K, \$3,000 or bst. Call 661-9046

'75 Ford Maverick, 4dr, auto, 6 cyl, lt blue, 85k, minor rst, dings, \$300. Harvey, x3465 Linc or 864-3319 eves.
'76 Mercury Cougar XR7, v cln, 2-dr, 351

V8, rns grt, nw rear boostr shcks, wtr pmp, U-joints, mastr cyl, frnt brks, fan, carb, diff trnsmssn, rear dfrstr, askg \$2,150 or bet. Call 233-4934.

'76 Honda Civic CVCC htchbck, 5-spd. orig ownr, exc cond, no rst, nw cltch, AM/FM/cass stereo, reg gas, \$1,200. Call x7481 Linc or 259-0278 eves.

76 Audi SL100, 4-dr, 97K, rns grt, int gd, bdy almst no rst, v dpndbl, \$1,300 or bst. Nick/Taras, 668-8992 Walpole.

'77 AMC Pacer, exc cond, \$1,500 or bst. Roberto, x3-5723 or 497-6171.

77 Ford LTD II, 67K, exc cond, AM/FM, no rst, askg \$1,200. Sung, x3-8941.

77 Dodge Aspen wgn, auto, a/c, ps, pb, AM/FM, 6 cyl, 107K, \$700 or bst. Joe Z, x8-2682 Draper or 479-8506.

'78 Chevy Luv, lng bed, 2WD, 4 cyl, auto, red/wh, clth/carpt, slidng rear wndw, looks & rns gd, w/4 nw chrome mags nvr mntd, askg \$2,800. Call x8-1628 Draper

'78 Ford Ltd wgn, 58K, ps, pb, a/c, \$900; '72 Chevy Impala, 85K, ps, pb, a/c, \$500, bth gd cond & shape. Seo, x3-2223 or 494-1401.

'79 Chevy C10 1/2 ton pckup, nw trs, w/snws, cap, rear inserts for campng, will sell w/o cap, \$3,400. Darryl, x7505 Linc or 692-6650 Westford.

'79 Chevette, 4-dr, 47K, nw cltch, gd trs. nds ring job, \$500 or bst. Tony, x3-6258 or 241-8215.

79 Ford Granada, 65K, v gd cond, \$1,950. Dr. Folman, x3-6782 or 731-5801 eves.

'79 Fiat Spyder conv, AM/FM stereo cass,

79 Fiat Spyder conv, Abulr m stereo cass, 80k, exc cond, no rst or dnts, Fl car, \$2,800. Call 491-5677.

80 Chevy Citation, 2-dr htchbck, std shft, dk grn, 72K, Abulf m, frck, rns well, nw stckr, \$1,500. Call x3-4306.

'81 Ford Escort, 63K, exceptnlly cln, excond, \$2,100. Call 643-7708 or 273-1993 aftr 5pm

'81 Olds Cutlass wgn, lo 45K, ps, AM/FM stereo, wirewhls, Chapn ownr, always gargd, exc cond. Call x3-5316 or 964-6164 eyes

'81 Buick Skylark, a/c, auto, AM/FM stereo, ps, pb, rear window defogger, 7 mo break down insurance, perf cond, \$3,900. Jon, x3-6802 or 494-1534.

'82 Datsun 200SX, auto, bl, exc cond, AM/FM/cass, rstprf, Chapman, \$4,500. Candice Tang, x3-4136 or 770-3272 eves.

'83 Kawasaki 305CBR, 3K, exc cond. always gargd, blt drv, nw batt, \$750 or Elizabeth, x3-6809 M-W-F, or

'84 Datsun 200 SX-XE, 5-spd, ntchbck, silvr, digitl pkg, 100K/5 yr wrrnty, elec sunrf, AM/FM/cass, a/c, alloy whls, rstprfd, mving, mst sell, \$9,500 firm. Beth, x2863 Linc.

Housing

Westgate sublt, 2BR, mid-Dec to end-Jan. Calvin/Maria, 577-8977.

Westwood, pleasnt 6 rm ranch, quiet, conv to commm rail & 128, nice yrd, w&d, frplcd LR, no pets, refs, avlbl 1/1/86, \$800/mo. Jim, x8-1300 Draper or 237-0605.

N Camb 4 rm apt, 1st flr, nr T, exc cond, \$650 unhtd, refs req. Corinne, x3-2844 or

Sprng sublt, ownr-occupied 2-fmly, 2BR hm in Dorchester nr E Milton, LR, DR, prch, bck yrd, access to Red Line,



Satisfy even the most confounding people on your Christmas list with a gift from The MIT Museum Shop 265 Massachusetts Avenue 253-4444

\$300/mo+ utils, avlbl Jan-July '86. M. Geisler, x3-4859 or 282-9308.

S End, lrg studio, \$500/mo inc utils. Pete, x3-8473 AMs or 482-7286 8-11pm

Cambridge, nr Kendall Sq & MIT, cln, safe, sunny 3BR, 2b, lrg ktchn, avlbl 1/1, \$1,000+ utils. John, x8-4118 Draper or

N Conway, NH, 2BR, 2b, wntr rnt by the mo, or for sale, \$42,000. Call x4292 Linc.

Loon Mt, NH, mod studio condo, 1BR or 2BR avlbl for seasn, mo, or wk, opp ski slope. Call 527-3431 aftr 6pm.

acon Hill sublt, 2 rm studio, s & LR, 15 min wlk to MIT, avlbl 12/17 or 1/1, \$475/mo. John, x3-8367 3-6pm; Jim, 367-1831 7-10pm; or Mead 367-4832 anytime.

IAP sublt, well-furn apt perf for cpl, avlbl for Jan, locatd on quiet st in N Cambridge, conv to Red Line, \$600. Dan, 497-2306.

Animals

3 cats deperately nd nw hms: 1 calico, 2 orange/wh, all spayed, traind, frudly Anne/Laura, x3-4416 or 776-2859 eves.

Micro Chip: 7-mo-old blck spayed F cat w/gld eyes & Hugh Mungus: Irg high tech gry & blck, very fradly, neutered M cat nds nw hm. Call x3-5265.

Wanted

Hsesittr(s), 12/20¼, 3BR suburbn hse, 10 min frm bus to Hrvd Sq, care of plnts & 2 cats. Alfred, x3-2916.

