November 13, 1985 Volume 30, Number 12

Need help?

If you need afternoon help in your office or lab, consider hiring a Cambridge TeenWork student on an after-school

Cambridge TeenWork is a youth employment program through which local schools and businesses employ high school students. Participation in the program can provide a student with a productive work/learning experience and-at the same time-help meet your work needs.

Further information on the program is available from MIT's Teen Work coordinator, Elizabeth Mulcahey, x3-1674.

Speaking of food

Nationally known sports nutritionist Nancy Clark will speak at MIT at 4pm Tuesday, Nov. 19 in Rm 6-120. The talk is sponsored by the Department of Athletics and is open to the community.

Ms. Clark is an expert on nutrition and the athlete-from recreational to world class. Her book, The Athlete's Kitchen, was one of the first in sports nutrition. She is a staff member for Sports Medicine of Brookline and a contributing editor to The Runner magazine.

Meet the artist

An introductory evening will be held Tuesday, Nov. 19, at 8pm for the year's second artist in residence at The Reference Gallery of the List Visual Arts Center in the Wiesner Building. He is Austrian artist Richard Kriesche who is known for his film, video and installation work. His work here will focus on the relationship of new technologies to the social conditions which they both convey and create. Students and all other members of the community are invited to this first event of the Kriesche residency, organized by the Committee on the Visual Arts.

Old wreck

A marine archaeologist who dived last summer to explore the world's oldest shipwreck, dating to 1400 BC, will present a lecture with slides tonight (Nov. 13) at 7pm in the MIT Museum's Ditty Bag Series. Dr. Paul Johnston of the Peabody Museum in Salem said the exploration, in the Mediterranean off the town of Kas on the southern coast of Turkey, revealed the "richest site I've ever seen." The wreck, first discovered in 1983, has been identified as that of a cargo vessel probably being used to haul metal ingots. All members of the community are invited to this lecture at the MIT Museum, 265 Massachusetts Avenue.

East & west

Professor D. Eleanor Westney of the Sloan School will present results of studies comparing Japanese and American computer design engineers in the next Perspectives talk Wednesday, Nov. 20, at noon in Rm E25-111. She will explore similarities and differences in human resource development, work ethics and organizational structures in Japan and the US. The talk is open to all.

No Tech Talk

Tech Talk will not be published Wednesday, Nov. 27, because of Thanksgiving vacation. The Institute Calendar in the next week's issue will cover the period from November 20 through December 3. Listings for inclusion in Institute Notices, the Institute Calendar and Classified Ads in that issue must be submitted by noon Friday, Nov. 15.

Astronomer explains what to expect from comet

Three years ago astronomer David C. Jewitt was the first person to see Halley's comet since it dissappeared in 1911. He's hardly taken his eyes off it since.

Dr. Jewitt, assistant professor of planetary science in the Department of Earth, Atmospheric and Planetary Sciences, continues to monitor Halley using the telescopes at Kitt Peak National Observatory, at MIT's McGraw-Hill Observatory, both near Tucson, Ariz., and at the National Aeronautics and Space Administration's infrared telescope facility on Mauna Kea, Hawaii. Working with him is MIT graduate student Karen J. Meech of Littleton, Colo.

It was on October 16, 1982, that Professor Jewitt became the first person in 75 years to see Halley's Comet, using the 200-inch diameter telescope at Palomar Observatory at California Institute of Technology. The comet should soon be bright enough to be visible to the unaided eye, he said.

But now Halley's—about 180 million miles from the sun and 100 million miles from the earth-is at least 50 times too faint to be seen without a telescope.

"The predicted date of its closest passage by the sun is February 6, 1986. It will then be 55 million miles from the sun and too close to that brilliant body to be visible from earth," he said.

"The best times for visual observation will probably occur in January and again in March of next year. The comet should appear in these months as a fuzzy blob among the stars. The exact appearance of the comet, and of comets in general, cannot be reliably predicted in advance. However, it is likely that the comet will be so extended that the best views will be had either with the naked eye, or with a pair of low magnification binoculars. A telescope will not be needed," Professor Jewitt said.

People living in the country will probably (continued on page 3)



Students gather in apartment of Bexley Hall housemaster Judah L. Schwartz, lower right, professor of engineering science and education, for apartheid discussion. —Photo by Calvin Campbell

First Institute Colloquium draws hundreds

By CHARLES H. BALL Staff Writer

Colloquium: an academic meeting at which one or more specialists deliver addresses on a topic or on related topics and then answer questions relating thereto.

The word colloquium has a cloistral ring to it, but the opposite proved true at MIT last week when the Institute's first communitywide colloquium explored the issue of institutionalized racism, or apartheid, in South

The talks, workshops and discussions spread across the campus, moving from Kresge Auditorium to student living groups. The dialogue became intense at times as outside speakers, faculty members, students, administrators and staff members focused their attention on a practice that was universally condemned as evil, on the future of South Africa and on the controversy over divestment as a way of attacking apartheid.

The forum, which included day and night activities on Wednesday and Thursday, Nov. 6-7, was sponsored by the new Institute Colloquium Committee. The committee was formed recently by the Provost to bring all segments of the community together to consider important issues of our times.

Its chairman, Frank E. Morgan, associate professor of mathematics, said the committee (continued on page 8)

School to undertake self study

By ROBERT C. Di IORIO Staff Writer

MIT's undergraduate engineering education program, unique in the nation and perhaps in the world because of its close coupling to arch and to graduate education, to undergo a comprehensive reappraisal by

the School of Engineering.

Dr. Gerald L. Wilson, Dean of the School of Engineering and Vannevar Bush Professor, has announced the formation of a Commission on Engineering Undergraduate Education (CEUE) and charged it with overall direction of the reappraisal, which will include an examination of how the Institute's general academic requirements and the Institute's environment influence engineering education. The CEUE is charged with enunciating a concise statement of the goals of engineering education by January and with the preparation of a preliminary report by May.

Dr. Jack L. Kerrebrock, Assoc the School of Engineering and the R.C. Maclaurin Professor, is chairman of the

commission.

Appointed members of the CEUE were Dr. Herman A. Haus, Elihu Thompson Professor in the Department of Electrical Engineering and Computer Science; Dr. Lawrence M. Lidsky of the Department of Nuclear Engineering, and Dr. Borivoje B. Mikic of the Department of Mechanical Engineering.

Professors Haus, Lidsky and Mikic will chair working groups which will address the critical issues as defined by the Commission, such as: the interface of the general Institute requirements with the engineering curriculum; the content of the engineering curriculum itself in the various departments; the advisability of creating a core engineering curriculum; the environment in the living units, and the learning environment at MIT.

The CEUE is charged with drawing out the thoughts and suggestions of the faculty of the School of Engineering and with collaborating with the reviews being conducted by the Committee on the Humanities and Social

(continued on page 8) Program announced for 'Star Wars' symposium

MIT will hold a daylong informational symposium on the Strategic Defense Initiative (SDI) Saturday, Nov. 23, in Huntington Hall

(Rm 10-250) beginning at 9:30am. SDI, also known as "Star Wars," is a controversial national program intended to prevent the entry of nuclear missiles. It has become a major issue in both foreign and defense policy.

The symposium has been arranged by a faculty committee to inform the MIT community about the technical and social issues surrounding SDI. Sponsors of the event are the Office of the Provost and the MIT Defense and Arms Control Studies Program.

Professor John Deutch, MIT provost, will chair the morning session at which the topics and speakers will be:

-"Historical Review of ABM Issues," Alexander Flax of the Institute for Defense

-"SDI Systems Concepts," Ashton Carter of Harvard University.

-"Critical Technologies," Richard Garwin of IBM, Hans Mark of the University of Texas and Gerold Yonas of the SDI Office.

Professor Louis Smullin, who chaired the organizing committee, will chair the afternoon session with the following program:

'Strategy and Policies Issues," Fred Hoffman of R&D Associates/Panheuristics and Professor Jack Ruina, head of the MIT Defense and Arms Control Studies Program.

-"Personal Perspectives on SDI," W.K.H. Panofsky of the Stanford Linear Accelerator

Center, Brent Scowcroft (Lt. Gen, ret., USAF), former National Security Advisor to the President, and Institute Professor Jerome B. Wiesner, former MIT president and White House Science Advisor.

In addition to Professors Deutch, Smullin, Ruina and Wiesner, members of the organizing committee are Professors Jack L. Kerrebrock, associate dean of the School of Engineering; Philip Morrison, Institute Professor and professor of physics; Walter E. Morrow, professor of electrical engineering and computer science and director of Lincoln Laboratory, and Dr., Kosta Tsipis, principal research scientist in the Program in Science, Technology and

INSTITUTE NOTICES

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

Announcements

Drop Date – Last day to cancel subjects from registration is November 22. The Registrar's Office reminds students that correction cards will not be accepted without the necessary signature. Obtain your advisor's signature well before the deadline. If your advisor is unavailable, contact your undergraduate office or department headquarters. Freshmen should go to the Undergraduate Academic Support Office, Rm 7-104.

Graduate Students – interested in serving on the Integrative Education Committee, an ad hoc faculty committee addressing undergraduate educational issues, should contact the Graduate Student Council, x3-2195, immediately.

Project Contact – Undergraduates interested in communicating with high school students and guidance couselors 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.

Information Services Computing Courses and Seminars**
– FREE SEMINARS: Statistical Software on Micros, Nov
13, 10-12noon, Rm 1-390; Kermit Demonstration, Nov 14,
10-12noon, Rm 1-390; Text Formatting with GML, Nov 20,
10-12noon, Rm 1-390; FEE COURSES: FORTRAN on Multics,
Nov 14, 3-5pm, Rm 1-390; FORTRAN on Project Athena
(UNIX), Nov 19, 3-5pm, Rm 1-390. VENDOR PRESENTATIONS: A Survey of Graphics Software for the Macintosh,
Nov 15, 9:30-12noon, Rm 1-390; A Survey of Database Software for the Macintosh, Nov 22, 9:30-12noon, Rm 1-390. All
fee seminars, courses and training sessions require 1 week advance registration, Rm 11-315, 9:30-12noon, 1-4pm. Payments
due at time of registration. MIT ID required to avoid paying
maximum fee. For info, call Joan Bubluski, x3-1744.

Career Planning and Placement Company Recruitment Presentations** – Megatest, Nov 13, 7-9pm, Rm 4-145. NASA/Ames Research Center, Nov 14, 7-9pm, Rm 4-153. Chemical Bank, Nov 18, 7-9pm, Rm 4-149. Booz, Allen, and Hamilton, Inc, Nov 19, 4-6pm, Ashdown Dining Rm. ANSER, Nov 19, 7-9pm, Rm 1-136. Lord Corporation, Nov 20, 7-8pm, Rm 4-153.

Graduates of Oxford or Cambridge University – The Oxford and Cambridge Society of New England reception, after dinner, Thurs, Nev 14, 7:30-9:30pm, The Lower Common Room, Adams House, Harvard (Plympton St).

Free Museum of Science Admission for MIT Students the exhibit on Chinese Technology, through December 15.

Basic Pistol Marksmanship Course** – 5-wk course beginning Nov 13, covers safe handling, storage, and maintenance of hand guns, and to develop marksmanship skills to qualify for police requirements for pistol permits, Thurs, 6pm, Du Pont Pistol Range. Fee covers everything. Pre-registration and info: Andy Platais, x8-3840 Draper or Fred Akell, x8-3219 Draper.

Babysitters Needed for Wives' Group — Every Wednesday, 3-5pm, to sit for children of international wives during Wives' Group meetings, for 2 hours. \$5/hr. Call Wives' Group, x3-1614 or stop by Rm E23-376 for more information.

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.

MIT Filipino Students Association Pot Luck Lunch*** – Nov 23, 12noon, Rm 3-130. To discuss IAP Barrio Fiesta, etc.

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

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

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,

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

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

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

MIT Nautical Association** - Sailing Pavillion schedule: 19am-sunset every day through Nov 15. Sailing on Tech dinghies, lasers, larks, catamarans, CCT's, 24' & 38' cruise boats, windsurfing. Shore School: Beginners Class in Tech Dinghies (introduction, rigging, actual sailing), M/Th, 5:15pm. Sailing trips to Boston Harbor & special regattas will also be arranged. Call x3-4884 for details.

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

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

MIT Wu-Tang Club* - teaches northern Chinese kung fu, Tues & Thurs, 8pm, Burton Dining Hall; Sat, 10am, Athletic Center. Beginners welcome. For info call 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 info call In Ho Kim, 266-2827.

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

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

Religious Activities

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

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

Tech Catholic Community* – Roman Catholic Masses: Suns, 9am, 12noon, 5pm; Weekdays: T/Th: 5:05pm & Fri 12:05pm. All Masses in MIT Chapel. Morning Präyer; M-F, 8:15am, Chapel Basement. Bible Study: Tues, 8pm, Chaplaincy Library. Exploring Catholicism, Thurs, 7-8:30pm through Nov 14, Chaplaincy Basement. Chaplaincy Office: x3-2981.

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.

MIT Hillel Talmud Study* - Rabbi Dan Shevitz, Tues, Nov 19, 8pm. Call Hillel, x3-2982 for location.

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, 1:35-12:55, Student Ctr Twenty Chimneys. For info, contact Burt Kaliski, x3-5866 or Roz Wright, x3-8926. Fellowship group is also forming in the Sloan School; contact Andy Hamlin, 926-8472 for details.

MIT Seekers Christian Fellowship - Park Street Church Country Transling and Wordship Time, Coundays, 0.162-m, vajoy our biblical teaching, worship and sharing at Park Street Church, right in front of the Park Street T stop. MIT Seekers leave from McCormick at 8:30am. Come join us.

Campus Crusade for Christ** – Family time, 7:15pm, Fri, eves, Rm 37-252. Fellowship, scripture teaching, prayer, sing, 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.

National Science Foundation Fellowships. Three-year graduate fellowships for study leading to master's or doctoral degrees in the mathematical, physical, biological, engineering and social sciences, and in the history and philosophy of science. The fellowships provide a cost-of-education allowance in lieu of tuition and required fees, plus a stipend of \$925/month. Applicants must be US citizens or nationals at the time of application and must not have completed postbaccalaureate study in excess of 20 semester hours in any field of science, engineering, social science or mathematics. Scores of GRE's taken since October 1, 1983 are required. Preapplications for both the graduate fellowships and the minority fellowships are available in the Office of the Dean of the Graduate School, Rm 3-138. Application deadline: November 15, 1985.

American Association of University Women International Fellowships. Approximately 60 fellowships are awarded for one year's graduate study or advanced research at a US institution for women who are citizens of countries other than the US. (Six awards for advanced research in any country other than the Fellow's own, for women who are members in their own country of National Associations affiliated with the International Federation of University Women, are also available.) Period of Award: 9 months beginning September 1986 and not renewable. Award: \$10,000 (travel and research costs are not covered). Deadline for requesting applications: November 15, 1985.

Ford Foundation Doctoral Fellowships for Minorities Program. Forty three-year predoctoral fellowships and 10 one-year Dissertation Fellowships, administered by the National Research Council, to individuals who are citizens or nationals of the US and who are members of the following minority groups: American Indians or Alaskan Natives (Eskimo or Aleut), Black Americans, Mexican Americans/Chicanos and Puerto Ricans. The Predoctoral Fellowships will be three-year awards, and will be made for research-based doctoral programs in the behavioral and social sciences, humanities, engiering, mathematics, physical sciences, and biological sciences or for interdisciplinary programs comprised of two or more eligible disciplines. These fellowships are intended for students who plan to work toward the PhD or ScD degree, and who are at or near the beginning of their graduate study. Each Predoctoral Fellowship will include an annual stipend of \$10,000 to the Fellow, and an annual institutional grant of \$6,000 to the Fellowship institution in lieu of tuition and fees. There will be no dependency or travel allowances. The Dissertation Fellowships, are intended for PhD or ScD degree candidates who have finished all required course work, who will have been admitted to degree candidacy by February 1, 1986, and who expect to complete the dissertation during the 1986-87 academic year, but in no case later than fall of 1988. Dissertation Fellows wil receive a stipend of \$18,000. There will be no institutional

grant, and no dependency or travel allowances. Deadline: November 15. Announcement of awards will be made during April 1986. Applications available at the Dean of the Graduate School Office, Rm 3-138.

The Lady Davis Fellowship Trust. Seniors, graduate students, and those who have recently completed doctoral studies in any field are eligible to apply. Fellowships are tenable at the Hebrew University of Jerusalem and the Technion-Israel Institute of Technology, Haifa. Grants cover tuition, travel and living stipends in Israel. Renewal for a second year is possible. Applications are available in Rm 3-138. Deadline: November 30, 1985.

American Association of University Women Fellowships. Dissertation Fellowship — Available to women who will have completed all course requirements and examinations for the doctorate degree except the dissertation by December 31, 1985 and whose degree will be received by the end of the fellowship year. Applicants must be US citizens or hold permanent resident status. Period of Award: 12 months beginning July 1, 1986. Awards: \$10,000. Deadline: December 1, 1985. For American Women in Selected Professions — To assist women in their final year of professional training in the fields of law, dentistry, medicine, veterinary medicine and architecture or their final year of a 2-year Master's in Business Administration (MBA program). Period of Award: 9 months beginning September 1986. Awards: \$3,500-9,000. Deadline: December 1, 1985 (February 1, 1986 for MBA applicants). Postdoctoral Fellowships — For postdoctoral research for women who hold the doctorate at the time of application. Applicants must be US citizens or hold permanent resident status. Funds may not be used for research equipment, publications costs, travel grants, or tuition for further course work. Period of Award: 12 months beginning July 1, 1986. Awards: Up to \$15,000 and one Founders Fellowship of \$20,000. Deadline: December 1, 1985.

