Massachusetts Institute of Technology

May 12, 1982 Volume 26, Number 36

### Convocation

The Institute-wide Awards Convocation, honoring individuals who have distinguished themselves in various ways, will be held today (Wednesday, May 12) at 11am in Huntington Hall (Rm 10-250). Included this year for the first time in several years will be the Everett Moore Baker Award recognizing excellence in undergraduate teaching by younger faculty members.

Kenneth Segel, president of the Undergraduate Association, will preside at the ceremony.

The Convocation is open to all members of the community and will be followed by a reception in the Bush Room (10-105), with music by the Classical Guitar Society.

### **Emergency** plans

MIT will begin to implement Emergency Action Plans for each organizational unit within the next few weeks, according to John M. Fresina, director of the Safety Office.

The plans are mandated by the Occupational Safety and Health Administration, Mr. Fresina said, to ensure employee safety from fire and other emergencies. Initially the plans will cover fire emergencies, he said, but later will be expanded to cover situations such as hurricanes, earthquakes and floods.

The Safety Office has developed an overall plan for the Institute. Meetings with representatives of organizational units will be held soon so that each unit can adapt details of the general plan to meet its individual needs.

### Greet freshmen

Students who will be at home or working away from Cambridge for the summer are urged to get in touch with local freshmen to answer any questions they may have about MIT. Those who can take up this person-to-person role are asked to stop by the Undergraduate Academic Support Office (UASO), Rm 7-103, and leave their names and summer addresses.

Upperclass students who will be returning to campus early are also needed to staff R/O activities such as the Clearinghouse, Elsewhere, Parents' Tours and the R/O Center. R/O begins Friday, Aug. 27. Those who plan to be back by then should call Ken Dumas, dormline 5-7138, or Debbie Donahue, x3-6771.



# Major in cognitive science is developed

By CHARLES H. BALL Staff Writer

A major in cognitive science, an evolving field in which pioneer work was done at MIT, will be available to MIT undergraduates through the Department of Psychology beginning in the fall of 1982.

. The faculty recently voted approval of the major, which will prepare undergraduates for graduate training in a number of fields. The major also will allow graduates to qualify for further work in the area of efficient human-machine interaction.

Cognitive science is concerned with the psychology of human intellect.

Central issues in the discipline include the

structure, acquisition, use and internal representation of human language; the interpretation of sensory experience; the development of formal and informal reasoning skills; the manipulation and storage of information within the nervous system, and the programming and execution of motor activity.

The MIT program, believed to be the first of its kind, will draw on related fields of research at the Institute, including computer science and artificial intelligence; linguistics; cognitive and perceptual psychology; philosophy of languages and of mind; neurophysiology, and relevant parts of mathematics.

According to Dr. Daniel N. Osherson, asso-

ciate professor of psychology and the program director, cognitive science began to emerge as a coherent discipline some 25 years ago, greatly stimulated by developments at MIT in linguistics, automata theory and artificial intelligence.

In 1980 the Sloan Foundation invited MIT to apply for an institutional development grant in the cognitive sciences, and \$2.5 million was subsequently awarded to the MIT Center for Cognitive Science for its research and training programs. Earlier, in 1979, the National Endowment for the Humanities had granted MIT \$255,000 for further development of its cognitive science offerings at the undergraduate level.

# Article probes architecture of clothing

(The following article about the forthcoming exhibition in Hayden Gallery featuring contemporary clothing by eight international designers was prepared by staff writer Marjorie A. Lyon for the July issue of Technology Review, published by the MIT Alumni Association, and is reproduced here in advance as background information.

(The exhibition, "Intimate Architecture: Contemporary Clothing Design," will open May 15 and run through June 27. Some 35 garments that epitomize design will be on display. A public preview will be held 5-8pm Friday, May 14, where six of the eight designers will be present. The Fashion Group of Boston will sponsor a benefit dinner (\$35 per person, \$280 per table for eight) at the MIT Athletic Center where Boston area models will show selections from the fall lines of each of the designers represented in the Hayden exhibition. Proceeds from the dinner will support the exhibition.)

By MARJORIE A. LYONS Staff Writer Technology Review

"An attempt to place clothing design of the highest quality in a context removed from commerce," is how Susan Sidlauskas, Hayden Gallery curator, describes the show titled "Intimate Architecture: Contemporary Clothing Design."

The idea started a year ago with the thought of doing a small corridor show. Then things snowballed.

"I pillaged every fashion magazine to find an architectural underpinning—designers who brought the conceptual approach to the design of clothes," explains Ms. Sidlauskas. "I was looking for structure and for designs that are abstracted from anatomy and less dependent on the human form. My interest centered on clothes designers that experimented with shapes, who used the body as a



A RED SPIRAL JACKET and matching pants by the New York designer Ronaldus Shamask, will be included among some 35 garments by eight internationally known designers that will comprise the exhibition, "Intimate Architecture: Contemporary Clothing Design," to be presented at Hayden Gallery May 15 through June 27. The garments selected for the exhibition epitomize the use of innovative design in clothing. Modelling the Shamask design atop a 46-ton granite sculpture by Michael Heizer in Killian Court is Pamela Mitchel, 19, of Honolulu, Hawaii, a sophomore in mechanical engineering. Miss Mitchell, a former Junior Miss Hawaii, models professionally in her home state. framework to push the limits of form around the body.

"It was important to me that these designers were consciously grappling with the design of clothing as a discipline which required the solving of certain spatial problems," she adds. She looked for designers who were working out a consistent theme in their work. For example: some work only in black and white, some with simple geometric forms, like triangles or squares. They have been influenced by architecture and sculpture; they're trying to realize a personal vision, not just a style.

Designers represented in the show: Giorgio Armani, Gianfranco Ferre and Mariuccia Mandelli (Ms. Mandelli's designs appear under the name of Krizia) of Milan, Italy; Ronaldus Shamask, Yeohlee Teng and Stephen Manniello, based in New York City; Issey Miyake of Tokyo, Japan; and Claude Montana of Paris, France. They will contribute more than 30 pieces of design art.

#### Each has a specialty.

Ms. Sidlauskas explains the techniques of the designers:

Shamask uses blueprints and graph paper to plot out his clothes. All his designs have to do with the manipulation of two dimensions into three. His three-petaled wool cape brings to mind a monk. He often starts with a miniature paper model, as an architect would. Out of this method came his famous "spiral coat" (included in the exhibition) which contains only one seam which spirals around the body. He uses pleats as an architect uses columns.

Claude Montana creates hats that resemble ecclesiastical headdress. Surrealism and an interest in archaeology have given this designer his inspiration.

Giorgio Armani mimes armor with his Samurai evening dress.

(continued on page 8)

### New heads appointed in Courses IV, XI Professor Gary A. Hack will be the new As an administrator, Dean de Monchaux

head of the Department of Urban Studies and Planning and Professor John R. Myer will become head of the Department of Architecture, Dean John P. de Monchaux of the School of Architecture and Planning has announced. Professor Hack's appointment is effective August 1 and Professor Myer's September 1. Professor Hack succeeds Professor Lawrence E. Susskind, who has been head of the department since 1978. Professor Susskind will return to teaching and research after a year as codirector of a new center for negotiation studies at Harvard Law School. Professor Myer succeeds Professor Julian Beinart, who has served as interim head of the department for the past academic year. The former head was Professor John Habraken. Professor Beinart, as interim head, directed an agenda-building process for the deparment, which will serve as the basis for a forthcoming report.

As an administrator, Dean de Monchaux said, Professor Hack served as general manager for research and demonstration programs of the Canadian government's housing and urban affairs agencies, where he was responsible for a staff of 40 and a number of large development projects across the country. 'He has a strong commitment to education in urban studies, an unusual breadth of familiarity with the different specializations in the department, and a respect for the diversity of interests in both research and action-oriented work that have made the department strong,' Dean de Monchaux said. Professor Hack, who is 40, received the B.Arch from the University of Manitoba in 1964, the M.Arch. from the University of Illinois at Urbana-Champaign in 1966, the M. Urban Planning from the same university in 1967 and the PhD in urban studies and planning from MIT in 1976. He was an assistant professor of urban design at MIT in 1971-75 and he has been an associate professor since 1978. He was director of MIT's Environmental Design Program in 1972-75 and has been serving in that post again since 1979. He has been a visiting lecturer at a large number of universities in the US, Canada and Australia.



The Working Group on Support Staff Issues is seeking new members—and new ideas—for projects aimed at making MIT a better place to work.

**Ideas** wanted

Over the past seven years, the Working Group has carried out studies that have resulted in improvements in benefits and vacation programs, establishment of personal days and development of a procedure for performance evaluation. Topics presently under study include benefits, office automation and sexual harassment.

"There are always new people in the community who bring fresh ideas, and we'd like to hear them," said Barbara Peacock-Coady, a research staff member, and convener and long-time member of the group.

An informational meeting will be held Friday, May 21, 11:30-1pm in the Bush Room (10-105) to discuss ongoing projects and ideas for new efforts. Membership in the Working Group is open to support staff members and members of the academic, administrative and research staffs. All are welcome to attend. Dean de Monchaux said Professor Hack has demonstrated unusual ability in "bringing practice into his teaching and research, and improving practice through research and teaching."

"He has brought new direction and energy into the area of environmental design research, both conceptually and in funding," he said. "His training and practice as an architect/planner and later as a public official have given him breadth and perspective."

Professor Myer, who is 55, received the B.Arch. from MIT in 1952 and became an assistant professor of architecture in 1959. He was promoted to associate professor in 1966 **Professor Hack** 

**Professor Myer** 

and professor in 1971.

He has been founder, director and president of Arrowstreet, Inc., a noted Cambridge architectural firm, since 1961. He was a member of the Cambridge Planning Board in 1961-70.

Dean de Monchaux said that Professor Myer's ability and experience "are admirably suited to directing the Department of Architecture at a time when there is increasing interest in the relationship of education to practice.

"In his work," Dean de Monchaux said, Professor Myer "bridges the fields of architecture and planning."

(continued on page 8)

INSTITUTE NOTICES

#### Announcements

Freshmen: End-of-term evaluation forms are available at your living group. Give one to each of your instructors by Wed, May 12. Instructors should send them to advisors by Friday, May 21

Faculty and staff members are still needed to serve as freshman advisors for next year. Please contact the Under-graduate Academic Support Office, Rm 7-103, x3-6771, if interested

June Degree Candidates who have student loans adminis tered by MIT will be receiving notices to schedule an Exit Interview with the Bursar's Office, Student Loan Depart-ment E19-225, call x3-4088 (-4087). These interviews are mandated by the US Office of Education and are required by the Institute to maintain your good standing on the degree list. The notice also serves to activate the repayment status and terms of the loans.

#### **Club Notes**

Rune-The MIT Journal of Arts & Letters will be on sale in lobby 10, through May 14. Rune now accepting submis-sions for '83 issue, (poetry/prose/graphics). Send to 14E-310.

MIT/DL Bridge Club\*\*-ACBL Duplicate bridge, Tues, 6pm, W20-473. Info: Arthur, x8-1414, Draper.

The MIT Aikido Club\*\*-The MIT Aikido Club meets Mon, Tues, & Wed, 5pm; Thurs & Fri, 7:30am, DuPont exercise room. Aikido is a non competitive Japanese Martial Disci-pline. Beginners welcome.

Hobby Shop\*\*-Complete facilities for wood working, metal working and darkroom, Mon · Fri, 10am-6pm, Wed, 10am-9pm, W31-031. Fee: \$12/term students; \$20/term community. For info call x3-4343.

Women's Water Polo Club\*\*-Any woman, undergraduate, graduate, or staff, is welcome. No experience needed. If interested call Karen Fortoul, x3-6799 or Karen Klincewicz, 864-7240.

Tiddlywinks\*\*-MIT Tiddlywinks Association. Are you interested in learning tournament-style tiddlywinks? Curious? Everyone welcome, learn or just observe. Wed, 8-10pm, Student Center, Rm 473.

MIT Cycling Team\*-MIT Cycling Team is seeking riders interested in training & intercollegiate competition, some racing experience. Eric Martinot, 225-6674.

MIT Tae Kwon-Do Club<sup>•</sup>-Meets Mon, 6-8pm, Dance Stu-dio; Wed, 6-8pm, Burton Dining Hall; Fri, 6-8pm & Sun 4-6pm, T-Club Lounge. Tae Kwon-Do is a Korean Martial Art. For info call In Ho Kim, 253-3154 or 266-4363.

MIT Ice Dance Club\*-Membership open to any skaters able to skate forward & backward edges. Ice dance experien necessary. Will continue to skate during summer months. For info call Beverly, x3-1512.

To the Ragged Edge of the World-The 1981 Mar River Arctic Expedition<sup>\*</sup>-Charles Freeman, MIT Outing Club. A slide/sound show about a summer-long cance trip in Canadian Arctic, running a river never before run. Wed, May 19, Rm 10-250, 8pm. Admission: \$1/at door.

Nightline\*-We're a student-run hotline from 7pm-7am on the MIT campus. For info or just to talk, give us a call at

MIT Rugby Football Club\*\*-All undergraduates, gradu-ates & staff members are encouraged to try rugby football. No experience necessary. Practices, Tues & Thurs, 5pm, Briggs Field. Games, Saturday afternoons, followed by a party. Call Steve Schwed, 225-8337, Tony Eastland, 661-1762.

### **Religious Activities**

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

Charismatic Prayer Group<sup>\*</sup>-Mon evenings, 6:45, Ash-down Dining Room. Pot-luck supper followed by prayer meet-ing, Bible sharing, music and praise. Jim Mahoney, x3-3074.

Ascension Holy Day Services\*-Thursday, May 20, noon, 5:05 and 8pm, MIT Chapel

The Church of Christ in Cambridge\*-Christians from MIT/Harvard/BU...Worship & Discussion Group, 1st & 3rd Sunday eve of month, 6pm, Rm 37-252, Marlar Lounge. Robert Randolph, X3-4861.

Vedanta Society\*—Meditation & discourses on Gita by Swami Sarvagatananda of Ramakrishna Vedanta Society of Boston, Fri, 5:15pm, MIT Chapel.

The Gospel of John\*-Bible study. How Christ came to be man's life to produce God's dwelling place on earth. Tues, noon-1pm, Rm 8-119.

### **Graduate Studies**

The Space Foundation—announces its 1982 National Prize, which will be awarded for an outstanding thesis or dissertation completed after September 1, 1981 dealing with the opportunity and challenge in tapping the space environ-ment's sources of energy. For specific information regarding application please contact your department graduate office or the Graduate School Office, 3-136, x3-4860. Application deadline is June 1, 1982.

Annual Competition for Overseas Study\*-The Institute of International Education announces that the official opening of the 1983-84 competition for grants for graduate study or research abroad in academic fields and for profes study or research abroad in academic herds and to prote-sional training in the creative and performing arts was May 1, 1982. It is expected that approximately 500 awards to 50 untries will be available for the 1983-84 academic year.

Applicants must be US citizens at the time of application, who will generally hold a bachelor's degree or its equivalent before the beginning date of the grant and, in most cases, will be proficient in the language of the host country. Except for certain specific awards, candidates may not hold the PhD at the time of application. Candidates for 1983-84 are ineligible for a grant to a country if they have been doing graduate work or conducting research in that country for six months or more during the academic year 1982-83. Selection is based on the academic and/or professional record of the applicant, the validity and feasibility of the proposed study plan, the applicant's language preparation and personal qualifications. Preference is given to candidates who have not had prior opportunity for extended study or residence abroad. Information and application material may be obtained from Eugene R. Chamberlain, Fulbright Program Adviser at MIT or Ann Wallace in the International Student's Office 5-112 with office hours on Mon-Fri from 9-5. The deadline for submission of applicants to the Adviser is Sept. 30, 1982.

### UROP

For more information on UROP opportunities, MIT under-graduates should call or visit the Undergraduate Research Opportunities Program Office, Rm 20B-141, X3-5049 or x3-4849, unless otherwise specified in the listing. Undergradu-ates are also urged to check the UROP bulletin boards located in the main corridor of the Institute and in the UROP Office.

Proposals for Overhead Waiver Still Being Accepted. Please turn them in

Laboratory for Space Experiments\*—Ongoing work in visible and near IF spectrometry, analog circuit design, digital circuit design, and system software for data acquisition and control have created openings for 2 full-time people starting this summer. Some tasks are clearly predicated upon the knowledge gained in applicable course work; others might better be approached by one whose mind is uncluttered conventional wisdom. We would like to hire one bird of each feather. Pay Available. Contact Mr. Robert Goeke, 37 567, x3-1910.

ctors Modulating Excitability of the Heart-Brigham & Women's Hospital will participate in the study of factors modulating the excitability of the heart. The group uses the embryonic chick heart and cultures of the embryonic chick heart as a model system. It studies the interaction of the sympathetic and parasympathetic nervous system in the heart using this model. The group is studying the biochemi-cal processes which follow the binding of either acetylcholine of epinephrine to the heart cell membrane which lead to the changes in the rate and force of contraction associated with these stimuli. Pay Available.

Chemical Modification & Photochemical Analyses on Model Polymers-A student (Jr or Sr) with organic chemistry lab experience is needed to do chemical modification and photochemical analyses on model polymers. Pay Available. Contact Prof. Yung at x3-6681, 8-109. Dept. of Materials Science & Engineering

Analysis & Perception of Speech-The Speech Group in RLE needs a student to participate in studies involving the analysis and perception of speech. Will develop a research project, in collaboration with Prof. Stevens, on one of the project, in collaboration with Frof. Stevens, on one of the following topics: acoustic analysis of certain classes of speech events in English and in other languages; study of the perception of natural and synthetic speech that has been manipulated in various ways. Will develop experimental materials, running subjects, data analysis and interpreta-tion and preparation of a report. Pay Available. Suitable for some Freshmen. Contact Prof. K.N. Stevens, x3-3209.