/yng dog in Ctrl Camb v yrd who'd like anothr dog to join theirs a few days/wk, M Goldn Retrvr, 1½ yrs, frndly & playful is lonely indrs all day w/o peers. Call 864-0239, lv mssg.

Apt/hse wntd by facity cpl for fall semstr only, every yr, beginning 1986. Joe, x3-7354 or Gay, x3-3090 or 491-7580.

Ride wntd frm Arlington to MIT & bck. Hrs flexible, 8 or 9am & 5 or 5:30pm. Call 646-0181.

Roommates

V quiet sensbl indpndnt hsemte wntd for 5BR hse, 27+, wrkng or postdoc, no pot, Porter Sq, moderte rnt. Bob, x2936 Linc.

Mature W sought by same to shr btfl 3BR mod Camb twnhse w/slf & cooperty teenage daughtr, 1 mi to MIT, nr rivr, safe, uiet, \$350/mo+ utils. Call x3-1631 or

M/F to shr 3BR apt nr Winter Hill, Somerville, Indry, dshwshr, a/c, prkg & view in nw bldg, \$285/mo inc ht & utils, avlbl Jan. Call 625-7015 aftr 5pm.

Non-smkr to shr 2BR Watertown apt, balcny, stdy, pntry, LR, DR, eat-in ktchn, 10 mins to Hrvd Sq, 5 to Star Mkt, 1 blck to bus, restrnts, shps, lndry, pref mature F, \$265/mo+ utils. Andrea, 924-4689

M/F to shr 5BR hse w/4 rcnt grads (83#85), sunny, v spacious, on Brighton-Newton brdr, frplc, LR, DR, huge ktchn w/dshwshr, pond & field in bckyrd, lots of free drvway prkg, avlbl aftr Xmas, \$240+ utils. Pat, x3-8912 or 783-0945.

Non-smkr wntd for lrg 2BR apt, Brookline nr Washington Sq. prkg avlbl, \$314/mo inc ht & hot wtr, avlbl 12/15.

Carpool

Rd wntd. Everett-MIT, 8:30-5, will pay ary Ann, x3-1319/1329.

Rd frm Onset (Robinwood area) Buzzards Bay to Draper Lab, 7-3:30pm or 7:30-4pm. Marie, x8-4541 Draper.

Lost and Found

Lost: bl Koho hcky glove, Mon 11/11, betwn MIT rink & Dupont locker rm. Norma Ofsthun, x3-6483 or leave glove w/rink persnnl.

Lost: set of car keys on wh plastic key ring, 3 keys w/Ford inscriptn, 11/19 nr N-10 lot. Carolyn, x3-0573.

Miscellaneous

Wrd pressng, typng, editng, 10 yrs MIT exp. Call x3-7309. Pro graphc illstratns, can be pd by acct

Call x3-7303 or 492-5158 eves.

Typng, 15 yrs exp, accurate & prmpt, will pick up & delivr. Diane, x3-5646. Renaissance music w/lute, recrdr & voice

&/or classcl/Flamenco guitr avlbl for dinnrs & parties. G. Collver, x3-6642 or

Surplus Property

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

Case 1599 - For sale by sealed bid. Bids to be received by 4pm EST, Dec 11, 1985. To inspect call Janet Romaine, x3-3470: Lanier word processor system w/noise shield, disk drive & printer, mdl

Case 1603 - Transfer of funds required. To inspect call Gerry Power, x3-5034/3227: TAM/CLADAN 1500 degree furnace, mdl 305/315, inc Micristar process controller.

Case 1617 - Transfer of funds required. To inspect call Tom Donnelly, x3-2776: Norelco electronic air filter, mdl CAM50.

Case 1587: Pitney Bowes postage meter,

Case 1598: Tables, 30x30", 12 items; 4-seat sofas, 4 items Case 1600: 4-drwr file cabinet; 2-dr

Case 1601: Leeds & Northrup recorder.

storage cabinet.

Case 1602: IBM computer, mdl 1801; IBM disk storage, mdl 1810;; IBM dath adapter, mdl 1826; IBM printer, mdl

Case 1606: A.B. Dick mimee machine, mdl 550.

Case 1573: 3M microfiche reader, mdl

Case 1612: Precision Scientific thelo dry-

Case 1616: Sony dictaphone

POSITIONS AVAILABLE

It is Institute policy not to discriminate against individuals on the basis of race, color, sex, sexual orientation, religion, handicap, age, or national or ethnic origin in the administration of its programs and activities.

This list includes all nonacademic jobs currently available on the MIT campus. Duplicate lists are posted outside the offices of the Special Assistant (10-215) and in the Personnel

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

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

Employees at the Institute should continue to contact their Pers ficers to apply for positions for which they feel they qualify.

Oveta Perry

Dick Higham	3-4278
Virginia Bishop	3-1591
Appointments:	
Therese McConnell	3-4274
Ken Hewitt	3-4267
Kenneth W. Chin	3-4269
Sally Hansen	3-4275
Appointments	
Maureen Howard	3-4268
Kim Bonfiglioli	3-4076
Appointments	
Nancy Collins	3-4077

Administrative and Academic Staff

Administrative Assistant to the Chairman, This position is in the Office of the Chairman of the MIT Corporation and requires a person to provide a full range of services to the Chairman. This includes heavy scheduling of meetings, travel ar rangements, and coordination of all as pects of meetings; handling correspondence addressed to the Chairman; main-taining relations with MIT trustees, alumni and with people outside MIT. Strong organizational skills are needed to handle multiple relations with many individuals. A dedication to excellence and high standards is very important. Person supervises support staff in Chairman's of advanced degree or equivalent experience; attention to detail; excellent organization and writing skills; good judgment and an ability to work under pressure with a de ng schedule; MIT experie knowledge is highly desirable. A85-649

Budget Officer II, Fiscal Planning and Budget Office, to assist in the preparation of the Institute's Budget. Will act as fiscal consultant for School Deans and Vice Presidents in areas of assigned responsibility; assist in long-range planning and fore casting of future needs for expanding and for new programs; prepare special reports as directed. A Bachelor's degree in Business Administration or the equivalent combination of education and experi ence is necessary. Five to seven years ex-perience in budgeting and accounting systems and procedures common to educa tional institutions required. Working knowledge of personal computers helpful. A85-648

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

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

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

Assistant to the Director, Office of Minority Education, to assist in the development, preparation, monitoring, and execution of departmental budgets. Will prepare, analyze, and monitor internal finan-cial statements for review by director check and approve invoices for payments Maintain liaison with accounting, payroll, budgets, Office of Sponsored Programs, and other administrative offices. Coor dinate office workload with support staff; supervise and train undergraduate assistants; maintain liaison and good relations with students, faculty, visitors, alumni and other pertinent individuals within fice. Qualifications include a bachelor's or and outside the Institute who have an in-

terest in OME. Assist in interpreting and advising office staff on departmental and Institute policy. Perform other duties as assigned by the Director. Must have Bachelor's degree or equivalent education and work experience. Accounting experi-ence or a background in the administration of financial matters is required. Good communication skills and the ability to work effectively with minority students and other university personnel essential. Office management skills desirable.