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 1, 1985 for administrators seminars in Germany, Japan, and the United Kingdom; 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.

Alice Freeman Palmer Fellowship for women graduate students sponsored by Wellesley College, for study or research abroad or in the US. Fellows must be 26 or younger at time of appointment, and must remain unmarried throughout her tenure. Stipend: \$4,000. Must be nominated by undergraduate institution. Applications must be postmarked no later than December 1, 1985. Contact Dean Jeanne Richard, Rm 3-138, 3-4869 or write directly to Secretary to the Committee on Graduate Fellowships, Office of Financial Aid, Box GR, Wellesley College, Wellesley, MA 02181 for applications.

Mary McEwen Schimke Scholarship for women graduate students sponsored by Wellesley College, to help financially with child care and household responsibilities. Based on scholarship and need. Candidates must be over 30 and currently pursuing graduate study in literature and history. Stipend: \$500-1,000. Applications must be postmarked no later than December 1, 1985. Contact Dean Jeanne Richard, Rm 3-138, x3-4869 or write directly to Secretary to the Committee on Graduate Fellowships, Office of Financial Aid, Box GR, Wellesley College, Wellesley, MA 02181 for applications.

M.A. Cartland Schackford Medical Fellowship for women graduate students sponsored by Wellesley College, for the study of medicine with a view of general practice, not psychiatry. Stipend: \$3,500. Applications must be postmarked no later than December 1, 1985. Contact Dean Jeanne Richard, Rm 3-138, x3-4869 or write directly to Secretary to the Committee on Graduate Fellowships, Office of Financial Aid, Box GR, Wellesley College, Wellesley, MA 02181 for applications.

Harriet A. Shaw Fellowship for women graduate students apousored by Wellesley College, for study and research in music and allied arts in the US or abroad. Candidates must be 26 or younger at time of appointment. Preference given to music candidates; undergraduate work in history of art required for other candidates. Stipend: \$2,000-3,000. Applications must be postmarked no later than December 1, 1985. Contact Dean Jeanne Richard, Rm 3-138, x3-4869 or write directly to Secretary to the Committee on Graduate Fellowships, Office of Financial Aid, Box GR, Wellesley College, Wellesley, MA 02181 for applications.

Robert S. McNamara Fellowships. The World Bank annually offers 12-month fellowships for full time graduate work in fields related to economic development and institution building. Applications are considered from individuals as well as from small groups of up to five persons at the same institution for work on a joint project. Candidates for these grants must be citizens of a World Bank member country, 35 years of age of under, holders of a master's degree or equivalent, and willing to carry out their study in a country other than their own. For more information, contact Dean Eugene Chamberlain, Rm 5-106. Application deadline: December 1, 1985.

Marvin E. Goody Prize. An award of \$5,000 offered annually to a graduate student about to prepare (i.e. expected to be completed not later than September 1966) the SM or equivalent (e.g. M Arch or MCP) thesis in the building arts. The Prize was established by Joan E. Goody, in the name of Marvin E. Goody, M Arch '51 (1929-1980), and faculty member (1953-68) to extend the horizons of existing building techniques and use of materials, to encourage links between the academic world and the building industry, and to increase appreciation of the bond between good design and good building. Administered by a committee consisting of John P. de Monchaux, dean, School of Architecture and Planning; William R. Dickson, senior vice-president; David H. Marks, head, Dept of Civil Engineering; Dean Perkins, dean, Graduate School. Applications and additional information available from Jackie Sciacca, Dean of the Graduate School Office, Rm 3-134. Deadline: December 2, 1985. Winner announced on January 15, 1986.

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.

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.

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: W.R. Grace & Co., Construction Products Division in Cambridge (marketing intern) and the Public Defender Service for the District of Columbia (investigative interns).

Internships Offering a Stipend:

EIP/Northeast has two positions as research and education associates available ranging from 16 to 32 weeks in duration. The salary is approximately \$150-250/wk. Both positions are located in Providence, RI.

GTE Service Corporation offers their GTE Laboratories' Summer Industrial Undergraduate Research Participation Program. The program is for juniors or seniors majoring in the natural sciences or engineering with at least a 4.0 GPA. Each participant will receive a weekly stipend for the 10-week duration of the program plus room and board. Application forms must be obtained after December 15 from the GTE IURP office, GTE Laboratories Inc., 40 Sylvan Rd, Waltham, MA 02254.

Sponsors for Education Opportunity has announced their Summer Internship in Accounting for Minority Students. This is a paid summer internship which includes a position with a major accounting firm. Students must have a declared major in accounting and be a sophomore or junior. Deadline for applications: March 15, 1986.

Student Jobs

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

Brookline Public Schools needs a computer lab monitor to supervise afterschool individual computer activity in a classroom of Apple IIe computers. Applicant must be willing and capable of providing assistance to students in LOGO, BASIC, and word processing. Working at the high school and elementary school. Hours: 2:30-3:30 or 4pm, weekdays. Salary: \$8/hr. Contact: Jane Manzelli, The Public School of Brookline, Brookline, MA 02146, 734-1111 x265.

Students needed to operate or man street vending cart at Boston's Downtown Crossing area. No special qualifications needed. Will train. Hours are open, full and part-time. Salary: \$6/hr. Contact Tom or Edna Accardo, Dasein Corp, Winchester, MA 01890, 729-7382 anytime.

Stock market needs a statistical assistant who must have neat handwriting and have aptitude for figures. Undergraduate preferred. Must be able to work through vacation periods. Job lasts until June. Hours: 14/wk, M·F, every day; 6-8 h 'wkend. Salary: 87/hr, includes bonus. Contact: Mr. R.J. Epstein, 50 Church St, Harvard Sq, Cambridge, MA 492-2377.

Student needed to pick up waste chemicals throughout the Institute. Must be 21 years of age, and a chemistry or chemical engineering major. Hours: 6-10/wk. Salary: \$6.25/hr. Contact: Donald A. Batson or Virginia Cruz, Safety Office, x3-4736.

Architectural firm of Cambridge seeks a design/drafting person. This is basically an entry-level position, with some experience required. Duties include periodic site inspections, but mainly office work. Hours: 40/wk. Salary: \$6-7/hr. Contact: Arthur Brooks, Arthur Brooks Associates, Architects, 115 Brattle St, Cambridge, MA, 547-4394.

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.

Environmental Group, MIT Energy Lab. Student needed for "acid rain" project which involves preparing database of electric utility fuel consumption in LOTUS. Some experience in LOTUS preferred, but not necessary. Initial phase requires approximately 40 hours total, possibly more at a later date. PAY or credit. Faculty supervisor: Dr. Dan Golumb. Contact: Gary Galeucia, x3-8049 or 359-2232, Rm E40-365.

Research on the Identification of Objects by Tactual Manipulation. Discrimination experiments. Looking at resolution to be able to distinguish length, compliance, and "mushiness" or the softness of objects with the use of your fingers. Examples are how well your fingers are at determining how hard you're pressing and distinguishing rods of different length. No special background required. PAY or credit. Contact Nat Durlach, x3-2534, Rm 36-709.

Chemical Engineering: Three Positions. 1)Position involves study of the effect of electric fields on protein elution rates from affininty chromatographic matrices. Knowledge in bio-chemistry preferred. Will be taking data and running experiments. 2)Position involves library literature searches on physiochemical properties of proteins. 3)Position involves library literature searches on classical conditioning and the immune response. Students need willingness to learn. No previous experience necessary. Interested students leave name, phone number, list of courses, and background with Martin Yarmush or Jill, Rm 66-546.

Sloan School of Management: Five Positions. System Configuration Artist — Student will work closely with the director of the East Campus Computing Facility to come up with creative approaches to configuration and control. Work will include figuring out how to distribute and verify software over our network and doing some of that work by less whizzy means until the problem is solved. Skill in writing PC-DOS batch files is important; skill at network building is not. User Interface Designer — Designing pop-up menus to simplify use of PC lab. We've acquired a tool to allow retrofitting our applications with ram-resident macros and pop-menus. We need a student to design, implement and document new interfaces using this tool (This is not a highly technical job and skill at anticipating use confusion is vastly more important than programming talent.) Questionnaire Programmer — Student will assist in Sloan's ongoing programing of evaluating student response to software introduced in Sloan's PC project. We're moving to automated questionnaires administration; students will help design the questionnaires move the data around the network, and analyze the results. Another part of the evaluation project involves trying to understand how people learn to use personal computers by making a transcript of its interactions and analyzing many such transcripts to find common difficulties and common thought patterns. Some programming in Framework will be involved. Skill in protocol analysis would be nice, but not required. Database Architect — Develop a PC reservation system, neded for our personal computers, to be built using a database management system on one of our PCs or on our 4341. Skill at database and user interface design is important. You'll also be responsible for documentation. Faculty supervisor: Prof Glen Urban. Contact: Lloyd Brodsky, x3-8016, Rm E25-143, Tues/Thurs/Fri.

Analysis of Petroleum Supply. Student needed to collect, collate, and analyze information on the supply costs of oil and gas around the world. Extensive library research and data manipulation will be involved. Knowledge of project evaluation, oil and gas economics, and ability to use statistical packages on microcomputers desired, but not mandatory. Faculty supervisor: Prof M. Adelman. Contact: Michael Lynch, x3-1443, Rm E40-331.

TECH TALK



November 13, 1985 Volume 30 Number 12

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).

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'Policies and Procedures' is revised, now being distributed

The Institute's revised Policies and Procedures has been issued, incorporating changes in policies covering such matters as the annual salary plan for faculty, the research staff, vacation and other benefits, harassment, privacy, retirement and open research.

The new edition, revised through August 1985, replaces the 1979 volume. It is being distributed individually to members of the faculty and staff and additional copies can be obtained from the Communications Office (x3-1702).

Deleted from the revised edition is the section dealing with Institute Facilities and Services. This information may be published in the Institute Directory in order to keep it more current.

In addition, an improved index includes a greater number of entries that are also more detailed.

Vice President Constantine B. Simonides, in a memorandum accompanying distribution of the new volume to the Academic Council, academic and administrative department heads and laboratory and center directors, acknowledged the efforts John Wynne, Vice President Emeritus, and Janet Snover, Manager of the Communications Office, in accomplishing the revision.

He also noted that the administrative officer in the Office of the President will be responsible for collecting changes in policy on an ongoing basis and will respond to requests for interpretation of policy or for the latest status of a policy.

Mr. Simonides also identified the principal changes from the 1979 volume in some 20 areas.

He noted, for example, that the sections covering outside professional activities and conflict of interest provide additional guidance as to situations in which conflict of interest is likely to arise, including association of MIT's name or image with commercial interests and the exercise of improper influence because of sexual relationships.

Policies covering retirement of faculty and staff members have been revised to reflect changes in the Massachusetts law which prohibit private employers from requiring a person's retirement because of age. Tenured faculty members, under a special provision of the law, are still required by MIT to retire at age 70. The President has announced his

intention to appoint a small group of faculty members to study long-range policy issues relating to faculty employment and tenure, and to make appropriate recommendations for discussion in the community prior to proposing any major policy change.

The new edition also incorporates a change in vacation accrual, effective December 1, for academic administrative, library and administrative staff appointments. The new policy provides three weeks of vacation for up to five years of service and four weeks thereafter, rather than four weeks at time of appointment. Staff members eligible for four weeks of vacation prior to the change will continue to receive the four weeks. The revision also reaffirms the policy that, with limited exceptions, salaries of full-time staff members may not be augmented from funds administered by MIT.

The new document also includes the change in vacation accrual for research staff on campus and at Lincoln to three weeks for up to five years of service and four weeks thereafter. This change became effective in July, 1985.

The Institute policy on harassment is included in *Policies and Procedures* for the first time, defining harassment, declaring that harassment of any kind is unacceptable, and encouraging aggrieved individuals to initiate a complaint through established procedures.

Also included is the Institute's first formal statement on privacy of information. It sets forth the Institute's commitment to protect the personal privacy of members of the MIT community, and details the rules and procedures to fulfill the commitment.

Noteworthy also is a new statement headed "Open Research and Free Exchange of Information." This section affirms that the encouragement of research and inquiry into intellectual areas of great promise is one of the most basic obligations of the Institute to its faculty, to its students, and to society at large. It also revises the material on classified research to incorporate the recommendations of the Committee on the Changing Nature of Information, especially to provide policy and procedures related to research on critically important but sensitive areas of technology and, as well, to emphasize that a policy of openness in research requires access by international faculty, students, and visiting

SDI economics to be discussed

Will the Strategic Defense Initiative benefit the economy by supporting the high-tech industry and by producing important spinoffs? Or will the Star Wars effort draw important resources away from civilian economic projects and social programs and dangerously increase the national debt?

The second in a series of SDI discussions, sponsored by MIT's Technology and Culture Seminar, the MIT Disarmament Study Groups and the Boston chapter of Computer Professionals for Social Responsibility, will explore those questions at a seminar on "SDI: Boon to the Economy?"

The seminar will be held at 4:15pm Tuesday,

Nov. 19, in Rm 9-150.

In the audience will be three visitors from the Soviet Union—two students and an executive from the USSR Student Council.

They are expected to arrive in Cambridge Tuesday afternoon for a program later that evening arranged by the MIT Disarmament Study Group. Professor Aron M. Bernstein of the Department of Physics said the visit was arranged by UCAM—United Campuses to Prevent Nuclear War—and is a followup to the 1984 visit of two professors and two students from this country to the USSR.

The Russians will meet informally with as many students as possible, first at a supper following the Technology and Culture Seminar and at 7:30pm in a discussion on "Obstacles to Peace" in the Student Center West Lounge.

The speakers at the afternoon seminar will be Lester C. Thurow, Gordon Y Billard Professor of Management and Economics in the Sloan School of Management and the Department of Economics; Bernard J. O'Keefe, chairman of the Executive Committee of the Board of Directors of EG&G, Inc., and Leo Steg, recently retired from General Electric Corp. where for 23 years he managed the Space Science Laboratory of the Missile and Space Division.

Professor Thurow's latest book is "The Zero Sum Solution: Building a World American Economy." Mr. O'Keefe is the author of the recently published "Shooting Ourselves in the Foot," a series of essays that give his views on the practices of contemporary US politics, industry and society. For many years he was president and then board chairman of EG&G, a diversified technology oriented company, which was an early developer of triggering devices for nuclear weapons.

Ocean rig expert to speak here

Dr. John Mercier, supervisor of marine engineering for Conoco Inc., a DuPont company, will deliver the fifth Robert Bruce Wallace Lecture Monday, Nov 18, at 3pm in

He will discuss the world's first commercial tension-leg platform (TLP) installation at Hutton Field in the North Sea, about 90 miles northeast of the Shetland Islands, in July

Dr. Mercier was instrumental in the development of the TLP concept used when drilling oil in deep ocean waters. He coordinated the early project feasibility development and established the design and project premises essential to the execution of the Hutton Field TLP project.

He also guided a number of scientific investigations into hydrodynamics problems that were encountered during the design. He was involved in essentially all aspects of the development of the Hutton system, including structure, mooring systems, well systems, etc., as well as the configuration-control activities of the project.

Before he joined Conoco in 1974, Dr. Mercier was employed by the Davidson Laboratory of Stevens Institute of Technology, engaging in research and advanced engineering on a number of aspects of ship theory and offshore

engineering. He has also been an engineer at Bethlehem Steel Corporation's Staten Island foundry and propeller plant, and a research scientist at Hydronautics, Inc.

He received a bachelor's degree from Webb Institute of Naval Architecture in 1960, a master's degree in naval architecture from MIT in 1961, and a PhD from Stevens Institute of Technology in 1973.

He has published and lectured extensively on a variety of problems, and has authored papers on tension-leg platforms for the World Petroleum Congress, the Royal Society of London, the Third International Conference on Behaviour of Offshore Structures, the Offshore Technology Conferences, the Offshore Southeast Asia Conference, and the Royal Institution of Naval Architects, among others

The Robert Bruce Wallace Lecture Program is made possible by a gift from Mr. and Mrs. A. H. Chatfield. Mrs. Chatfield is the daughter of Robert Bruce Wallace '98, former president of the American ShipBuilding Company who made major contributions to the development of inland waterways shipping.

The Wallace lectures provide an opportunity for MIT faculty and students to meet with an eminent figure in the marine world to discuss technology development for ocean uses.



Professor David C. Jewitt of the MIT Department of Earth, Atmospheric and Planetary Sciences sits amid images of Halley's Comet which he has been observing since 1982.

—Photo by Calvin Campbell

Astronomer explains comet

(continued from page 1)

be able to see more of Halley than observers in large cities, he said, because the comet will be too dim to be easily seen against bright city skies. Those living in the Southern Hemisphere or near the Equator will have a better view of the comet than those in the Northern Hemisphere, he said.