#### Internships

Mike Dukakis Committee, Boston, MA is seeking Boston area students interested in working on the Dukakis cam paign. This will be on a volunteer basis but it is possible to set up a credit-internship with your school. Students who are majoring in English, Journalism, Public Relations, or Communications and Broadcasting are encouraged to apply. For more information please call Richard Gureghian, Deputy Press Secretary, 451-2480.

### Weight control program to be offered again

The Medical Department will offer the next 10-week Weight Control Program for members of the MIT Community beginning Tuesday, May 25, 11:45am to 1pm.

The introductory meeting, for which there is no charge, will be held Wednesday, May 18, at noon, in the Health Education Conference Room (E23-297), to acquaint prospective participants with the program.

The program, designed to promote gradual weight loss, encourages awareness of one's eating behaviors and the ways they can be changed to facilitate permanent weight con-trol. The sessions will be led by Connie Roberts and Sharon Jackson from the Nutrition Consultation Service of Brigham and Women's Hospital.

The fee for the program is \$50 for students and MIT Health Plan members, and \$70 for other members of the community

For information and pre-registration, call the Health Information and Education Service, x3-1316.

### Soll wins NEA grant

Dancer Beth Soll, director of the MIT Dance Workshop and a lecturer in humanities, has received an \$8,000 choreography fellowship from the National Endowment of the Arts. The fellowship will help support the activities of her troupe, Beth Soll & Company, during 1982.

### **MIT Libraries summer hours**

Wednesday, May 19, 5	p.m. through Wednesday, Septemb	er 8
Administrative Offices 14S-216		Sun osed
Aeronautics & Astro- nautics Library 33-316		osed
Barker Engineering Library 10-500	9-9 9-6 12-	5 1-6
Chemistry Reading Room 18-480	9:30-4:30 cl	osed
Computerized Literatury Search Service (CLSS) 14SM-48		osed
Dewey Library E53-100	8:30-8 8:30-6 9-5	closed
Humanities Library 14S-200	8-9 8-6 12-	5 1-6
Institute Archives & Special Collections 14N-118	9-5 c]	osed
		osed
	9 9-3 61	osea
같은 지난 한 것같이 것이 것같아? 물질 것 같아?		osed
M.I.T. Museum & Histor cal Collections N52-26		osed
Music Library 14E-10	9 9-6 9-9 9-6 9-5 cl	osed
Reserve Book Room 14N-13	2 12-5 cl	osed
Resource Sharing Center N51-23		osed
		osed
Rotch Library Visual	소리 영화에서는 지수는 것이 그렇게 가지만 방법에 다 가지만	aonisarai
Schoring-Plough Library		osed
		5 1-6
Student Center Library W20-50		
Von Hippel Reading Room 13-213	n	osed
Independ Sat, Ju Labor D. (Sat,	I Day WeekendStudent Ceny 29-Mon, May 31Library opedence Day WeekendAll otherly 3-Mon, July 5librariesay, Mon Sept 6closed.Sept 4 & Sun, Sept 5:aries on regular summer hours)	ter n. 4/82

planning and/or real estate development, familiarity with local, state and federal housing and economic development economic developm programs, and an understanding of real estate financing techniques and federal tax incentives for development is a prerequisite. Salary is \$210 per week, for 10 weeks. For more information please call Mathew Thall, Administrator, Fenway Community Development Corp., P.O. Box 127, Astor Station, Boston, MA 02123.

### Student Jobs

Office, Rm 5-119.

send resumes as soon as possible to: John Convery, Soft-Pac System, Inc. Box 147, Cohasset, MA 02025. In Massachusetts (617) 383-9701; In N.J (201) 548-7700.

The Corporate Mechanical Engineering Department of Gen-Rad is looking for a student who is willing to work on a regular schedule throughout his/her college career (i.e. "co-op" type job). Students entering their junior year would be preferred. The job involves support of division design engi-neers, and expertise in thermal, structural, and vibration fields is necessary. Also necessary is a familiarity with computers, programming, and finite element analysis tech-niques. The salary ranges from \$205 to \$325 per week, depending on grades and year in school. There is more information available in the Student Employment Office. If inter-ested please submit resume to Kathleen O'Neil in the Student

More jobs are available. Contact Student Employment

Christian Science Organization at MIT\*\*-Weekly Testimony Meeting, Thurs, 5:15pm, 6th flr Lounge, Ashdown.

Islamic Society\*-Daily prayers held in Ashdown House (basement) 5 times a day. Call 225-9837 for congregation schedule. Friday prayer, Ashdown House 1-2pm, Khutba starts at 1:15pm, congregation at 1:45pm

Jewish Services<sup>\*</sup>-Mon-Thurs, 8am, Beit K'nesset (50-010). Fri: Orthodox, 10 min before sundown, Beit K'nesset; Reform/Conservative, 5:30pm, Hillel Lower Level; Dinner at Ma Tofu's, 35 min after sundown (50-007). Sat: Orthodox (when scheduled), 9am, Beit K'nesset; Egalitarian, 9:30am, Chapel. Hillel, 253-2982.

Lincoln Laboratory Noon Bible Studies<sup>\*</sup>-Tues & Thurs, M Trailer. Call Annie Lescard, X262. Morning Bible Studies-Fri, 7:30-8:30am, L-217. Ed Bayliss x8289, Linc.

Lutheran Episcopal Ministries\*-Interdenominational Holy Communion service, Wed, 5:10pm, MIT Chapel. Supper follows in basement of 312 Memorial Drive.

Noon Bible Study\*-Every Thurs, Rm 3-465, bring your lunch. Ralph Burgess, x3-8121. (Since 1965)

**Prayer Time\***—Friday afternoons, 1-2pm, weekly Bible Class led by Rev. Miriam R. Eccles, founder & director of Alpha and Omega Missionary Society. Guest speakers, music & refreshments. Rm 20E-207.

Tech Catholic Community\*-Sunday liturgies: 9am, 12 noon, 5pm, MIT Chapel. Eucharist on weekdays: Tues, 5:05pm; Thurs, 5:05pm; Fri, 12:05, MIT Chapel. Weekly bible study. Bob Scheri, x3-2981.

Fenway Community Development Corporation, Bos-ton, MA, is seeking a Building Re-use Planner summer intern. He/she will be examining the possibility of a number of options for redevelopment of a large historically signifi-cant publicly owned building which is being disposed of by the City of Boston. At least one year of graduate work in city

Students needed to aid in designing customized software packages for law firms, advertising firms, etc. Students should have data processing experience in CPM and MPM systems. Opportunities are for summer-time employment, either full-time or part-time. Work would be performed at the Cohasset, MA office or the Metuchen, N.J. office. Call and/or

**Cable Television Schedule** May 12-25

#### Wednesday, May 12 Channel 8:

11am-12:30pm VEDIA - A potpourri of independent and traditional media.

12:30-1pm MIT IN MOTION - A weekly program about life and work at MIT

1-3pm CLASSIC FILM FEATURE - "Persona" - Directed by Ingmar Bergman. Starring Liv Ullman, Bibl Anderson, and Gunnar Bjornstrand. A renowned actress suffers a nervous breakdown and loses the ability to speak. She is sent to an isolated coastal spot, where the film focuses on the relation ship between her and a nurse-companion.

7:30-8pm NEWSFILE - A rebroadcast of the 7pm CBS News. 8-8:30pm MIT IN MOTION - See 12:30 8:30-10:30pm CLASSIC FILM FEATURE - "Persona" See lpm.

#### Thursday, May 13

**Channel 8:** 

11am-12:30pm VEDIA - A potpourri of independent and traditional media.

1:30-1pm MIT IN MOTION - See Wednesday, 12:30-pm. 1:3pm CLASSIC FILM FEATURE - "Shame". Directed by Ingmar Bergman. Starring Liv Ullmann. A husband and

wife have taken up residence while a brutal civil war rages on the mainland. The war moves closer, and they decide to flee once more to a completely unknown future. 7:30-8pm NEWSFILE - A rebroadcast of the 7pm CBS News. 8-9pm PHYSICS 8.02 LECTURE - Recorded 5/12/82. 9-11pm CLASSIC FILM FEATURE - "Shame". See 1pm.

#### Channnel 10:

7-8pm 6.003 FINAL REVIEW TAPE I 8-9pm 6.003 FINAL REVIEW TAPE II 9-10pm 6.003 FINAL REVIEW TAPE I 10-11pm 6.003 FINAL REVIEW TAPE II

#### Friday, May 14

Channel 8: 7:30-8pm NEWSFILE - A rebroadcast of the 7pm CBS News. 8-8:30pm MIT IN MOTION - See Wed, 12:30pm.

#### Tuesday, May 18

Channel 8: 4:30-6pm MIT BIOLOGY COLLOQUIUM · "Different Import Routes of Polypeptides into Mitochondria" Dr. Gottf-ried Schatz, Biozentrum de Universitat Basel, Switzerland. Live from Rm 6-120.

Employment Office, Rm 5-119.

The Journal of Science, Technology & Human Values is looking for a student to work approximately 6-8 hrs per wk from June through August. Duties include writing news items and short book reviews, proofreading, and performing assorted editorial/secretarial jobs. For information, direct inquiries to: Melinda Thomas, Production Editor, Science chnology, & Human Values, E51-008, MIT, x3-4010/4086

TECH TALK

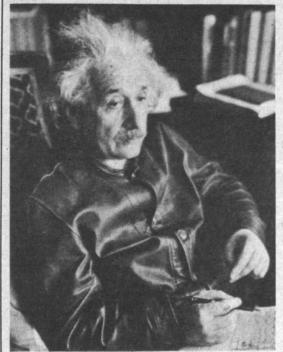


Tech Talk is published 39 times a year by the News Office, Massachusetts Institute of Technology. Direc tor: Robert M. Byers; Assistant Directors: Charles H. Ball, Robert C. Di Iorio, Joanne Miller, Tech Talk editor, William T. Struble and Calvin D. Campbell, photojournalist; Reporter: Eileen J. Ken-nery (Institute Calendar, Classified Ads, Institute Notices).

Address news and editorial comment to MIT News Office, Room 5-111, MIT, Cambridge, MA 02139. Telephone (617) 253-2701.

Mail subscriptions are \$15 per year by first class mail. Checks should be made payable to MIT and mailed to Business Manager, Room 5-113, MIT, Cambridge, MA 02139.

## Auction exhibition is open at Photography Gallery



Lotte Jacobi - Silver print

An exhibition and silent auction of works by the many photographers who have exhibited or participated in the public program of MIT's Creative Photography Gallery over the last five years are up for bids through Wednesday, May 19, in the gallery.

More than 100 persons from the US and overseas, including nearly a score of eminent photographer-artists, have donated prints for the event.

The silent auction will be carried out by means of written bids, which will be tallied when the exhibition closes. Buyers will thus have the opportunity to continue bidding until the exhibition closes. Bid winners will be notified Friday, May 21.

The selling price of each print will be divided evenly between a donor exhibitor and the Creative Photography Gallery. The income realized through the auction will be applied to offset escalating operating costs of the gallery, according to Professor Starr Ockenga, director of the Creative Photography Laboratory.

Prints to be shown and auctioned in "Five Years at the Creative Photography Gallery" have been solicited from photographers whose work has been displayed in the 32 exhibitions that the gallery has mounted in the last five years, and from gallery directors, historians, publishers and collectors who have participated in its lecture series during that period.

Among them are two famous MIT people, Dr. Harold E. Edgerton, Institute Professor emeritus, and artist Gyorgy Kepes, also Instititue Professor

Others are Harry Callahan, Linda Conner, Barbara Crane, Ralph Gibson, Mark Goodman, Lotti Jaboci, George Krause, Barbara Morgan, Olivia Parker, John Pfahl, Tricia Sample, Naomi Savage, Aaron Siskind, Philip Trager, Arthur Tress, Mary Ellen Mark, William Parker, Rosamond Purcell, and Joe Sternfeld.



Harry Callahan - Silver print

# President Gray warns of technology control

MIT President Paul E. Gray has warned that federal efforts to restrict the transfer of technology to foreign nations by limiting the open nature of university research could "seriously affect the climate and operation" of universities and "the great benefits flowing from them to the nation."

Writing in the May issue of the IEEE Spectrum, the magazine of the Institute of Electronics and Electrical Engineers, Dr. Gray said it is "far from clear" that universities do, by their openness, in fact, contribute to an unintended transfer of technology, as the government has claimed.

"Even if this were so," he stated, "any potential disadvantage must be measured against the very great advantage to scientific progress, and to the nation, of open and unrestricted research.

Key elements in fostering such research, he said, are international communities of students, faculty and research staff, the publication of results in open literature and the intrinsic openness of university communitiesall of which have been cited by the government as contributing to technology transfer to foreign governments. "One might ask," President Gray said,

"about the importance of 'leaks' from universities in comparison with those which arise from the licensed export of dual-use technologies, from the theft or unlicensed sale of restricted technologies, from the operations of multinational companies, from disclosure to friendly nations, and the like.

"We urgently need the kind of balanced and reasoned assessment implied by this question," he continued, "so that legitimate efforts to restrict the transfer of technology from the universities will be based on proper analysis of the problem, a full understanding of how progress in science evolves, and an appreciation of the possible unintended consequences of constraints."

Presently, he added, university scientists can form no independent judgment of the magnitude of the threat to multinational security from technology transfer "beause the data which are essential to an informed judgment are, perforce, classified.

The MIT President cited as particularly disturbing recent remarks about the consequences of technology "leaks" from universities by Admiral Bobby R. Inman, Deputy Director of the Central Intelligence Agency, and by other high government officials. Admiral Inman, he noted, was reported to have proposed a system of prior review in the fields of computer hardware and software, other electronic gear and techniques, lasers, crop production and manufacturing procedures.

Dr. Gray also mentioned revisions in security classifications proposed by President Ronald Reagan, some of which Dr. Gray said would not be "workable" for university researchers.

In view of such statements and actions, President Gray said, "it is not difficult to understand why many who are involved with research and education in universities are deeply concerned that the stage has been set in the name of national security for the imposition of controls on the flow of information within universities."

While such conditions may be met in the setting of a government laboratory or a corporate research facility, President Gray said, "they are entirely foreign to the operations of universities, where research and education are inextricably intertwined, where talent and creativity are sought and developed without regard to national origin, where few doors are locked, and where activities are not sequestered.

Dr. Gray also rejected the notion that universities simply must learn to live with new constraints if they wish to work in "sensitive" areas.

"The likely response from many faculties," he said, "would be a decision not to undertake research in such areas. If this occurs, both the university and the country will suffer, and there will be in the near term. fewer ideas and developments worth protecting. If the list of 'sensitive areas' is as broadly drawn as Admiral Inman has suggested, the resulting

damage to the nation will be severe." An "alternate approach," the MIT President said, "would be to draw a much narrower list of areas to be protected, and to classify all work in those areas, regardless of where it is performed. This device would have the advantage of presenting universities with a clear choice.

Finally, Dr. Gray expressed the hope that the costs and benefits of all such possible constraints "will be most carefully weighed in the national debate now arising around this difficult and complex issue."

He said he was encouraged by the establishment of a new joint committee by the Department of Defense and the Association of American Universities to conduct such a review, and he mentioned a similar study being undertaken by the National Academy of Sciences

"It is quite possible," he said, "that these studies could, within a reasonable time, formulate specific recommendations to serve both the cause of national security and the larger progress of our science and technology.



Sloan School Dean Abraham J. Siegel presents awards to master's students honored for their scholastic achievements. The two students at left, Eileen R. Kleiman of East Grand Rapids, Mich., and Paul W. Jahn of St. Charles, Ill., received Alexander Proudfoot

### Students use stabile as sundial Those markings you might have seen last

week on McDermott Court near The Big Sail were not incomprehensible graffiti. They were part of a class project for Course 12.002, The Earth and the Planets, in the Department of Earth and Planetary Sciences.

The snaking white lines helped students track the shadows cast by the Alexander Calder sculpture and turned the towering work of art into a giant sundial. Students called the project Saildial, reports Professor Nafi Toksoz, who is in charge of the course. The sundial was marked in local solar time and Eastern Daylight Time, now differing by about 45 minutes

Because Calder didn't design his painted steel sculpture to be a sundial, the shadow from the higher points sometimes fell on the stabile itself, rather than on the ground. This

gave the students a bit of a problem deciding which part of the irregular object to use as the gnomon-the sundial pointer. Jean M. Baranowski, Course XII graduate student who led the Saildial group explains:

'The southernmost line, hyperbola, actually, was calculated for the highest point on the stabile, while another curve traced out the shadow of the lower, northern tip.

Others working on the project were Robert W. Dawson, a senior in urban studies and planning; Jonathan Grad, a sophomore in chemistry; Joseph T. Hillman, a senior in materials science and engineering; Jay Keith, a junior in electrical engineering and computer science; Paul D. Palmer, a sophomore in aeronautics and astronautics, and David T. Williams, a senior in mechanical engineering.

## Whitaker Fellowships to 15

Fifteen graduate students have been named Whitaker Health Sciences Fund Fellows for "Differentiation of Sex Behavior: Molecular

Fellowships, and Douglas J. Honnold, second right, is the first recipient of the Bendix Fellowship. The fellowships go to first-year master's students in recognition of academic achievement and professional promise. James W. McCurdy of Seattle, Wash., right, received the Thomas M. Hill Prize, given to a second-year master's student who has demonstrated excellence in the field of accounting. It is named for Professor Hill, who -Photo by Calvin Campbell taught at the school from 1947-77.

