Massachusetts Institute of Technology



May 5, 1976 Volume 20 Number 38

Robbins and Wiesner Taiwan Letters Issued

An MIT faculty committee said Tuesday that the subject matter-navigational instrumentation-of a technology training program for 15 graduate engineers from Taiwan is too closely related to military technology and recommended that the curriculum be revised so as to deal with technology that has civilian applications or be terminated.

Menand Report Released

There is no firm evidence to support the assertion that Taiwanese students attending an open forum at MIT last Feb. 6 were spied upon by their own government, an MIT administration official charged with investigating the incident said in a report this week.

But the official said that in the course of his inquiry into the Feb. 6 incident he did turn up indication that the government of the Republic of China on Taiwan may operate a nationwide surveillance system to keep tabs on Taiwanese students in the US and MIT is in the process of asking the National Association of Foreign Student Advisors to investigate.

'There may be a Taiwanese network and this should be looked into,' Dr. Louis Menand III, special assistant to the MIT provost, said. "There is no hard evidence that it was working at the Feb. 6 meeting at MIT, however.'

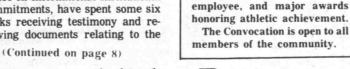
Dr. Menand was asked by MIT President Jerome B. Wiesner to investigate the spying charge leveled by members of MIT's Social Action Coordinating Committee. SACC ran an open forum Feb. 6 to discuss a program under which MIT is pro-

The committee recommendation was contained in a letter from the chairman, Professor Phillips W. Robbins of the Department of Biology, to President Jerome B. Wiesner

President Wiesner, in a letter of reply to Professor Robbins, said that while he and Chancellor Paul E. Gray are not personally convinced that the subject matter is as closely related to military applications as the committee believes, they will take steps to bring about a recasting of the subject matter so as to remove any doubt. He noted that he had earlier asked Dr. Thomas F. Jones, Vice President for Research and a member of the Robbins Committee, to make a separate inquiry into the background of the Taiwan program. He said he expects to have a report from Dr. Jones shortly. He also said he and Chancellor Gray will meet with the program's steering committee to explore ways in which the subject matter can be recast.

The committee headed by Professor Robbins is formally known as the ad hoc Committee on Institutional International Commitments and its 13 members include faculty, administrators and students. Professor Robbins said he will make a report at the meeting of the MIT faculty Wednesday, May 19. Pending that report, he said, he wanted to provide President Wiesner with the basic recommendation that the subject matter be revised promptly. In his letter, Professor Robbins said:

"As you know, we, the ad hoc Committee on International Institutional Commitments, have spent some six weeks receiving testimony and reviewing documents relating to the





the number of MIT faculty and Corporation members who have been

elected to the NAS. The National Academy of Engineering, which held elections earlier last month, lists 52 MIT faculty and Corporation members on its rolls.

Several MIT alumni, former faculty members and members of Corporation visiting committees are the 75 new members of the



DOGWOOD BLOSSOMS frame a student reading on the steps of the Maclaurin Building in Killian Court. Soon to bloom are the lilac bushes, to be followed by the rhodo-

Awards

Convocation

The annual Awards Convoca-

tion will be held Thursday, May

6, at 11am in the Little Theatre.

Awards to be presented in-clude Karl Taylor Compton,

William L. Stewart, Jr., and

Frederick Gardiner Fassett,

Jr., awards for student contri-

butions; the Goodwin Medal,

Everett M. Baker and Irwin W.

Sizer awards for teaching and

contributions to education; the

James N. Murphy Award for

outstanding contributions by an

dendrons which-with luck-will blossom for Com-

mencement at the end of May. -Photo by Calvin Campbell

Chomsky Appointed Institute Professor

Dr. Noam A. Chomsky, Ferrari P Ward Professor of Modern Languages and Linguistics at MIT whose research on the nature of language has revolutionized linguistic science and has strongly influenced both psychology and philosophy, has been appointed to the distinguished rank of Institute Professor in recognition of his professional achievements.

Institute Professor is a rank which MIT reserves for scholars of special distinction. The position recognizes accomplishment and leadership of high intellectual quality in a member of the Institute faculty. It is bestowed upon the recommendation of a faculty committee formed for that purpose upon nomination by a group of faculty members.