"Although the comet will be moving with respect to the earth at about 30 miles per second, it will seem to move across the sky only very slowly for the same reason that a high flying jet aircraft appears to move more slowly than a low flying one. In fact, most people will not notice any motion in a single night, although the movement during one week should be readily seen," he said.

Scientists believe that about a trillion comets are orbiting the sun. So what's so special about Halley's Comet that brings it so much attention? Very little, says Profesor Jewitt.

"Although comet Halley is an object of great popular interest, it is not a 'special' comet in any sense other than in its regularity of appearance," he said. "Scientific interest in the comet centers on the physical and chemical properties of the nucleus, the smallest and most enigmatic component of the comet. The nucleus is thought to contain the raw materials from which the planets condensed 4.5 billion years ago, preserved since then in the deep freeze of space. Scientists hope to learn about the formation of planets from studies of Halley's and other comets."

Each comet consists of a compact, solid nucleus probably made mostly of water, ice and dust. Halley's nucleus is an irregular object only a few miles in diameter, Professor Lowitt soid

Jewitt said.

When the comet nears the sun, the nucleus surface is warmed and begins to evaporate. The evaporated water molecules produce a glowing cloud of atoms and reactive molecules called the coma. The evaporated water also drags small dust particles from the nucleus into the coma, which can grow to become several tens of thousands of miles across, Professor Jewitt said.

"Dust particles and gas atoms and molecules are deflected from the coma by the pressure of solar radiation, and by the solar wind, into long streamers or 'tails,' pointing roughly away from the sun. The tails may reach a length of 10 million miles, perhaps even more. Observers with dark skies should be able to see both the coma and the tails of

Comet Halley. The nucleus, situated at the center of the coma, will be too faint to be seen even through a large telescope," Professor Jewitt said.

Professor Jewitt holds the BSc in astronomy (1979) from the University of London and the MS in planetary science (1980) and the PhD in planetary science and astronomy (1983), both from California Intitute of Technology.

Nairobi conference is seminar topic

The Joint Harvard MIT Women in International Development will present the second in a seminar series, "To Nairobi and Back," Wednesday, Nov. 20, 4:30-6pm in the Student Center Mezzanine Lounge. The series covers local, national and international participation in the World Conference to review the achievements of the UN Decade for Women.

Speakers at the seminar will be four members of the official US Delegation to the conference:

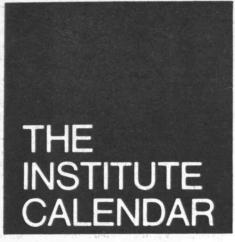
—Margaret Galey, staff consultant to the Committee on Foreign Affairs of the House of Representatives, who will discuss "Preparation and Participation of the US Delegation."

-Lois Harrington, assistant attorney general in the Justice Department, whose topic will be "International Dialogue: Enacting an Unprecedented Resolution on Family Violence."

—Donna Alvarado, director of ACTION, who will talk on "The Unique Concerns of Refugee Women: Feedback from the Conversation Group on Refugees."

—Sarah Tinsley, acting assistant administrator of the Bureau of External Affairs of the Agency for International Development, who will describe "The Women and International Development Component of the Nairobi Conference."

The WID Group is an international network of researchers, educators, students, development practitioners and others who share a common interest in the role of women in the development process. The group seeks to increase public awareness of development issues and to narrow the gap between academic research on development and the implementation of development projects.



November 13-24

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

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

cancellations, and dealing with emergencies.

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

Events of Special Interest

MIT Libraries Book Sale - Sale of new and used engineering and science publications, Wed, Nov 13, 10am-4pm, Lobby 10. Prices range from \$.50-\$4. Proceeds benefit the Libraries' Preservation Endowment Fund.

Nu Delta Dance Marathon for Muscular Dystrophy** – Sat, Nov 23, 2pm-2am, Walker Dining Hall. Pick up fundraising forms in Lobby 10, Nov 12-22.

Cross-Cultural Events

Experimental Music Studio: American Digital – New Musical Resources Series, Celebrating American Music Week with recent works by American computer music composers, Fri, Nov 15, 8pm. Tickets: \$6; \$3/students & seniors. Preceded by Panel Discussion, musical and critical perspectives on computer music in America, 7pm. For info, call x3-7441.

Solubility of Solids in Supercritical Fluids* – Dr. Ronald Koningsveld, Dutch State Mines, The Netherlands, lecturer for Polymer Seminar Series, composer of polymer music, Program in Polymer Science and Technology, Nov 20, 1:30pm; Music Program, works by Koningsveld, Staudinger March, and Polymer Music: A Suite for Two Pianos, pianist Prof Walter Stockmayer, Dartmouth College, 3:30pm, Kresge Auditorium. Refreshments served, 3pm.

Seminars and Lectures

Wednesday, November 13

Industrial Policy, Ideology and the End of the World** – Robert Reich, Kennedy School of Government, Harvard University, Political Science Dept Forum on the American Political Economy, 10am, Rm E51-332.

Laser Radar** - M.J. Yoder, W.J. Schafer Assoc, EECS/RLE Seminar on Optics and Quantum Electronics, 11-12noon, Rm 36-428.

On the Interaction Between the Wind-Driven Circulation and the Thermohaline Circulation: A Simple Model* – Paola Cessi, MIT, Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.

Jewish Lab: Jewish Conversation** - Rabbi Dan Shevitz, MIT Hillel Seminar, 1-2pm, Hillel, W2a.

Formation of Continental Crust, 2.7 Billion Years Ago, in the Superior Province, Canada: Evidence from Nd Isotopes and Trace Elements** - Dr. Steven Shirey, Dept of Terrestrial Magnetism, Carnegie Institution of Washington, Dept of Earth, Atmospheric, and Planetary Sciences Colloquium, 4-5pm, Rm 54-915. Tea served, 3pm, Rm 54-923

Structural Integrity Assessment of the Flexible 870 Advanced Design Bus*-Dr. Oscar Orringer, US Dept of Transportation, Constructed Facilities Division Seminar, 4-5pm, Rm 1-130. Refreshments served, 3:30pm.

Recent Works and Life After MIT* – Steven Hale, energy architect, MIT grad, Joint Program for Energy Efficient Buildings and Systems Discussion, 6:30pm, Symphony Energy Project, 43 Symphony Rd (nr Symphony Hall), Boston. Pizza & drinks served.

Nautical Archaeology: The Turkish Exchange* – Dr. Paul Johnston, curator, Marine Dept, Peabody Museum of Salem, The Ditty Bag Series of Maritime Evenings, 7pm, MIT Museum. Results of an investigation of the oldest known shipwreck (1400 BC). Light refreshments follow.

Thursday, November 14

Synchrotron Studies of the Internal Structures of Zones in Alloys** - Dr. J.B. Cohen, Northwestern University, Center for Materials Science and Engineering Colloquium, 12:15pm, Rm 12:132. Lunch provided, 12noon.

Airline Deregulation: Is It Working?* - Dr. George W. James, president, Airline Economics, Inc; former senior vice president, Economics and Finance, Air Transport Assn of America, Flight Transportation Laboratory Seminar, 2-3:30pm, Rm 33-319.

Problem Reformulation for Mixed 0-1 Linear Programming by Variable Redifinition with Applications to Multi-Item Capacited Lot-Sizing** – R. Kipp Martin, University of Chicago, Operations Research Seminar, 4pm, Rm E40-298.

One-Dimensional Conductors** - Prof Marc Kastner, MIT, Physics Colloquium, 4pm, Rm 26-100. Refreshments served, 3:30pm, Rm 26-110.

Application of Pseudo-Latex Technology to the Preparation of Cellulose Acetate Latices, Semi-Permeable Membranes and Elementary Osmotic Pumps** – Dr. Christian Bindschaedler, Dept of Applied Biological Sciences Seminar, 4-5pm, Rm E25-202.

The Impact of Divestiture* – Lisa Rosenblum, NY Public Service Commission; Paul Levy, Mass Dept of Public Utilities; Gayle Ruedi, AT&T Customer Services, MIT, MIT Communications Forum Seminar, 4-6pm, Rm E15-070.

Differential Migration: A Forty-Year Perspective* - Prof Michael J. White, Princeton University, MIT-Harvard Research Seminar on Migration and Development, 4-6pm, Harvard Ctr for Population Studies, 9 Bow St.

Harvard Medical School, Mass General Hospital, Harvard-MIT Division of Health Sciences and Technologies Seminar, 4:10-5:30pm, Rm E25-117. Refreshments served, 4pm. English Verb Tenses** – Writing and Communication Center

Selective Light-Induced Cancer Therapies** - Alan Oseroff, MD, PhD, assistant professor of dermatology,

English Verb Tenses** - Writing and Communication Center English as a Second Language workshop, 4:15-5:15pm, Rm 14N.317

Organizational Issues in the Management of Innovation, Using Lotus as a Case Study** – Mitchell D. Kapor, cofounder, chairman of the board, and chief executive officer, Lotus Development Corporation, Sloan School of Management Distinguished Speaker Series, 4:30pm, Rm E51-329.

Women in the South African Liberation Struggle* – Nomazizi Sokudela, African National Congress, MIT Womens Studies Freedom, Fiction Family: Black Women Today Series, 8pm, Rm 34-101.

Friday, November 15

Nazi Doctors: Genocide and Moral Schizophrenia* - Dr. Robert Jay Lifton, psychiatrist, author and professor at CUNY, MIT Hillel/Religious Counselors seminar, 12noon, Rm 9-150.

Combined Land and Sea Operations in the New Transportation Environment* – Robert Fahey, senior vice president, Sea-Land Corporation, Center for Transportation Studies Luncheon Seminar, 12:45-2pm, Student Ctr Mezzanine Lounge. Optional luncheon, 12-12:45pm. Luncheon fee: \$2/students; \$4/non-students.

Soot and PAH Formation in a Well-Stirred Reactor** - Craig Vaughn, Chemical Engineering Seminar, 2pm, Rm 66-110.

Dynamic Behavior of Heat Exchangers** - Prof Richard Dolezal, University of Stuttgart, Chemical Engineering Seminar, 3pm, Rm 66-110.

Quantum Interference of Two Atoms Radiating a Single Photon** – Alain Aspect, Ecole Normale Superieure, Paris, Laser Research Center/George R. Harrison Spectroscopy Laboratory/Research Laboratory of Electronics Special Lecture on Modern Optics and Spectroscopy, 3:30pm, Rm 37-252. Refreshments served, 3:15pm.

Autocrine/Paracrine Role of Insulin-like Growth Factors in Human Placental Growth** - Michael Fant, MD, PhD, Harvard Medical School and MIT Dept of Applied Biological Sciences, Clinical Research Center Seminar, 3:30pm, Rm E17-615.

ICRF Modelling on Tokamaks* - Dr. Cynthia K. Phillips, Princeton Plasma Physics Laboratory, Plasma Fusion Center Seminar, 4pm, Rm NW17-218. Refreshments served, 3:45pm. New Tricks With Optical Waveguides** - Richard Williamson, Lincoln Lab, 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 seminar.

Process for the Production and Application of Monodispersed Spherical Polymer Particles* – Prof John Ugelstad, Institute of Industrial Chemistry, NTH, Norway, Program in Polymer Science and Technology Seminar, 2pm, Rm 66-319. Info: Rosalie Allen, x3-3115, Rm E19-356.

Nonlinear Body-Wave Interactions** - Douglas Dommermuth, ocean engineering, Civil Engineering/Ocean Engineering Informal Hydrodynamics Seminar, 3:30pm, Rm 5-314.

Hot Section Aero-Thermodynamics* - Mr. R. Sellers, Pratt & Whitney Aircraft, Gas Turbine Laboratory Seminar, 4pm, Rm 31-161. Refreshments served.

The Arab-Israeli Conflict: The Current Situation*—
Harold Saunders, resident fellow, American Enterprise Institute, former Assistant Secretary of State for Near
Eastern Affairs, Carter Administration, Emile Bustani Middle East Seminar, 4pm, Rm E38-615. Prof Philip Khoury will
chair.

Japan: A Society Optimized for Engineering** – Jeffrey Frey, NSF Division of International Programs and Cornell University, VLSI Seminar, 4pm, Rm 34-101. Refreshments served 3:30pm.

Feedback Organizations and Complexity* - Prof George Zames, electrical engineering, McGill University, Laboratory for Information and Decision Systems Colloquium, 4pm, Rm 37-212. Reception, 3:30pm, Rm 35-338.

Kindergarten: Choices and Changes Thinking and Planning Ahead for Your 3 and 4 Year Old* - Technology Children Center Panel Discussion, 4-5pm, Rm 4-153.

Arm Tasks as Specifications for Prosthesis Design** – Crispin Miller, Mechanical Engineering doctoral candidate, 2.78 Rehabilitation Engineering Seminar, 4-5:30pm, Rm 1-114.

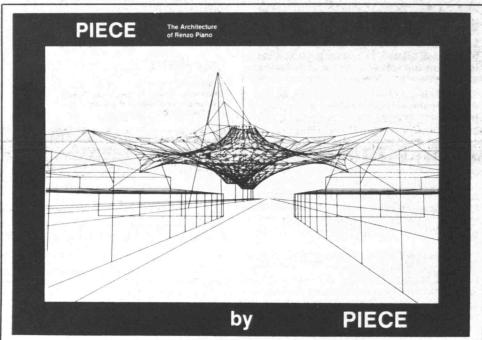
SDI: Boon to the Economy?* - Prof Lester Thurow, MIT Prof of Economics, Sloan School of Management; Bernard O'Keefe, chairman, executive committee, EG&G; Leo Stag, former manager, Space Science Lab, GE Corp, The Technology and Culture Seminar, 4:15pm, Rm 9-150. Informal supper and discussion follow, Student Ctr.

Wednesday, November 20

Picosecond Career Density and Light Output Dynamics of Modulated Diode Lasers** - B. Johnson, MIT, EECS/RLE Seminar on Optics and Quantum Electronics, 11-12noon, Rm 36-428.

Coherent Structures in Baroclinic Atmosphere: A Theory and Comparison with Data* – Paola Malanotte-Rizzoli, MIT, Oceanography Sack Lunch Seminar, 12:10pm, Rm 54-915.

Jewish Lab: Jewish Conversation** – Rabbi Dan Shevitz, MIT Hillel Seminar, 1-2pm, Hillel, W2a.



PIECE BY PIECE—An exhibit of the architecture of Renzo Piano will open with a community reception Thursday, Nov. 14, 4-8pm in the Margaret Compton Gallery (Rm 10-150). Mr. Piano will be present and will give the Arthur H. Schein Memorial Lecture at 6:30pm in Huntington Hall (Rm 10-250).

Will Gas Turbines Compete With Diesels for Ship Propulsion?* - Prof David Gordon Wilson, MIT, MIT International Shipping Club/MIT SNAME Seminar, 4:30pm, Rm 1-190. Refreshments served.

Underwater Discovery of the Side-wheel Steamer, MOLSON** – Drs Andre Lepine & Jean Belisle, members, Comite d'Histoire et d'Archeologie, Subaquatique du Quebec, MIT Scuba Club/Prof Harold Edgerton-sponsored meeting, 7:30-8:30pm, Rm 4-163.

Jesus: Man? God? Or both?* - Dr. Jamal Badawi, prof of management, St. Mary's University, Halifax Canada, MIT Islamic Society Lecture, 7:30pm, Rm 54-100.

Marx and Bakunin: A Dialogue* - Prof Howard Zinn, Boston University, theorist, author and activist, Black Rose Lecture, 8pm, Rm 9-150.

Monday, November 18

Introductions and Conclusions** - Writing and Communications Center Writing a Paper mini-session, 12:30-1pm, Rm 14N-317.

The Hutton Tension-Leg-Platform Project** - Dr. John Mercier, supervisor, marine engineering, Production Engineering Services Division, Conoco Inc, Dept of Ocean Engineering Robert Bruce Wallace Lecture, 3pm, Rm 10-250.

Noise, Intermittency and Chaos in the Kuramoto Equation: Is a Statistical Description of Large Scale Instabilities Possible?** - Dr. Stephane Zaleski, MIT, Dept of Mathematics Colloquium, 4pm, Rm 2-338. Refreshments served, 3:30pm, Rm 2-349.

Dam Safety: An Update on Research and Experience** -

Prof Frank Perkins, Parsons Lab & Dean of the Graduate School, Civil Engineering Division of Water Resources and Environmental Engineering Seminar, 4pm, Rm 48-316.

Psychology and Deterrence** - Ned Lebow, director, Peace Studies Program, Cornell University, Center for International Studies Seminar, 4-5:30pm, Rm E38-615.

Tuesday, November 19

Depression as a Disease** - Dermot A. O'Rourke, MD, assistant program director, CRC, Clinical Research Center Seminar, 10:30-11:30am, Rm E25-401.

Some Aspects of Energy Efficient Buildings in Switzerland* - Yurgen Blaich, visiting scholar from the Swiss Institute for Material Testing and Research, Swiss Federal University, Zurich, Joint Program for Energy Efficient Buildings and Systems Seminar, 1-2pm, Rm 1-214. Bag lunches welcome

Non-Stationary Response of Vehicles Traversing Rough Roads* - Prof S. Narayanan, Indian Institute of Technology, Madras, Mechanical Engineering Special Seminar, 3pm, Rm 3-442.