# Corbató, Forrester are honored

charter recipients of a new award that recognizes the vision of those whose efforts resulted in the creation and continued vitality of the electronic computer industry.

They are Dr. Fernando J. Corbató, professor of computer science and engineering and director of Computing and Telecommunication Resources, and Dr. Jay W. Forrester, Germeshausen Professor and director of the System Dynamics Program in the Sloan School of Management.

The Computer Pioneer Award, established by the IEEE Computer Society, will be presented annually to individuals whose main contributions to the concepts and development of the computer field have been made at least 15 years earlier. The 32 charter recipients are persons who meet these criteria and sored by the Society.

Dr. Corbato is a pioneer in the design and development of multiple access computer systems. In 1960 he led the development of the Compatible Time-Sharing System (CTSS), first demonstrated in 1961. This led to the development of the Multiplexed Information and Computing Service (MULTICS) now in use at the Institute and elsewhere through Honeywell Information Systems, Inc.

Dr. Forrester was responsible for the design and construction of Whirlwind I, one of the first high-speed digital computers. He did this while serving as director of the MIT Digital Laboratory from 1946 to 1951. While working on computer technology, he invented-and holds the basic patent for-random-access. coincident-current magnetic storage, which for many years was the standard memory device for digital computers.

the academic year 1982-1983.

The Whitaker Health Sciences Fund fellowship program supports graduate students carrying on doctoral research in the biomedical sciences and engineering area. Each year there are five awards designated to the Whitaker College of Health Sciences, Technology and Management, and ten to various departments throughout the Institute.

Graduate students who will be receiving \$259,200 in fellowship support for the coming academic year, their departments and research projects are:

Timothy A. Blizzard, Chemistry, "Synthesis of Verrucarin A and Verrucarin J.'

Larry R. Carley, Electrical Engineering, "Depression in Nerve Axons."

William K. Durfee, Mechanical Engineering, "Functional Control of an Electrically Stimulated Antagonist Muscle Pair.

Martha L. Gray, Whitaker College, "Mechanisms of Cellular Response to Mechanical Stimuli.

Hillary C. Nelson, Biology, "Analysis of Lambda Repressor's Binding to its Operators.'

Amy L. Ritzenberg, Physics, "Ventricular Fibrillation: Electrocardiographic Means of Understanding its Dynamics and Diagnosing its Precursors.

'Differentiation of Sex Behavior: Molecular Mechanism.

George A. Truskey, Chemical Engineering, "The Importance of Metabolic Factors in LDL Transport in the Arterial Wall."

Daniel Vaulot, Civil Engineering, "Phytoplankton Growth Dynamics: From the Individual Cell to a Population.'

Dennis G. Ballinger, Biology, "The Control of Translation During Heat Shock in Drosophila Cells.

Charles R. Bridges, Whitaker College, "The Functional Characteristics of the Human Glomerulus in Health and Disease."

Joanne M. Donovan, Whitaker College, "The Physical Properties of the Apoproteins of Human High Density Lipoproteins Using QLS.

Janice R. Naegele, Psychology, "Topographic Relationship of the Retina Optic Tract and Tectum in the Hamster.

Dennis P. Orgill, Whitaker College, "Development of an Artificial Skin for the Treatment of Acute Burns.'

David A. Sebok, Whitaker College, "Development of the Indicator-Dilution Technique into a Clinical Tool to Assess Capillary Permeability Changes.

Tech Talk, May 12, 1982, Page 3

# THE INSTITUTE CALENDAR

### May 12-30

MISS THE TECH TALK DEADLINE?

Put your announcement on the MIT Cable System. "Today at the Institute" runs from 9 to 5 daily on Channel 10 and can be viewed in Lobby 7, Lobby 10,

and anywhere the cable is connected. Simply phone X3-7414 and leave your announce-ment. We prefer a day's warning, but faster action may he possible.

Useful also for correcting errors, notifying about cancellations, and dealing with emergencies. Note: If you have met the Tech Talk deadline, your announcement is automatically put on the cable (except for exhibits and some multimeetings

programs).

### **Events of Special Interest**

MIT Student Art Assoc. Art Exhibit<sup>\*</sup>-Drawing, paint-ing, sculpture, etching, photography, pottery, silk flowers, Tues, May 11-Sat, May 15, noon-5pm. Artists' reception, Fri, 14, 5:30pm West Lounge, Student Center. May

Awards Convocation\*-Kenneth H. Segal, President of the Undergraduate Association. Annual presentation of awards to members of the community, Wed, May 12, 11am, Huntington Hall, Rm 10-250. Refreshments following in Bush Room (10-105). Music by Classical Guitar Society.

The Reagan Age: Reversing Post-Roosevelt Economic Trends<sup>2</sup> - Professor Paul A. Samuelson, will discuss the supply-side attempt to reduce inflation rate; its boomerang effect on US and World interest rates, unemployment, capital formation, and real growth. Sponsored by the Provost's Office and Personnel Office, Wed, May 26, noon, Rm 9-150.

Open House\*-in Celebration of Armed Forces Day. Combined ROTC Departments of MIT, Wed, May 12, 4-6pm, Karl Taylor Compton Room, 26-110. Refreshments served.

Minority Awards Day Program\*-Dr. Lynne D. Richardson, M.D. MIT. Harlem Hospital, N.Y. Awards to members of the MIT Minority Community who have made significant and extraordinary contributions to minority stu-dents, faculty and staff. Thurs, May 13, Sala de Puerto Rico, noon-2pm, Stratton Student Center

### Seminars and Lectures

### Wednesday, May 12

Soviet Intellectuals and Power in the 1970's: the New Policy of Brezhnev<sup>®</sup>-Dr, Vladimir Shlapentokh, Visit-ing Professor, Department of Sociology, Harvard University, formerly Professor, Department of Economics, Novosibirsk State University, USSR. Center for International Studies and Political Science Department Seminar, 12:15 noon, CIS Seminar Room I (E38-615), bring your lunch.

Systems Aspects of Electricity Consuming Fissle Fuel Factories\*-Jim Doyle, Phd student. Nuclear Engineering Department. Graduate Seminar in Energy Assessment, 3pm Rm 24-114.

Hormone Action and Protein Phosphorylation in Dif-ferentiating Cultured Adipocytes\*-Dr. Ora Rosen, Albert Einstein College of Medicine, Yeshiva University. Program in Neural and Endocrine Regulation, 4pm, Rm 16-310

Spin-Polarized Atomic Hydrogen<sup>•</sup>-Professor Tho-mas J. Greytak. MIT Society of Physics Students Colloquium, 4:15pm, Undergraduate Physics Common Rm 4-339.

Arc Complexities in the Philippines\*-Dr. Daniel E. Karig, Department of Geological Sciences, Cornell Univer-sity. Department of Earth and Planetary Sciences Collo-quium, 4pm Rm 54-915. Refreshments at 3pm, Rm 54-923.

High Temperature Turbines: An Overview -Professor Jean Louis, Department of Aeronautics and Astronautics, MIT. Associate Director, Energy Lab. Thermodynamics Seminar, 4pm, Miller Rm 1-114.

NASA Space Shuttle Program<sup>\*</sup>-Major General James A. Abrahamson, NASA Asociate Admin, Office of Space Transportation Systems. Aeronautics and Astronautics Seminar, 4pm, Rm 35-225.

Changes in International Oil Markets\*-Nazli Chourcri, Associate Professor, Political Science, MIT. System Dynamics Seminar, 4pm, Rm E40-298.

sition given by Associate Professor Barry Vercoe, Director of the Experimental Music Studio, 4:15pm, Huntington Hall, Rm 10-250. Admission is free. Fiction Reading\*-Sue Miller and Chris Braider, teachers in the writing program. MIT Writing Program, 5pm,

collages of light produced by "The Diamond," a computer-activated light sculpture on display through May 14 at the Center

for Advanced Visual Studies (Building W11), 40 Massachusetts

Ave. Created by Milton Komisar, a California artist who is a

Rm 14E-304. Aspects of the Urban History of Pienza in the Renaissance<sup>a</sup>—Henry Millon, Dean of the Center for Advanced Studies in the Visual Arts, National Gallery, Washington, D.C. Thursday, May 13, Rm 9-150, 5:30pm.

### Friday, May 14

Films of Dite and ASDEX Plasma Discharges<sup>4</sup>-including magnetic islands limiter and divertor target shad-ows, etc., Dr. David Goodall, Culham Laboratory, England. Plasma Fusion Center Special Seminar, 11am, NW14-2209. Refreshments at 10:45am.

Modeling of Three-Dimensional Hydraulic Fracture Growth<sup>\*</sup>--Michael Kavvadas, Postdoctoral Associate, Mechanical Engineering, MIT. Resource Extraction Labora-tory Seminar, noon, Rm 1-008.

Solar Energy in Ladakh\*-Helena Norberg-Hodge, Director, Solar Energy Project, Ladakh (India). Systems Dynamics Group Seminar, 1pm, Rm E40-294.

Bilateral Approach to the Modelling of the VOR (Ves-tibular Ocular Reflex)"-Dr. H.L. Galiana, Aviation Medical Research Unit, McGill University, Canada. Man Vehicle Laboratory Meeting, 2pm, Rm 37-212.

Tuesday, May 18

Measures of Functional Coupling in Design\*-James R. Rinderle, Mechanical Engineering Department, Doc-toral Thesis Presentation, 1:30pm, The Given Room, 35-520.

Different Import Routes of Bolypeptides into Mitochondria\*-Dr. Gottfried Schatz, Biozentrum, Der Universitat Basel, Basel, Switzerland. Biology Colloquium, 4:30pm, Rm 6-120.

### Wednesday, May 19

Microcomputer Based Tool Kit for MIT Undergraduates\*-Juda L. Schwartz, Professor of Engi-neering Science and Education, MIT. DSRE Seminar, noon, Rm 20C-117.

Design and Control of Direct-Drive Arms\*-Professor H. Asada, Mechanical Engineering, MIT Seminar, 2pm, Rm 35-520 (Given Lounge). Coffee served.

Non-Condensible Gas Fraction Predictions Using Wet and Dry Bulb Temperature Measurements\*-John K. Bowman, PhD Candidate, Doctoral Defense, Department of Mechanical Engineering, 2pm, Rm 1-214.

Three-Dimensional Kinematic Acquisition and Intersegmental Dynamic Analysis System for Human Motion<sup>\*</sup>-Erik Karl Antonsson, Doctoral Thesis Presen tation, 3pm, Rm 3-133.

Tuesday, May 25

and five feet deep, and flashes continuously through its 17-minute computer program in its darkened gallery. Public viewing hours

are 10 am-noon and 1-4:30pm Monday through Thursday and at

the same hours, plus 6-9pm, on Friday. - Photo by Calvin Campbell

Distributed Feedback Gas Lasers: Theory and Far Infrared Experiments<sup>\*</sup>-Professor F.K. Kneubuhl, chairman, Department of Physics, ETH Zurich, MIT. Fran-cis Bitter National Magnet Laboratory Seminar, 4pm, Rm NW14-2209. Refreshments at 3:30pm.

### Wednesday, May 26

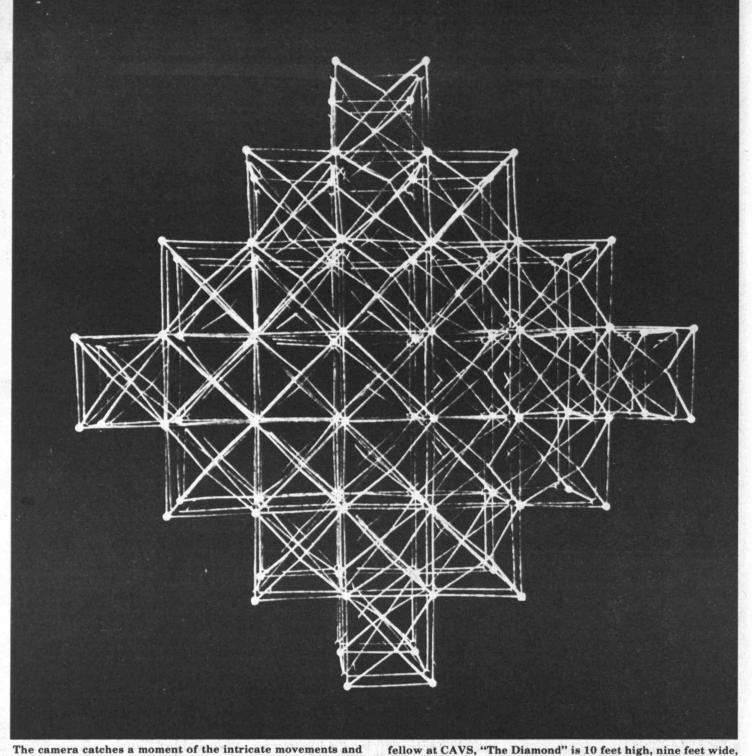
Diverse Function of Serotonin Binding Proteins in Central Nervous System and Peripheral Tissue\*-Dr. Hadassah Tamir, New York State Psychiatric Institute. Program in Neural and Endocrine Regulation, 4pm, Rm 16-

### Thursday, May 27

International Implementation and Application of MIT Protein Research®-Nevin S. Scrimahaw, PhD, M.D., Director, Clinical Research Center. Clinical Research Center Seminar, 12:30pm, Rm E17-415.

### Community Meetings

Alcohol Support Group\*-meets Weds, 7:30am, sponsored



### Thursday, May 13

Cookies Without Guilt: Carbohydrate Cravings in Normal and Overweight People<sup>a</sup>—Judith Wurtman, PhD., Research Scientist, Department of Nutrition and Food Science Seminar, 12:30pm, Rm E17-415.

Dryout Droplet Distribution and Dispersed Flow Film Boiling<sup>\*</sup>-Wayne S. Hill, PhD candidate, Department of Mechanical Engineering. Thesis Presentation, 1pm, Rm 12-

Japanese Security and Choices for the 1980's\*-Hisachiko Okazaki, Minister, Japanese Embassy, Washington, former Director-General for Foreign Relations, Defense Agency of Japan, current Fellow, Harvard Center for International Affairs. Center for International Studies and MIT-Japan Science and Technology Program Seminar, 3pm, CIS Seminar Room I (E38-615).

Mixing of Solids in a Bubbling Fluidized Bed\*-Javier Valenzuela, PhD student, Department of Mechanical Engi-neering. Doctoral Defense, 3:30pm, Rm 1-135.

Transactional Videotex\*-MIT Research Program on Communications Policy, 4pm, Rm 37-252.

Triboelectric Charging Effects in Polymers: Structure-Property Relations\*-Dr. Harry W. Gibson, Xerox Webster Research Center. Polymer Seminar, 4pm, Chipman Room. Coffee at 3:30pm

Music for Computer and Instruments\*-A program of works completed for the Course 21 Seminar in Music Compo-

Page 4, Tech Talk, May 12, 1982

Hydrodenitrogenation in Trickle Bed Reactor and the Catalytical Properties of Sulfided NiMo/A1.0. Catalyst\*-Shan Hsi Yang. Chemical Engineering Seminar, 2pm, Rm 66-110.

Bubble Break-Up in Mass Transfer in Gas-Liquid Contactors\*-James F. Walter, University of California, Berkeley. Chemical Engineering Seminar, 3pm, Rm 66-110.

The Use of Matrices in Describing the Vestibuloocular Reflex\*-Dr. David Robisson, The Wilmer Institute, Bal-timore, Maryland. Psychology Colloquium, 4:30pm, Rm E10-013

Status of ISX Experiments with Emphasis on High Beta Studies<sup>\*</sup>-Masanori Murakami. Oak Ridge National Laboratory. MIT Plasma Fusion Center Seminar, 4pm, NW14-2209. Refreshments at 3:45pm.

### Monday, May 17

Spring '82 VLSI Research Review\*-Department of Electrical Engineering And Computer Science, 9am-5:30pm, Kresge Auditorium. Registration required. For information call Marie Meyer, x3-7308

Multicomponent Dynamometers Using Quartz Crys-tals as Sensing Elements<sup>\*</sup>-Karl H. Martini, Kistler Instrumente A.G. Switzerland. Laboratory for Manufacturing and Productivity Seminar, 11am, Given Lounge, Rm 35-

Nuclear Magnetic Resonance Studies in Vivo\*-Professor Robert G. Shulman, Yale University. Francis Bitter National Magnet Laboratory Colloquium, 4pm, Rm NW14-2209.

Cotransmitter Action\*-Dr. Erminio Costa, Laboratory of Preclinical Pharmacology. Program in Neural and Endocrine Regulation, 4pm, Rm 16-310.

Health and Safety Problems in the Atomic Energy Industry From the Workers' Point of View\*-William Sacharnoski, President, Local 3-550, Oil, Chemical and Atomic Workers, Paducah, Kentucky. Program in Science, Technology, and Society Colloqium, 4pm, Rm E51-114.

### Thursday, May 20

The Neural Encoding of Stop Consonants<sup>\*</sup>-Michael Miller, John Hopkins Medical School. RLE (Speech Group eminar, noon, Rm 36-537.

Thermal Boundary Layer Development in Dispersed Flow Film Boiling\*—Doctoral Thesis Defense, by Law-rence Hull, Thurs, May 20, 1pm, Rm 5-134.

Compatibility in Polymer Blends®—Professor Frank E. Karasz, University of Massachusetts, Amherst. Polymer Seminar, 4pm, Chipman Room. Coffee at 3:30pm.