Assistant to the Bursar/Student Accounts, Bursar's Office, to manage the

Student Accounts Section. Will be responsible for about 9,000 accounts, totaling \$115 million last year, and supervising eight MIT employees. Will function as chief liaison on student matters with the Student Financial Aid Office, the Registrar's Office, and Deans' Offices Will exemplify and instill in staff an at titude of caring, helpfulness, and col legiality, without loss of efficiency and ef-fectiveness. Will ensure consistency and fairness of policies and procedures, develop and implement written com-munications with students and parents, other MIT offices, and outside sponsoring agencies: handle those inquires and com plaints which are special cases with potential impact on Bursar's Office policies or "image"; regularly review the status of financial delinquencies, and develop and implement procedures for minimizing them; and counsel students with financial problems. Master's degree or equivalent combination of education and experience required. Exceptional communications and human relations skills; extensive experience working with students; strong managerial experience necessary. A facility and accuracy with numbers and knowledge of basic accounting needed. Experience with computer systems and personal computers is highly systems and persona desirable. A85-642

Assistant to the Bursar/Student Accounts, Bursar's Office, to ensure the timely payment of student fees due MIT. Will help students and their parents understand the accounting of charges and credits to their accounts. Responsible for the proper charging, billing, and collection of 2000 student accounts. Will assist students in the registration process and students in the registration process explain and arrange payment plans Counsel students with financial problems consult with and advise as necessary Deans, faculty, department ad-ministrators, financial aid officers, and other MIT personnel concerned with a student's account problems. Recommend appropriate action to ensure collection of past due fees, including assessment of late payment fines, withdrawal of student status, and withholding of degrees. Advance cash to needy students based on credits to their accounts and cooperate with the Student Financial Aid Office in advising students on financing their edu-cation. Bachelor's Degree or equivalent combination of education and experience required. High degree of comm and human relations skills, desire to assist others, patience to listen, and abili-ty to apply rational analysis to their pro-blems. A facility and accuracy with numbers and computer systems, respect for order, and ability to systematically organize thousands of written and oral tran sactions necessary. A85-641

Librarian IV, Head, Engineering Libraries, MIT Libraries, will administer MIT's Barker Engineering Library and its branch and the Aeronautics and Astronautics staff, under the Associate Director for Public Services. Will manage a staff o eight librarians and 16 support staff and will participate in and oversee the provi-sion of information services and the development of collections. In addition, will participate in systemwide policy formula-tion as a member of the Divisional Librarians Group which coordinates the public services of the MIT Libraries and as a member of Library Council, MLS from an ALA-accredited library school required. Minimum of five years increasingly responsible professional experience in an engineering or science research library required. Demonstrated effective management skills required. Experience in infor mation services and collection manage-ment as well as demonstrated knowledge of the application of technology to librar ies are essential. Degree in engineering or science highly desirable. Final candidates must demonstrate well-developed interpersonal skills and the ability to work in groups. C85-168

Sponsored Research

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

Technical Assistant, Chemical Engineering, to assist in a long-term pro-gram designed to study the energy metabolism and general biochemistry of animal cell systems. Work includes small-scale animal cell cultivation in fermentors and on microcarriers and ceramic sup-ports, monoclonal antibody production, and biochemical analytical and separations techniques (electrophoresis, gas chromatography, affinity and high pressure liquid chromatography, ultracentrifugation, fluorometry and UV and visible absorbance spectrophotometry). In dividual will also perform some alcohol and organic acid fermentation work and oversee ordering supplies and other general maintenance tasks. Requires BS in Biology, Biochemistry, or Chemistry. Previous research laboratory experience and course work in biochemistry and ap-plied microbiology preferred. R85-862

Library Support Staff

Library Assistant IV, MIT Libraries Catalogue Department (part-time te rary), to participate in the original

Page 6, Tech Talk, December 4, 1985

cataloguing and online conversion of 11,250 scientific and technological publications issued by MIT from 1861-1974. Will convert MIT publications' bibliographic records to machine-readable form directly online, according to AACR2 catalogue code, OCLC bibliographic input standards, and MIT cataloguing policies. Will assign OCLC field and subfield codes and indicators. Barcode publications, verify personal names and series in MIT and online authority files, and create new authority records for personal names. Will resolve personal name conflicts and initiate correction to bibliographic records and authority files to reflect AACR2 rules of entry. Maintains statistics of items converted, performs project-related auxiliary assignments as required. Minimum High School graduate and 2.5 years directrelated experience required. Working knowledge of the MARC format, preferable in the OCLC Cataloguing Subsystem, and experience with CRT operations required. Experience using AACR2 catalogue code desirable. Accurate typing (40 wpm) and attention to detail essential. One year temporary position January 1 December 31, 1986 with possible renewal for second year. L85-111

Library Assistant IV, Rotch Visual Collections-MIT Libraries, to research, identify, catalogue, and classify slides and photographs of art, architecture and urban planning. Will assist faculty members and students in locating appropriate visual materials; process slides and photography requests; type catalogue cards for visual materials; demonstrate use of video equipment; participate in collection management routines, including circulation control and statistics, shelf reading, weeding and replacement processes. May direct student assistants in routine tasks. High School graduate or equivalent; two years of college preferred. Minimum 2.5 years direct/related experience required. Reading knowledge of one foreign language (German, French, Italian, Spanish) required. Subject background in architectural or art history required. Candidate should be familiar with library research methods and be able to communicate well with staff and faculty members. Typing skill required. NON-SMOKING OFFICE L85-090