The Dynamics of Large-Scale Continental Deformation**
- Prof Philip England, Dept of Geological Sciences, Harvard University, Dept of Earth, Atmospheric, and Planetary Sciences Colloquium, 4-5pm, Rm 54-915. Tea served, 3pm, Rm 54-923.

Work Transfer, Heat Transfer and Irreversibilities in Gas Turbines and Their Cycles** – Prof Maher El-Masri, MIT, Dept of Mechanical Engineering Thermodynamics Seminar, 4pm, Rm 1-114. Coffee served, 3:30pm.

Japanese Identification of Technical Leverage Points for Their Competitive Advantages: Japanese Success through Technical Innovation* – Dr. George Kenney, director to Collegium, MIT Japan Science and Technology Program, 5:30pm, Student Ctr Center Lounge.

Thursday, November 21

Molecular Spectroscopy and Gravitational Collapse** – Prof Paul Ho, Harvard University, Physics Colloquium, 4pm, Rm 26-100. Refreshments served, 3:30pm, Rm 26-110.

Past Imperfect: Predicting Future Criminal Records from Existing Ones** - Arnold Barnett, MIT, Operations Research Seminar, 4pm, Rm E40-298.

Software Dissemination: First Sale and Shrink-Wrap Licensing* – David Waterman, Annenberg School of Communications, University of Southern California; Robert Bigelow, Bigelow and Saltzberg; Robert McEwen, Boston College, MIT Communications Forum, 4-6pm, Rm E15-070.

Emigration, Old-Age Pensions, Child Default and Fertility* - Prof Jeffrey G. Williamson, Harvard University, MIT-Harvard Research Seminar on Migration and Development, 4-6pm, Harvard Ctr for Population Studies, 9 Bow Forming Comparisons (Nouns, Adjectives, Qualifiers)** – Writing and Communication Center English as a Second Language workshop, 4:15-5:15pm, Rm 14N-317.

Economic Conversion: Toward Disarmament and Economic Renewal* – Prof Seymour Melman, industrial engineering, Columbia University, MIT Student Pugwash/Bay State Center for Economic Conversion Seminar. 89:30pm, Rm 34-101. Reports on economic conversion in Quincy and Cambridge will be given; \$1 donation requested.

Friday, November 22

Mirror Research Program in Japan* - Dr. Kawabe, University of Tsukuba, Plasma Fusion Center Seminar, 11am, Rm NW17-218. Refreshments, 3:45pm.

Computer-Based Planning and Control of Transportation Systems* – Richard A. Murphy, PhD, president, Optimal Decision Systems, Center for Transportation Studies Luncheon Seminar, 12-45-2pm, Student Ctr Mezzanine Lounge. Optional luncheon, 12-12:45pm. Luncheon fee: \$2/students; \$4/non-students.

Surface Interations in Cellulose Hydrolysis by C. Thermocellum and Its Cellulase Complex** – Noubar Afeyan, Chemical Engineering Seminar, 2pm, Rm 66-110.

Statistical Mechanics of Small Systems: Drops and Pores** - Prof Keith Gubbins, director, Dept of Chemical Engineering, Cornell University, Chemical Engineering Seminar, 3pm, Rm 66-110.

Instability and Turbulence in Combustion** - Prof Forman Williams, Princeton University, Mechanical Engineering Seminar, 3pm, Rm 3-133. Refreshments follow, Rm 1-114.

Technical Issues of SDI* - Dr. Kosta Tsipis, principal research scientist, MIT Program in Science and Technology for International Security, Plasma Fusion Center Seminar, 4pm, Rm NW17-218. Refreshments, 3:45pm.

Saturday, November 23

Strategic Defense Initiative."Star Wars" Symposium. Office of the Provost/Defense and Arms Control Studies Program Symposium, 9:30am-5:30pm, Rm 10:250. Morning Session, chaired by John Deutch, MIT: Historical Review of ABM Issues – Alexander Flax, Institute for Defense Analyses; SDI Systems Concepts – Ashton Carter, Harvard University; Critical Technologies – Richard Garwin, IBM; Hans Mark, University of Texas, Gerold Yonas, SDI Office; Afternoon Session, chaired by Louis Smullin, MIT: Strategy and Policy Issues – Fred Hoffman, R&D Associates/Pan heuristics; Jack Ruina, MIT; Personal Perspectives on SDI

heuristics; Jack Ruins, MIT; Personal Perspectives on SDI – W.K.H. Panofsky, Stanford Linear Accelerator Center; Brent Scowcroft, former National Security Advisor; Jerome Wiesner, MIT.

Community Meetings 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.

Health Care Plans Open Enrollment** - Benefits Office meetings for current personnel, MIT, Wed, Nov 13, 11-1:30pm, Rm 10-105; Lincoln Lab, Thurs, Nov 14, 11-2pm, Rm A-166; Haystack, Fri, Nov 15, 10-11am; Bates Linac, Fri, Nov 15, 1:30-2:30pm.

Special Health Insurance Meetings for Retired Personnel 65 and over or whose spouses are 65 or over — Compensation Office meeting, Wed, Nov 13, 2:30-3:30pm, Linc Cafeteria A. New Medicare/health maintenance organizations now offered at MIT will be explained.

FRAP Meetings** - Compensation Office meetings on the Flexible Reimbursement Account Program, Wed, Nov 20, 10:30-11:30am & 12·1pm, Rm 10·105; Thurs, Nov 21, 9·10am & 10:30-11:30am, Linc L-277.

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.

Winter Crafts Fair – Tech Community Women will accept ap-

plications for those wishing to sell at the Winter Crafts Fair, Dec 10-11, through Nov 22. For info, call Mary Helen Miller, x3-5225 or 494-5217 eves.

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

MIT Pension Plan** - Kerry Wilson, MIT Benefits Office, Women's Forum, Nov 18, 12noon, Rm 10-340. Submit questions prior to the meeting to Dotty Bowe, Rm 5-119.

Wives' Group** - Morning Group: Nov 13, Tour of Boston by Christine Cousineau - info: Lynda Merican, 577-9519 or Yong Lee, 494-8629; Nov 27, J.F. Kennedy's Birthplace - info: Rhonda Thomson, 924-3848 or Lynda Merican, 577-9519. For all trips, meet at 9:15am, Eastgate (60 Wadsworth St). Children welcome. Afternoon Group: Nov 13, The Holiday of Thanksgiving: A Traditional Meal - Debra Samuels, faculty wife & cooking teacher. All meetings, 3-5pm, Student Ctr Rm 491. Babysitting provided in Student Ctr Rm 407. Afternoon Group Planning Meeting, Nov 13, 1-3pm, Student Ctr Rm

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

The Language Conversation Exchange** – sponsored by the Wives' Group, seeks persons interested in practicing languages with a partner. Many international students and spouses wish to practice English with a native speaker. If you are willing to help an international visitor practice English and/or interested in practicing or learning a foreign language with a native speaker, call the secretary to the Wives' Group, x3-1614.

MIT Women's League Informal Needlework Group** – Wednesday lunchtime gatherings, 9:30am-1:30pm, Rm 10-340. Bring sack lunch, projects, swap ideas. Coffee & tea served. Meeting dates: Nov 13, 27, 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

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

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

New York City Holiday Shopping Madness. Sat, Dec 7. Visit the "real" Santa at Macy's, splurge at Saks, visit Trump Tower, watch the skaters and admire the tree at Rockefeller Center, and enjoy the city in its holiday trimmings. A full 8 hours on your own in the Big Apple. Bus leaves West Garage, 7am sharp (bring croissants and coffee), arrives at the Milford Hotel in Manhattan approx 12noon; bus leaves for Boston, 8pm. Cost \$17.50/pp/round trip. Make your reservations NOW, Rm

A Child's Christmas in Wales. Wed, Dec 11, 8pm, Lyric Stage Capture the spirit of the holiday season with Dylan Thomas' tale of a special boyhood Christmas in Wales. Laughter and song complete the warmth of the enchanting story. Cost: \$6.50/pp (reg \$8). Tickets available, Rm 20A-023.

Robin Hood** - LSC Movie, Nov 17, 3, 6:30 & 9pm, Rm 26-100. \$1/MIT-Wellesley ID.

Wuthering Heights* - LSC Classic Movie, Nov 22, 7:30pm, Rm 10-250. \$1/MIT-Wellesley ID.

The Flamingo Kid** - LSC Movie, Nov 22, 7&9:30pm, Rm 26-100. \$1/MIT-Wellesley ID. The Purple Rose of Cairo** - LSC Movie, Nov 23,

7&9:30pm, Rm 26-100. \$1/MIT-Wellesley ID. Cat People ** - Student Ctr Committee Movie, Nov 23, 11pm,

Student Ctr 2nd flr (Lobdell). Free/MIT-Wellesley ID.

Silent Movie** - LSC Movie, Nov 24, 6:30&9pm, Rm 26-100. \$1/MIT.Wellesley ID.

Music

Noon Hour Chapel Series* - Northeastern Baroque Ense ble recital for countertenor and instruments, Thurs, Nov 14, 12:05pm, MIT Chapel. Free



GUEST ARTISTS-The Cleveland Quartet will present the Boston premiere of Professor John Harbison's String Quartet No. 1, Sunday, Nov. 17, at 8pm in Kresge Auditorium. Also on the program will be Beethoven's Quartet in D, Op. 18 No. 3, and Dvorak's Quartet in F Major, Op. 96. Members of the Quartet are Donald Weilerstein and Peter Salaaf, violins; Atar Arad, viola, and Paul Katz, cello. The concert, sponsored by the Guest Artist Series, is open to the public free of charge.

The Nutcracker. Thurs, Dec 12, 7:30pm; Sat, Dec 14, 7:30pm; Sun, Dec 15, 2pm, Wang Center. The Boston Ballet performs this traditional holiday classic in evening of delight and wonder and magical artistry. Tickets: \$19.50pp (reg \$23), available in

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. (To see just the museum, pay another \$1 at the door, for a total savings of \$3/person - reg. \$5/person admission). For the China Exhibit, pay another \$5/adults, \$3/children at the Museum, for a total savings of \$1/pp (reg \$7/adults, \$5/children).

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

Annual Pub Party** - Tech Community Women/Graduate Student Council party, Sat, Nov 16, 8pm-midnight, Muddy Charles Pub. Call 641-3697.

Inter-Hillel Volleyball Game and Brunch** – Sun Nov 17, 10:30am, NU Hillel. For a ride from MIT Hillel, call x3-2982.

onsored 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 Awful Truth* - LSC Classic Movie, Nov 15, 7:30pm, Rm

The Cotton Club** - LSC Movie, Nov 15, 7&10pm, Rm 26-100. \$1/MIT-Wellesley ID

- Student Ctr Committee Movie, Nov 16, 11pm, Student Ctr 2nd flr (Lobdell). Free/MIT-Wellesley ID.

A Passage to India** - LSC Movie, Nov 16, 8pm, Kresge Auditorium. \$1/MIT-Wellesley ID.

Films From China* - MIT Association of Visiting Students and Scholars/US-China Peoples Friendship Association of New England movies, Nov 17, 1pm, Rm 10-250. Sky Diving (1981), Children of Soong Ching Ling (1985), Fun at the Zoo (1981), Anna Louise Strong (1984), Medical Use of Bees (1982), Genera-tions: A Chinese Family (1985), China Today - Tangshan, (1983). All films are in English. Free. Info: call 491-0577. Guest Artist Series* – The Cleveland Quartet, perform Beethoven, Harbison (Boston Premiere) and Dvorak, Sun, Nov 17, 8pm, Kresge Auditorium. Free.

Noon Hour Chapel Series* - Gaston Baroque Ensemble, Thurs, Nov 21, 12:05pm, MIT Chapel. Free.

MIT Choral Society* - John Oliver, director perform Beethoven's Missa Solemnis, with soloists and full orchestra, Nov 22, Sacred Heart Church (6th & Otis Sts, E Cambridge) Tickets: \$7; \$3/MIT students w/ID. Information: x3-3210.

MIT Faculty Series* - John Buttrick, associate professor of music, piano performs Mozart, Reger, Beethoven, Debussy Ravel and Chopin, Fri, Nov 23, 8:30pm, Kresge Auditorium

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

MTT Gospel Choir* - Rehearsals: Nov 16, Student Ctr Center Lounge; Nov 23, Student Ctr Rm 491; Dec 7, Student Ctr Rm 491; Dec 14, Student Ctr Rm 491. All rehearsals, 11-1:30pm. Info, x5-8563 dorm.

I heater

An Evening of One Act Plays* - MIT Dramashop pre tion of The Apollo of Bellac, by Jean Giraudoux and Half Time at Halcyon Days, by Carol K. Mack, Nov 14-16, 8pm, Kresge Little Theatre. House opens at 7:30pm. Followed by critique &

El Arquitecto y el Emperadorde Asiria* – by Fernando Arrabal, traditional Spanish Cafe Theater presented by the MIT Spanish Drama Workshop, Nov 22, 8pm, Student Ctr Mez-zanine Lounge. Donations accepted.

Dance

MIT Ballroom Dance Club Workshops* - Nov 24: Beginning Viennese Waltz, 12:30-1pm; Intermediate Foxtrot, 1:30-2:30pm; Advanced Quickstep, 4-5pm, Student Ctr Sala de Puerto Rico. Admission: Beginning - \$.25/members, \$.50/nonmembers: Intermediate - \$.50/members, \$1/non-members: Ad-\$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, 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,

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 camus location convenient to Westgate. Children do not have to English. For info, location, and registration, call Pamela, x3-5791 Tues/Thurs mornings, or 648-4834 eves/wkends.

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

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

Computer music to be featured

By JUDITH WHIPPLE Experimental Music Studio

The nationwide celebration of American Music Week this month includes, fittingly, an MIT concert focusing on a very recent addition to our national music heritage: computer music.

Computer music was, in fact, born and raised in America. Grown into an international medium since its beginnings in the 1950's at the University of Illinois and Bell Labs, computer music is nonetheless still dominatedtechnologically and musically-by Americans.

"American Digital: Computer Music in America," at 8pm in Kresge Auditorium on Friday, Nov. 15, will present the first Boston performances of six recent works, in a varied sampler of American computer music. The concert is presented by the MIT Experimental Music Studio, in conjunction with the national observance of American Music Week.

Prior to the concert, at 7pm in Kresge, composer Tod Machover of the MIT Media Laboratory, will moderate a panel of composers examining the current state of computer music. Tickets to both events, \$6 (\$3 students, senior citizens, MITID). For information, call x3-7418.

The November 15 program explores a range of musical styles (including jazz and ragtime) and approaches to the computer medium. Featured will be George Lewis performing his music for interactive computer and performer, the world premiere of a new work by Robert Kyr, and works by David Jaffe, Paul Lansky, Dexter Morrill and MIT's Curtis Roads.

This concert marks a rare Boston appearance of George Lewis, who is active in new music as a composer, improvisor and interpreter, and is formerly music director of the Kitchen in New York City. Lewis, whose music draws in part on modern jazz traditions, has focused his work in computer music on developing interactive improvisation between computers and live performers. "Performance practice is my point of departure," he explained in a recent interview. Lewis has created software programs, running on Apple personal computers, which analyze and respond to live musical input from human performers, using that information to generate musical structures in real time. In Rainbow Family, both the computer and the human performer (Lewis himself, who is a virtuoso trombonist in the MIT Concert Band) have considerable interpretive and improvisational freedom, and have nearly equal responsibility for the progress of the piece

The November 15 program also features two works realized at the MIT Studio. Robert Kyr's A River Unfolding for computer will receive its world premiere. Kyr is composer in residence with the Mystic Valley Orchestra. Last year's premiere by that orchestra of Kyr's There is a River (a related work) was hailed by Richard Buell of the Boston Globe as a "dazzling new piece" and as one of the most notable works by Boston composers of the 1984-85 season.

Curtis Roads, who is editor of the Computer Music Journal (MIT Press) and an MIT Studio staff member, has created a new version of his score for this performance. In this piece, Roads works with a large and colorful collection of digital sound objects as his basic materials, manipulating and organizing them in musically convincing ways.

Also making his first Boston appearance is composer David Jaffe, who with Andrew Schloss, will perform his Bristlecone Concerto No. 3. Unusually scored for mandolin, percussion and computer, the music was inspired by California's Bristlecone Pines (a stunted stand of desert pines which are the oldest known living things). Jaffe is affiliated with the Computer Center for Research in Music and Acoustics (CCRMA) at Stanford University, where he received his DMA- as did Schloss, who now teaches at Brown University.

Works by two leading figures in computer music round out the MIT program. Idle Chatter, by Paul Lansky of Princeton University, is a high-spirited application of speech synthesis techniques to music. Dexter Morrill's Fantasy Quintet for piano and computer "quartet" draws on Victorian, ragtime and jazz traditions. Morrill, who teaches at Colgate University, makes dramatic and humorous use of four loudspeakers in this work, as the "performers" of the computer part. The piano part is performed by Boston pianist Catherine Fuller, who is affiliated with the New England Conservatory of Music.

American Music Week is coordinated by the American Music Center in New York as part of festivities surrounding the 20th birthday of the National Endowment for the Arts.