#### Friday, May 2.1

Curvature Driven Modes in EBT\*-Herbert Berk, Insti-tute of Fusion Studies, University of Texas. MIT Plasma Fusion Center Seminar, 4pm, NW14-2209.

**Music Perception: Mental Structures and Process** Dr. Carol Krumhansl, Psychology Department, Cornell University. Psychology Colloquium, 4:30pm, Rm E10-013.

by MIT Social Work Service. For information, contact Ruth at x3-4911.

Overeaters Anonymous\*\*-Meetings are held Mon and Thurs, 12-1pm, Conference Room 35-338. For information call x3-6435.

Al-Anon<sup>\*\*</sup>-Meetings are held Fri, 12-1pm, Moore Room 6-321. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. For info call Ruth, x3-4911

MIT Faculty Club\*\*—The Club is open Mon-Fri. Luncheon hours: Noon-2pm; Dinner hours; 5:30-8pm. May 21: Luncheon Buffet; May 27: Lobster Night. For reservations call x3-4896.

Wives' Group\*\*-Wednesday, May 12: Trip to the Children's Misseum. Meet at the Eastate Parking Lot (60 Wads-worth St) at 1:15pm. Museum Tour 2-4pm. Those planning to come must sign up with Julie Roberts, x3-1614. Children Welcome. All women in the MIT community welcome

Women's Forum\*\*-Mon, May 17: "From Criminal Defense to Child Care-How I Decided to Give Up One Career to Invent Another", Debbie Hazen, Harvard Law School graduate. Bush Room, 10-105, noon-1pm.

Richard C. Maclaurin (The Tech) Lodge, AF&AM\*\*-Regular meeting Wed, May 19, 7pm. Illustrated travelogue on China by Leonard F. Guerrette at 8pm followed by collation. Cambridge Masonic Temple, 1950 Mass. Ave. For additional information, call Bruce Wedlock, x3-4895.

The Women's Forum\*\*-is sponsoring a Workshop on Financial Planning and Individual Retirement Accounts (IRA's) on Wed, May 26, 45:30pm, Rm 4:163. Speakers from Garrett-Arthur Associates financial planners in Cambridge will discuss the following: (1) Financial strategy. (2) Should I Open an IRA? (3) Funding vehicles for IRA's. To reserve a space call Natalie, 864-0562. If you cannot attend this work-

shop leave name and phone number and you will be notified of the next available workshop

Informational Meeting for New Members, New Ideas\*\*-Barbara Peacock-Coady, research staff member, Laboratory for Information and Decision Systems. Working Group on Support Staff Issues, Fri, May 21, 11:30am-1pm, Bush Rm (10-105).

"MIT Yesterday"\*\*\*-A historical slide show pro-duced by Ted Kingsbury '41. Warren A. Seamans, director MIT Museum and Historical Collections. MIT Cambridge Chapter AARP, INC. monthly meeting, Tues, May 25, noon, Student Center Mezzanine Lounge

### Social Events

Ice Cream Study Break\*\*-MIT Hillel. Sun, May 16, 9:30pm, Hillel basement, W2A. Admission: \$.75. For info tion call 253-2982.

WCA Spring Festival\*\*-Westgate Community Associa-tion and the GSC are sponsoring a Spring Festival to cele-brate the opening of the new Westgate playground, Sat, May 15, 3pm.

### Movies

Love and Death\*-LSC Film. Fri, May 14, 7 & 9:30pm, Kresge. Admission: \$1 with MIT or Wellesley ID.

Neighbors\*—LSC Film. Sat May 15, 7 & 9:30pm, Rm 26-100. Admission: \$1 with MIT or Wellesley ID.

### Wellesley Events

Wellesley College Exhibition Gallery Talks<sup>\*</sup>-Sundays at 3pm for general public, by special request for groups of more than 10. Interpreter for hearing impaired available second Sunday each month Access for the handicapped available. Admission: Free.

Hours: Mon.-Sat 10am to 5pm; Sundays 2 to 5pm

Cast Illusions-Sculptor's Workshop at the Wellesley Foundry

Gifts To The Museum From Wellesley Alumnae<sup>4</sup>— Paintings, sculpture, prints, drawings and photographs showing the range of periods, styles and media comprising the Wellesley College Collection and including artists such as Thepolo, Rembrandt, Enneking, Sargent, Whistler, Pascin, John Francis and Philip Pearlstein. April 7 through June 13, Wellesley College Collection Wellesley College Mus

The Engravings of Marcantonio Raimondi\*-Wellesley , through June 13.

Alternative Residential Mental Health Programs for Women<sup>•</sup>-Jennifer Holmes of the Elizabeth Stone House. Final in Colloquium Series 1981-82. Women's Psychological Development: Theory and Application. 377 Science Center, 8pm, Wed, May 19. Free.

### Music

Noon-Hour Chapel Concert\*-Thurs, May 13: Rosemary Harbison, violin and Claudia Von Canon, harpsichord Works by Bach, noon, Chapel. Free.

Music for Computer and Instruments<sup>\*</sup>—A program of works completed for the Course 21 Seminar in Music Compo-sition given by Associate Professor Barry Vercee, Director of the Experimental Music Studio, Thurs, May 13, 4:15pm, Huntington Hall, Rm 10-250. Admission is free

### Theater

Student Works in Progress<sup>6</sup>-The MIT Drama Pro-gram. Informal performances by students of the MIT Dance Workshop, directed by Beth Soll; and the Acting I class, directed by Ron Jenkins. Fri & Sat, May 14 & 15, Kresge Little Theatre, 8pm. Admission is free. For information call x3

Ghost Sonata\*-by August Strindberg. MIT Community Players, May 20, 21, 22. Kresge Little Theatre, 8pm. Tickets: \$4/with MIT ID. For reservation or more information call

DA13MIT Dance Workshop\*-Regular meetings-Beginning Techniques, Mon, Wed, 3-5pm; Composition/Improvisation, Thurs, 3-5pm, T-Club Lounge, DuPont Center; Intermediate Technique, Tues, Thurs, 5:30-7pm, Walker 201. For informa-tion and Real Solution 20027

Yoga Classes\*-Monday - Intermediate, 5:45pm; Beginners, 7:15pm; Thurs-all levels, 12:05pm. Classes in Rm 10-340. For info call Ei Turchinetz, 862:2613.

Self-Designed Fitness Class\*\*-Taught by Maggie Let-tvin and her teachers. Thursdays at 11am, Rm 8-201. Very individualized care for the less fit woman. Athletic card, entards or loose clothing required.

Preschool Dance Classes\*\*-Instructor, Pamela Day Dance/Creative Movement Classes for children, ages 34 Classes on going, Mon, 2-3pm; Wed. 10am-11am. Call Pam-ela, x3-6705 for information & registration.

### Exhibits

The MIT Museum<sup>e</sup>-265 Massachusetts Ave, open Monday-Friday 9am-5pm, free. Ongoing exhibits:

Paintings from the Forbes Collection-Fifteen oil paint ings ranging from a 17th Century Dutch whaling scene to a ship portrait by C.S. Raleigh. Through August.

Watercolors From the Forbes Collection- Twenty-one ship portraits and whaling scenes by 19th Century New Bed-ford artist, Benjamin Russell. Through August.

MIT Alumnae in Science and Technology are the subjects of an exhibition of drawings and photographs celebrat ing the success of women in science and technology Although the emphasis is on alumnae in industry and acade-mia, material on present undergraduate women is included.

The Tech: One Hundred Years of Student Activities-A centennial celebration of student activities and organiza-tions as viewed by the student newspaper. Through August.

Mechanical Computing: slide rules, slide rules, and more slide rules

Scientific Instruments in 18th Century Culture: Micro scopes, telescopes, navigational instruments and graphics explain the function of science in the lives of 18th-Century people. Objects assembled from the collections of the MIT Museum, Harvard University and the Smithsonian Institution

Margaret Hutchinson Compton Gallery\*-Rm 10-150, open Monday-Friday 9am-5pm, Saturday 10am-4pm, free. Ongoing exhibit:

William Barton Rogers 1804-1882\*-Opening reception, May 6, 5-7pm; public exhibition, May 7 through September The Margaret Hutchinson Compton Gallery, Building 15.

Hart Nautical Galleries\*-Rm 5-126, open daily 9am-10pm, free. Ongoing exhibits

MIT Seagrant—A review of MIT ocean research. Opening May 14.

Whales in Art and Science-Photographs, drawings and skeletal remains documenting current research about the whale. Ongoing exhibit.

Collection of Ship Models-Half-models and drawings. Historical view of the design and construction of ships. Ongo ing exhibit.

Versailles: Two Visions\*-Photographs by Deborah Tur-beville, Bruno Requillart, Hayden Corridor Gallery, Hayden Memorial Library Building, Committee on the Visual Arts, April 3-May 9.

Stroboscopic Light Laboratory Corridor\*-Permanent exhibit of high speed photographs. Main corridor, near Rm 4-405

Rotch Visual Collections\*-Rm 7-304, open Monday Friday 8:30am-6pm, free. Ongoing exhibit:

Corridor exhibits: Building 4: Samuel Cate Prescott, Rogers Building, Norbert Wiener, Karl Taylor Comp-ton. Community Service Fund, Ellen Swallow Richards. Building 6: Laboratory for Physical Chemis-try. Building 8: Solar Energy, Society of the Sigma XI. For information call MIT Museum, X3-4444.

Lobby Seven-77 Massachusetts Ave

Margaret and William Hahn '42: Photographs of China\*-A selection from the 6,000 photographs taken by the Hahns during their recent trip to the Orient. May 28-June

Intimate Architecture: Contemporary Clothing Design<sup>\*</sup>-Hayden Gallery, 10-4 daily. Clothing by Artists and Architects: A Documentation, Hayden Memorial Library Bidg, May 15-June 27; Public Preview, May 14, 5-8pm. Hayden Gallery Benefit, May 14. Call 253-4400 for tickets and additional information.

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 ork in a department and field.

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

Send notices for Wednesday, May 26 through Sunday, June 6, to Calendar Editor Rm 5-113, before noon, Friday, May 21.

# 'Quality and quiddity'

(Catherine S. Gibbes, a PhD in Latin and Greek, teaches an undergraduate seminar on the Language of Science and is writing a book, The Language of Science: Its Classical Heritage. In this article, written for Tech Talk, she provides a glance at the language of chemistry.

#### **By CATHERINE S. GIBBES**

What Swedish town is commemorated in the names of four chemical elements?

Why is Argon a particularly appropriate name for a noble gas?

Which element names are derived from color words?

What does Tungsten mean and why is its symbol W?

Initially these questions may sound trivial; a closer look reveals that the words of chemistry contain, in effect, a history in microcosm of the science itself. When one traces the origin and use of a particular term, one not only learns the literal meaning and specific application, but also gains insight into the culture which produced scientists, classifiers, nomenclators

Until the 20th century, acquaintance withif not complete facility in-classical languages was the rule rather than the exception among European scientists and Greek and Latin components figure prominently in the names of chemical elements and serve as stems for the "quantitative recipes" of Lavoisier and associates. (Ferrous, Ferric: quantitative recipes from the Latin Ferrum, iron.) Even when Germanic (silver, gold) rather than classical names have been adopted for common use, the residual classical influence may still be evident in the abbreviations: Ag (Argentum), Au (Aurum). Very often, names of chemical properties which describe distinctive properties, such as color of salts, vapor or spectrum (Rhodium from Greek rhodon, rosecolored; Iodine from Greek ioedes, violetcolored; Cesium from Latin caesium, bluegrey); smell (Osmium from Greek osme, odor); or quality of the substance from which the element was isolated (Barium from Greek

barus, heavy, because of presence in Barytes, heavy spar).

Classical mythology has also contributed to the language of chemistry, though sometimes indirectly, via astronomy. For example, in 1789 Klaproth named newly discovered uranium in honor of Herschel's 1781 discovery of the planet Uranus, whose name in turn was derived from that of the ancient Greek sky-god Ouranos. In 1802 Ekeberg gave the name Tantalum to the element he had just isolated after much toil and frustration: a direct reference to the Greek Tantalus, punished in Hades by having what he sought always just out of reach!

A number of element names are eponyms, honoring persons (Curium, Fermium), or attesting to place of origin of a substance (Copper from Aes Cyprium, bronze of Cyprus, a major source of the metal in antiquity) or indicating national or local pride: Polonium (named by Marie Curie in honor of her native Poland).

Thus, even brief study of the words of chemistry in their historical and linguistic, as well as immediate and practical, context can enrich our understanding and appreciation of a vital and progressive field, which preserves and honors its past even as it moves toward the future.

And the answers to the questions above?

Ytterby, immortalized by C.G. Mosander (1797-1858) in Erbium, Ytterbium, Terbium and Yttrium, all extracted from substances quarried there.

Argon is the Greek word for "idle, inert," applied to the noble gas by Ramsey and Travers in 1884

Element names incorporating color words include: Chlorine, Chromium, Rubidium, Rhodium, Iodine, Cesium, Indium, Arsenic, Iridium and Praseodymium.

Heavy (tung) stone (sten); Swedish, coined by Scheele in 1780; the W is from its previous name, Middle High German Wolfram, "wolf's soot," so called because it caused loss of tin in



Posing near their home-to-be are Alfred, Meredith and Judith Kildow.

tion call Beth Soll, x3-2877.

253-2530. Dance

### CAVS plans 'Zeppelin' performance

smelting.

An experimental performance entitled "Tropical Zeppelin (Stuck in Rio)" will be presented at 8:30pm today (Wednesday, May 12), in the MIT Center for Advanced Visual Studies (Building W11), 40 Massachusetts Avenue.

The title alludes to flights made by the dirigible aircraft the Graf Zeppelin, between Germany and Rio de Janeiro in the 1930s and the performance will attempt to interpret the role of art of that time.

The performance will feature innovative music for cello, string bass, percussion and short-wave radio, as well as a modern artist's song presented simultaneously by three voices in three languages.

The 14 performers for the event include George Carrette of the MIT Dramashop; Durwynne Hsieh (cello) and Kevin Moll (string bass) of the MIT Symphony Orchestra: Jude Barucha, Lorilee Garbowska, Wendelin Glatzel and Steven Marshall of CAVS.

Participating in the poetry reading will be Harriet Casdin-Silver, CAVS fellow (English voice); Wafik Beydoun, an MIT PhD candidate in physics (Portuguese voice), and Peter Droege, a CAVS fellow and author of the poem (German voice).

### Photo journal, 'Positive,' is published

The second annual issue of POSITIVE, the annual journal of the graduate photography program at MIT, has been published by the MIT Creative Photography Laboratory.

The new issue, which records activities during the 1980-81 academic year, includes:

"Between Photographs," introduction to a lecture by visiting Irish photographer Alen MacWeeney; "Recent work," a transcript of a lecture by visiting photographer Lee Friedlander; "Portraits of Buildings," photos and

essay by graduate student Robert Alter; photo by graduate student Hideji Nagura; "Mother/ Photographers," essay and photos by Judith Black; "Lee Friedlander at the Creative Photography Laboratory," a journal chronicling Friedlander's three-week stay as Visiting Lecturer; "High School," a group of portraits taken by graduate student Linda Benedict-Jones at Cambridge Rindge and Latin School; and photos and an article, "Notes on the Stability of Color Materials" in photography by graduate student Stephen R. Milanowski.

# Kildows to live in East Campus

Dr. Judith Tegger Kildow, associate professor of ocean policy in the Department of Ocean Engineering, and her husband, writer Alfred Kildow, will be the faculty resident family in East Campus beginning in the fall.

The Kildows will succeed Adrianus and Evelyn Houtsma, who have been the faculty resident family since 1971. Dr. Houtsma was a graduate tutor in East Campus for two years before becoming the faculty resident. A member of the research staff in the Research Laboratory of Electronics, he is leaving the Institute to accept a teaching position at the Technical University in Eindhoven, The Netherlands.

"We say goodbye to the Houtsmas with much gratitude for their long-term involvement in the residence system," Robert A. Sherwood, head of Residence Programs in the Dean for Student Affairs office said. "The advice and counsel they have offered to 'three generations' of students, the close friendships that have developed over the years, and the spirit which the Houtsmas have brought to

the house, are all immeasurable. Suffice it to say, one of the strengths of MIT's residence system is the presence of such dedicated faculty families who selflessly immerse themselves in student life. There is no way the Dean's office could operate the system without them.'

-Photo by Calvin Campbell

Professor Kildow has been a member of the faculty since 1973 and associate professor since 1976. Her area of research interest centers on multiple use conflicts and management strategies for ocean and coastal activities.

The Kildows and their six-year-old daughter. Meredith, are looking forward to the new experience.

"Alfred and I have always been impressed with the energy and inventiveness of MIT students," Professor Kildow said. "From what we have observed, East Campus residents will set challenging new standards for us to match.



Ads are limited to one per person per issue and may not be repeated in succes-sive issues. All ads must be accompanied by full name and extension. Persons who have no extensions or who wish to list only home telephones may submit ads by coming in person to the Tech Talk Office, Rm 5-113, and presenting Institute identification. Ads may be telephoned to x3-3270 or mailed to Rm 5-113. Deadline is noon Friday before publication.

#### For Sale

Coffee tbl & 2 matching end tbls, will sell separate, 6 drw dresser w/mirror, \$75/best. Mary, x3-6736 or 923-2479.

Hydrostatic water mattress & filler hose, fits on top of reg matt, used once, asking, \$75; 2 brnd new Harvard bed frames, orig cartons, \$25/both. Norma, 3-1679.

Two Sennheiser, microphones, MD211, \$200. Call 369-7059.

96" couch, grn; folding attic staircase Charles, x7142 Lincoln.