Announcement of the appointment was made by President Jerome B. Wiesner. He said the committee of five senior MIT faculty members and a distinguished member of another university appointed to consider the appointment had canvassed authorities in linguistics, philosophy and psychology the world over and concluded that Professor homsky is clearly one of the most prominent contemporary academic figures in linguistics and in the psychology and philosophy of language. Professor Chomsky's major contribution to the science of language has been the development of the theory of language now known as



transformational generative grammar. This theory, the first version of which was contained in Professor Chomsky's PhD dissertation (1955) and which he has continued to elaborate and extend in the years since, views language as a particular manifestation of man's mind. The striking similarities that are encountered in the most divergent languages are due-Professor Chomsky holds-to the fact that they reflect basic similarities in the intellectual make-up of humans, similarities which are, the result of the common genetic evolution of the species. One example of such similarities is that sentences in all languages are composed of sequences of words and that these, in turn, are sequences of discrete sounds (phonemes). Another example is that the rules of language are 'structure dependent," i.e., view sentences not as linear sequences of words, but rather as nested structures of the kind that emerge when sentences are "diagrammed" or 'parsed." Since it is hardly plausible that abstract information of this sort could be learned by every fluent speaker of a language-and this includes very young children and adults with very limited intelligence -Professor Chomsky concludes that

(Continued on page 8) Rosenblith, **AS** Elects

Provost Walter A. Rosenblith, Institute Professor and professor of communications biophysics in the Department of Electrical Engineering and Computer Science and Dr. John Ross, Frederick G. Keyes Professor of Chemistry in the Department of Chemistry and presently chairman of the MIT Faculty, were among 75 new members elected to

icine, a distinction he shares with Harvey Brooks, Gordon McKay Professor of Applied Physics at Harvard University, William O. Baker, president of the Bell Telephone Laboratories, Inc. and Lewis M. Branscomb, vice president and chief scientist, IBM Corp.

Professor Rosenblith is also a member of the governing board of National Re earch | the Council of the IOM.

National Academy of Science its 113th annual meeting last week in Washington, D.C.

Professor Rosenblith thus becomes only the fourth person to be simultaneously a member of the NAS, the National Academy of Engineering and the Institute of Med-

Election to the NAS is considered to be one of the highest honors that can be accorded to an American scientist or engineer.

The election of Professor Rosenblith and Professor Ross brings to 87 NAS. They are:

John R. Borchert, '42, director, Center for Urban and Regional Affairs, University of Minnesota.

John I. Brauman, '59, professor of chemistry, Stanford University.

(Continued on page 7)

2,200 Expected for Reunions, Technology Day Programs

About 2200 MIT alumni and their families will gather on campus the first week in June for reunions and for Technology Day '76, the Institute's annual alumni day program.

Technology Day, held on Friday, June 4, formerly called Alumni Day, will have as a Bicentennial Year theme the modern revolutions now taking place in the fields of energy and medicine.

In morning and afternoon sessions, MIT engineers and scientists will examine implications of current research in energy technology and in the life sciences.

The energy program will focus on new energy sources and their management. The medical symposium will concentrate on cancer research and its social effects, and on MIT's role in medical education.

Some of the speakers on energy and their topics are:

Dr. David C. White, Ford Professor of Engineering and director of the Energy Laboratory, "MIT's Energy Laboratory, Research and Outlook"; Dr. Morris A. Adelman, professor of economics, "The Energy Marketplace" (Dr. Adelman also will lead a panel on "Energy Policy, National and International, and the Effects of Technology"); Dr. Jean F. Louis, professor of aeronautics and astronautics, "Fossil Fuels,

Clean and Dirty;" Dr. Norman C. Rasmussen, professor of nuclear engineering and head of the Department of Nuclear Engineering, "Nuclear Fission's Future"; Dr. Ronald R. Parker, co-director of ALCATOR Project, MIT's fusion machine, "Nuclear Fusion and its Promise"; Dr. Roy Kaplow, professor of materials science and education, "Solar Energy Research at MIT"; Dr. Jack B. Howard, professor of chemical engineering, "Fuel Conversion of Primary Energy Sources to Usable Forms"; Dr. Donald R.F. Harleman, professor of civil engineering and Ford Professor of Engineering, and Dr. Gerhard H. Jirka, "Discussion of Waste Heat Management.