Exhibits

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

Hayden Gallery - Private Works by Public Artists: Scott Burton, Richard Fleischner, Kenneth Noland, Examines each of these artist's studio-produced work, for displaying more private environments than their collaborative efforts with architect I.M. Pei in MIT's new Wiesner Building. A major publication will document the pioneering process of this collaborative when the property of the collaboration will document the pioneering process of this collaboration. laboration, through Nov 24

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

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

THE MIT MUSEUM

MIT Museum Bldg – Berenice Abbott: Vision of the 20th Century. Five decades of photographs by Berenice Abbott, 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. Red Weights: Sculptor Carol Keller and painter Kathleen Soles use a variety of materials to explore painter Kathleen Soles use a variety of materials to explore spatial ambiguity as a metaphor. Nov 21 through Jan 31, 1986. Opening Reception, with artists in attendance, Nov 21, 5-7pm. Gion Mili '27: A Tribute. Born in Rumania, world fam photographer Gjon Mili studied electrical engineering at MIT and pioneered in the use of electronic flash and multiple exposure photographs. In 1938 he began doing stories for Life magazine, ongoing. Of Aerostatic Machines: Early Ballooning in France and Britain, Prints from MITs 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-4pm.

Compton Gallery - Piece By Piece, Works by Italian ar-Nov 15 through Jan 11, 1986. Opening reception: Nov 14, 4-8pm; the artist will attend. Hours: Weekdays 9am-5pm. Satur days 10am-4pm.

Hart Nautical Gallery

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

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.

OTHER EXHIBITS

Humanities Retrospective - Memorial Gallery, Hayden Library Bldg, Documentation of the Humanities at MIT: 1865-1985 and the first 30 years of Course XXI (the humanities major): 1955-1985, through Nov 30.

Institute Archives and Special Collections - Planning the

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

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

Staying Healthy - An exhibition of drawings by the youngest members of the MIT Health Plan, Health Services Center, Atrium Bldg E23, through Nov 22.

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

Sports

HOME EVENTS: Nov 16: Pistol vs Coast Guard, M's Swimm ing, Charlie Batterman Relays; W's Swimming, Charlie Batterman Relays. Nov 21: M's Fencing vs Tufts, 7pm; W's Fencing vs Tufts, 7pm. Nov 23: M's Basketball vs Yeshiva, 8pm; M's Fencing vs Alumni, 3pm; Pistol vs Ohio State & WPI, 9am.

Wellesley Events

Jewett Arts Center* – Isla Negra Tapestries, Chilean genre scnes, organized in collaboration with Wellesley Spanish Dept, through Dec 1. Paintings, Drawings and Sculpture from the Permanent Collection, continuing

Interviewing: The Employer's Perspective* - reps from Interviewing: The Employer's Perspective — reps from Hill, Holliday, Connors, Cosmopulos, Inc; the Environmen-tal Protection Agency; The Boston Company; and the Har-vard School of Public Health, Ctr for Women's Careers Women in Action: The Realities of Working Seminar, Nov 13, 7-9pm, Library Lecture Rm. Cost: \$5 for those with no college

The Politics of Literary Criticism and What We Read* Dr. Mary Anne Ferguson, visiting research scholar, Ctr for Research on Women, Ctr for Research on Women Luncheon Seminar, Nov 14, 12:30-1:30pm, Cheever House. Bring a bag lunch; coffee provided.

ninar on The Killing Fields* - Cambodian student speaks of personal experiences, Slater International C Third World Seminar, Nov 14, 6:15pm, Science Ctr Rm 277 ces. Slater International Ctr

Concert* - Collegium Musicum, Nov 15, 8pm, Jewett

The Pirates of Penzance* - by Gilbert & Sullivan, Nov 15-17, 8pm, Alumnae Hall. Tickets: \$5/general; \$3.50/Wellesley personnel; free/Wellesley & MIT students w/ID.

Baum Memorial Concert* - Wellesley College Choir, Worcester Polytechnic Institute Glee Club, and Chamber Orchestra, perform music of Henry Purcell, directed by William Herrman, Nov 17, 8pm, Houghton Memorial Chapel.

Responses of Health Workers to AIDS Patients, Their Responses of Health Workers to AIDS Patients, Their Families and Friends* – Joseph H. Pleck, acting Ctr Director; Lydia O'Donnell, project co-director, Ctr for Research on Women, Ctr for Research on Women Luncheon Seminar, Nov 21, 12:30-1:30pm, Cheever House. Bring a bag lunch; coffee provided.

Film Critic on Truffaut* - Vincent Canby, film critic, New York Times, College French Dept and La Maison Francaise lecture, Nov 21, 7:30pm, Science Ctr Rm 277.

Open to the public
*Open to the MIT community only

***Open to members only

Send notices for Wednesday, November 20 through Sunday, December 8 to Calendar Editor Rm 5-111, before noon, Friday, November 15.

Tech Talk, November 13, 1985, Page 5



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

INSTRUCTIONS: Ads are limited to one (of approximately 30 words) per person per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Per to list only their home telephones, must come in person to Rm 5-111 to present In-stitute identification. Ads using exten-sions may be sent via Institute mail. Ads are not accepted over the telephone

Deadline is noon Friday before

For Sale

Wrought irn 3-pce sofa, vinyl cyrng & mtchng rckr, \$225; 2 wrought irn glss top end tbls, \$35; solid sugar mapl DR set: 6 chrs, tbl w/leaf, cstm-md tbl pad, opn hutch, exc cond, \$2,000 or bst. Call

Danish chr, suitbl for apt/den, brwn cushns, cln, gd cond, v rsnbl. Call 354-2175 before 9pm or Sat.

M's dwnhill skis, exc bndngs, Nordica poots, sz 12-13, boot tree, \$55 for all. Call 484-0802 1-8pm.

5-strng banjo, exc cond, w/case & maint rpr book, \$95. Barbara King, x3-2531.

Couch & 3 chrs. \$100: DR set. \$150: K-sz bed, exc cond, \$350; 190cm skis w/bindngs, \$10. Call x3674 Linc or

275-2599 eves/wkends Lthr M's shoes, sz 10, br nw, \$20; Macforth Levels I & II. Call x3-3910 or

577-8226 eves. Solid mapl twn-sz bed, bx spr & mttrss,

\$50. Abraham, x3-7914 or 566-8394.

Rear bike whl, steel, 27", inc free whl, gd cond, \$10. Dennis, x3-6912.

3 tckts, MFA Renoir exhibt, 11/19, 2pm, \$5 ea. Sandy, x3-7780 or 1-896-5345

Guitr amp, Peavey TRO80, gd cond, exc practice amp, \$100; MXR analog delay w/ac cord, \$90, prices nego. John,

536-1303 eves

Kiwi CB525 pro cmra bag, br nw, nvr usd, stll has tags on, lsts ovr \$150, mst sac, you name price. Call x5-9284 dorm or 494-0138

Pro mvng bxes, book bxes, dish packs & wrdrb bxes. John, x3-3760 or 449-3756

\$400. Garry, 497-1523 aftr 6pm.

Fender Rhodes 73 elec piano, exc cond, \$450 firm; Fender twn reverb amp, \$300 firm (\$725 w/piano); Roland phas w/distortn sw, pd \$125, \$70; Electro-Harmonix pwr boostr, \$9; flr mntrs (inc sprks), \$30/pr. Tony, x3-5959 or 229-5272, lv mssg.

Colr tv & tv cnvrtr box, \$180; radio-ca rcrdr, \$50; lrg strdy dsk, \$50; round tbl & 4 chrs, \$30; sofa, \$100; mttrss, \$50; carpts, \$80 & \$20; vac clnr, \$10; 3 sqsh rckts, \$5 ea; 3 sm tbls, \$5 ea; full-lngth curtns, \$50. Johann, 494-0402.

Opera tckt, Puccini's Turandot, Sun, Nov 24, \$30. Sharon, x3-4158.

13" Zenith colr tv, exc cond, \$130 or bst; wght lftng bnch w/145 lbs of wght, exc nd, \$100 or bst. Nasser, x3-4095 or

4 rad trs, sz 80, fits Datsun 510 & sim mdls, usd 1 yr, exc cond, \$200 for set. Marilyn, x3-7894 or 924-4689.

3 George Carlin tckts avlbl. 11/15. 7:30pm, Symphny Hall, \$20.83 ea (my cst frm Ticketron). Adam, x5-6139 dorm

ol rug, perf cond. Mary Pa

Fuji S10-S Ltd 12-spd bike, 21", \$175; Motobecane Nobly 3-spd w/2nd rear whl, 21", \$70; Radio Shack 12-650 AM/FM port radio, \$35. Keith, x3-2525.

Sheepskn coat, hndmd, L's sz 9, choc btfl stylng, \$200. Laurie, x3-4461 or 395-5153 for mssg.

Epson MX80 w/Graphtrax, exc cond, 2 bxes of papr & mailng lbls, \$2,800 or bst. Patrick, x5-8471 dorm, 577-1764 or lv mssg Burton Dsk.

Baldwin Spinet piano, 1978, fruitwd finish. \$1,500: 54 vol set of Brittanica Great Books w/Syntopican & 10 vol set of the Gateway, \$50. Eileen, x3-3820 or 926-6235

Prtbl Whirlpool unt for bath, 1 yr old, askg \$60. Hedy, x3-5003.

SMC elec typwrtr, \$45; SMC mnl typwrtr, \$25; lrg cerame tbl lmp, \$20; attache cases, nw cond, \$25-30; chrs, \$10-45; ceilng fxtrs, \$5-25; bird cage, \$12; Bentley rckr, nds rpr, \$10; colr & b&w tvs, nd rpr, \$5-30; elec broom, \$18; 2 Paine's mtchng side tbls w/drwr, \$20 ea; framd prnts & postrs, \$15-25. Call x3-6085 or 332-8251.

C ITOH 8510 ProWrtr dot mtrx prntr, like nw. parallel intrfc card for Apple II cmptr, \$350. Tony, x3-2085.

Cmptr trmnl, teletype mdl 33 TU (frm PDP8 sys) as is, \$100 droppng \$10/day, se Nov 23 if not sold Dave Wilson x3-5121 or 876-6326 eves.

Huffy 10-spd bike, exc cond, askg \$75; stereo w/cass attchmnt, gd cond, \$7 grt for teenagr. Nanci, x3-7914 or 782-1012 aftr 6pm.

Magnavox b&w 13" tv. Carrie, x3-3567.

Miyata 310, nw, 21" frm, toe clips, Zental pump, Kryptonite IV lck, Bell Tourlite helmt, carriers, panniers & more, \$400. Call 729-4216 before 10pm.

19" Zenith b&w tv, fair cond, w/stnd, \$75 or bst. Danny, 566-6188 eves.

Vehicles

'64 Hillman Husky sta wgn, gd mech, solid bdy, about to become antiq, \$1,200. Call 636-2044.

'71 Toyota Corona, dirt cheap, bst offr. Shari, x3-5180.

72 Volvo sta wgn, 4-spd shft, mtd snw trs, \$200 or bst. Call x3-6809.

'73 Chevy Nova htchbck, std shft, 2-dr, 6 cyl, rns well, nw exh, sprngs & shcks, maint histry, snw trs inc & FM cnvrtr, \$900. Amy, x3-0544 before 1:30 or 924-5069.

'73 Cadillac DeVille sdn, 3 nw trs, eng rns, elec wndws, pwr lcks, AM/FM auto tune stereo, cruise cntrl, 6-way pwr seats, grt on hiway, \$500 or bst. Dave, x3-0118 or pref 437-7300.

'74 Chevy Impala, nw trans, lots of nw prts, eng rns grt, bdy rstd, rcnt tune-up, snw trs, \$300 or bst. Bertrand, x3-8148 or 547-0551 lv mssg.

77 VW van, lo mi on nw eng, nw rst, htr, gd rads, \$2,000 or bst. Tim, x3-4910 or

'78 VW Rabbit, nw eng, AM/FM, sunrf, gd bdy, \$1,500 or bst. Jim, x3-6712 or 354-6267

79 Buick Century wgn, auto, a/c, ps, pb AM/FM, rfrck, etc, 6 cyl, silvr, under 59K, v gd cond, \$2,500 or bst. Margie, x4501 Linc or 861-0027.

80 Mazda 626, 2-dr cpe, 5-spd, a/c, AM/FM stereo, nw uphlstry, alum sport whls, 58K, exc cond, askg \$3,700. Jim, x3-6634 or 494-1050 5-10pm.

80 VW Rabbit htchbck, gd trs, batt & bdy, rnning cond, 120K, mst sell immedtly, bst offr. Call x8-4035 Draper or 933-4510 eves.

Toyota Corolla, 2-dr, 5-spd, exc con AM/FM, nw batt, \$3,500. John, x8-3955

'82 VW Rabbit diesl. 2-dr. 4-spd std. metllc gld, a/c, AM/FM, block htr, v cln, 42K, \$3,950. Claude, x183-252.

83 Renault Alliance DL, 20K, AM/FM radio, rstprf, std, snw trs, \$4,000. Call 655-5096.

Housing

Melrose, 4 lrg rms, 2nd flr, prkg, no pets, sec dep, \$575/mo. Call 665-8509.

N Conway area twnhse, sleeps 8, 2BR & loft, 2 full bths, ski Attitash, Wildcat, Cranmore, Brenton Woods, rnt now for wntr vac wks/wkends, rsnbl rates. Eileen, x8-2806 Draper or 395-9154.

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

Somerville, Union Sq area, 4 rms, renovtd on 2nd flr w/Boston skyline view, avlbl 12/1, \$590+ utils. Dave, x3-2546.

Studio, Bos Brighton line off Comm Ave, nw convrsn, D/D, microwv, a/c, w/w, Indry in bldg, pool, avlbl 1/1/86, \$525. Joyce, x3-8105 or 438-3045.

Boston, 2BR fir-thru condo, St Btlph area, parqt firs, D/D, eat-in ktchn, frplc, mny wndws, nr Mass Ave, \$170K. Call

Littleton, lvly 4BR hm on 2 acres, commuty pool, tennis, sktng, pets ok, \$1 400/mo Susan Colcock x7043 Line

Animals

Affetnate 3-yr-old outdr cat, short-haird, gr & wh, neutrd & v healthy, my nw lndlrd won't allow pets. Kathy, x3-5136 or 923-1411 eves.

2 hnd-tamed talking cockatiels for sale, sep or as breeding pr, inc cage(s), \$200 ea, or bst. Dave, 547-0563.

Wanted

Gd usd colr tv, will pay fair price. Pat,

Vistng post-doc Swiss resrchr w/wife & chld sks furn hm to rnt 1 yr startng 1/1/86. Prof T. Sheridan, x3-2228.

Babysttr wntd, pref a parent, for 1 aftrnoon/wk & occsnlly othr aftrnoons/ams, can drop chid off your hee or you may use ours. Meredith, x3-1507 or 524-1816

Hayward lot (medical) stckr in exch for Albany. Carol, x3-6286

Sm cmptr tbl. Bob. x2936 Linc.

Sloan or Albany stckr in exch for West Garage. Elaine, x3-0616.

Prof frm Scuola Normale Superiore, Pisa, Italy sks hsesittng or sublt for sprng semstr, nr MIT & undr \$300/mo. Marc,

1-2BR apt for French postdoc fellow in microbiology at MIT. Patty, x3-5993.

Roommates

M/F to shr otfl Belmont apt nr Fresh Pond, frplc, drvway, grt view, quiet, nr T, own BR & stdy, furn if desird, \$325+ ht utils. Ed. 489-4355.

Miscellaneous

Draftng of any knd, copies of previous wrk avlbl, can be pd thru acct #. Call

Typng on wrd pressr, all knds inc tech, rsnbl rates. Lynne, x3-4012. Exp'd typst w/IBM sks holiday \$. Lynne, Exprt typst, wrd pressing, tech & non-tech, 10 yrs MIT exp. Marie, x3-7309.

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 nonacade jobs currently available on the MIT campus. Duplicate lists are posted on the Women's Kiosk in Building 7, outside the offices of the Special Assistants (10-215, 10-211) and in the Personnel Office (E19-239).

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

ons who are NOT MIT employee should call the Personnel Office on extension 3-4251.