26" mens 10-spd, nds some work \$25; Kryptonite lock, \$20; set of Harvard Classics, \$40/best; push lawn mower, \$25; gardening tools, rake, spade, & ice auger. Ruth, x3-4716.

Thomas organ, perf cond, 3 yrs old. 2 key pedals, rhythm, bench, manuals & extra features, asking \$895. Bill, x3-5246 or 899-8613.

Technics stereo rack, dimensions will fit most components, smoked glass cover for record compartment, exc cond. Ask \$75. Call x5-8775 Dorm or 494-5146.

A/R manual trntbl, 2 Pioneer, 8" spkrs, \$125/best. Mark, x5-7370 Dorm, eves

Whirlpool 17.0 refrig/freezer, no frost, wht, must sell immed, 6 moold, textured steel drs w/wood handles, acrylic enamel finish, twin crispers, meat pan, sep temp cntrl, pwr saving heat cntrl switch, orig \$590/ now \$450. Linda, x3-4861.

Sears' Coldspot air cond, gd cond, \$50/best. Jody, x3-4791.

Blue corduroy sofa, 100" long, \$275; round oak coffee tbl, \$250; marble top coffee tbl. \$60: 10x12 oriental wool rug, \$1.200, Call 643-3566.

Panasonic KT-1520 answering mach, remote replay, skip & rewind, voice operated switch & message counter, best offer over \$150. Call x3-6115 or 547-7894

Three 13" rims, fit Toyotas (no tires), \$5/ea, firm. Daryl, x3-7256.

17' O'Day Day Sailer II, trailer, 1 12; eng, tabernacle, stainless steel mast-/boom carrier, boat cover, \$2,950; 14' Sunfish sailboat & trailer, boom & mast holder, boat cover, immac cond, \$995. Call x3-8051.

Air cond, Amana 6000BTU, window style, gd cond, \$120. Steve, 225-7648 Dorm

Swim pool, 4x18, incl pump, vac net, ladder, etc/. \$100. Call x7825 Lincoln. Wshr/dryr comb, 1 unit, compact, ideal for apt, requires 220V, unused, \$175. Call 926-3265 eves.

3 spd bike, mint cond, must sell, \$100/best. Call x3-7660, lv message for Akella.

10-spd bicycle, 21" frame, 1024 tensile tubing, suntour components, headlight, coml overhauled, gorgeous, \$135. Robert, x5-9485 Dorm or x3-1461 lv msg. B bus pass for sale, best offer. Mary,

x3-2750. Hotpoint wall oven, self cleaning

white, \$160. Tony, x3-5717. Mon-Wed only. Ethan Allen dress er & mtching side tbl,

\$275/set; antique pine tbl, \$175; hi riser bed, opens to 2 single beds or 1 lge set, \$150; bk shelves, mirror, rattan rugs, antique trunk. Nancy, x3-7133 or 646-5687

Blue Chinese rug, 8x10, 25 yrs old, \$1,100. Debby, x3-6047 or 1-359-4630.

59 cm Bianchi Nuovo racing bicycle campy N.R. deraillers; cinelli bars & 1R stem; new Regina oro 13-22 freewheel & chain. Gipiemme crank set, unvrsl 77 brks. Mavic 700c whls columbus double butted tubing frame, exc cond, \$600/best. Call 484-7817. G.E toaster oven. \$20: Wilson Kramer

Small refrig, \$100; K tbl, maple w/3 chrs, \$50. Carter, x3-7133 or 492-0829

Cazvan oriental rug, 22x9½, vý gd cond,

\$5,500. Barbara, x3-8138 or 527-7205

Columbia 3 spd bicycle, 2 yrs old, gd cond, \$65. Call x3-4965.

Bicycles, 26", 3-spd woman's, exc cond,

\$55; 24", 3-spd, girl's Raleigh, \$35. Bruce, x3-5570 or x3-5588.

Yard sale, 120 Garden St, Camb, Sun-

day, May 16, 10-3, platform bed, tbles, kitch items, china, silver, books, women's & children's clothes, more.

Scuba mask, fins, snorkel, weight belt, exc cond, \$30/best; pr of Advent 2W loud spkrs, exc cond, \$100/best. Derek,

Yard sale, Sat, May 15, furn, kitch

items, pottery, antiques, graphics, tapestries, plants, books, records, bric-a-brac. 42 Meacham Rd., Somerville,

btwn Mass. Ave, Camb & Davis Sq. Call

67' Cheoy Lee 31 Sloop, exc cond, loaded, 6 sails + spinnaker, RVG Vane, ds, VHF, RDF, rr and rf km, \$32,000.

Color TV, 19", port, \$150/best. Call x3-1574 or 489-3043.

Full sz mattress, gd quality, like new,

\$65; hockey skates, sz 11, worn 6 times, \$25; hockey stick & gloves, \$5. Terry, x3-6542 or 924-0915.

1 unit dbl hung windows, w/storm win-

Used golf balls, popular brands, exc cond, \$5/doz. Ernie, x8-1278 Draper

Stainless-steel cookware, hi-quality, fine cond, compl 6-pc set, \$50. Lee, x3-

Simmons' extra firm mattress w/box

spring, exc cond, \$75/neg. Will deliver within Boston area. Call x3-5150.

Buriable cable 450'-24 cond #12, \$400;

microfiche reader, \$20; Baltic birch furn, plywd 8 sheets, \$85; EG&G elec-trome stutter, \$20; Tektronix 541 scope

DC to 33 MHZ \$140; 20 yrs issues Elec

tronics. Richard, x3-4416 or 547-1834

'68 Plymouth Fury III, \$200. Jim, x3-

69 Olds Cutlass-5, 98K, 2 dr, p/s, p/b,

'71 Red Citroen sta wgn, exc main-tained, priced to sell. Andre, 489-1660.

'71 VW Superbeetle, 2 dr sedan, compl overhauled incl exc paint job, superb running cond, gd mi, 2 mntd snows, \$2,350. Call 253-7648 4-5pm days or 396-

'71 Plymouth Scamp, 1 owner, lo mi,

well maintained, vinyl rf, 2 new tires, slant 6 eng, p/s, new battery. Ron, x8-

'72 Pinto, 2 dr, little rust, runs well, 58K,

gd tires, recent tune-up, AM radio, \$750.

'72 VW Bug, & extra racing engine for

VW, gd running cond. Call 492-2384

'73 Super Beetle, 94K, rec reblt eng, gd

'74 Subaru GL sedan, 30 mpg, 5 spd, AM/FM stereo radio, 4 radials, 2 radial snows, 1 spare, rr window defrost, many

new parts, \$1,500/best. Ken, x183-235 Bates Linac.

'74 AMC Hornet, wgn w/roof rack, 6 cyl,

p/s, autom, new battery & starter, gd mech cond, \$850/best. Call x3-7118 or

'75 Ford Pinto wgn, \$900; '79 Renault Le Car, met blue, \$2,900. Call x3-4338 or

whl, disc brakes, minor rust, 70K,

'76 Pontiac Astre, 50.2K, 4 cyl autom, vy

gd cond inside & out, \$1,500. Sam, x3-

'76 Capri, 52K, 2300 cc, 4 spd, AF/FM 8

'76 LTD Landau Ford, every access

\$1,800. Joel, 258-2021 Draper

3606 or 547-2780.

nd, extra tires, \$1,800. Call x3-5700 or

AM radio, \$300/best. Bill, x3-1738

Phillip, x8356 Lincoln, 491-7487.

eves

eves

x3-6557.

776-6285.

Dorothy, x3-4421.

dows, \$30. Rolf, x3-2008.

7727 wkdays.

after 6pm.

Vehicles

6283 or 647-5317.

1049 eves.

Gerard, x3-6899.

after 9pm.

969-8965.

497-9435.

861-9452

1231.

Belmont, 2 story trad colonial, fp. LR, panel study, DR, K w/pantry-Indry, sc porch, 4 BR, 2 1/1 B, fl attic & cellar, insulated, econ ht, 2-car gar, landscaped lot on cul-de-sac, avail about 9/1, \$175,000. Call x3-1776 or 484-6837 eves. Boston, spac 1 BR apt nr Symphony Hall summer sublet w/Fall option, \$500/mo incl ht. Call x3-4790 or 262tennis racquet, sz 4¾ w/cover, used sparingly, \$35/best. Babi, x3-6442 or 492-7251 eves. 1357 eves.

Boston, Charles River Park, summer sublet, beaut 1 BR furn, a/c, pking, avail 6/15-8/31, walk to MIT, pref sinno pets. \$605/mo. Call x3-7921 or gle, no pets, \$ 720-2310 eves.

Beacon Hill, Brimmer St, sublet, furn studio, shr/wsh/dryr, avail 6/9, (possi-bly earlier)thru Sept 7, \$275/ util incl. Ingemar, 523-4373 after 6pm.

Brighton, 1 BR apt, vy nice & sunny, on

bus line, avail July 1, \$325/mo, incl heat. Anna, x3-6780 or 254-7658. Cape Cod, E. Dennis, effic units w/re

frig & stove, avail June - Sept. Call x3-1747 or 628-2489 after 6pm.

Visiting prof seeks 3 BR furn hse or apt, from July, Aug or Sept '82 to June/July '83. Contact Prof. Malcolm Kottler, Bell Museum, University of Minnesota, Minneapolis, MN, (1-612-379-7463).

Cambridge, for sale, occupy Fall '82, 6. new townhouses (2 duplex), walking dis-tance to MIT, 2 or 3 BR, garage, terrace, wood stoves. Call 868-8953.

Cambridge, summer sublet, 1/2 spacious furn, 2 BR apt, own BR, fully car-peted, a/c, quiet, nr Camb City Hall, 6/1-8/31, \$245/mo negot. Anne, x3-2716.

Cambridge, rm to sublet in mod, sunny 2 BR apt, nr Central Sq., 10 min walk to Harv or MIT, avail end of May-Sept 1, furn, util incl, \$214/mo. non-smoker, male pref. Steve, x3-5220.

Cambridge, 2 BR apt, 10th flr, btwn June 15-Aug 15. Edith, 547-5804 or x3-1560.

Concord, 3 BR ranch on river, fp, LR, lg eat-in K. dsh/wshr, disposal, screen porch, finished rm & darkrm in base-ment, refrig, & wshr, avail 6/15, \$700/mo + util. Call x3-9920 or 443-4587 eves.

Glencoe, Nova Scotia, vacation retreat, vy priv, 12 acre overlking East River valley, 2 BR, 1/2 loft, swim in nrby river, waterfall pool, bird watching, hiking, rock hunting, \$225/wk. Call x5553 Lincoln or 369-3973.

Hebron, N.H., Newfound Lake, ski chalet avail for summer rental June/J-uly, private beach, \$300/for the first wk, less for succeeding wks. Call x3-1555.

Jamaica Plain, 2 Br apt, avail 6/1, 3rd flr, porches, lg LR, beamed DR w/blt-in china cabinet, lg K w/pantry, nr Green & Orange lines, Arboretum, \$375/mo + util. Atsushi, x3-1857 or 524-4783 eves.

Lake Winnepesaukee, Wolfeboro, N.H. scenic waterfront apt, July 25-Aug 1, slps 5 w/ktchenette, dishes, uten, linens furn, boat docking, sailboat, tennis, Indry facil. Bob, x3-2748.

Lake Winnepesaukee, use of 1 BR cot-tage, with dock & tennis, for couple in return for work in main hse & outdoors, x3-7221 or 354-4190 eves.

Lexington, unfurn, 4 BR Colonial, walk to Lincoln Lab, bus to Harvard Sq, avail 8/1/82, for 1 or 2 years, \$800 + util. Call x7667 Lincoln or 861-6835 eves.

Maine, lovely hse on clean quiet lake, furn, plus canoe, avail July & Aug, slps 4, \$600/mo. or \$175/wk, 2 wks min. Mrs. Huggins, x3-3368 or 646-0343 eves.

Need 3 plus BR Paris apt, rent or exchange for 14 rm West Newton hse, 1 yr beginning Aug or Sept, '82. Dr. Fried-man, x3-2916 or 965-0536.

Newburyport, lge 3 BR apt in 2 fam hse, pking, porch, lge yard, gd location. Call Ingrid, 469-9684.

Paris, apt to rent, 2 BR, LR, DR, fully furn, dsh/wshr, wsh mach, lge terrace, w/beaut view, \$600/mo for 6 mo. possibly longer, starting Aug.

Scituate summer rental by ocean, beaut atmosphere, furn, 3 BR, 9 rm hse,  $1\frac{1}{2}$  acres, FP, 2 wood stoves, deck, walk to ocean, nr shops & harbor, 1/2 block bus to Boston, golf & tennis nrby, avail \$3,000/season; \$1,000/mo. Call 545-5576.

Somerville, Highland Ave, sunny, quiet, safe, 4th fir, corner apt w/view, lge BR, LR, eat-in K, wshr/dryr in bldg, vail 6/1, \$450/hted. Lalitha, x3-6453 or 628-2435 eves.

Somerville, nr Inman Sq, sublet 1 rm avail, May 24-July 7 in shrd apt w/1 rmmte, \$250/ part time negot. Benny, x3-2345 or 625-7075.

Somerville, 2 BR apt sublet, option to renew, air cond, dish washer & dspsl, ndry \$550/mo incl ht & hw, avail 6/1. Tom, x3-4619 or 623-1348.

Woburn, 3 BR single family hse, nr elem school, Rt 93 & 128, \$750/mo. avail 6/1. Miscellaneous Peter 933-3011

### Animals

Purebred Arabian yearling filly, grey, extremely friendly & easy to work with, exc conformation & movement, beaut head, Spanish/Fadjur breeding with Fadjur sparkle, will mature about 15 hands. Call 944-2452 eves.

old, female, all shots, vy gd home needed. Susan, x3-2285.

Free, lovely gry twin cats, nvr separ-ated, hse oriented. Sharon, x3-1344. 3 kitten female, 2 calico, 1 bl & orange, 8

wks old, ready for adoption to gd home, single or in group. Call 879-2164, Framingham after 6pm.

Registered Quarter horse, filly, 5 yrs old, exc disposition, 15 hands, brown w/4 socks, won many ribbons, great saddle horse. Call 692-2839 (Westford) after 5pm.

### Lost and Found

Lost: black belt w/silver & abalone buckle btwn LCS & Green bldg, not valuable but valued. Cary, x3-5847.

Lost: Hewlett Packard-41C calculator

w/quad-pack memory module in brw vinyl carrying case. Bruce Calder, 267-0908. Will pay \$50 reward.

Found: lady's watch, Fri, 4/30, in front of Draper. Call x3-2835.

Lost: man's gold wedding band. Joel, 494-2552 or 492-2056 home.

Found: in Pritchett Lounge, May 6, pr of identical keys. Call & identify, x3-7353 or 825-1602.

### Wanted

2 quiet responsible graduate students seek a 2 BR residence, quiet neighborhd, nr MIT & Harvard, 1 yr lease June 1-Sept. 1, skilled, willing to paint, etc. Jeff, 547-8568 eves.

Furn 2 BR apt or hse for cple in Camb, beginning Sept 1, Harvard or Central Sq. pref, add'l ofc space desirable. Mar-tin Zurick, Systems Science, Portland State University, Oregon 97201 or (503) 229-4960.

Intermed tennis player looking for same for regular games. Ellen, x3-8256.

Boat trailer, w/lg wheels, for 16 ft fiber-glass, cathedral hull runabout, weigh, ing 1,600 lbs. Bob, x3-6580.

Someone to do occasional sewing, copy existing clothing, etc. Chris, x3-6998.

Babysitter in Eastgate or nrby for 6-moold girl, 1-6pm wkdays, pref w/oth children. Debby, x3-7094 or 232-5272.

Prof woman at MIT seeks 2 BR apt, Lexington area, reasonable rent, nr trans, by 8/1. Call x3-2058 or 625-4119.

Tires: JR-78-15; 195-R70-14. Larry, x7500 Lincoln.

Visiting professor needs 2 BR apt, con-venient to the "T" in \$600-\$800/mo/range. Call Prof. Marx, University of Washington, collect. (206) 543-6822 office or (206) 285-1657 home. Beacon Hill apt, studio or 1 BR, bright, airy, quiet. Martin, x3-4080 or 227-5713.

Two BR apt in Brookline, Brighton, Allston, Newton areas, \$450-\$550/mo. David, x8480 Lincoln or 731-9507.

Volunteers for Carbohydrate Cravers Study. Spend  $2\frac{1}{2}$  days a week for 2 weeks at the MIT Clinical Research Center & eat & be treated with a safe drug that may help you eat less sweet & starchy foods. Send name, room number and extension to Carbohydrate Cravers Study, E25-604. We will reply.

### Roommates

Woman to shr Arlington apt w/2 women, summer sublet w/option, nr stores, on T, driveway pking, \$204/mo incl heat & util. no smokers, no pets. Beth x3-6032 or 643-3180. Seeking 1 M, grad student, for lg apt in

Arlington w/terrific view of Spy Pond, starts June, \$176 + util. Mike or Rob, 646-5342 or x3-8524. Rmmte, for large sunny BR avail in quiet 5 BR Central Sq apt, \$156/mo incl

heat, avail May 30 w/option renew lease James x3-1350 or 661-6322 before

Typing, thesis, papers, resumes, etc. technical & non-technical. Scotti, x3-4657.