The medical program's speakers will include:

Dr. Salvador E. Luria, Nobel Laureate, Institute Professor and director of the Center for Cancer Research, "Reflections on Democracy and Cancer"; Dr. Irving M. London, professor of biology and director of the Joint Harvard-MIT Program in Health Sciences and Technology; Dr. Richard Hynes, assistant professor of biology, "Cancer and the Cell Surface," and Dr. Phillip A. Sharp, associate professor of biolo-

Continued on page 7)

(Continued on page 7)

Music Notes Amadeus Quartet to Give Abramowitz Performance



THE AMADEUS QUARTET, (left to right) first violinist Norbert Brainin, second violinist Siegmund Nissel, violist Peter Schidlof, and cellist Martin Lovett, will give the Abramowitz Memorial Concert at 8pm Sunday, May 16, in Kresge Auditorium.

The internationally famous Amadeus Quartet will give the Abram-owitz Memorial Concert at 8pm Sunday, May 16, in Kresge Auditorium at MIT.

The quartet members, who have played together for over a quarter of a century, will play quartets by Haydn, Mozart and Beethoven. The concert is free, but tickets are required. For tickets, call x3-3210.

The Abramowitz Concert series, made possible by a gift from William L. Abramowitz, Class of 1935, and sponsored by the MIT Department of Humanities, was established to bring distinguished leaders in the humanities to MIT.

For the concert, the Amadeus Quartet will play Hayn's Quartet in G Major, Opus 77, No. 1, Mozart's Quartet in E Flat Major, K. 428, and Beethoven's Quartet in B Flat Major, Opus 130.

Quartet members are Norbert Brainin, first violin; Siegmund Nissel, second violin; Peter Schidlof, viola, and Martin Lovett, cello. Although the group is an English ensemble with London its home base, only cellist Martin Lovett is a native Englishman. The other three are Austrian by birth and received their early musical training in Vienna.

They formed the quartet in 1946 in

Choral Society To Sing Sunday

The MIT Choral Society, under the direction of John Oliver, will give a concert of contemporary choral works at 3pm, Sunday, May 9, in Kresge Auditorium.

The 150-member Choral Society will perform Canti di Prigionia by Dallapiccola and Les Noces by Stravinsky.

In addition to full chorus, these works include several pianos in their instrumentation. The Dallapiccola composition calls for two pianos, two harps, percussion and chorus. The Stravinsky work involves four pianos, percussion, solo quartet and chorus.

Soloists will be Susan Larson, Beverly Morgan, Alexander Stevenson and Kenneth Hamilton. Pianists will be Dennis Helmrich, Philip Morehead, Myron Romanul, and

the studio of their teacher, Max Rostal, and gave their first public performance at London's Wigmore Hall in 1948. Since that time they have performed throughout Europe, participated in the major European music festivals, made over a dozen tours of the United States, and appeared in Australia, Japan and South America.

Queen Elizabeth II awarded its members the Order of the British Empire in 1960 for services to music. In 1968, the University of York gave honorary doctorate of music degrees to the four quartet members.

The group records for Deutsche Grammophon Gesellschaft. Previous recordings are available under the labels of His Master's Voice, Westminster, and Angel.

East Campus Wins BSO Recital

\$360 to the Boston Symphony Orchestra (BSO) Musical Marathon and, in return, received a premium, a concert by BSO violist Michael Zaretsky and pianist Phyllis Moss.

Violist Michael Zaretsky, a native of Russia, graduated from Moscow State Conservatory in 1970. He was a member of the Moscow Philharmonic String Quartet and Moscow Broadcasting Symphony Orchestra before immigrating to Israel in 1972. He came to the US in 1973 and successfully auditioned for the BSO. He teaches viola privately and at Wellesley College, and also appears as soloist and with chamber music groups.

Pianist Phyllis Moss has been soloist with the Philadelphia Orchestra and the Boston Pops, and has given concerts at Jordan Hall, Tanglewood and Lincoln Center. She has collaborated with many BSO members in chamber music concerts.

East Campus residents donated

The concert, on Monday, May 10, at 7:30pm in Talbot Lounge, East Campus, will include works by J.S. Bach, J.C. Bach, P. Hindemith and G. Tonesco.

the MIT Bulletin, Technique, VooDoo and other publications. Particularly desired are old

copies of the President's Report and Treasurer's Report issues of the Bulletin. Send contributions to N52-260, or call x3-4444 for assistance.

Publications Wanted

Spring cleaning? MIT Histori-cal Collections is eager to increase its collection of MIT

periodicals, including issues of



Announcements

First Term Registration-Registration material for first term 1976-77 will be available in Bldg 10 Lobby Mon, May 10 & Tues, May 11. Description of subjects will be available for reference in library, information center and department headquarters.