Library Assistant III, Hayden Circulation (evenings, temporary), to perform general stacking routines on all levels of the Hayden Library. Will shelfread in Science Library and participate in shift of material, searches for missing materials and be responsible for closing. Primary responsibilities will include the circulation desk on designated evenings, including all circulation desk functions; registering and issuing Consortium cards, taking applications for cards, training and monitoring evening students, providing directional assistance to library users, implementing an automated circulation system in process and performing additional duties as assigned by the Circulation Librarian. Some typing required. Minimum 1 year direct/related experience required. Physical stamina for stacking and good interpersonal skills essential. This is a full-time temporary position until 3/31/86, effective 4/1/86 this position becomes partime (17.5 hr/week). The person filling this position will have the option of working through 3/31/86 only, or continuing on a part-time basis. Will work Monday-Thursday 4pm-12pm and Friday 11am-7pm. L85-994

Secretary/Staff Assistant

Administrative Secretary, Center for Real Estate Development, to work under the supervision of the Administrative Officer. Duties will include typing and proof-reading reports, correspondence, manuscripts and similar material from rough draft and dictaphone. Will edit and perform limited rewriting, compose routine correspondence; maintain files; perform considerable and complex phone work, including setting up appointments, making complex travel arrangements, obtaining travel advances, preparing travel reimbursement vouchers. Will coordinate and schedule complex appointments, meetings, seminars, events, including large groups. Will also serve as source of information about Center and its programs, including dissemination of published material, arranging for reproduction and printing of reports and manuscripts, overseeing inventory and reprinting of Center's publications; overseeing inventory of office supplies; maintaining journal subscriptions file; may direct work of other support staff. Minimum 4.5 years direct/related experience required, some college or secretarial school preferred. Good communication skills both oral and written necessary. Excellent typing of 50-55 wpm needed. Familiarity with and/or willingness to learn word processing pre-

ferred. Good interpersonal skills essential in this busy office. B85-098

Administrative Staff Assistant, Psychology, to perform management duties for an office of one professor, four postdocs, four to five grad students, and three to four lab technical staff. Will monitor several research accounts, prepare requisitions, invoices, travel vouchers and reconcile monthly statements. Will assist in the preparation of proposals, reports, and budgets, Will type reports and manuscripts on word processor, maintain and review files and records for operation of office; coordinate and schedule diverse and complex meetings and appointments; act as information source on established department and Institute procedures; order and maintain inventory of supplies. Excellent interpersonal skills and ability to communicate clearly within and outside MIT, both orally and in written form necessary. Excellent typing and proofreading skills essential. Must be highly organized and a self-starter. Ease with scientific terms or some knowledge of neuroscience desirable. NON-SMOKING OFFICE B85-095

Administrative Secretary, Council for the Arts, to provide secretarial support for a busy office of several administrators and volunteers. Will gather listings and prepare layout for Calendar of Events; prepare weekly telephone recording of oncampus arts events; take minutes at Executive Committee meetings; type and proofread correspondence, memoranda, reports, and minutes. Will process incoming and outgoing mail, including large mailings; maintain mailing lists; answer phones, screen and redirect calls; photocopy; order supplies; schedule meetings; make travel arrangements; handle accounting transactions, including Institute vouchers, requisitions, purchase orders, travel advances and petty cash. Will maintain gift records; originate and maintain files; receive visitors; assist with special projects as assigned. Discretion is necessary in handling confidential material. Excellent typing (60 wpm), proofreading, and word processing skills. Excellent organizational, interpersonal and communication skills necessary. Ability to operate in a busy office with frequent interruptions essential. Minimum 4.5 years direct/related experience required. NON-SMOKING OFFICE B85-093

Sr. Secretary, Fiscal Planning and Budget, to answer phone and greet visitors, type all correspondence and statistical tables using either personal computer or typewriter. Will maintain and order office supplies and be key operator for copier machine. Responsible for various clerical duties as instructed by Administrative Assistant and Budget Officers, including copying, logging budget changes, filing, mailing budget authorizations. Will assist in arranging meetings and office functions. Must have strong organizational skills to provide secretarial support for nine staff members. Familiarity with statistical typing, calculator, personal computer and dictating equipment as well as a pleasant telephone manner is necessary. Minimum 2.5 years direct/related experience required. B85-115

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

Sr. Secretary, Sloan School of Management, to perform secretarial duties for three professors in the Economic, Finance and Accounting Group of the Sloan School. Will type, proofread and reproduce manuscripts, reports, exams, and correspondence, often of a technical nature. Some work will require transcription from dictaphone, and good command of the English language. Will assist with preparation of course materials and notes, as well as for meetings and seminars. Additional responsibilities will include answering student inquiries, answering phones, scheduling appointments, arranging travel, copying, maintaining files and responding to routine inquiries. Familiarity with and/or willingness to learn Wang word processing and IBM-PC desirable.

Excellent typing, proofreading and general office skills, as well as good organizational skills and the ability to work under minimal supervision essential. Technical typing and dictaphone skills needed. Minimum 2.5 years direct/related experience required. B85-109 B85-110

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

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

Sr. Secretary, Electrical Engineering and Computer Science, to perform secretarial duties for Executive Officer and Assistant. Responsibilities include preparation of faculty promotion and tenure cases on word processor, maintaining records and processing appointments for Department graduate teaching assistants, providing support in preparation of class schedules and catalogue copy, typing faculty and staff appointments and terminations and assisting with visa applications. Will use Department's interactive computer system to maintain records and generate reports. Will type general correspondence and some reports from rough draft, be responsible for mailings, general correspondence, and respond to frequent telephone inquiries from within and outside the Institute. Strong organizational skills and attention to detail required. Frequent contact with faculty, students, and other Institute offices required. Knowledge of Department or Institute desirable. Minimum 2.5 years direct/related experience required. Word processing experience, and/or willingness to learn interactive computer system desirable. B85-087

Sr. Secretary, Architecture (temporary 12/1-2/28), to perform secretarial duties for the Head of Department of Architecture while present secretary is on maternity leave. Will answer phones, screen calls and visitors, and schedule meetings of department committees. Will maintain schedule; make travel arrangements; open and route mail; reply to routine letters independently; type reports and correspondence; assist in compiling tenure, promotion and reappointment cases; maintain excellent and complete filing system. Excellent typing skills, good educational background, ability to recognize priorities of requests, good organizational skills, ability to work independently with interruptions, and good judgment necessary. Familiarity with word processing preferred. B85-086