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

3-4278

Oveta Perry

Dick Higham

Virginia Bishop	3-1591
Appointments:	
Therese McConnell	3-4274
Ken Hewitt	3-4267
Kenneth W. Chin	3-4269
Sally Hansen	3-4275
Appointments:	3-4268

Kim Bonfiglioli 3-4076 Appointments: Nancy McSweeney

Administrative and Academic Staff

Administrative Officer, Office of the Dean for Student Affairs, to be responsible for the central ODSA budgets, monitoring of expenditures against counts as well as overall monitoring of all accounts within the ODSA. The Administrative Officer will participate in development of budget recommendations; will be responsible for preparation of all materials relating to personnel matters and for facilitating the search process for ODSA vacancies. Specific duties include keeping the Dean informed of changes in Institute personnel procedures; serving as the primary source of information for isting policies and procedures within the Accounting, Purchasing, and Physical Plant areas; and performing other special projects as requested by the Dean. Bachelor's degree or equivalent combina-tion of experience and education is necessary. Knowledge of MIT (in particular the Comptroller's Accounting Office, Purchasing and Personnel) and accounting expe rience desirable. The ability to operate under pressure is essential as is the handling of sensitive information in a confidential manner. The position is highly visible, requiring frequent interaction with a number of offices and in dividuals around the Institute. Good writing, problem-solving, and interper-sonal skills are critical. A85-640

Animal Facilities Manager, Division of Comparative Medicine, to supervise the animal technologists and technicians, act as liaison with the research community, and direct administration of the animal facilities. Supervision will include maintaining records on attendance; preparing and approving payrolls; establishing and coordinating work schedules to ensure adequate coverage; handling grievance charges; monitoring personal health pro-gram; acting as Safety Coordinator; conducting comprehensive job training pro gram for animal care personnel; and in-terviewing applicants. As a liaison with the research community, duties will inmeeting regularly with Principal Investigators and their s implementation or research projects; will make recommendations regarding suitable animal housing system as did tated by the research protocol; recommend animal vendors based on results of an ongoing health screening program; co-ordinate many aspects of the research protocols; refer experimentation utilizing ohazardous materials to the appropriate DCM or EMS staff for consideration. As Facilities Manager will perform general administration and conduct the cost recovery program by regularly monitor-ing the animal population to ensure max imum collection of per diem charges. BS in Biology, Animal Science or related field preferred. Minimum 2-5 years direct ly related supervisory experience required. A85-639

Librarian III. MIT Libraries Preservation and Collections, to plan, design, evaluate, and coordinate the MIT Libraries preservation program. Will coor-dinate collection management projects; direct collection assessment program; recommend and implement preservation and collection review and assessment policies. Will develop system-wide priorities; oversee and coordinate storage, transfer, and weeding decision making and implementation; recommend for en vironmental, security, and physical state of the collections; develop training and education programs for staff and library users; serve as liaison with departme heads, collection managers, processing librarians and subject specialists; direct work of the binding and repair unit; work with Libraries Conservation Consultant

in introducing new preservation techniues and in planning special projects. evelop fund-raising proposals, chair the Disaster Team; serve on the Collection Management Group and on the Joint Committee for Technical Processing. MLS from an ALA-accredited library school, and a minimum of three years of professional library experience are required Advanced preservation training or significant preservation experience is desired. Good organizational, managerial and supervisory skills are required. Excellent interpersonal skills essential. C85-167

Analyst Programmer I, Administrative Systems, to serve computer users through consultation, problem diagnosis, programming assistance, documentation, trouble shooting and education on computers.
Will provide programming assistance, prepare and/or review documentation for existing and new programs; search for special information on computers, programs and systems; interface with hardare and software suppliers as required assure efficient installation procedures; participate in professional conferences in computer science and related activities. May act as group leader in task assignments. A Bachelor's degree in Computer Science or related fields or equivalent combination of education and experience is necessary. Reasonable experience in computer programming or related ac-tivities preferred. Excellent oral, written and interpersonal skills desirable.

Staff Writer/Editor, Communica tions/Resource Development, to work with four other writers in preparing proposals, publications, and correspondence in support of MIT's overall fund-raising object tives. Demonstrated writing, editing and research skills; high degree of initiative; and ability to work independently and well under often severe time constraints. Strong science writing skills preferred. Bachelor's degree and three to five years of professional writing experience, preferably in a related setting required. Knowledge of MIT and of graphic design/production is helpful. Four nonfiction writing samples, and cover letter ex-plaining interest in position must accompany resume. A85-637

Assistant Secretary for Visiting Committees, Office of the Secretary of the Corporation. The Assistant Secretary will manage and provide staff support to the 27 Visiting Committees of the MIT Corporation. The Visiting Committee structure is the means by which the MIT Corporation exercises its trustee responsibil-ity to oversee and support the quality of ality of MIT in education, research and administration. Consisting of 15-20 members trustees, alumni and other individuals each Visiting Committee typically meets once every 2 years to discuss with depart-mental and university officers the particular department's achievements, and aspirations. The Visiting Committee of-fice provides a wide range of services including scheduling meetings, managing communications, arrangements and logis-tics; assisting committee chairs with agenda, meeting plans, and report preparation; and assisting Corporation Officers with selection and appointment of committee members. Qualifications include a Bachelor's or advanced degree or equivalent experience; demonstrated managerial talent and excellent organizational and communication skills; energy, tact and discretion, as well as attention to detail. A highly visible position requiring excellent interpersonal skills. MIT experi-ence preferred. Premium on evidence of good judgment, sense of service, and ability to work under pressure, independently and as a team member. A85-636

Librarian I, MIT Libraries (Assistant Librarian for Technical Processing, Rotch Library of Architecture and Planning), re-sponsible under the Associate Rotch Librarian, for technical processing in the Rotch Library. Will participate with other librarian staff in reference service and collection development as a subject specialist in one of the areas of architecture or planning. Responsible for supervision of the section head and support staff who perform local processing, acquisitions, binding, and manual and online catalogue ance for monographs and serials Will represent library on the system committee on technical processing. Participate in traditional and online reference service within assigned subject areas. Selects material and participates in cisions regarding budget allocation, de acquisition, preservation, storage and evaluation of collection. MLS from a ALA accredited library school. Prior preprofes sional experience preferred, including ex perience with technical processing. Supervisory experience desirable. Reference and collection development experience desirable. Undergraduate degree in architecture or planning desirable. Good interpersonal skills essential. C85-166

Project Archivist, Archival/Manu-2-year position), under the direction of the Institute Archivist, will formulate and test appraisal and collection strategy guidelines for the records of colleges and universities, by undertaking research, surveying collections, recommending collecting strategies, and communication with Advisory Group members as appropriate. Will analyze and describe ac-tivities that take place at colleges and universities, analyze the records docuenting those activities, and formulate strategies to effect the creation and retention of records of long-term value. Ar-chival and records management skills will be used throughout this program. A graduate degree plus substantive archival training and experience are required. Experience with research techniques and the ability to communicate clearly in writing are required. Confidentiality, good organi zational skills and interpersonal skills essential. Experience in a college or university setting preferred. C85-165

Archival Assistant, Archival/Manuscript Specialist, MIT Libraries (temporary 2 year position), under the supervi-sion of the Assistant Archivist, shares the responsibility for the operation of the Intitute Archives by assisting with the daily routines; accessioning, arranging, preserving, boxing and describing a wide va-riety of archival and manuscript materials; performing historical research when necessary to appraise, organize and de-scribe collections; preparing finding aids for collections; answering reference let ters; serving on the reference desk; helping researchers with the use of books, ar-

chives and manuscript collections. A graduate degree and archival training and experience are required with an undergrad uate degree or graduate degree in engi neering, computer science or physical sciences preferred. Experience with biblio-graphic and research techniques are required, as are the ability to communicate clearly in writing, to work systematically and respect the confidentiality of records Good interpersonal skills essential.

Sponsored Research Staff

Research Scientist, Earth, Atmospheric, and Planetary Sciences, to study stratosphere-troposphere exchange. PhD in Atmospheric Physics is required. Several years postdoctoral experience in radiative transfer computations and analysis of experimental atmospheric compos tion measurements for aircraft also required. Should be familiar with largescale atmospheric general circulation. R85-861

Technical Assistant, Applied Biological Sciences, to include technical supervision of animal carcinogenicity testing pro-grams, involving the dosing of rats and mice, performance of necropsies, prepara-tion of slides for histopathology examina-tion, record-keeping, and data analysis. Additional responsibilities include rat and mouse tissue distribution, metabolism, and excretion studies and performance of monoclonal antibody assays. Bachelor's degree (or Associate's degree plus experi-ence) in Biology or related field is required. Candidates should have experi ence in handling and dosing of rate mice and the ability to keep detailed records and perform calculations. Basic knowledge of biochemistry and knowledge of biochemistry and biochemical techniques is desirable. R85-860

Research Scientist, Earth, Atmospheric, and Planetary Sciences, to act as Director for the MIT seismic network. A PhD in seismology and at least 1-2 years postdoo toral experience are required, as well as computer programming expertise and a demonstrated ability to incorporate a wide variety of geophysical and geological data in the interpretation of seismic observations R85-858

Technical Assistant, Center for Cancer Research, to work in a laboratory con-cerned with the molecular analysis of on-cogene function. Will be responsible for maintaining animal cell lines in tissue culture and will collaborate in experiments to determine the molecular and biological consequences of introducing on-cogenes into cultured animal cells. Will also be responsible for maintaining some laboratory supplies and equipment. degree in basic science and work understanding of molecular biology microbiology or biochemistry and previous laboratory experience, particularly with tissue culture technique desirable. The ability to work with others on a common problem is essential.

Research Specialist, Statistics Center, to design, implement and maintain a computing environment (including operating system) for numerically intensive realtime applications. Will develop libraries. debugging tools and monitoring program for analyzing system performance. Will assist research staff in developing and testing mathematical software for parallel computing. Will serve as system programmer for group's Intel microprocessor systems as well as the VAX 11/730. Graduate degree and experience in comater architectures, operating systems and parallel computation required. perience in using C, FORTRAN, Pl/M, and x86's assembly languages, as well as Berkeley UNIX 4.2, iRMX, and Xenix operating systems preferred. R85-856

Energy Technical Assistant, Laboratory, to act as a member of an in terdisciplinary team of materials scientists, chemical engineers and inhalation toxicologists. Will assist in research in volving the physical and chemical study of inorganic reactions and processes at high temperatures. Work design and construction of apparatus, preparation of test samples, use of a variety of analytical instruments and car-rying out experiments. BS required, prefrably in Chemistry, Physics or Engir ing. Ability to work as part of a team essential. R85-855

Research Associate, Earth, At mospheric, and Planetary Sciences, to conduct vigorous research programs on the general problem of three-dimensional earth structure and its relationship to mantle convection, specifically on structure and dynamics of descending lithospheric slabs. PhD and some previous experience in structural seismology and large-scale numerical computation required. R85-854, R85-853

Accelerator Physicist, Laboratory for Nuclear Science, to develop the ac-celerator system. Will acquire hands-on familiarity with operation of the accelerator-recirculator system and help establish new operational protocols Develop diagnostics for upgrading the power-handling capability of the accelerator system (this is crucial for the operation at the 1 GeV beam energies which will be available at the end of 1986); take part in the development and implementation of an advanced computer-based control system for the accelerator; perform calculations and develop prototype elements for a 1 GeV pulse stretcher ring. Will develop methods for providing longitudinally polarized electron beams inside storage rings; evaluate various CW alternatives; originate other research projects in ac-celerator physics. PhD in Physics and the demonstrated ability to perform the above duties essential. R85-852

Research Specialist (Computer Facility Manager), Research Laboratory of Electronics, to provide support for a large number of single user work-stations centered around Lisp Machines. Will main tain the hardware and software; write supporting programs for speech and language-related research, document the pro grams; help initiate new users; allocate computer resources, and participate in research projects. A Bachelor's degree in Electrical Engineering and/or Computer Science, and a minimum of 2 years programming experience with the Symbolics 3600 Lisp Machine necessary. Excellent interpersonal skills required, interest in peech and language and willingness to work flexible hours desirable. R85-850

Research Specialist (Research Program Manager), Research Laboratory Electronics, to handle project administration and publication activity for large DARPA research program. Will gather information and prepare periodic reports on several government sponsored re-search projects in automatic speech recognition; edit and prepare abstracts, articles and other documents for publication and/ or presentation at conferences; coordinate travel and meeting arrangements; distrioute materials, and otherwise facilitate collaboration between researchers at MIT and other institutions that form a research consortium; assist in preparing new research proposals; maintain liaison with other MIT personnel, the public and the press; monitor expenditures, approve purchase requisitions, and insure adherence to budget; hire and supervise under-graduate part-time office help; supervise secretary. May assist in transcriptions of speeches and other research activities. Bachelor's degree and a minimum of 3-5 years related experience necessary. Excellent oral and written communication skills, familiarity with computers, and strong interpersonal skills required. R85-849

Library Support Staff

Library Assistant IV, MIT Libraries Catalogue Department (temporary), to participate in a project that provides for the original cataloguing and online conversion of 11,250 scientific and technological publications issued by MIT from 1861-1974. Will convert publications bibliographic records to machine-readable 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, 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; resolve personal name heading conflicts and initiate correction to bibliographic records and authority files to reflect AACR2 rules of entry. Will maintain statistics of items converted and perform additional assignments as necessary. High School Graduate or equivalent is necessary, some college preferred. Minimum 2.5 years direct/related experience required. Working knowledge of the MARC format, preferably in the OCLC Cataloging Subsystem, and experience with CRT operations required. Some experience with AACR2 catalogue code desirable. Accurate typing, 40 wpm and attention to detail essential. L85-071, L85-072

Library Assistant III, MIT Libraries-Catalogue Department (temporary), to participate in a project providing for the original cataloguing and online converoriginal cataloguing and offine conver-sion of 11,250 scientific and technological publications issued by MIT from 1861 to 1974. Will input catalogue records on the OCLC terminal from works prepared by cataloguers; edit online contributed and Library of Congress catalogue records ed on cataloguer's written instructions. Will perform precataloguing searching in the Institute Library Catalogue (LC and DDC) and the National Union Catalogue: retrieve items for cataloguing from divisional/branch libraries and the Retrospec tive Collection facility; prepare and affix call number labels to items and perform other related assignments as necessary. High School graduate or equivalent and a minimum 1 year direct/related experience required. Accurate typing of 40 wpm and attention to detail essential. Experience using CRT terminal desirable. L85-069,

Library Assistant III, MIT Libraries Catalogue Department (temporary), will assist on a project for the processing of records for multivolume works, which will linked to an existing online record in the MIT database. Responsibilities will include maintaining file records to be linked; photocopying and organizing copies of master shelflist records; printing ords linked in the MARC Records Management System of the Libraries' new online circulation and editing system and maintaining a file of the printouts; preparing barcodes, shelflist photocopies and multivolume sheets for mailing to Divisional/Branch Libraries: and participating in linking routine holding to existing records in the MIT database. High School graduate or equivalent is necessary; minimum 1 year direct/related experience required. Accurate typing of 40 wpm and attention to detail essential. Experience using CRT terminal desirable. L85-066

Secretary/Staff Assistant

Administrative Secretary, Planning Office, to act as the administrative officer of the department, working closely with the Director and coordinating all ad-ministrative functions. Duties will include typing and proofreading all correspondence and reports, with assistance the preparation, distribution and compo tion of other routine correspondence. Will monitor all office expenditures and custodian of petty cash; review and analyze monthly accounting statements and com-parisons of actual expenditures with budgetary projections; and help prepare the annual operating budget. Additional duties include maintaining Director's calendar; sorting incoming mail with review for response and priority purposes; answering phones and directing visitors; making travel arrangements and prepar-ing Institute forms such as requisitions, vouchers, and receipts. Will maintain database of all archived Planning Office files, currently using Lotus 1-2-3, and maintain and update current project files with the Director's and other staff members' direction. Attention to detail and excellent organizational skills essen Strong background in word process ing (DECmate preferred) with skills in transcription required. Background in accounting or managing office budgets helpful, familiarity with spreadsheets, list essing, or other microcomputer applications an asset. Minimum 4.5 years direct/related experience required

Administrative Secretary, Alumni Association, to provide secretarial support for the Regional Director of the Alumni for the Regional Director of the Alumni Association. Duties will include assisting the Director with the implementation, coordination and administration of alum-ni-related programs and activities with the western US and Canada. Will transcribe and type correspondence and general materials; research from various records; prepare and coordinate printing and mailing literature, and file and per-form general office procedures. Will in-teract with alumni, Institute staff, faculty and representatives from outside agen-cies and Institutes. Will serve as primary source of information regarding alumni clubs and programs all within the Director's region in the Director's absence. Will assist with special programs and activities including preparing brochures and publicity materials, maintaining invita-tion lists, and coordinating travel arrangements. Formal secretarial training preferred. Excellent interpersonal skills and a good sense of humor necessary in this busy office. Attention to detail, and good organizational skills preferred. Ex-cellent typing and familiarity with and/or willingness to learn word processing and database system: Minimum 4.5 years di-rect/related experience required. NON-SMOKING OFFICE B85-055

Sr. Staff Assistant, Office of the Chairman, to perform a wide variety of administrative and secretarial tasks for a Special Assistant in that office. Will perform special activities related to MIT's ex-ternal community relations, the MIT Community Service Fund and MIT Corporation meetings, as assigned. Will type letters and reports, schedule meetings and appointments, process Institute re-quisitions and accounting statements, and assist with routine office procedures. Must be able to set priorities, work indepen-dently, handle detail with accuracy and exercise discretion and good judgment. Ability to maintain communications with the top level office of the Institute and with the Greater Boston community nec-essary. Enthusiasm, reliability, initiative, excellent typing (word processing experience preferred), excellent organizational skills, and pleasant telephone manner essential. Should enjoy working with a wide variety of people. Minimum 2.5 years direct/related experience required.