Typing, manuscripts, term papers, reports, etc. Linda, x3-5120. find volume; and interpret sponsor and Institute policy as needed. Requires BA with either academic training in accounting or 2 to 3 years experience. Good interpersonal skills are important, as this individual will be working with a variety of persons in a demanding Will do general technical & thesis typ-ing, IBM Correcting Selectric, 14 yrs

dual faculty; perform secondary super-vision of 4 accounting clerks; prepare payroll documents from projections; review requisitions and invoices; pre-pare detailed budgets for submission

with research proposals; prepare yearly forecasts of department research and

variety of persons in a demanding situation. The capacity to manage workloads and set priorities indepen-

dently also essential. Knowledge of

operation of DEC Mini computer (language: BASIC) strongly preferred.

Systems Programmer III, to join the Database Support Group of Information Processing Services. Primary responsi-

bility will be the development and maintenance of the Relational Data Management System (RDMS). The

system is written in PL/I and imple-mented on Multics. Specific duties include: consulting with and aiding

users in developing new RDMS applica-tions; general Multics development; and

possible support of database systems in IBM computers. Applicants must have considerable experience in systems or

database programming, along with a working knowledge of PL/I. Experience with Multics preferred. A205

Research Staff, Division of Compara-

tive Medicine, to provide part-time research technical assistance. Respon-sibilities include collection of biological

samples, setting up and maintaining tissue cultures, maintenance of tissue

culture research laboratory, handling research mouse colony, processing biological samples for histology, im-munoflouresence, and electron micro-

munoflouresence, and electron micro-scopy. Candidates should have a BS in Biology or Animal Science, or an Associate's degree in Veterinary Science Technology. Well developed organiza-tional skills and the capacity to work independently are essential. This individual need not be experienced, but should have a strong interest in learning new techniques in this field. R775

**Research Scientist - Experimental**,

Plasma Fusion Center who has strong theoretical training to work in the area of RF heating with particular emphasis on ECRH and Tandem Mirror machines.

This individual will be expected to design a system for ECRH around a 28

Ghz gyrotron, including the design of

the transport and launching structure ray tracing and absorption rate, both

linear and nonlinear. Requires a PhD in

relevant field. Background in mirror plasma physics, diagnostics, on-line

and off-line computer programming,

**Research Scientist - Experimental**,

Plasma Fusion Center, to develop diagnostic instrumentation, such as Thomson scattering, secondary emis-sion neutral particle detectors, and acousto-optical RF spectrum analyser. Will also supervise bachelor theses and Undergraduate Research Omortunities

**Undergraduate Research Opportunities** 

Program students. Requires a PhD in Physics, plus 2 to 4 years experience,

including a broad knowledge of modern electronics and optics. Familiarity with computer particle simulation codes for

measuring confined plasmas preferred.

Research Engineer, Research Labo

ratory of Electronics, to assist in various aspects of research on the

production and perception of speech.

Position involves development, testing and maintenance of hardware and

software for the recording and analysis

of acoustic and physiological (electro mygraphic, movement, aerodynamic)

data; running of experiments and

processing of data by computer. There is also a possibility of participation in

also a possibility of participation in additional aspects of research, including design of experiments and preparation of research reports for publication. Requires a BS in Bioengineering, Electrical Engineering, or a related field, as well as some familiarity with recording and analysis of biological

recording and analysis of biological

and acoustic signals, basic electronics, basic statistics, elements of experimen-

tal design and execution, fundamentals of computer programming. This indivi-dual will be expected to become familiar

with and use a variety of research tools

in a highly productive manner. R772

Technical Assistant, Nutrition &

Food Science, to provide research services in Genetic Toxicology. Will

perform mutation assays with bacterial

and microwaves preferred. R774

Sponsored

R775

R773

Research Staff

C061

exp. Call x3-6695. Word processing, cheap. Call 628-2378.

Homely cat, 16 lbs of love, spayed, 2 yr Will type thesis, term papers, etc, reaso-old, female, all shots, vy gd home nable rates. Call x3-7303.

Indian cooking class, starting May 23, will teach how to make curries, pilafs, vegetables, etc. Fee for 6 wk course, \$30/ includes all materials. To sign up call x3-3438 or 492-5162 anytime

Experienced typing, IBM Selectric II, languages, editing on request, papers, theses, dissertations. Cristina, x3-1693 or 491-0294 eves.

Typing theses, manuscripts, re IBM Correcting. Debbie, x3-2511.

### Surplus Property

The following excess MIT equipment, listed by case number, is available for transfer within the Institute. Unless otherwise indicated, excess peoperty is at the Equipment Exchange, 224 Albany Street, hours, Mon, Wed, & Friday, 10am-1pm. Property not trans-ferred becomes available for sale to to individuals 30 days from the date of this

publication. Case 891 Available at Equipment

Exchange Cardvair, Mechanized card filing sys-tem by Digital, Mdl 6600, gd cond. Case 894 Available for transfer within

the Institute. Transfer of funds required. To inspect contact Stanley Zisk, x181-56-141. Sub-mit offers to Mr. Earl C. Fuller Rm E19-451, x2779 through May 26.

Video Recorder, RCA, mdl VET-180 modified and operable. Case 895 Available for sale by sealed bid. Reference the case number and note "Sealed Bid" on the envelope. Submit bids to Mr. Earl C. Fuller, Property Administrator by 4pm EDT, June 14, 1982 at rm E19-451. To inspect the prop-erty contact Ms. Deborah Kurimay,

x3210. Piano, Mason & Hamlin, model D. con cert grand, gd cond; Piano, Bosendorfer, model 225, 1/2 concert grand, gd cond.



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

Persons who are NOT MIT employees should call the Personnel

Employees at the Institute should continue to contact their Personnel

Officers to apply for positions for

3-1594

3-1591

3-4270

3-4266

3-4267

3-4268

3-4275

3-4277

3-4269

Office on extension 3-4251.

which they feel they qualify.

the Personnel Office (E19-239).

glass cover, heater, etc, \$40. Call x3-5049.

Answering mach, exc cond. Call 266-0702.

Mens bicycle, Motobecane Gran Touring, 10-spd, 24" frame, works well, nds some work, \$100; womens bicycle, English ranger 3-spd, 21" frame, child seat incl, great for town, \$65. Sharon or John, x3-5933.

Hiking boots, Italian made, sz 9-10, only vorn 2 or 3 times, orig, \$55, now \$35-40. Call x3-5049.

Stereo cassette deck, Pioneer, CTF500 w/Dolby, hi-bias, etc. \$80/best; like new 2 Pioneer 3-way spkrs, handles 60 watts, \$100/pr. Steve, x5-6144 Dorm or 593-3198.

45 acres beautiful woodland w/1000 ft. frontage on town road in Westford, frontage on town road in Westford, Mass, adjacent to M.I.T. Mill Hill site, \$165,000. Call 648-7757 after 5pm.

760 Remington game-master 5 shot repeater slide action, \$210/brand new w/2 boxes of shell model #30-06. Frank, x5821 Lincoln.

Vivitar close focus 75-205 zoom lens, f3.5, Nikon mount, new, \$170/best; Nikkor 50 mm f.2 lens, \$60/best. Call x5-9558 Dorm or x7883 Lincoln.

12 ft refrig \$100, small freezer, gd cond. Cathy, x5-8515, keep trying.

Page 6, Tech Talk, May 12, 1982

incl, \$2,000. Rich, x3-6712.

'78 Moped, Honda Express, great runner, dependable, \$150/best. Mike B., 782-5394 or x3-6778.

'78 Pontiac Grand Prix, V8, 2 dr, autom, p/s, p/b, a/c, cruise control, AM/FM radials, no rust, exc cond, 41K, \$5,300. Alan, x5564 Lincoln or 358-7615.

78 Honda Hawk, 400 cc motorcylce, 11K, handlebar mntd fairing, sissy bar, rack, crash bars, \$1,300. Carey, x3-6115 or 354-0675.

79 Chevette, 38K, \$3,100/best. Call 891-7639 eves, or x3-3314.

'79 Honda Civic, 9.5K, exc cond, autom, \$3,595. Call 332-9632.

'81 Datsun 200 SX, lo mi, exc cond, loaded, must be seen, best offer. Call 459-4549 eves/wkends or x4534 Lincoln.

### Housing

Allston, Kosher, BR for 1 or 2 M, Comm Ave, walk to Harvard St, Beacon, Washington St, nr Harvard/Central buses, \$175/mo + \$15/mo util. Call 735-0801 eves.

Arlington, Spy Pond, 1 rm avail in 3 BR townhse, lge LR, DR & porch, 5 min walk to MBTA, beaut location, avail July 1, \$210 + ht & util. Chee, x3-6907 or 648-2412

South Boston, 1 BR, 3rd flr apt w/exposed brick, w/w carpet, bay window w/view of ocean, on bus & train line, st pking, ideal for 1 person, avail 6/1, \$325/mo incl ht. Virginia, 268-4268 day or eve.

Summer sublet avail 6/1, apt at 266 Sid-ney, w/3 lg BR, full K, LR, DR, wshr/dryr, \$700/mo. Call x3-6997, 497-0672 or 868-1932.

Tang summer sublet, 1 rm in 3 BR apt, avail 5/17-8/31. Jack, x3-6113 or 494-8513.

Tang Hall, 1 or 2 rms in 3 BR apt, avail for sublet, sublet only, 5/17-8/31. Jack, x3-6113 or 494-8513 eves.

Tech Sq area, 3 BR townhse for sale, 2 B, study, \$69,900. May, x8-2843.

Tyngsboro, new 7 rm passive solar townhse condo, custom fin, 2-3 BR, 1½ B, central air, 2 decks, patio, river view tennis court, \$600/mo+util. Dick, x7124 Lincoln.

Vermont (Pomfret) Talbot House available. Call x3-4158.

Vermont year round vacation home, slps 10, fully equip w/sauna, located on Killington East nr spring/summer/fall activities. avail for wkends, midweek & week,linen serv avail. Carlo, x8-2705 or 769-3755. 11pm.

Braintree, 1F, 1M seek 2 rmmtes to shr, 4 BR hse, exc local, 5 min walk to Red Line, wshr/dryr facil, \$165/mo. Avail 6/1. Martha, x3-1586 or 782-9411.

Brookline, cooperative hse nds 2 by 6/1 food bought jointly, some meal partic expected, already 2 cats, no more, no smoking, \$185/mo. Greg, 864-4700, x265, 3-4pm.

Brookline, woman to shr 4 BR apt w/1F/2M, nr Coolidge Corner & T, wshr/dryr, dshwshr/dsp, \$199/inc ht & hw, non smoker pref, avail 6/1. Call 232-1206 1326.

M or F rmmte wanted to shr furn 3 BR apt, Watertwon, nr T, avail 6/1, \$135/mo + util. no lease. Gayle, x3-4883 or 926-4321 after 7pm.

Brookline, 3M/F rmmts wanted to shr w/1M, 1F, nr T, grocery \$180/mo incl ht/hw, avail 6/1. Darrel, x3-7193 or 566-0530.

Rmmte, non-smoker, wanted to shr 3 BR hse in beaut Winchester, \$250/mo incl util. Joan, x8-1811 Draper.

F non-smoking rmmte to shr, 2 BR apt nr Brighton center, avail 6/1-8/31, option, incl a/c, dshwshr, pking avail, wshr/dryr, w/w, \$250/incl ht. Ellen, x3-4441 or 254-6548.

Rmmte wanted to shr furn 2 BR apt nr Central Sq. w/M grad student, avail June-Aug. \$225/mo incl util, non-smoker pref. Kevin, 547-6692 eves.

Lauren Stevens Sally Hansen Vera Ballard Kathleen Rick

Pat Williams

Virginia Bishop Appointments:

Ann Canavan

**Richard Cerrato** 

Ken Hewitt Appointments:

Appointments: Kate Young 3-4274

Dick Higham 3-4278 3-6511 **Ann Perkins** Appointments: Deborah Reate 3-6513

### Administrative and Academic Staff

Information Retrieval Manager, Alumni Association, to manage all aspects of output production from a large, complex DBMS. This individual will act as coordinator with MIT administrative data processing facilities and with user groups. Will also do programming in ADABAS report lan-guages or PL/I. Candidate should have a bachelor's degree in a relevant field, along with a minimum of 3 years experience in computer operations and user support with ADABAS, CMS, VSIA, NATURAL, PL/I or comparable data base management systems. A206

Staff Accountant, Nutrition & Food Science, to act as assistant to the Administrative Officer. Will take responsibility for centralized accounting of large department. Will oversee preparation and review of monthly computerized projections with indiviand human cell systems; test complex environmental mixtures and purified chemical components: prepare related materials; and perform data analysis. Position involves weekend work. Candidates should have BA in Biology or Chemistry. Microbiology laboratory or tissue culture experience preferred. This individual wil be trained, R771

Research Associate, Nutrition & Food Science, to conduct studies on reactions between oxidation of products of lipids and proteins of meats, and of or npids and proteins of meats, and of related model systems. Candidates should have a PhD in Food Science or a related field. Position also requires familiarity with biochemistry and technology of meat processing, plus experience in analysis of oxidation products of lipids and proteins by appropriate techniques, including ESR, electrophoresis, HPLC, GC and absorp-tion spectroscopy. R770 tion spectroscopy, R770

Technical Assistant, Center for Cancer Research, to assist in a laboratory concerned with molecular biology of animal viruses. Will maintain animal cell lines in tissue culture; prepare and titer virus stocks; collaborate in experiments on-molecular biology and bio-chemistry of animal viruses and mammalian cells; as well as maintain some laboratory supplies and equipment. Techniques to be used involve nucleic acid biochemistry, hybridication, and general analysis of macromolecular components of mammalian cells. Ap-plicants should have BS in one of basic sciences along with working under-standing of current research in molecular biology. Experience in modern biological laboratory preferred, particu-larly with tissue culture techniques, nucleic acid or protein biotechnology. The capacity to work as a team member important. R768

**Research Scientist - Experimental**, Plasma Fusion Center, to investigate MHD stability of Alcator C discharges, using external poloidal field coils and X ray diode arrays. Will interpret results in light of theoretical predictions regarding stability boundaries, satura-tion levels, and correlations with disruptions; participate in design of stellarator and helical axis systems and prepare diagnostics for such devices upon beginning of construction. Candidates must have a PhD in experimental plasma physics, along with familiarity with methods of detection of MHD instabilities (Mirnov coils and X-ray diode arrays). Working knowledge of theoretical treatments of MHD stability essential also. R767

Technical Assistant, Nutrition & Food Science, to assist in studies on the effect of nutrient deficiency on immunocompetence, particularly in relation ship to ocular immunity. Will determine characterization of lymphocytes in cellular suspensions and tissue sections, using monoclonal antibodies; assess lymphocyte function, using in vitro tissue culture techniques; prepare specialized diets; feed, weigh and monitor experimental animals; and handle administration of infectious agent to ocular tissue, while observing animals during infectious period, performing blood collection and final necroscopy. Candidates must have a BA in a life science. Relevant experience helpful. R766

Histologist, Nutrition & Food Science, to prepare slides for the assessment of histological/pathological detail by histochemical autoradiographic and other histologic techniques, using the standard operating procedures of the laboratory, while also developing new methods. In addition, will follow study protocols and maintain records of studies assigned, and assist in necroscopies. Requires BA or BS in Biological Sciences or Chemistry, or the equivalent. Histological laboratory experience essential. R765

**Research Scientist - Experimental**, Plasma Fusion Center, to serve as experimental physicist in research involving the Versator II tokamak fusion device. Will operate and maintain tokamak as well as its diagnostic equipment; perform plasma spectro-scopy, including design and operation of vacuum ultra-violet spectrometer; measure ion temperature and its temporal evolution during ohmic and RF heating experiments; design and operate charge-exchange diagnostics to measure ion temperature during RH heating experiments; and perform theoretical analysis of data collected on a mini-computer. Candidates must have PhD in Physics and 3 to 5 years experience with fusion research on a tokamak. Background should include extensive experience in plasma spectro-scopy with visible and VUV spectrometers, measurements of ion temperature and its temporal evolution during ohmic and RF heating experiments, and the design and operation of chargeexchange diagnostics to measure ion temperature during RF heating. R764

Administrative Officer, Research Laboratory of Electronics, to manage all administrative affairs of the de-partment, including those relating to personnel, finance, contracts, and use of space. Will also serve as office manager. Candidates should have a bachelor's degree or an equivalent combination of education and experience, as well as strong human relations skills. The ability to plan and utilize computerbased systems for document preparation and distribution, contract-monitoring, and purchase reports also essential. vledge of Institute administrative Kno procedures preferred. R763

Technical Assistant, Center for Cancer Research, to serve as a labora-tory technician. Will maintain tissue culture lines, and perform biochemical analyses including protein gels, column chromatography, recombinant DNA methods, and DNA sequencing. Requires metnods, and DNA sequencing. Requires a BS degree or its equivalent in biochemistry or biology. Laboratory experience essential. Training in the techniques described will be provided. R762

Technical Assistant, Biology, to join a laboratory project involving the structure and functions of cell surface receptor proteins. Will perform experiments on the growth of cells in tissue culture and synthesis of a receptor protein; as well as experiments on the isolation and characterization of the receptor structure and function. An additional responsibility will be coordi-nation of general laboratory procedures. Candidates must have a bachelor's degree or the equivalent, along with laboratory experience in biology/biochemistry. Familiarity with tissue culture work helpful. R761 Technical Assistant, Center for Cancer Research, to perform laboratory research on mouse leukemia virus. Involves sterile culture of cells, virus purification, and biochemical isolations. Techniques include nucleic acid hybridization, RNA purification, virus purification, gel electrophoresis of proteins and nucleic acids. Requires a Bachelor's or Master's degree in Biology, plus a strong background in biochemistry and molecular biology. Experience in laboratory biochemical techniques essential. R760