Sr. Secretary, Electrical Engineering and Computer Science, to work for two Electrical Engineering and Computer Science Faculty members. Will check monthly research accounts, and will type course material, technical reports, proposals, journal articles, and correspondence. In addition will maintain filing system, answer phones and student questions, and will arrange appointments, meetings, and travel. Word processing experience and technical typing skills necessary. 2.5 years direct/related experience required. NON-SMOKING OFFICE B85-081

Sr. Medical Secretary, Psychiatric Services, to perform detailed confidential secretarial duties including making appointments both in person and via telephone, serving as a liaison with outside hospitals, and typing correspondence. Will also work with clinical sociologist in coordinating Institute activities for members of the international community. Duties will include arranging weekly meetings, preparing and distributing notices, and assisting with volunteer activities. Good interpersonal and organizational skills

Media Lab to receive H-P gift

MIT's Media Laboratory will receive equipment and software valued at \$5 million from the Hewlett-Packard Company for research in applying artificial intelligence techniques to areas such as computer music, graphics and animation, video and speech processing.

The Media Laboratory will receive 60 fully-configured workstations and peripherals accompanied by the artificial intelligence software developed by Hewlett-Packard in the last four years.

The company said the gift was made "in recognition of the importance of corporate support of academic research and research training."

Professor Nicholas Negroponte, director of the laboratory, said he viewed the grant as an important recognition of media technology's position in the mainstream of advanced research in computer science.

"Until recently," he said, "the sensory apparatus of computers in general and computer graphics in particular have not been seen as 'serious' academic pursuits, but the decor of computing. By contrast, today, the human interface with computers is considered as one of the, if not the, most pressing problems in

computing. As such, we see this gift as computational glue for eleven disparate groups committed to the qualitative aspects of computer usage."

The grant is one of 13 being made by the company to US universities under a program that provides each school with engineering workstations, prototype artificial intelligence software created at Hewlett-Packard laboratories and one year of maintenance. Deliveries will be spread over a three-year period, with shipments scheduled to begin immediately.

Earlier this year, under the same program, the California-based company made a similar grant to MIT's Department of Electrical Engineering and Computer Science to develop new techniques for instruction.

Hewlett-Packard said that more than 50 universities submitted proposals seeking grants under the program. "The overwhelming response has led us to consider extending the program and to explore ways to share our artificial intelligence research more widely," the company said.

"It's our hope," the company said, "that artificial intelligence will lead to greater productivity in programming and allow computers to become more usable and useful."

essential. Minimum 2.5 years direct related experience required. B85-849

Staff Assistant, Personnel-Benefits Office, to assist in the development and conversion of office records to an automated database. Will assist in redesigning current procedures as appropriate in order to efficiently process and record a heavy volume of applications and forms for a variety of benefit programs. Will maintain records thereafter via direct entry on a computer terminal. Interest in learning utility languages necessary in order to produce weekly and monthly reports necessary. Will utilize DEC II word processor to generate form letters pertaining to MITs retirement plans. Will maintain office files, setting up or reorganizing as necessary. Some experience in the use of automated office equipment and familiarity with the use of word processing is important. The ability to organize work, set priorities and work independently toward deadlines is essential. Accuracy and attention to detail necessary. Good typing skills essential. Minimum 1 year direct/related experience required. NON-SMOKING OFFICE (2) positions available. B85-113, B85-117

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

Staff Assistant, Artificial Intelligence Laboratory, to perform general secretarial duties in support of lab faculty and senior research staff. Duties will include typing, proofreading, editing, answering phones, receiving and distributing mail, and handcarries. Will maintain files and records, schedule appointments, prepare various forms; make complex travel arrangements, and photocopy. Will perform additional duties as assigned. Must be flexible and able to work well under pressure as well as enjoy working with eccentric people. College education preferred. Minimum 1 year direct/related experience required. NON-SMOKING OFFICE B85-105

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

Staff Assistant, Artificial Intelligence Laboratory, to perform combination of clerical and secretarial duties in support of Labs Publication office and one Professor. Clerical duties include processing publication mail orders, photocopying, organizing materials, maintaining inventory records, filing, typing, answering telephone and taking messages, scheduling appointments and meetings, maintaining files and records, making travel arrangements. Must be capable of working independently with little supervision; flexible and willing to assist in various tasks; able to work under pressure in a busy office. Minimum 1 year direct/related experience required. NON-SMOKING OFFICE B85-103

Secretary, Office of Sponsored Programs, to perform secretarial duties for two contract administrators who are responsible for submission of research proposals, negotiation of grants, contracts and post-award administration for various departments within MTL Work will include typing correspondence, maintaining filing system, and answering telephones. Discretion, tact, and good organizational skills essential. Willingness to work as part of a team necessary. Minimum 1 year direct/related experience required. B85-085

Technical Support

Sr. Technical Typist, Chemistry (parttime), to type technical manuscripts and proposals, file, and photocopy. Will work as part of a team. Excellent technical typing skills and general office skills needed. Word processing experience or willingness to learn necessary. Minimum 2.5 years direct/related experience required. Will work Tuesday and Thursday, 14 hrs/week. T85-088

Office Assistant

Administrative Assistant, Dean of Engineering, to act as secretary and administrative assistant to the Dean. Will perform complex and diverse secretarial/administrative duties. Responsibilities will include setting priorities, coordinating and scheduling appointments, meetings and travel; transcribing, typing, editing and proofreading of correspondence and reports; preparing agenda materials for meetings; screening incoming mail and telephone calls. Good knowledge of MIT is desirable. Strong organizational skills, attention to detail, and absolute discretion in handling confidential materials required. Must be able to work as part of a team as well as independently. Minimum 4.5 years direct/related experience required. S85-089

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

Receptionist/Office Assistant. Personnel-Employment (part-time), to act as departmental receptionist in the em ployment section of Personnel. Will provide services related to the employment process including providing information on job status, specifications and applica-tion procedures. Will assist persons in completing applications and refer inquiries to appropriate Institute offices. Additional duties will include administering typing tests, scheduling interviews, maintaining data bank of applicant information, assisting with resume acknowledgment system, and operating word pro-cessing equipment. Will eventually process unemployment claims, and monitor monthly unemployment statements. Will work on special projects as assigned. Must have the ability to grasp both routine proedures quickly and to recognize unusua ituations and respond to them appropri ately. Requires ability to monitor several situations at once. Good interpersonal skills essential. Minimum 1 year direct/ related experience required. Accurate typing and familiarity with computer term nals helpful. (12:00-4:00, 20 hrs per weel flexible) NON-SMOKING OFFICE