Sr. Staff Assistant/Receptionist, Admissions Office, to act as receptionist in a busy service-oriented office, responding to requests for graduate, special student and transfer admissions on the phone and in person. Will read letters of inquiry, decide and send the appropriate application ma-terials; maintain statistics on type of materials sent; provide assistance to graduate, special and transfer sections as needed; direct student employees; type freshman admitted certificates; organize and mail admit packets. Excellent typing skills, strong organizational skills important for managing heavy workload and ability to work well under pressure essential. Necessary to be even-tempered and personable with ability to work effectively with a variety of people. Minimum 2.5 years directly related experience required, secretarial experience preferred B85.074 secretarial experience preferred. B85-074

Sr. Secretary, Laboratory for Electromagnetic and Electronic Systems, to pro-vide secretarial support for two faculty members. Duties will include typing of technical and nontechnical documents and notes, arranging appointments and travel, maintaining files and records, and some administrative duties related to Department and Institute committees. Addi-tional duties include the ability and willingness to learn word processing and to develop initiative and independence in the execution of the above duties. Substantial interaction with students and visitors (domestic and foreign) will require a helpful attitude, patience and discre tion. Minimum 2.5 years direct/related ex-perience required. Technical typing skills or willingness to learn and speaking knowledge of Japanese desirable. B85-063

Sr. Secretary, Chemical Engineering, to provide secretarial support for one pro-fessor and two principal research associates in their academic and research responsibilities. Will compose and type general correspondence, monitor research accounts, coordinate travel itineraries and guest visits, type technical reports and classroom material. Good interpersonal skills and the ability to work indepen-dently necessary. Technical typing and word processing (IBM) experience and/or willingness to learn preferred. Minimum 2.5 years direct/related experience reguired, B85-057

Sr. Secretary, Political Science, to provide secretarial services for two pro-fessors, one of whom specializes on South Africa - its history, development, and political systems - and the other who specializes on South America's political and economic development, and the role of religion and social change. Duties will include telephoning, receiving visitors, maintaining files, typing correspondence and other materials. Knowledge of IBM/PC and WordStar or Perfect Writer helpful. Ability to set priorities nece Good typing essential. Minimum 2.5 years direct/related experience required. B85-050

Sr. Secretary, Energy Laboratory, to provide secretarial support to Co-director of the Energy Laboratory and other staff. Will type and proofread correspondence, reports and manuscripts from handwrit-ten material using the word processor; make travel arrangements; arrange meet-ings, and handle appointments. Will handle telephone work both within and outside MIT and work with students Excellent secretarial skills with word processing experience or the willingness to ential. Flexibility, ability to establish priorities and to communicate with others and meet deadlines necessary. Minimum 2.5 years direct/related experience required. B85-048

Sr. Secretary, Aeronautics and Astronautics, to provide secretarial support for 3 faculty and one research associate in the Gas Turbine Laboratory. Duties include typing and proofreading reports, ex-aminations, correspondence and other ma-terials from rough draft. Will answer telephones and receive laboratory visitors, naintain files, arrange travel, prepare vouchers, distribute mail, maintain office supplies, issue keycards, petty cash, and prepare and distribute laboratory reports. Will use word processing system on Corvus computer. Knowledge of technical typing essential. Minimum 2.5 years di-rect/related experience required. Ability to work independently and good organiza-tional skills essential. B85-047

Sr. Secretary, Urban Studies and Plan ning, to manage office of professor who is research director for the Center for Real Estate Development, and handle secre-tarial work for one other professor and two part-time faculty members. Will make travel arrangements and arrange meetings, organize and manage files for research projects, use word processor to type a series of research reports, books, and articles which will be revised through several drafts. Additional departmental typing may be requested occasionally. Good command of the English language and knowledge of the dictaphone, and editing skills preferred. Excellent typing skills essential. Familiarity with and/or willingness to learn word processing. willingness to learn word processing desirable. Minimum 2.5 years direct/re-lated experience required. NON-SMOKING OFFICE B85-034

Sr. Secretary, Sloan School of Manage ment, to work for the Management in the 1980's Research Program to support the Director and other staff members, pri marily the Research Coordinator and Pro-gram Manager. Will perform secretarial duties including typing correspondence and reports from rough draft, answering phones, preparing high quality presentation materials, and making travel arrangements. Will be a part of a team to arrange seminars and conferences. Requires excellent secretarial skills with word processing. Good interpersonal skills and ability to work as part of a team essential. Dictaphone experience required. Some overtime may be necessary. Miniand reports from rough draft, answering Some overtime may be necessary. Minimum 2.5 years direct/related experience required. NON-SMOKING OFFICE

Secretary, Electrical Engineering and Computer Science, to work in the Department's Graduate Office and assist in the coordination and processing of incoming graduate school applications. Will type correspondence from handwritten or typed drafts or via dictation equipment; use IBM memory typewriter for form let-ters to applicants; assist in preparing large mailings; provide information and assistance via telephone or in person, re inquiries regarding graduate school admissions; act as backup key operator for department's copying machines; monitor postage meter usage; act as backup person in the receiving, sorting and distribut ing of incoming mail for all offices. Will provide additional support as needed. Willingness to learn an interactive computer system essential. Good typing necessary. Minimum 1 year direct/related experience required. NON-SMOKING OF-FICE B85-056

Technical Support

Sr. Technical Illustrator, Research Laboratory of Electronics (part-time), to be in charge of the operation of RLE Drafting Room. Will schedule work, meet own deadlines, estimate work time for jobs, send work to free-lance artists where tions from rough sketches for publications, reports, slides, and conferences. Will produce schematic diagrams, graphs of experimental data, and graphics. Required knowledge of Leroy lettering, abili-ty to draw simple isometrics, familiarity with drafting and graphic arts supplies. Will contribute ideas and design for Documents and Publications Group. Minimum 2.5 years directly related experience required. Graduation from a two-year art school desirable. (21 hrs/week) NON-SMOKING OFFICE T85-076

Office Assistant

Administrative Assistant, Research Laboratory of Electronics (part-time with potential to become full-time), to provide administrative and technical support to Electromagnetic Wave Theory Research Group. Duties will include typing and editing technical papers and reports, maintaining files, preparing requisitions, and participating in research projects such as assistance in computer computa tion and programming. BA degree and willingness to learn use of VAX comput-ers as a word processor for routine secre-tarial and technical activities preferred. Excellent typing and organizational skills are essential. Some background in com puter programming is preferred but not essential. Minimum 4.5 years direct/related experience required.

Administrative Assistant, Laboratory for Electromagnetic and Electronic Systems, to maintain financial records of lab oratory on a monthly basis, maintain personnel files and be responsible for completion of appointment and visa info mation; prepare student, hourly and voucher payrolls and, with the supervision of the director, do the staff and secre tarial payroll. Will have shared supervial duties will include meeting and travel arrangements as well as handling of correspondence for some laboratory func-tions. Minimum 4.5 years direct/related experience required. Background in university administration, accounting and budgeting and familiarity with both word sing and spreadsheet analysis using microcomputers as well as a demonstrati ed ability to work with others effectively

Administrative Assistant, Office of Career Services, to prepare recruiting posters, involving catching errors on com-pany input, making decisions on material to be used, calling companies for missing data, typing, proofing, and makeup. Will maintain large office library; collect statistical data from the 3 graduating classes each year and tabulate for use by the director and associate director; keep track of salary offers and record; set up system for organization/recordkeeping and billing for ads in Careers Handbook. Must be a good typist and able to use the IBM PCAT word processor. Abil-ity to prioritize and work under pressure the peak recruiting periods essenmber to help students write resumes, and find resource material, as well as sharing the responsi-bility of answering telephones. Interest in

learning more about computers preferred

Minimum 4.5 years direct/related experience required. S85-054

Sr. Office Assistant, Resource Develop-ment Office, to assist in the compilation and maintenance of background informa-tion on gift prospects and donors. Will maintain donor relations files and tickler system. Will compile gift histories of pros-pects through a close review of Develop-ment Office files and reference books and compose written reports as needed. Assist in notifying faculty, staff and others when a report is due to donor, and maintain files on reports and status of reporting to donors. Will perform some research on donors for outside corporations and foundations and prepare a short memo on information found. High School graduate or equivalent is necessary. Minimum 2.5 years direct/related experience required. Strong organizational skills and knowledge of grammar and spelling important. Good typing of 40 wpm and familiarity with and/or willingness to learn word processing and computer skills essential. Analytical skills and pleasant telephone manner desirable. NON-SMOKING OF.

Sr. Office Assistant, Personnel Department/Compensation Office, to provide primary administrative and technical sup-port for all wage and salary projects, in-cluding annual salary reviews and compensation surveys. Responsibilities in-clude collecting, proofing and inputting data via IBM 3279 computer terminal to wage and salary database. Will extract and develop data for use in various com-pensation reports; maintain and/or in-titate files and various record keeping. itiate files and various record-keeping systems as necessary. Will operate Easy-trieve programs, develop new programs as needed, assist in conducting two major surveys; contact survey participants, prepare correspondence on DEC word processing equipment. Wage and salary section conducts 5-6 major salary reviews throughout the academic year and responds to some 40 compensations surveys. Together these responsibilities occupy 60%-70% of individual's time. In addition, will maintain office in afternoons (part-time person works 9-1); answer telephone inquiries, word process correspondence when necessary; perform other related tasks, such as major mailings, and compensation analysis projects Data entry, excellent typing skills and word processing skills essential. Ex-perience with running Easytrieve or similar computer programs and facility with figures necessary. Excellent in-terpersonal skills and the ability to exercise discretion in dealing with sensitive information essential. Flexibility and the ability to respond positively in an often stressful climate due to deadlines and a heavy workload required. Minimum 2.5 years direct/related experience required. NON-SMOKING OFFICE S85-060

Sr. Office Assistant, Office of the Dean for Student Affairs, to provide support in the Undergraduate Academic Support Office, with primary areas of responsibility being the Wellesley-MIT Exchange Pro-gram and the Independent Activities Period. Duties will include answering inquiries; gathering information on grams; interpreting and applying their policies and procedures; producing, distributing and processing forms and question-naires; maintaining mailing lists and car-rying out mass mailings. Clerical and acinting duties will include typing and reproducing correspondence and reports, scheduling meetings, and processing mon-thly accounts. Will assist in production of publications. Familiarity with MIT helpful, excellent interpersonal and organiza-tional skills essential. Experience with and/or willingness to learn word process-ing necessary. Minimum 2.5 years direct/ related experience required. NON-SMOKING OFFICE S85-046

tion, to assist in the implementation of a Reunion Gift Program. Position will involve extensive handling of major mailings, inventory maintenance, scheduling, typing, filing, and extensive phone work with alumni, and meeting arrangements. Additional duties will be assigned as Additional duties will be assigned as needed. Familiarity with and/or willingness to learn word processing essential. Good interpersonal skills desirable. Excellent typing required. Occasional overtime may be required. Minimum 2.5 years direct/related experience required. NON-SMOKING OFFICE S85-936

Office Assistant, Bursar's Office, to pro vide administrative and office support to the Student Loan Collection Area. Will telephone students and alumni borrowers for past due balances and/or deferment forms. Schedule collection letters, mailgrams and telegrams; run credit checks; skip-trace lost borrowers through Institute offices, government and commer-cial agencies or other sources; schedule personal and group Exit Interviews for egree candidates; prepare and mail Exit sterview material to students who have left the Institute; distribute mail, answer and re ond to requests for information; type correspondence and reports, and file and perform general office duties. Because we are converting from an in-house loan system to a vendor supplied system, specific job responsibilities may change. Additional duties of the same level may be assigned. Minimum 1 year direct/related experience in ational or business office required. Excellent interpersonal and organizational skills important. Ability to communicate with students, alumni, faculty, Institute offices and outside organizations as well as work independently essential.

Office Assistant, Personnel-Faculty and Information Services, to maintain personnel computer file, answer telephone requests for employment verification, assist with special records projects as assigned, sist in salary review processes. Will use the Digital word processor to prepare letters of notification and maintain hardcopy records. Minimum 1 year direct/re-lated experience required. Familiarity with word processing and computer termi nals or data entry desirable. Must have olute discretion in dealing with confidential information, S85-062

Office Assistant, Bursar's Office, to provide administrative and office support to the Student Loan Collection Area. Will telephone students and alumni borrowers for past due balances and/or deferment forms. Schedule collection letters, mailgrams and telegrams; run credit checks; skip-trace lost borrowers through In-

Spec Lab to operate new center

(Most of this article appeared in last week's paper, but part of it was omitted through an electronic error. To avoid confusion, it is reprinted here in its entirety.)

MIT's George R. Harrison Spectroscopy Laboratory has been awarded a four-year, \$1.6 million grant from the National Institutes of Health to establish a Biotechnology Resource Center for research in lasers and medi-

The new facility will pursue research at the frontier of biomedicine, using laser light and optical techniques. The goal is to provide a basic understanding of the photobiological processes needed for developing optical scalpels for microsurgery and optical fiber probes for diagnosing tissue in inaccessible parts of the body. Basic aspects of photomedicine also will be studied.

The new center will function in parallel with the MIT Laser Research Center, an NSF-

supported facility housed in the Spectroscopy Laboratory. The new research facilities will be available to scientists and physicians throughout the United States.

Professor Michael S. Feld of the Department of Physics is director of the Spectroscopy Laboratory and the new Center. Dr. Carter Kittrell will be research coordinator for the Center. Dr. Ramachandra Rao Dasari, assistant director of the Spectroscopy Laboratory, will serve as project coordinator for the Center.

The decision to seek NIH support was shaped by the growing number of medical researchers making use of the Spectroscopy Laboratory's laser facilities, Dr. Dasari said. Current research includes the use of lasers in treating atherosclerosis, in microsurgery and in diagnosing tissue changes in living systems. Collaborative projects are underway with the Cleveland Clinic foundation and Harvard

Medical School.

Hunger action week events announced

The MIT Hunger Action Group and MIT Chaplaincies will sponsor the third annual Hunger Awareness Week November 19-22 at

A highlight of the week's events will be the 'Fast for a World Harvest" on Thursday, Nov 21. The MIT community will be asked to fast that day and contribute the money they would usually spend for food for the day. Money raised will be donated to Oxfam America, a Boston-based Third World grassroots development agency. Monies will be earmarked for self-help local level long-term development projects in the Sahel region of Africa.

President Paul Gray said, "Hunger-eroding body and spirit-is a fact of life, and death, for millions of people around the globe. A one-day fast cannot give a real sense of what it means to be hungry all the time, of course. But this program-the donation of the cost of one day's forgone meals—is, I believe an effective way to give a more immediate and tangible significance to our donations and to our under-

standing of world hunger."

On Tuesday, Nov. 19, a teach-in on poverty in America will be held at 7pm in Rm 9-150. Featured speakers are Professor Mel King of Urban Studies and Planning, who will discuss his community development efforts and Judy de Pombriant of the Physicians Task Force on Hunger, Harvard School of Public Health, who will compare international poverty and proverty at home, and the findings of the Physicians Task Force. Also, Nan Johnson, Boston Food Bank, will talk about her organization and hunger in Boston and Sue Marsh, Coalition for the Homeless, will discuss homelessness from the policy perspective and the work of the coalition.

African music will be featured in a concert in Lobby 7 at noon Wednesday, Nov. 20, and the movie Oliver Twist, will be shown at 7pm in Rm 54-100. Also, there will be a 5pm service in the MIT Chapel, followed by a rice and tea dinner at 6pm.

Information and sign-up sheets for the fast will be in Lobby 10 Nov. 14, 15, 18-22. Contributions to Oxfam will also be welcomed.

Bingman appointed development officer

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

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

Ms. Bingman's position, a new one, strengthens the engineering school's effort to develop more resources from alumni and industry, especially with respect to the school's core needs and programs. She will work closely with the department heads and faculty in the School of Engineering.

Candidates wanted

Two \$1,000 prizes—one to an undergraduate, one to a graduate student-will be given early next year by the Department of Materials Science and Engineering and the Department of Humanities under the Kathlyn Langford Wolfe Awards in Materials Science, Humanities and the Arts.

February 4 is the deadline for preliminary project proposals. April 25 is the deadline for final submission.

The awards recognize imaginative and significant projects combining research in materials and humanities or in materials and the arts. The project may be laboratory research, a paper, an exhibition or a work of art.

Additional information on the award may be obtained from the Award Committee-Professors Linn Hobbs, Arthur Kaledin, Heather Lechtman and Robert M. Rose.

Dean Johnson has had overall responsibility for the School of Engineering's resource development activities since February 1983. 'We are very pleased to have Sarah join us,' he said. "She brings the energy and enthusiasm we need to broaden our base of support.

Ms. Bingman will focus initially on a new effort to establish contact with alumni entrepreneurs and will also seek to reinforce the school's links with large companies.

For the last two years, Ms. Bingman has been a private computer consultant with American Management Systems in Washington, D.C.

Black experience is seminar focus

The MIT Women's Studies Program will present "Freedom, Fiction and Family: Black Women Today," a three-part series that will explore experiences of black women through their political struggles, literature, psychological and social situations.

Leading the series will be Nomazizi Sokudela of the African National Congress who will discuss, "Women in the South African Libera-tion Struggle" on Thursday, Nov. 14, at 8pm in Edgerton Hall (Rm 34-101).