Background interacting with foreign visitors desirable. Bachelor's degree along with some shorthand and typing preferred. Knowledge of the Institute and its research projects helpful. E110

Administrative Assistant, the President's House, who will plan and direct all social activities of the house, both business and social. Will also coordinate cleaning activities, directing efforts of house employees as well as outside contractors; maintain necessary records, card catalogs, etc.; perform general bookkeeping, payroll and petty cash functions; and take responsibility for general household efficiency, including receiving callers in nerson and handling receiving callers in person and handling emergencies. Substantial related man agerial experience necessary. E109

Supervisor: Physics Reading Room. Physics, to take responsibility for operation of Physics Department Read-ing Room. Will handle ordering and maintenance of collection according to directions of the Reading Room Committee. Will also provide for operation of reserved materials system, card cata-logue, journal binding, and liaison with MIT library system. Additional responsibilities include training and schedul-ing of student assistants, budget preparation, and handling photocopy equipment. Applicants should be high school graduates or have their equiva-lency, along with a minimum of 4 years related experience. Post secondary education may count toward experience. Supervisory ability and extensive ibrary experience required, preferably in a science library. Good typing and organizational skills, as well as the capacity to perform detailed work ential. E108

**Preventive Maintenance Appraiser**, Physical Plant, to examine, schedule and inspect all major tasks and spot check all minor tasks. Will work under supervision of Preventive Maintenance Supervisor. Will inspect all major equipment; prepare shutdown requests; determine if required material is available; prepare description of any maintenance needed beyond the routine; coordinate activities of other trades; determine quality of work when completed; observe housekeeping standards; suggest additional work that may be needed; make long range projections; review and maintain records, including those for fire protection and electric meters, etc.; maintain machine history files; survey new equipment; prepare data for computer input; maintain preventive maintenance master files. Applicants should have completed high school. Position requires 5 years mechanical and electrical experience in relation to heat & vent and AC operations: advanced degree may substitute for experience. Good inter-personal skills important. E107

#### Library Support Staff

Library Assistant, who will function as part of the Lincoln Laboratory Library staff working 3 days/week at the main MIT campus and 2 days/week at Lincoln. Will take responsibility for acquiring from the main campus libraries books, photocopies of journal articles more these and other materi articles, maps, theses and other materi-als not available at Lincoln Library. Will also perform reference work including verifying citations and compiling bibliographies; will select, train and schedule MIT student assistrain and schedule MIT student assis-tants; work closely with MIT Inter-library Borrowing Assistant; interact with librarians in eight departmental libraries. Requires high school graduation or the equivalent, along with one year's direct/related experience. Good human relations skills and the ability to work independently when necessary essential. Attention to accuracy of detail important. Some knowledge of one or more foreign language preferred 82-026

Library Assistant IV, to handle United States and United Nations documents collection, under supervision of the Processing/Documents Librarian at Dewey. Will receive and process all documents; oversee shelving and maintenance of document sections; maintain statistics; assist, as needed, with processing of other library materials; assist in providing reference service regarding documents collection; assist at main reference desk on a regular basis; and perform occasional evening and weekend work, according to a projected schedule. Candidates should have completed high school or the equivalent and have a minimum of one year's applicable experience, or an equivalent combination of education and experience. Two years of college with an emphasis on social sciences preferred. Position requires the ability to manage diverse and complex tasks, with little supervision after initial training period. Typing and interpersonal skills also essential. NON-SMOKING OFFICE B1727

regular interaction with wide range of Institute offices and committees will have close operational ties with Under-graduate Opportunities Program; will also receive visitors; answer telephones; advise students on a regular basis; monitor departmental accounts; prepare manuscripts, speeches and research proposals; process mail; main-tain calendars; schedule appointments; interact with others outside MIT; perform library research; compose routine correspondence; organize meet-ings, talks, seminars, etc.; maintain office supplies; and perform other related duties as assigned. Applicants should have 2.5 years of applicable experience, or an equivalent combina-tion of education and experience. Good typing and general office skills essential. B1737

Sr. Secretary, Center for Cancer Research, to provide secretarial support for one faculty member and research group. Will type correspondence, grant proposals, and scientific manuscripts on word-processor; order supplies for office and laboratory; monitor monthly expenditures of research accounts, expenditures of research accounts, including logging orders and preparing account projections; answer telephones; maintain files; and arrange travel. Applicants should have 2.5 years of directly related experience, or an equivalent combination of education and experience. Good technical typing and proofreading skills are vital, along with sufficient organizational ability to manage workloads independently. Familiarity with word-processing or th willingness to learn important. B1729

Sr. Secretary-Technical, to provide secretarial support for several faculty members of the Mathematics Department. Will type correspondence, class materials, and manuscripts; maintain records and files; arrange travel; answer telephones; and deal with routine inquiries. Duties also include assisting with editorial work for two faculty members who serve as editors of mathematical journals. Applicants should have 2 to 3 years of direct/related experience, or an equivalent combina-tion of education and experience. Excellent typing skills required, while technical typing ability is preferred. Sufficient organizational skill to estab-lish priorities and work with minimal supervision essential. B1728

Sr. Secretary, Aeronautics & Astronautics, to take responsibility for Gas Turbine and Plasma Dynamics Laboratory Headquarters Office, providing secretarial support for 4 faculty and 1 research associate. Will type and proofread reports, examinations, correspondence and other materials from rough draft; perform technical typing; answer telephones: receive visitors: maintain files; arrange travel; process mail; maintain office supplies; issue keycards; handle petty cash; prepare vouchers for photocopying; prepare and distribute laboratory reports; and, possibly, perform word-processing. Requires 2.5 years direct/related exper-ience, or an equivalent combination of education and experience. Good office skills essential. The capacity to initiate tasks with minimal or no supervision important. Will report to Administrative Assistant, B1612

Sr. Secretary, to provide office support for the Deputy Director of the Center for Transportation Studies. Will also assist the Administrative Officer as well as work on general Center and Headquarters operations. Will arrange weekly luncheon seminar series; handle Center's mailing lists; answer telephones; type; arrange meetings and travel; and process mail. Applicants must have 2 to 3 years directly related experience, or an equivalent combina-tion of education and experience. Good typing and general office skills are vital, along with a solid command of the English language. Since this individual will be called upon to perform duties in a hectic setting, he/she must be able to organize workloads and set priorities with minimal direction. Good communication skills are highly important, the position involves continual contact with professionals from both industry and academia. B1577

Sr. Secretary, Mechanical Engineering, to provide secretarial and administrative support for one faculty member. Will prepare technical manuscripts and reports: update mailing lists: answer telephone inquiries and correspond-ence; prepare teaching materials; and interact with students as well as with various international companies in-volved in funding research. Candidates must have 2 to 3 years of direct/related experience, or an equivalent combina-tion of education and experience. Excellent typing skills are essential. Since this position requires managing workloads and various administrative ctivities inde dently zational and interpersonal skills are also. Attention to accuracy of detail important. B1551 Secretary/Receptionist, Civil En gineering, to provide reception and secretarial support in departmental headquarters, under the supervision of the Administrative Assistant to the department Head. Will type corre-spondence and reports; maintain files; process Service Staff and student payrolls; answer telephones; greet visitors; process mail; post information on departmental bulletin boards; make deliveries throughout the Institute; photocopy; and schedule use of Memorial rooms. Candidates should have 2.5 years of direct or related experience, or an equivalent combination of education and experience. Excellent typing and interpersonal skills are essential, along with the capacity to adjust to varying duties. B1730

dispatch mechanics to investigate problems; operate communications equipment, including paging system, radio network, intercoms, etc.; and perform clerical duties including: typing, handling petty cash, maintain-ing labor cards and overtime lists, assisting in maintenance and filing of p.m. records. High school graduation of the equivalent is needed, along with a year's related experience or an equivalent combination of education and experience. Good typing and interper-sonal skills are essential, along with the capacity to function efficiently in a netimes hectic setting. B1735

Dental Assistant IV, (through 1 July 1982), Medical, to join the MIT Dental Service. Will report to the Head Dental Assistant. Duties will include assisting the dentists and dental hygienists with dental procedures; preparing required dental solutions; sterilizing instruments maintaining examining rooms; as well maintaining examining rooms; as well as assisting with record keeping. Candidates should have completed high school or an approved Dental Assistant program. Good interpersonal skills and the capacity to function as a team member essential. Directly related work expressions proceed NON SMOK ork experience preferred. NON-SMOK ING OFFICE B1723

### Office Assistant

Sr. Office Assistant, Purchasing & Stores, to expedite deliveries under purchase orders issued by the Office of Laboratory Supplies. Will coordinate furniture delivery information with Purchasing Agents and requisitioners; arrange for substitute specifications if required to facilitate prompt deliveries; assist in placing purchase orders with vendors during periods of heavy work flow; record and analyze data and prepare reports on vendor performance and materials usage. Applicants should have 2 to 3 years directly related experience, or an equivalent combination of education and experience. Substantial experience as an expeditor or buying assistant preferred. Typing skills and knowledge of CRT data entry also helpful. B1734

Sr. Office Assistant who will assist in book promotion at the MIT Press. Will maintain book and author information and promotion files; perform media research for advertising, as well as list research and procurement for direct mail; prepare casual flyers; monitor supplies, brochure storage and display; maintain files; prepare handouts for exhibits; maintain text adoption files; and answer telephones. Requires the capacity to manage detailed workloads with minimal supervision, while under frequent deadlines. Good typing and interpersonal skills also needed. Interest in book publishing helpful. B1722

Office Assistant, Plasma Fusion Center, to process invoices for payment for numerous research expenditures. Will log in purchase orders; match receiving reports and invoices with appropriate purchase order; determine if purchase order, receiving report, and invoices are all properly matched; solve invoice related problems; secure neces sary authorization for payment, if there is no receiving report; contact companies goods if no invoice is received for delivered; and perform a variety of other related tasks. Two to three years of relevant experience needed, or an equivalent combination of education and experience. Effective communica-tion and well developed organizational skills essential. The abilities to set priorities with minimal direction and handle detail accurately also vital. This individual will be called upon to use a calculator and to write legibly. B1731

Office Assistant, Comptroller's Ac counting Office, to distribute payroll checks, MBTA passes, traveler's checks, travel advances; as well as to serve as auxiliary cashier. High school gradua-tion or the equivalent along with a year's relevant experience essential, or an equivalent combination of education and experience. Good interpersonal skills are important, as this individual will be dealing continually with numerous members of the Institute community. Typing skills and familiarity with use of adding machine preferred. B1726

Clerical Assistant (Messenger), Sloan School of Management, to assist Executive Programs Office staff with daily activities. Will maintain photo-copier; maintain and order office supplies; pick up and deliver teaching materials: rearrange furniture: and perform light typing. Applicants should have typing skills as well as the physical stamina for lifting and running

year day technical school or its equiva-lent in applicable experience. Training or experience as tech. in wafer processing or as chemical, optical or mechanical tech. preferred. H657

Potwasher, Faculty Club, to take responsibility for potwashing, sweeping and mopping of kitchen floor. Will also clean kitchen equipment daily, and perform other projects on a weekly or monthly basis, including cleaning walls and areas behind equipment. Additional duties include unloading supplies from elevator, assisting with banquet serving, and other related duties, and taking responsibility for general cleanliness of the sixth floor kitchen. Applicants must have the ability to understand English. Kitchen experience helpful. H652

Patrolman/Patrolwoman, Campus Patrol, to protect life and property; police MIT parking areas; control traffic; patrol grounds and buildings on foot; administer first aid including ambulance service to injured or ill persons; participate in various emer-gency procedures which may include fires, explosions, chemical spills and investigations; write reports and per-form other general police duties. Requires a minimum of 3 years of law enforcement experience which should include familiarity with criminal law, court procedures, criminal investiga tion, case preparation, investigation of tion, case preparation, investigation of complaints and report writing. Will be required to obtain Emergency Medical Certification. May be required to complete additional police academy training. Must qualify with use of firearms. Requires valid driver's li-cense honorable dischare from any cense, honorable discharge from any previous police service; ability to work long hours occasionally and qualify for Institute physical examination. H633; H634: H658

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

#### ADMINISTRATIVE AND ACADEMIC STAFF

A204. Personnel Officer, Personnel

- Services & Development A202, Manager of Marketing Services, Center for Advanced Engineering
- Study A200, Programmer/Analyst, Industrial
- Liaison Program A199, Staff Accountant, Comptroller's
- A 199, Staff Accountant, Comptroller's Accounting Office A172, Computer Systems Manager, Whitaker College of Health Sciences, Technology & Management A198, Budget Officer I, Fiscal Planning
- & Budget
- A 195, Systems Programmer I/II, In-formation Processing Systems C059, Sr. Applications Programmer,
- Electrical Engineering & Computer C058, Programmer/Analyst, School of
- Engineering
- A193, Assistant Editor for Technology Review, Alumni Association
- A192, Systems Analyst, Information Processing Services Operations A191, Plant Engineer, Bates Linear
- Laboratory
- A186. Administrative Staff Program mer, Materials Science & Engineering A183, Sr. Programmer, Administrative
- Information Systems
- A182, Sr. Systems Analyst, Adminis-trative Information Systems C054, Postdoctoral Associate, Nutrition
- Cost, Postdoctoral Associate, Nutrition & Food Science
  C053, Postdoctoral Associate, Nutrition & Food Science
  A177, Manager, Program in Health Policy Management; Coordinator, Laboratory for Health Care Policy, Whiteker
- Whitaker
- A158, Systems Programmer, Infor-mation Processing Services A135, Applications Programmer, Information Processing Services Oper-
- A134. Systems Analyst II. Adminis-
- trative Computing Services C041, Postdoctoral Associate, Plasma **Fusion** Center
- gineering B1538, Sr. Staff Assistant, Research Laboratory of Electronic A087, Systems Analyst II, Administrative Computing Services A004, Administrative Staff, Sr. Sys-TECHNICAL SUPPORT STAFF B1708, Technical Assistant IV, Hay-stack
- tems Programmer, Information Processing Services Operation

R727, Sponsored Research Technical Staff, Research Laboratory of Elec-

- R718, Research Associate, Civil Engi neering. R706. Research Scientist. Research
- Laboratory of Electronics R703, Technical Specialist, Earth &
- Planetary Sciences R699, Research Engineer, Mechanical
- Engineering R691, Research Scientist, Research Laboratory of Electronics R689, Research Associate, Materials
- Science & Engineering R687, Technical Assistant, Biology

R654, Research Specialist, Artificial In-telligence Laboratory

- R642, Research Scientist, Research
- Lab. of Electronics R639, Sponsored Research Staff-Engi-neer, Health Sciences & Technology R579, Economist/Policy Analyst, Ener
- gy Laboratory R556, Research Specialist, Artificial In telligence Laboratory R518, Research Staff, Mechanical En
- gineering R442, Principal Research Scientist,
- Mechanical R434, Systems Programmer, Lab. for Computer Science
- R429, Systems Programmer/Analyst, Plasma Fusion Center R422, Research Scientist-Experimen-
- tal. Plasma Fusion Center R409, Theorist/Designer, Plasma Fu-sion Center
- R401, Staff Scientist, National Magnet Lab
- R397, Biomedical Engineer, Dept. of Mechanical Engineering R396, Research Associate, Aeronautics
- & Astronautics R387, Sponsored Research Staff, Group
- Leader, Plasma Fusion Center R384, Plasma Physics Experimentalist,
- Plasma Fusion Center R284, Research Associate, Materials Processing Center
- R137, Research Associate, Materials Science & Engineering R069, Design Engineer Supercon-

ducting Magnets, Plasma Fusion Center

R039, Sponsored Research Staff, Mechanical Engineering R006, Research Scientist—Experi-mental, Plasma Fusion Center

EXEMPT

- E106, Engineering Assistant, Physical Plant E105, Resident Construction Coordina
- tor, Physical Plant E105, Resident Construction Coordinator, Physical Plant
- E103, Mechanical Shops Supervisor,
- Physical Plant E102, Registered Nurse, Clinical Re-
- search Center E095, Nutritional Care Supervisor
- Medical E088, Registered Nurse, Clinical Re search Center

LIBRARY SUPPORT STAFF

- B1717, Library Assistant IV, Libraries R1709, Library Assistant IV, Libraries R1689, Library Assistant IV, Libraries B1711, Library Assistant III, Libraries R1688, Library Assistant III, Libraries
- SECRETARY/STAFF ASSISTANT B1715, Sr. Secretary, Laboratory for Computer Science
- B1702, Sr. Secretary, Bursar's Office B1692, Sr. Staff Assistant, Laboratory
- for Computer Science B1691, Secretary, Resource Develop
- ment B1704, Administrative Secretary, Trea
- surer's Office B1695, Sr. Secretary, Aeronautics &
- Astronautics
- B1694, Sr. Secretary, Aeronautics & B1694, Sr. Secretary, Aeronautics & Astronautics B1693, Sr. Secretary — Technical, Physical Chemistry B1692, Sr. Staff Assistant, Laboratory for Computer Science B1690, Science Depart B1690, Science Depart
- B1669, Sr. Secretary, Provost
- B1677, Secretary, Sloan School of Management B1683, Administrative Secretary, Ma terials Science & Engineering B1680, Administrative Secretary, Ar

B1679, Secretary, Materials Science &

B1650, Sr. Secretary, Laboratory for Computer Science B1637, Sr. Secretary, Medical

B1547, Sr. Secretary, Patent, Copyright & Licensing Office B1585, Secretary, Psychology

B1596, Secretary, Urban Studies &

Planning B1551, Sr. Secretary, Mechanical En-

Engineering B1669, Sr. Secretary, Provost B1661, Sr. Secretary, Medical

chitecture

#### Exempt

Administrative Assistant, to serve Administrative Assistant, to serve as assistant to the Director of Technol-ogy Adaptation Program who is also Civil Engineering faculty member. Will take responsibility for supervision of 2 support staff members, while interact-ing with numerous other administrative and program personnel. In addition will monitor program accounting functions. monitor program accounting functions. Candidates should have administrative experience within a large organization preferrably an academic or research institution, for a total of 5 years.