Office Assistant, Laboratory for Computer Science (part-time), to assist as receptionist in LCS Headquarters, including handling telephones, filing and typing. Will deliver administrative material and correspondence to other MIT offices as required. Minimum 1 year direct/related experience required. Excellent verbal skills necessary. (20-25 hours/week) S85-102

Office Assistant, Architecture (temporary – late November to late April; full time; some flexible evening overtime), will assist Admissions Coordinator in processing applications for four graduate programs. Duties will include extracting and recording data from applications, and answering routine telephone and personal inquiries. Position requires accurate attention to detail, ability to handle confidential information, and willingness to work independently on assigned tasks. Good interpersonal and typing skills required. Minimum one year direct/related experience. NON-SMOKING OFFICE S85-082

Office Assistant, Student Financial Aid Office, to be responsible for the input of financial aid information for incoming freshen and returning students. Will work closely with two aid officers, other members of the office, as well as other

departments in the Institute. Will have daily contact with students and their parents to answer questions about MIT and about federal policies regarding financial aid. In addition, will keep track of applications and other necessary forms which are part of the aid process and will serve as a backup to the receptionist. Excellent organizational and interpersonal skills required, and experience in data entry and in working with figures. Applicants must be able to work with minimal supervision and able to work toward specific mailing dates and deadlines. College experience/degree helpful. One to three years experience necessary. NON-SMOKING OFFICE S85-083

Service Staff

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

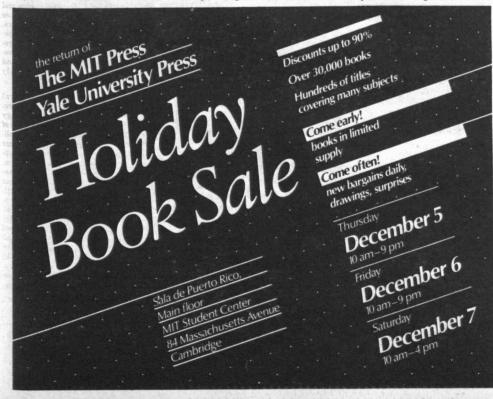
Tech B-Electronic, Haystack Observatory, to assist in operating and maintaining the Westford radio astronomy antenna and receiver system under direction of scientific and engineering personnel. This system includes the antenna servo drive system, digital interfacing, S and X band receivers, IF data processor, high density recording system and control minicomputer. The site also contains environmental monitoring systems and other specialized electronic equipment. Some electrical and mechanical construction work will be done. In addition, operation of the antenna during recording sessions will be required, including some time on occasional weekends and evenings. The position also includes maintenance work on the Haystack electronic and hydraulic systems under direction of engineering personnel. Graduate of two-year technical school or equivalent applicable experience required. Should be knowledgeable in analog and digital circuits as well as having aptitude for working on mechanical equipment. Must be able to climb protected ladders on antenas tructure during performance of duties. H85-302

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

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

Waiter/Waitress, Faculty Club, to perform such duties as may be necessary to the effective operation of the dining facilities including but not limited to setting up tables, taking orders, serving customers, clearing tables, carrying food and dishes to and from the dining room and kitchen, setting up and clearing buffets, cleaning and filling serving dishes, stocking side-boards with placemats, napkins, and condiments and keeping side-boards, pantry, closets and furniture clean and in good order. Will perform other related duties as required. Ability to read and speak English required. Experience in service oriented environment preferred. H8A-298

Bus Person, Faculty Club, to perform such duties as may be necessary to the effective operation of the dining facilities, including but not limited to serving banquets, bussing dishes to and from the kitchen and dining room, unloading dishes into racks for the dish machine, polishing copper and assisting waitresses when necessary. Will perform related duties as required. Ability to read and speak English, experience in service-oriented environment preferred. H85-296



Concert Band to feature flute, clarinet works

By MICHAEL GOOD '79

Correspondent, MIT Concert Band
The annual fall concert of the MIT Concert
Band, conducted by John Corley, will feature
the premiere of a concerto for band by a
former MIT student and guest conducting
appearances by two students.

Admission is free and the public is invited to the concert, on December 7 at 8pm in Kresge Auditorium. Tickets will be available in Lobby 10 from December 2 to December 6.

Karen Dickson '87 will be the featured soloist in the premiere of John Guppy's

Concerto for Piccolo and Band (1985). Mr. Guppy graduated from MIT in 1979 with degrees in biology and music. He has played flute, piccolo, and alto flute in the MIT Concert Band for 11 years. The Concerto is his second work for band, his first, *Lament*, was premiered by the MIT Concert Band last year.

Ms. Dickson is a junior majoring in electrical engineering. She has played flute and piccolo in the MIT Concert Band for three years, and last year was a member of the New England Intercollegiate Band.

Edward Ajhar '86 will conduct George

Professor T.B. King dies at 62

Professor Thomas B. King of the Department of Materials Science and Engineering, interna-

tionally known for his work in chemical metallurgy, died unexpectedly of a heart attack at his home on Saturday, November 23. He was 62.

A memorial service

was held November 27 at First Congregational Church on the Common, Winchester. A date for a memorial service at MIT will be announced soon. Donations in his memory may be made to the John Chipman

Endowed Junior Faculty Chair.

Dr. King, a leading authority in chemical metallurgy and chemical kinetics, was head of MIT's Department of Metallurgy and Materials Science from 1962-1972.

Dr. Merton C. Flemings, head of the Department of Materials Science and Engineering, the current name of the department Professor King headed, expressed deep sadness at Dr. King's death.

"He gave much to our department, in his teaching, research, and department leadership during a difficult decade, and his strong participation in departmental activities throughout his career. The co-op program, which has been so important to us, has run since its inception under his guidance.

"We have lost a colleague, friend, and a gentleman who through his humor, wit and good nature helped us to see the better part of ourselves," Dr. Flemings said.