Other participants will be Toni Cade Bambara, author of the American Book Award winning The Salt Eaters, who will speak on December 4 at 8pm in Rm 34-101 and Helen Boulwar Moore, a psychologist, who will lecture on women and the contemporary black family on February 19.

stitute offices, government and commercial agencies or other sources; schedule personal and group Exit Interviews for degree candidates; prepare and mail Exit Interview material to students who have left the Institute; distribute mail, answer telephones and respond to requests for information; type correspondence and reports, file and perform general office perience in an educational or business office required. Excellent interpersonal and organizational skills important. Ability to communicate with students, alumni, faculty. Institute offices and outside organi zations as well as work independently essential. S85-061

Benefits Specialist, Personnel, to be responsible for communicating benefits information to all segments of the MIT community. Will answer heavy volume of benefits questions by telephone, in person and in writing, providing detailed infor mation and solving administrative problems, often in sensitive circumstances. Will act as liaison between MIT and insurance carriers, particularly Blue Cross Blue Shield, explaining coverages and processing claim reviews. Will provide administrative support; develop and arrange workshops and meetings; develop and conduct orientation programs for new personnel. Will do typing and word processing and perform other projects as assigned. Excellent communication and organizational skills, ability to interact with a wide variety of people essential. Must solve administrative problems quickly and tactfully, be able to work indepen

dently with little supervision, and p

form under pressure. Good writing skills and previous experience in the insurance or benefits area preferred. Good typing

and DEC word processing experience or willingness to learn desirable. Knowledge

of MIT helpful. Minimum 1 year

direct/related experience required. NON-SMOKING OFFICE B85-058, B85-059

Office Assistant, Registrar, to assist in the registration of students including the maintenance of student permanent recuse of recordkeeping terminals (IBM), handling of student requests, registration corrections (drops/adds), typing of form letters, and filing. Ability to work in a busy environment essential. Good typing, accuracy with figures and attention to detail necessary. College experience as a student or employee preferred. Minimum 1 year direct/related experience required. S85-052

Service Staff

Counter Person, Faculty Club (part-time), to set up and break down sandwich/salad area and assist in the prepara tion of foods for each area. Will restock items on counters as needed, serve customers during business hours in assigned station and maintain prope sanitation standards in work areas perform related duties as assigned. Ability to converse in English and so rvice experience preferred. H85-290

Technician C-Mechanical, Plasma Fu sion Center, to perform various routine jobs of skilled or semi-skilled nature, such as chassis wiring, keeping apparatus in good condition and performing laboratory tests and analyses. Experience with basic hand tools, both electric and manual, and ability to perform skilled and semiskilled machinist tasks, such as simple set-ups on lathes and milling machines needed. The ability to thread, exercise tapping, and single pointing is important. A knowledge of raw materials, ferrous, nonferrous and composites such as G-10 and Phenolics is highly desirable. H85-294

Technician A (electronic), Laboratory for Computer Science, to assist in labora-tory, research, or analytical work under direction or supervision of scientific per-

sonnel. Operates highly technical experimental apparatus. Has demonstrated considerable skill and good performance in the particular field of activity. Requires some supervision. Prototype Assembly and Test - Schematically capture, assemble and test simple prototype circuits, cable assemblies and enclosures. Emula tion Facility Support - Implementation engineering changes to wirewrap Multiwire and PWB boards. Diagnose and repair defective cables and connectors. Diagnose at board-level and repair circuit and packet switch cards. Co. cket switch cards. Complete Im-tation of Hardware Lab - Prepare for installation of LISP processors Graduation from a two-year day technical school or its equivalent and a minimum of two years of applicable experience are required. Experience with digital prototype fabrication and checkout in wire and po boards. The applicant must be familian with oscilloscopes, logic analyzers, and function generators. Stock room manage-ment, CAD schematic capture, helpful. Must be highly motivated and able work in an unstructured environment H85-292

TECHNOLOGY CHILDREN'S

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

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Engineering School study

(continued from page 1)

Sciences, chaired by Professor Pauline R. Maier, head of the history faculty, and by the School of Science Education Committee, chaired by Professor Robert J. Silbey of the Department of Chemistry.

In a letter to the faculty of the School of Engineering, Dean Wilson and Dean Kerrebrock said a review is appropriate at this time for a number of reasons.

"First is the overriding importance of our undergraduate engineering program to the School and to the Institute. It is the foundation upon which the School's research and graduate teaching programs are built, while at the same time it is the beneficiary of these programs. Together with the exceptionally high qualifications of our undergraduate students, this close coupling to research and graduate education makes our undergraduate engineering program unique in the nation, perhaps in the world. It is the example by which other institutions guide their programs.

"To maintain this preeminence of our undergraduate program, we think it is essential that the faculty of the School have a shared understanding of its goals and expectations, a reasonably consensual view of the set of competencies and understandings which our graduates should have in common," they said.

". . .It is our sense that without periodic reappraisals leading to modification or reaffirmation of our overall goals, our departmental programs may lose their common sense of purpose. This may be more likely now than in the past, due to the rapid evolution of the practice of engineering and the demand

for immediate functional usefulness in our graduates.

"It is not our intent to pursue change for its own sake," Deans Wilson and Kerrebrock said in their letter to the faculty. "Even if after a thorough review the result is to make few changes, the reaffirmation of the goals and content of our program will strengthen the environment for learning at MIT for the years aboad."

Discussions in the Engineering Council over the past year have raised a number of questions about the substance and structure of the undergraduate engineering curriculum, they said. Among these are the impact of numerical computation, the potential of life sciences for new technologies, the increasing need for engineers to work in large teams, and the need to incorporate environmental and social aspects into engineering judgments.

There is also the question, the deans said, of "whether our educational methodology serves effectively the bulk of the very talented student body we are fortunate to attract. Can we devise educational strategies which capture the interest of and motivate that fraction of the student body which now regards Tech as an ordeal, to be endured as the price for an MIT degree? Can we do this without compromising the standards for which the Institute is noted?"

"... The issues we face are many, complex and subtle. The wisdom and experience of the entire faculty of the School will be needed to achieve our objective of assuring MIT's preeminence in engineering education for the indefinite future. We urge that you each participate in your own way as fully as possible," the letter to the engineering faculty concluded.

Colloquium on apartheid

(continued from page 1)

was "pleased by the number of people who took an interest" in the event and had "learned a great deal from it." The discussions in the living groups were particularly valuable, he said, in that students had a chance to hear differing views from a variety of people.

As an example, he said, William Jacobsen of the State Department, a panelist not originally scheduled to meet with students, "sportingly agreed to go to dinner at Baker House." The students there "grilled him" Wednesday night and again the following morning at Next House, where he had breakfast. As hdown House on Thursday night, Professor Morgan said, two white South African graduate students joined in a discussion with 25 or 30 people and gave their special insights into the situation in their country.

At Bexley House, one of the discussion leaders for a group of about 25 students was Charles Weiner, professor of the history of science and technology. During three hours of intense, yet relaxed talk, he said, the group raised a number of issues and particularly their relevance for the students and for MIT

as an institution.

Professor Weiner, who attended both afternoon sessions at Kresge, where about 500 people gathered each day, said he was "enormously heartened" to see the attention of the Institute focused on an issue so central to society and to MIT, and that he thought the

balance of the participants was good.

He said the interest of the students was made clear by the people who lined up to ask questions of the speakers, but he said he was somewhat disappointed that more faculty members and administrators were not present.

Overall, he said, he would consider the colloquium a success, but only if it is accompanied by "a real commitment of the faculty, administration and students to follow through on the implications of the issues raised—not in the long term, but in the short term." Otherwise, he said, the event could be justifiably criticized as being "all show and window-dressing" and giving only "lipservice" to the issues.

In his brief remarks opening the colloquium Wednesday afternoon, Professor Samuel Jay Keyser, associate provost for educational programs and policy, said it was the hope of his office that this and subsequent colloquia will provide an opportunity for the larger MIT community to engage in a common dialogue on major issues of our time, "a dialogue which will not only deepen our understanding of those issues and thereby prepare the way for enlightened action, but a dialogue which will also serve to bring the community closer together as a community."

If the colloquium had a central figure, he was Nthato Motlana, a South African physician who has been a leader in the struggle

against apartheid for 30 years.

In his keynote address Wednesday afternoon, he said a South African revolution "has begun in earnest" and that a "low intensity civil war," fueled by young activists, was now under way. He said that further bloodshed was inevitable so long as South African blacks are denied their fundamental rights under the apartheid system.

Dr. Motlana did not talk directly to the question of divestment—whether US corporations should stop investing in South Africa and whether universities, such as MIT, should sell their stock in companies doing business in that country—because to do so could cause him legal problems back home. But, he said,

"the healthier the economy (in South Africa), the stronger the regime."

Asked whether he agreed with the reasons MIT has set forth for not divesting, he answered, "no."

Later that afternoon, an anti-apartheid demonstration on the steps of the Student Center by a group that had carried a banner into Kresge drew only a handful of participants.

That evening, a large knot of students—the majority of them minority students—surrounded Dr. Motlana at a reception in McCormick Hall, engaging in a friendly and lengthy dialogue.

There was dialogue and debate, too, at two workshops Wednesday night. At Ashdown House, Robert Zevin, vice president of the United States Trust Company, argued in favor of divestment and Roy Shotland, professor of law at Georgetown University, opposed absolute divestment. Zevin said he favored universities selling their stock in companies tied to South Africa and thus sending out a "loud message" to the companies to withdraw from that country.

Schotland said a more reasonable approach would be selective divestment of companies that are not working against apartheid.

A second workshop, at Senior House, questioning the United States' dependence on South Africa's minerals, was led by Joel P. Clark, associate professor of materials systems.

Divestment again was the focus of the Thursday afternoon panel in Kresge entitled, "What Can and Should Americans Do About Apartheid?" MIT President Paul E. Gray was among those in the audience who heard several speakers urge divestment in South Africa by corporations and universities.

Among them were Gretchen Ritter, an MIT graduate student in political science; former Congresswoman Shirley Chisholm, now a professor of political science at Mt. Holyoke College, and MIT political science professor Willard Johnson, one of the organizers and leaders of the Free South Africa movement in this country.

Professor Chisholm, who was MIT's commencement speaker in 1984, said the issue of divestment was a "moral imperative."

Arguing for a continued US business presence in South Africa, on the grounds that it provides leverage for change, were Jacobsen, the State Department official, and John Reed, an MIT graduate, chairman of Citicorp and a member of the MIT Corporation.

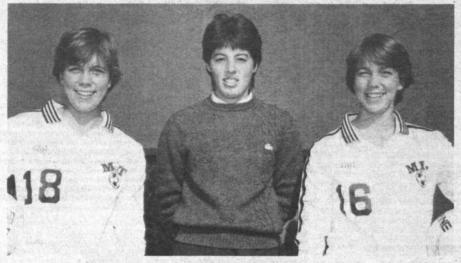
While Reed said his company would not run its business in South Africa in a way that supports apartheid, neither was it prepared to close its branches there and fire the 300 people who work for Citicorp. "We run it (its South African business) in such a way as to develop the people who work for us," he said, adding, "It's not whether you're there or not, but how you behave when you're there."

Jacobsen, who lived several years in South Africa, told the audience that "apartheid must go." But he said the United States wants to be "a builder, not a destroyer" and could only do this by continuing to participate in South African affairs.

The moderator for the discussion was Robert I. Rotberg, professor of history and political science and a specialist on Africa. He also was the chairman of the planning subcommittee for the colloquium.

Professor Morgan, the colloquium committee chairman, said the group would now be considering what to do next and what, perhaps, should be done differently. He said the committee hoped to hear from the community.

←Here & There→



Meet MIT's Biber twins, the last two members of a five-daughter family to attend MIT—and participate on its athletic teams. Freshmen Charlotte E. (left) and Alice I. Biber of Needham, Mass., are shown with soccer coach Shawn Ladda. Sister Madeleine V. Biber, a senior in materials science and engineering, is co-captain of the women's gymnastic team. Barbara P. (Biber) Rizzi of Shrewsbury, a 1979 graduate in chemistry who is now a physician, competed on the women's sailing team, and Catharina R. Biber of Endicott, N.Y., a 1983 graduate in mechanical engineering who works for IBM, was a member of the women's club ice hockey squad.

It isn't every day that an elevator is the cause for celebration, but such was the situation last week at W31, the du Pont Center Gymnasium Building on Massachusetts Ave., where the third-floor tenant, the Center for Real Estate Development, was heralding the installation of an elevator. The "Elevator Launching Party" began at 3:30:30 with a "countdown to elevator liftoff," followed at 3:30:50 with a ribbon-cutting ceremony at the third floor landing. There were also speeches, refreshments and, of course, "Free Rides!"

MIT economics professor Lester Thurow has been sounding gloomy warnings about the state of the nation's economy, but in his latest book, The Zero Sum Solution, reviewed in the The New York Times and elsewhere, he reveals himself as optimistic-well, emotionally, at least-about the future. "When people ask me whether I'm an optimist or pessimist. . .I describe myself as an intellectual pessimist but an emotional optimist," he writes. "Intellectually, if I were simply a Las Vegas gambler betting the odds, I would bet on America won't do it. The required changes are too hard. Emotionally, however, I would place a bet on America. When Americans get to the point where each of us is willing to admit that he or she, and not someone else, is at the heart of the problem, America will have reached the point where change can begin."

An MIT football player spotlighted by a Boston newspaper? That may seem unlikely, but The Boston Herald did just that when it published a menacing photo and a story on "MIT's Big Man on Campus," Larry S. Monroe of Alabama, a graduate student in chemical engineering and a 6-7, 240-pound defensive tackle on MIT's club team. Monroe, a tri-captain on the squad, said he always wondered how good he could have been if he had played football in high school and college (Auburn University). "By playing here I found out that I'm a decent football player, but I'm not in that (pro) league. He's in the major leagues academically, however, the Herald said, with a 5.0 grade average.

PRESS CLIPPINGS:

Institute Professor Emeritus Salvador E. Luria told the 21st Nobel Conference at Gustavus Adolphus College in Minnesota that scientists who "exile themselves from the arena of social struggles" are failing the societies in which they work, reports the Minneapolis Star and Tribune. Scientists also must inform political leaders and the public of the work they are doing and what it means, said Dr. Luria, who won the Nobel Prize in Medicine in 1969. Scientists who shirk their responsibilities to society, he said, stand "somewhere between that of philosophers and poets on the one hand, and that of handgun manufacturers on the other hand."

—A Boston Globe article on efforts by the Central Intelligence Agency to strengthen ties to US campuses quotes Provost **John M. Deutch** as saying that MIT has no CIA contracts for sponsored research. Any such grant would have to pass through the university administration, he said, but it's likely some individual faculty members act as consultants to the agency.

—Julian Szekely, professor of materials engineering, told a Congressional group, reports the Pittsburgh Post-Gazette, that cutbacks in research and development by US companies are particularly ominous for the steel industry. The reason: its hopes for a return to profitability rest on being able to produce higher quality products which offer higher profit margins.

-Professor Franco Modigliani, MIT's new Nobel Laureate in economics, took over the entire Business Forum section of the Sunday New York Times on November 3. Half of the weekly feature was devoted to a Question & Answer interview, and the other half to a column by Professor Modigliani calling for an all-out assault on the national deficit. On the same subject, Boston Globe columnist William V. Shannon quoted this statement by Professor Modigliani: "What is clear is that there is a lot of selfishness in the Republican-Reagan appeal to the country. People are encouraged to enjoy the moment, so they don't care about the deficits. They have no compassion for the poor or handicapped, and none for future generations either. People don't make the connections between the deficits and the bad things that are going on-farm failures, the trouble younger people have buying houses, loss of

—A Boston Herald story on injuries suffered by musicians leads off with the recent troubles of an MIT musician—none other than Institute Professor, physics professor and former provost Francis E. Low. Professor Low, an amateur pianist, "can take a lot," the story said, "but the A Flat Ballad of Chopin just about did him in." The reporter spoke to Dr. Low at the musician's clinic at New England Medical Center, where a painful right wrist and elbow—apparently the result of tendonitis—were being examined. The Chopin piece, Dr. Low said, "has especially difficult things you have to do with your right hand," so he would be switching, for the time being, to other works.

—An editorial in the Des Moines (Iowa) Register notes that MIT political science professor George W. Rathjens, in a talk at Drake University, likened the Reagan administration's search for a reliable defense against nuclear attack "to the 16th century dream of a fountain of youth." The editorial concludes: "Rathjens suggests... that diplomacy (or politics) offers more hope for survival than technology can."

—Charles M. Oman, senior research engineer in the Department of Aeronautics and Astronautics, told the International Aeronautical Federation Congress meeting in Sweden, the Associated Press said, that space sickness among US astronauts seems to result from disorientation rather than physiological changes.

—A New York Times article on whether science, as a largely male endeavor, ignores the experiences of women, relies heavily on comments from Dr. Ruth Perry, senior lecturer in literature and women's studies and director of MIT's Women's Studies Program. Noting that a growing number of scholars have begun to examine the possibility that scientific concepts have been shaped by a traditionally male perspective, she asks: "How does the tradition of socialization that men come out of manifest itself in the questions asked, and in the explanations offered, for natural phenomena?" Also quoted was Dr. Evelyn Fox Keller, a mathematician and visiting scholar in the Program in Science, Technology and Society.

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—The Arlington Advocate has profiled local resident Edward F. Crawley, associate professor of aeronautics and astronautics at MIT, noting that he was designing paper airplanes when he was four and had constructed a wind tunnel by his senior year in high school. Dr. Crawley, a pilot himself, told the newspaper, "It's fun to come in to work and teach people how to design a spaceship. It makes everybody's day a little more exciting."

(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.)