### Secretary/ Staff Assistant

Administrative Staff Assistant, Analytical Studies & Planning Group, to perform complex secretarial, editorial and administrative support duties for ASPG, Office of the President, Communications Office and Campus Infor-mation Services. Entails work on central administration projects, MIT publications, and faculty committees. Will collect and disseminate informa-tion on administrative and faculty committee policies; perform general typing, as well as proofreading, editing and production on various publications; monitor financial records: and provide basic office support. Candidates should have 4 to 5 years of applicable experience, or an equivalent combination of educa-tion and experience. Requires excellent organizational and typing skills, as well as copyediting and proofreading ability. This individual must be prepared to set priorities with minimal supervi-Sion, and to work as part of a team. College background and secretarial training helpful. NON-SMOKING OFFICE B1736

Sr. Staff Assistant, to provide secretarial support for 2 faculty members in the Department of Physics. Will have Technical Support Staff

Assistant Communications Console Operator, Physical Plant, to answer Work Control Center phones, used by the MIT community to report fire and other problems and to make maintenance requests. Will monitor Institute's Auto Call Alarm System; monitor other alarm systems; maintain daily log of all Work Control calls, alarms, etc.;

ands, both within and outside MIT. This assistant will be expected to accept direction from office staff other than his/her supervisor. B1733

### Service Staff

Technician B (Electro-Mechanical), Electrical Engineering & Computer Science, to assist in laboratory or research work and operate experimental and tech. equipment under supervision of scientific personnel or technicians of a high grade. Must be able to work for periods of time without supervision. This individual will be a member of the technical staff of the Microelectronics Lab. with responsibility to carry-out complete microcircuit fabrication pro cesses in the Lab. Applicants should become thoroughly familiar with operation of equipment in the areas of photolithography, diffusion/oxidation, chemical-vapor-deposition, wafer clean-ing and silicon wafer characterization. Position requires working in a clean room environment, knowledge of simple chemical handling procedures, ability to work with small delicate semiconductor samples, capacity to master numerous laboratory procedures, and ability to interact well with students at all levels. Requires graduation from a 2

RESEARCH STAFF:

R758, Administrative Officer, Center for Space Research R757, Research Specialist, Cell Culture Center R750, Technical Assistant, Nutrition & Food Science R756, Research Scientist, Theoretical,

Plasma Fusion Center R755, Research Scientist, Research Laboratory of Electronics R754, Technical Assistant, Center for

Cancer Research R751; R752, Research Specialist, Cell

Culture Center

R750, Technical Assistant, Nutrition and Food Science R749, Technical Assistant (Veterinary).

Division of Comparative Medicine R746, Organic Chemist, National Magnet Laboratory

R736, Materials Research Scientist,

Nuclear Reactor Laboratory R735, Electron Microscopy, Technical Coordinator, Center for Materials

Science & Engineering R734, Research Associate: Programmer, Sloan School of Management

R731, Research Associate, Technology Adaptation Program

R729, Fiscal Officer, Laboratory for Computer Science R639, Sponsored Research Staff – En-

gineer, Health, Sciences & Tech nology

R730, Sponsored Research Staff, Laboratory for Computer Science R728, Digital Design Engineer, Re-search Laboratory of Electronics

B1670, Sr. Computer Operator, Plasma n Center B1561, Nuclear Reactor Operator, Nuclear Reactor Laboratory

OFFICE ASSISTANT

Administrative Assistant, Earth & Planetary Sciences B1660, Sr. Office Assistant, Chemistry B1716, Office Assistant, Credit Union B1698, Sr. Office Assistant, Housing & Food Service B1660, Sr. Office Assistant, Chemistry B1581, Sr. Office Assistant (part-time), Medical

B1587, Sr. Office Assistant (part-time), Medical

#### SERVICE STAFF

H638, Technician B (Electronics), Laboratory for Nuclear Science H641, Electrical Design Draftsperson, Physical Plant H637, Engineer 2nd Class, Physical

Plant

H633; H634, Patrolman Patrolwoman, **Campus** Police

H619, Sr. Technician (Electronic), Plasma Fusion Center H549, Technician A (Electronic), Health

Science & Technology

H411, Technician A (Radiation Protec-tion), Environmental Medical Service

tion). Environmental Medical Service
 H278. Technician A (Electro-Mechanical, Aeronautics & Astronautics)
 H480, Technician A (Mechanical), Laboratory for Nuclear Science

Tech Talk, May 12, 1982, Page 7

# Arts Council announces final grants for year

The Council for the Arts at MIT has announced its final round of grants for the year. Grants totaling more than \$13,000 have been awarded to the following 11 organizations and individuals.

The Visibile Language Workshop received a grant of \$600—contingent upon matching funds—to launch a curated exhibition program for experimental graphics. Work will be solicited from a nationwide community of artists and designers using computer-graphic, electrographic and typographic systems to be shown at the VLW gallery (275 Massachusetts Avenue).

Jayasinhji Jhala and Jim Campbell, graduate students in the Film/Video Section, received a grant of \$1,000 to support production costs for a multi-media film, "Journey with Ganesh" (Ganesh is the elephant-headed god of India). Three media forms—film, video and computer imagery-will be used to explore the ideas represented by the Indian and East Asian deity. Students and staff from the Architecture Machine Group, Film/Video Section, and Educational Video Resources will participate in the design and completion of the project. Matching funds and in-kind equipment have been donated by WCVB-TV (Channel 5) which plans to broadcast the film June on its "Nightshift" program.

Alan Rath, a senior in electrical engineering and computer science, received a grant of \$970 to construct and exhibit a viewer-activated multi-sensory response and display system involving sound and light systems. The completed work will consist of a display panel of colored lights, controlled by a microcomputer program, which will respond to sound, touch and movement. It will be on view at the Center for Advanced Visual Stud-ies in the fall of 1982. Equipment has been donated by Integrity Systems, Inc., Cincinnati.

Gregory Garvey and Vin Grabill, graduate student and fellow at the Center for Advanced Visual Studies, received a grant of \$960 to support an evening of multi-media performances combining large-screen video with dance and piano, to take place Sunday, May 9, in the Little Theatre. The evening's performers will include dancer Beth Soll, director of the MIT Dance Workshop, presenting her solo piece "Blue Dance," and pianist, and Margaret Ulmer of the MIT Libraries, per-forming John Cage's "Three Dances for Two Pianos," playing one part live and one on videotape. A series of large-screen video works by MIT artists will follow the two performances.

Professor Robert Scanlan, director of Dramashop, received a grant of \$1,500 to bring the French playwright Raymond Cousse to MIT to discuss and perform his play Strategie pour deux jambons. The play was performed in Kresge Little Theatre on April 7 and 8 to standing-room only audiences. Matching funds were provided by the Foreign Languages Consortium and the Humanities Department, and a reception was hosted by the French Cultural Attache.

Professor John Harbison, chairman of the Music Section, received \$1,000 for the Boston premier performance of Variations, a new composition for violin, clarinet and piano, to be held September 24 in Kresge. His composition was commissioned for the Santa Fe Chamber Festival, where it will have its world premiere this summer.

Mark Harvey, lecturer in the Music Section, received a grant of \$682 to bring the jazz artist Frank Foster to MIT in April for a public lecture and classroom instruction on music arranging and composing. Mr. Foster plays the tenor saxophone and was for many years a featured member of the Count Basie band, an arranger for Sarah Vaughn, and the leader of his own jazz ensembles.

The Experimental Music Section, directed by associate professor Barry Vercoe, received a grant of \$1,500 to form a study group to research the development of a real-time digital music processor. Bolt, Beranek and Newman, a research and development consulting company for acoustics and computer systems. is contributing time for four of its consultants to participate.

Susan Brennan, a graduate student in the Architecture Machine Group, received a grant of \$2,000 to assist with production costs for an optical videodisc animating a painting

by Gyorgy Kepes, Institute Professor Emeritus and former director of the Center for Advanced Visual studies.

This video disc will be structured visually and temporally to offer a multi-dimensional exploration of the creation of a painting that can be used as an interactive museum exhibi-

tion. RUNE, the student literary magazine edited by Huan Lee, received a grant of \$800 for 1981-82 publication and operating expenses. The funds represent the second installment of a three-year grant, and were awarded this year in support of the staff's efforts to strengthen internal management of the magazine and to develop a link with the Humanities faculty.

The MIT Film/Video Section and the University Film study Center received a grant of \$2,000 to compile and make publicly accessible a permanent video archive and study collection of Richard Leacock's documentary work. The archive will include more than 60 works, gathered from sources in New York and Boston. Professor Leacock, head of the Film/Video Section, is a recognized leader in the cinema verite movement.



Boston area. An encore will be held this year June 18-20, sponsored jointly by the

Department of Humanities and the Eastern Chapter of the American Association of

Teachers of French. Twenty-eight high school juniors and seniors and college

freshmen and sophomores will be accepted to the nonacademic, conversational

program. Interested students from MIT should call Gilberte Furstenberg, x3-3067

or 3-4771, or Jacqueline Hill, x3-5276, before Thursday, May 20.

# Hoover to direct Arts Council

Deborah A. Hoover has been named executive director of the MIT Council for the Arts.

Her promotion was announced at the Council's Executive Committee meeting Monday, May 10, by President Emeritus Jerome B. Wiesner, chairman of the Council.

Ms. Hoover, who has been with the Council since 1978 and became a deputy director in July, 1981, succeeds Peter Spackman, who

is leaving the post of Ms. Hoover

director after nine years to pursue literary interests.

The new director has a BA in the history of art from Mount Holyoke College and an MA in the history of art and architecture from Girton College, Cambridge University

She came to MIT in 1978 as assistant director of the Council for the Arts and became associate director in 1980.

She had been with the National Endowment for the Arts in Washington, D.C., where she served as a consultant in the Design Arts Program, following a fellowship with the

same program.

Before that she served as the assistant to the Secretary General of the International Association of Art, UNESCO, in Paris. She also has served as a consultant to the Spoleto Festival, USA, the MIT Press and the education department of the Philadelphia Museum, among other organizations.

In addition to her post at the Council, Ms. Hoover is writing a book on career management for artists-a handbook surveying all forms of financial, in-kind and technical assistance available for artists working in the visual, performing and media arts. The book will be published by Oxford University Press

The Council for the Arts acts to support the creative arts at MIT, especially through fund raising efforts. It is presently composed of 91 arts and business leaders worldwide. Its grants program of direct support to students, faculty and MIT art organizations has awarded more than 185 grants in the last eight years, totaling \$275.000.

The Council conducts fund-raising efforts of several kinds, helping senior officers of the Institute secure support for the proposed Arts and Media Technology facility, seeking specific project funds for major academic arts programs, and raising money for its own operating and grants programs.

## MIT is NE track champion

For the second straight year, the MIT Engineers are the New England Division 3 outdoor track and field champions. Coach Gordon Kelly's talented squad won the team title last Saturday with 82 points to finish ahead of Fitchburg State (74 points) and host Westfield State (71 1/2 points) in the 26school field.

Entering the final event, Fitchburg State held a one point lead over MIT (73-72). Tech's mile relay team of Lance Parker, Dave McMullen, Ron Smith, and all-America Paul Neves sped to victory with a time of 3:18.4 (Fitchburg was 6th) to climax the Engineers' most successful season ever.

The MIT Community is cordially

All America Dave Kieda successfully defended his title in the hammer, winning with a toss of 180 feet, 10 inches. Other outstanding performances: Martin Taylor (2nd, triple jump), John Taylor (2nd, 400 hurdles); all-America Colin Kerwin (3rd, 1500 and 5000), William Kelly (4th, discus), Joe Presing (4th, 110 hurdles), Lance Parker (5th, 400), Ron Smith (6th, 400 hurdles), and the 440-yard relay team (4th).

MIT now has won four straight New England Division 3 Championships. The Engineers previously won indoor titles in 1981 and 1982, and the outdoor crown in 1981. In addition, the men's cross country team has competed in the last three NCAA Division 3 Championships.

# Architecture of clothing

### (continued from page 1)

Gianfranco Ferre designs jackets with wide, fan-like collars, stiff white panels that look like religious or nautical uniforms.

Yeohlee Teng often works with black and white. Her juxtaposition of small shaped planes which float over larger planes tampers with spatial perceptions. For instance, a place where a pleat would recede jumps out at the viewer in white.

Steven Manniello's designs are all geometric, the forms derived from a triangle, circle or square. His materials are luxurious supple satins, cashmeres and leathers.

Issey Miyake combines East and West, with kimono shapes; he uses innovative materials such as rattan and cast plastic. His designs are vigorous and imaginative interpretations of traditional dress with various ways to tie or wrap them. He wants the wearer to influence the form.

Mariuccia Mandelli handles material like paper, using mostly solid colors. Her silhouettes abstract and flatten the contours of the body.

The designs in the show are mounted on

that stops short above the mouth and a body ending at mid-abdomen. They are suspended at eye level by monofilament lines attached to the gallery ceiling so that they appear to be floating in mid-air. The effect is to emphasize the forms of the clothing themselves and deemphasize the references to the human form. Daniel Pike, gallery designer, has created sculptural supports that are a compelling design in their own right.

-Photo by Andy Caine

The photographer chosen to create the catalogue for the show is Robert Mapplethorpe, the noted New York City art photographer. "His photos are known for a moody elegance which finds a formal beauty in a wide variety of subject matter," says Ms. Sidlauskas. "I wanted that approach to clothing." His model is Lisa Lyons, who is a body builder." His approach to the clothing was to depict the personality of the garment, serving as a foil to usual fashion photography," says Ms. Sidlauskas.

### New heads named

(continued from page 1)

Professor Myers's firm, Arrowstreet, has



invited to attend the 24th annual allsports awards program sponsored by the Department of Athletics and the Varsity Club at 5:15pm Wednesday, May 12, in the Athletic Center.

"The team knew what they had to do, and they did it," said Kelly.

Neves had a big day winning the 800-meter run for the third consecutive year in 1:53.5. He also finished in a dead heat for first with Kelly Dodge of Colby in the 1500-meter run (3:54.2).

### Football practice

Practices for the 1982 MIT Football season start August 22. Any person interested in becoming a member of the team should plan, to begin practice on this date. Summer workout sheets and other pertinent information are available in the Du Pont Athletic Center. Contact Head Coach Dwight Smith, Rm W31-119, x3-5018 for further information. The season opener is September 11 vs. Stonehill College in Steinbrenner Stadium.

### Student House to show new Mazur print

MIT Student House (111 Bay State Road, Boston) will hold an Open House 4-6pm, Sunday, May 16, to exhibit their newly purchased Michael Mazur print to the MIT community.

During IAP, Student House won a competition sponsored by the Committee on the Visual Arts (CVA) which gave a monetary award to be used to buy original artwork for the living group which submitted the best application. The annual student Loan Collection print lottery has become so popular that the CVA decided to sponsor the competition to

Page 8, Tech Talk, May 12, 1982

give a living group artwork that would permanently belong to that house.

After several months of looking at the work of local artists, a committee from the house decided to purchase a monotype by Michael Mazur, Mr. Mazur is considered one of the leading proponents of the monotype printing process. He maintains a studio in Cambridge, and his work is exhibited by the Harcus Krakow Gallery in Boston and the Robert Miller Gallery in New York. Mr. Mazur will be present at the Open House.

Susan Sidlauskas of the CVA has actively assisted the Student House committee in making their choice.

### three-dimensional white shapes that form the torso of a mannequin with a neck and head Course guide issued

A new Student Course Evaluation Guide has been published in paperback form by the Student Committee on Educational Policy (SCEP) and is now available to faculty members in departmental headquarters.

In it SCEP reviewed 75 subjects in 19 departments offered last fall. Classes included freshman core subjects, the first classes in departmental sequence of requirements and interdepartmental restricted electives.

The aim of the guide, according to the introduction, is to "allow students to make more intelligent decisions in selecting their classes and to provide student feedback to the faculty and departments."

### Erratum

The name of William M. Rand, a lecturer in the Department of Nutrition and Food Science, was inadvertently left out of a Tech Talk article May 5 that described hyperthermia research being conducted by Dr. Padmakar P. Lele. Dr. Rand has collaborated closely with all of the investigators in the statistical design of the clinical and experimental studies.

won several major design competitions, including the Boston Architectural Center and, recently, the Massachusetts Archives and Record Center Building at Columbia Point. Professor Myer also has been responsible for a number of urban design projects, including the design for the master plan of the Boston waterfront, the Washington Street Mall in downtown Boston and Downtown Washington Streets for People, a program for 60 blocks in downtown Washington, D.C.

### Amlin wins ASCAP

Martin Amlin, a composer-pianist who is a technical instructor in piano in the MIT Department of Humanities, is one of 15 persons to receive a \$1,000 grant from the American Society of Composers, Authors and Publishers in ASCAP's competition for grants to young composers.

Mr. Amlin recently spent a month at Yaddo, the artists colony in Saratoga Springs, NY, where he worked on Shadowdance, a composition that will be performed next year by Boston's Pro Arte Chamber Orchestra. While at Yaddo, he also completed his Fifth Piano Sonata. Mr. Amlin will spend this summer at the Virginia Center for the Creative Arts in Sweetbriar, Va.