Registration for Summer Session-Summer Session registration forms must be filled in and returned to Registrar's Office by Wed, May 5. There will be a \$5 fine for late registra tion material.

Family Day Care Providers Needed-Family Day Care providers needed in Westgate for in fants and toddlers. Child Care Office, x3-1592.

I. Austin Kelly Competition-Deadline for submission of entries to I. Austin Kelly Competition has been deferred to Fri, May 7. The competition involves a prize of \$250 for a scholarly /critical paper of 5,000-10,000 words in any area of humanities. Info: Rm 14N-305, x3-4446.

Baylor Summer Work and Study Program-This program is offered under the auspices of the Department of Community Medicine to encourage and assist minority students to enter health careers. The dates are June 20 to August 13, 1976. Priority is given to freshmen and sophomores. The deadline for application is May 21. Additional information is available in the Preprofessional Advising and Education Office, Rm 10-186, x3-4158.

Entrance Examinations for Interdepartmental Doctoral Program in Biomedical Engineering-Exams will be held the weeks of May 10 and May 17. Applicants should come to Rm 37-219 before Fri, May 7.

New UROP Listing

For more detailed information on UROP opportunities listed, MIT undergraduates should call or visit the Undergraduate Research Opportunities Program Office, Room 20B-141, Ext. 3-5049 or 3-4849 unless otherwise specified in the listing. Undergraduates are also urged to check with the UROP bulletin board in the main corridor of the Institute.

American Institute of Physics NYC The American Institute of Physics maintains a collection of published works and personal papers of prominent scientists around the world. A project is available in which a student would assist in organizing the archives of the oral history collection and research historical sources for studies of physicists and their work. The project would be done at the AIP in New York City. Pay available

Applicon Inc.

Burlington, Ma Applicon, a computer graphics firm that designs, manufactures and sells graphics processing equipment, is interested in working with an undergraduate who has interests in ectronics, computers and/or mathematics suing hormone research on a long-term basis. Limited funds are available. Contact Kathy Doyle, secretary to Professor R.J. Wurtman, x3-6732. Rm 56-245.

Department of Mechanical and Chemical Engineering

Most synthetic polymer fibers are stretched after extension, to increase their molecular orientation and to improve their tensile and flexural properties. A novel fiber stretching process is to be examined that may yield fibers with exceptionally high orientation and unusual physical properties. An undergraduate is invited to explore the potential of the process. Contact Professor Stanley Backer, x3-2259, Rm 3-338 or Professor M.V. Sussman, x3-6517, Rm 66-569.

Graduate Studies

US Department of Labor Doctoral Dissertation Grant Program

The US Department of Labor Employment and Training Administration conducts a grant program for doctoral candidates writing their dissertations on a topic related to the research objectives of the Comprehensive Employment and Training Act (CETA) of 1973 (such as: job opportunities and manpower shortages. measurement of labor demand and supply geographic and occupational mobility). Doctoral candidates who will have completed all the requirements for the degree except the dissertation when the grant starts are eligible to apply. Closing dates for receiving applications are December 1, March 1, June 1, and September 1. All proposals are acknowledged when submitted and final determination made within three months. Contact the Graduate School Office, Rm 3-136.

Graduate College Work-Study Program

On-campus employment under the College Work-Study Program will be available for eligible graduate students during the 1976-77 academic year. To be eligible for the program, you must be a US citizen or permanent resident, a full-time advanced degree candidate, and must be able to demonstrate financial need. Depending on your need, you may be able to earn up to \$3,000 on the program. Further information and applications are available in the Student Employment Office, Rm 5-122.

Club Notes

MIT Auto Club**-Meetings third Sun of each month, 7:30pm, Stu Ctr Rm 491.

MIT Ballroom Dance Club*-We will be very active this term. For info on workshops & dances call Carl Sharon or Doug King, 536-1300.

MIT/DL Bridge Club**—ACBL Duplicate Bridge. Tues, 6pm, Stu Ctr Rm 407.

MIT Chess Club*-Meetings Sat, 12n-7pm, Stu Ctr 407

MIT Electronics Research Society-Final meeting Wed, May 5, 8pm, Rm 20B-119. New members welcome.