For nearly 33 years at MIT Professor King was a dedicated teacher who was deeply concerned with the educational experience of undergraduate students. He was director, since its inception, of the departmental co-op program, whereby students acquire actual experience working in industry. By choice, he devoted his time generously to the role of advisor and counsellor to students.

Professor King's research was centered on thermodynamics and kinetics of high-temperature systems, such as in steelmaking. He was the author of more than 50 technical papers on metallurgy and contributed chapters to

Rabbi Herman Pollack

Funeral services for Rabbi Herman Pollack, a religious counselor at MIT for 20 years and the first director of the MIT Hillel Foundation, will be held at 1pm Wednesday, Dec. 4, at Levine Chapel, 470 Harvard St., Brookline. Rabbi Pollack died Monday, Dec. 2, at Beth Israel Hospital after a long illness. He was 78.

A memorial service will be held in the MIT Chapel next month. The date will be announced later.

Rabbi Pollack was a passionate seeker of social justice and was strongly committed to pacifism. From 1952 until his retirement in May of 1972, Rabbi Pollack guided the development of a full program dedicated to the enrichment of Jewish life and culture on the MIT campus. His counsel and spiritual support was available to all of MIT's students and for many years he served as the military draft counselor for the entire student body.

In 1969 Rabbi Pollack and Professor Jerome Y. Lettvin of MIT were the principal spokesmen for a group of MIT faculty and students who brought the issue of conscience and the Vietnam war before the Rabbinical Court of the Associated Synagogues of Massachusetts. They argued successfully before the court that conscientious objection to the Vietnam war was possible within the Jewish tradition.

Rabbi Pollack was the author of Jewish Folkways in Germanic Lands (1648-1806): Studies in Aspects of Daily Life, which was published in 1971 by MIT Press.

Rabbi Pollack was married for many years to the late Sophie (Schneiderman) Pollack who died in 1976. He is survived by his daughter, Mrs. Rosalind Cherson of Newton at whose home, 95 Saco St., a memorial observance will be held through Sunday, Dec. 8.

Joseph Clarke

Joseph Clarke, 63, of Chelsea, a guard at Lincoln Laboratory since 1976, died November 18 after a short illness. He leaves his widow, Audrey C. Jewett and four children, Roy D. of Danvers, Richard A. of Texas, Scott A. and Deborah N., both of Chelsea. He is also survived by a brother, Wallace B. of Malden, a sister, Hilda M. Walker of Beverly and two grandsons.

several books. He was a leader in making contact with Soviet scientists in his field and on five occasions visited the USSR to attend conferences on steelmaking and to visit Soviet industrial facilities and technical institutes.

In 1967 he was one of eight leading professors at MIT selected to give lectures in a series called "Horizon" which was devoted to aspects of science expected to have the greatest influence in the future. He spoke on the future of traditional natural building materials such as wood and stone.

Dr. King joined the MIT faculty in 1953 as an assistant professor. He became associate professor in 1957 and professor in 1961. From 1958 to 1962 he was the executive officer of the Department of Metallurgy and Materials Science prior to becoming department head in 1962.

He was a consultant on extractive metallurgy to major industrial corporations and a consultant on emissions from copper smelters to the US Environmental Protection Agency.

Dr. King was born in Motherwell, Scotland, on April 27, 1923. He received the BS degree in applied chemistry with first-class honors in 1945 and the PhD degree in metallurgy in 1950, both from Glasgow University, Scotland. He was a research metallurgist with Clyde Alloy Steel Company in Glasgow from 1945-46 and a lecturer at the University of Strath-clyde from 1950-53.

In 1985 he was awarded an honorary ScD from Glasgow University.

Professor King was a Fellow of the Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers (AIME), and a member and past chairman of the Boston section of the AIME. He was a Fellow of the American Academy of Arts and Sciences and a member of the American Society for Metals (ASM). He delivered the ASM's Sauveur Lecture in 1975. He was also a member of Sigma Xi and an honorary member of Alpha Sigma Mu.

He was a member of The Winchester Country Club and an avid golfer well known for his prowess and sportsmanship.

Dr. King is survived by his wife, the former Helen Z. Scott of Winchester, and his children, Lesley King of Boston, Edith King of Winchester and Anne King and Alan King, both of New York City.

Luscomb memorial set

A memorial service for Florence Luscomb, MIT's oldest alumna, will be held Sunday, Dec. 8, at 3pm in Arlington Street Church. Ms. Luscomb, who died October 27 at the age of 98, was a 1909 graduate in architecture.

Robert C. Casselman

Robert C. Casselman, an MIT graduate and former Sloan School teacher who was a business and cultural leader in the Boston area for many years, died Nov. 29 in Sanibel, Fla., at the age of 67.

Mr. Casselman received the SB in business and engineering administration in 1939 and served on the academic staff at the Sloan School of Management in 1964-65.

He had been a Polaroid executive for many years, the principal architect of a controversial plan to reorganize and streamline state government, and an associate director of Boston's Museum of Fine Arts.

Elkanah E. Yarde

Elkanah E. Yarde, 60, of Randolph, a technician at MIT from 1956 until his retirement earlier this year, died suddenly November 26. He is survived by his widow, Rayetta Thorne; one son, Terrill Yarde and three sisters, Hazel Ward, Ernesta Ford and Sylvia Yarde.

John B. Keefe

John B. Keefe, 73 of Westwood, a foreman at Research Laboratory of Electronics until his retirement in 1973, died November 21. Mr. Keefe, who began working at MIT in 1946, is survived by his widow, Anna Mankus, and two sons, Paul and John Keefe of Portland, Maine. He also leaves two brothers, Edward and Robert of Roslindale.

Michael N. Walsh Sr.

Michael N. Walsh Sr., 56, of Arlington, a plumber at Physical Plant since 1969 died November 27. He is survived by his widow, Alice J. Donovan and seven children: Mary E. of Arlington; Capt. Edward M.(USMC) of Jacksonville, N.C.; Michael Jr.; Patricia M., Jacqueline M., Thomas A. and Daniel J., all of Arlington. He also leaves two sisters, two brothers and two grandchildren.

Washington Bridge (1950) by William Schuman (b. 1910). Graduate student Charles R. Marge '84 will conduct Timothy Mahr's Fantasia in G (1983). These two students have assumed important leadership positions in the band this fall, taking charge of much of the rehearsing and other arrangements during the illness of Mr. Corley.