MIT Goju Karate Club**-Mon, Wed & Fri, 7-9pm, Stu Ctr Rm 407. Info: 536-1830.

Hobby Shop**-Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$10/term for students, \$15/term for community. Info, x3-4343.

MIT Juggling Club*-Juggling for beginner thru expert. Sun, 1-3pm, Stu Ctr steps

Math Club-Meetings Sun, 4pm, Rm 4-182.

MIT Science Fiction Society*-The Society insists that you visit its incredible library (Stu Ctr Rm 421, x5-9144 Dorm) and attend its unusual non-business meetings Fri, 5pm, Rm 1-236.

MIT Shim Gum Do Club-Instruction by 10th degree black belt in zen swordsmanship, karate and stick fighting techniques. Beginners always welcome. Mon-Fri, 5-7pm, Stu Ctr 4th fl or Sala. Jeff, x3-5934.



Shotokan Karate Club**-Rigorous training for intercollegiate competition & self-defense given by 6th degree black belt. Mon & Wed. 8pm, Fri, 6pm, duPont T Club lge.

MIT Space Habitat Study Group*-Meetings Thurs, 7pm, Rm 37-252. Interdisciplinary studies on space colonization. Everyone interested is invited. Office: Rm 24-415. Info: B Bugos, x3-6625.

Student Homophile League*-Gay Lounge, Rm 50-306, open daily for lunch & random other hours, x5-6745 Dorm. Tom, Contact Line, x3-5440, provides info, referrals, counseling or just talking to gay persons. Meetings 1st & 3rd Sun every month, Gay Lge. Consult bulletin board, Bldg 3, for info.

MIT Tae Kwon Do**-Workouts Mon & Thurs. 5-7pm, Stu Ctr West Lge.

Tiddlywinks Association*-Wed, 8pm, Stu Ctr

MIT Unicycle Club-Unipolo Sun, 12n-2pm, Kresge Oval.

Voo Doo Magazine*-Meetings Sun, 2pm, 3rd floor river side of Walker.

Religious Activities

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

MIT Buddhist Association*-Meditation sessions Mon & Wed, 5:30-6pm. First timers always welcome, basic techniques of meditation taught each time. Sutra studies Wed, 5pm. All activities Rm 8-205.

Campus Crusade for Christ*-Family Time Fri, 7:45pm, Rm 37-252.

Celebration of Holy' Communion**-MIT Lutheran & Episcopal Ministry. Wed, 5:05pm, Chapel. Supper following, 312 Memorial Dr.

Christian Worship Service*-Sun, 10:45am, Chapel. Refreshments following service.

Hillel*-Traditional services Fri, 6pm, Kosher Kitchen & Sat, 9am, Chapel.

Islamic Society**-Prayers Fri, 12n, Kresge rehearsal Rm B.

Jesus Christ's Full Gospel Meeting*-Sun, 2:30pm, Stu Ctr Rm 355. Info: x5-6549 Dorm.

Prayer Time**-Lunch hour Bible classes led by Miriam R. Eccles. Fri, 1-2pm, Rm 20E-226. All are welcome.

Tech Catholic Community*-Weekday masses: Tues & Thurs, 5:05pm; Fri, 12:05pm, Chapel. Sun masses: 9:15am, 12:15pm, 5:15pm, Chapel.

Vedanta Society*-Meditation and Gita led by Swami Sarvagatananda, Fri, 5:15pm, Chapel

Echoes

50 Years Ago

James R. Killian '26 was appointed as assistant managing editor of the Technology Review.

The Northeastern Student District of the AIEE held a convention featuring the presentation of 3 student papers, a speech by Dr. Michael I. Pupin, National President of the AIEE, and an afternoon of inspection tours of nearby power stations and industries.

40 Years Ago

Records of the discovery of a process of making gold from copper were found in the diary of a monk, working about 750-760AD, and the experiment was repeated in 4-431 by the honorary chemical fraternity, Alpha Chi Sigma.

Physicists Edward L. Lamar and William W. Buechner developed a new source of protons for the bombardment of atoms.

25 Years Ago

The showing of the controversial film, Ecstasy, to have been presented by LSC, was prevented by the Cambridge Police. Harvard succeeded in showing the movie four times. A proposal to house all freshmen on campus was met by strong opposition from the residents of undergraduate dorms

Luise Vosgerchian.

Tickets are \$4.00 (reserved section), \$3.00 (unreserved) and \$1.50 for students with ID. For information and reservations, call x3-4720. Tickets will also be available at the door.