They conducted all but one selection of the special costumed concert given in Lobby 7 on Halloween night. There was the largest crowd ever for this particular concert, with the audience crowded throughout the Lobby and on all the balconies. This concert also was filmed and featured in a special Halloween report by Joyce Kulhawik on WBZ-TV, Channel 4.

One selection chosen for the December 7 concert takes note of the anniversary of Pearl Harbor: Two Marches, Op. 260b (1946), by Darius Milhaud (1892-1971). The first march, In Memoriam, was written in memory of Pearl Harbor, while the second, Gloria Victoribus, commemorates the ultimate victory.

Pat Kinney '82 will be the featured soloist in Nicholas Caiazza's Concerto for Clarinet, premiered by the Concert Band in 1963. Caiazza played tenor saxophone, flute, and clarinet in the big bands of Woody Herman and other bandleaders, and served on the faculty at the Berklee College of Music until his retirement in 1976.

The program also includes Russian Christmas Music (1944) by Alfred Reed (b. 1921) and Toccata Marziale (1924) by Ralph Vaughan Williams

Each year the MIT Concert Band commissions a new work for band. This year's commission, Black Sun (1985) by Thomas McGah, will receive its MIT premiere at the Winter Tour Finale Concert in February. Mr. McGah is a faculty member at the Berklee College of Music.



The United Way campaign at MIT has made a 20 per cent gain in the past two weeks and now stands at \$197,600, or 80 per cent of the \$250,000 goal. More than 2,000 members of the community have made contributions. Another 400 contributors would bring the level of giving even with last year, and very close to the goal, according to campaign coordinator Ann Brazier.

-Photo by Calvin Campbell

Dedication to honor Brown

(continued from page 1)
day. The most recent example of this approach

day. The most recent example of this approach is the Microsystems Technology Laboratories, which is housed in the building to bear Dr. Brown's name.

Dr. Brown is recognized internationally for his work in the field of servomechanisms and as an authority on automation. As founder and director of the MIT Servomechanicms Laboratory from 1941-52, he pioneered the theory and applications of feedback control. His book, *Principles of Servomechanisms*, coauthored with Donald P. Campbell, remains a standard reference.

During world War II, under Dr. Brown's leadership, the Servomechanisms Laboratory played a leading role in the application of servos to automatic fire-control systems. In the post-war period, his attention turned first to the development of the control system for the Brookhaven Nuclear Reactor and later to digitally controlled machine-tool systems. The latter work completely revolutionized the machine tool business.

During the 1950s, Dr. Brown led his colleagues in a major program of educational innovation, developing the electrical engineering department's core curriculum. New subjects were added, textbooks were written and new laboratory programs were initiated. Under his leadership modern materials theory and modern principles of energy conversion were introduced into the teaching of electrical engineering. The educational innovations he spearheaded have had worldwide influence on the teaching of electrical engineering.

As dean of engineering, he played a key role in the development of interdepartmental research centers and led MIT's participation in international educational relationships, establishing interactions with institutions in Berlin, India and Singapore. His ideas for continuing education for practicing engineers led to the establishment of the Center for Advanced Engineering Study.

Since his retirement in 1973, Dr. Brown and his wife Jean have spent their summers on Lake Winnepesaukee in New Hampshire and their winters in Arizona.

The building to be named for him, which is at 60 Vasser St., was built in 1967 when Dr. Brown was Dean of Engineering. At that time the MIT Computer Center was overflowing its original facilities. Faced with a pressing need for more computer space, Dr. Brown conceived a novel idea. Under construction at that time

was the structure that became Building 37, the Center for Space Research. Dr. Brown's idea: build a near duplicate of that structure on an adjacent site, using the designs, engineering specifications and drawings of the first building. The result was the uncommonly speedy construction of what is now Building 39, which continued to house the MIT Information Processing Center until the early 1980s.

Starting in 1982, the interior of the six-story Building 39 was completely rebuilt. The more than \$21 million cost was borne by a group of electronics companies and the federal government.

The building now houses laboratories for research in all areas of fabrication and evaluation of integrated circuits, devices, and microstructures. Large, state-of-the-art integrated circuits and systems can be processed from starting material through final test and packaging. Individual process steps can be studied in great detail. Advanced devices can be made and fully characterized. Ultra-small patterns can be created for many purposes, including some applications other than to electronic devices.

On the second floor is the Integrated Circuits Laboratory, a 2,500-square-foot "clean room" with 4,500 square feet of support area. In a "clean room" even microscopic bits of dust are eliminated to prevent contamination of the semiconductor chips.

The third floor houses most of the airhandling equipment and the building's computers and test systems.

On the fourth floor are the Technology Research Laboratory and the Submicron Structures Laboratory.

The smaller individual laboratories are on

the fifth floor.
Offices for 10 faculty members, 15 staff and 60 students are located in the building.

The Integrated Circuits Laboratory and the building facilities and operations are managed by the Microsystems Technology Laboratories, directed by Professor Dimitri A. Antoniadis.

The Submicron Structures Laboratory, which was in operation before moving to the Brown Building, is directed by Professor Henry I. Smith.

Besides work carried out in the Brown Building, the MIT program in VLSI includes research in electronic materials, computer-aided design, systems architecture and theory. The annual research volume exceeds \$7.5 million.

Space construction began here

(continued from page 1)

gear in the MIT pool, later using space pressure suits in the neutral buoyancy tank at Marshall space Flight Center.

Over the years, Professor Akin and other students have spent the month of January working at Marshall.

The result was data that indicated a high potential for efficient construction work in space. The MIT work showed that humans, in fact, can be more productive in space than on earth in identical tasks because in weightless space the problem of moving heavy parts and equipment is avoided and there is no fear about falling off a high structure.

The MIT data indicate that a productivity rate of 500 pounds an hour is within easy reach in space construction. That compares with about 50 pounds an hour for earth construction.

The MIT group focused on worker productivity because it was an area in which not much research had been done. Fresh ideas emerged because, as Professor Miller put it, the students didn't have preconceived notions. "They don't have 20 years of business-asusual. They have a fresh approach."

The structure that was assembled during the shuttle mission was a tetrahedral cell that looks like an inverted pyramid. Six aluminum beams, each 12 feet long and weighing 64 pounds were joined. The tetrahedral shape was chosen in the early MIT experiments because it is expected to be a basic component of any space structure.

Page 8, Tech Talk, December 4, 1985