Boston Camerata To Perform Here

The Boston Camerata under the direction of Joel Cohen will present a concert, "Roots of American Music," at 8:30pm Tuesday, May 11, in the MIT Chapel. The concert will be free and open to the public.

The program is an exploration of early Hispanic, Gallic and Anglo-Saxon music of the New World and includes cathedral music of South America, Canadian adaptations of French renaissance popular songs, and folk polyphony from the south central states.

Kent Fellowship

Corpus to Hold

Janet M. Corpus, a PhD candidate in the MIT Department of Urban Studies and Planning from Cambridge, Mass., is one of the 25 students nationwide to receive a prestigious Kent Fellowship, the Danforth Foundation has announced

Ms. Corpus, one of 700 applicants, was selected on the basis of her promise as teacher and scholar in higher education.

Kent Fellowships help graduate students who are preparing for teaching and who combine excellence in scholarship and unusual promise as teachers with a concern for the relation of ethical values to their profession. They provide financial support from the Danforth Foundation for a maximum of three vears of graduate study with an annual stipend plus allowance for tuition and fees.

The Danforth Foundation is a national, educational, philanthropic organization, dedicated to enhancing the humane dimensions of life.

and who has some formal electrical engineer ing background, Projects include: 1) Investigation of pattern recognition, hardware and/ or software. 2) Study of algorithms for two and three dimensional graphic base manipulations. 3) Development of computer design aides for analysis and simulation of two and three dimensional objects, 4) Investigation of graphics, Input/Output hardware and software

Cabot Corporation Billerica, Ma Cabot Corporation produces fumed silica, a finely divided material formed by the flame reaction of SiCl₄. This product, Cab-O-Sil, has markets in the silicone rubber and plastics industry for flow control and reinforcement. The basic experiments proposed for this program are the measurement of viscosities of Cab-O-Sil dispersed at low loadings in simple liquids. The UROP student will be actively involved in all phases of the program, including the design of the experiments, execution of the experiments and numerical/theoretical analysis of the results. Pay available.

Department of Nutrition

Psychoneuroendocrine Research: Steroid Hormones, Affect and Behavior in Humans An undergraduate is invited to participate in research project involving the performance of radioimmunoassays of gonadal steroid hormones in human sera. Some previous laboratory experience required, although training in the specific assay procedures will be provided. Students should have an interest in pur-

May 5-12 **Channel 8:** Wednesday, May 5: 12:00pm Airship at MIT Thursday, May 6: 1:00pm Airship at MIT Monday, May 11: 5:00pm Electromagnetic Fields and Energy (6.013), Prob-lem Solving, Prof. H. Haus (live) Electromagnetic Fields 8:00pm and Energy (6.013), Problem Solving, Prof. H. Haus (r) Tuesday, May 12: 8:00pm Electromagnetic Fields and Energy (6.013), Problem Solving, Prof. H. Haus (4) **Channel 10**

Thursday, May 6:

MITV News

12:00pm

5:00pm

to

TECH TALK Volume 20, Number 38 May 5, 1976

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Five Named To Faculty

Five men have been appointed assistant professors at MIT.

They are: Thomas A. Barocci, lecturer in the Sloan School of Management and special assistant to the director of Regional Manpower Institute at Boston University, in the Sloan School of Management; F. Read McFeely, doctoral degree candidate at the University of California at Berkeley, in the MIT Department of Chemistry; Richard B. Melrose, fellow at St. John's College, Cambridge University, in the MIT Department of Mathematics; David A. Randall, research and teaching assistant at the University of California at Los Angeles, in the MIT Department of Meteorology, and Louis S. Scaturro, doctoral degree candidate at Columbia University, in the MIT Department of Nuclear Engineering.

Professor Barocci received the BA degree in 1968, the MA degree in 1969, and the PhD degree in 1972, all from the University of Wisconsin at Madison. Before coming to the Sloan School as lecturer in September, 1975, he was director of the Office of Economic Analysis, Executive Office of Economic Affairs, for the Commonwealth of Massachusetts. His current research interests focus on employment policy, labor and economic development, and trade unions and public policy.

Professor McFeely received the BS degree in 1972 and will receive the PhD degree in June, both from the University of California at Berkeley. His research for the past three years has been directed at further development of X-ray photoemission spectroscopy as a spectroscopic technique for the study of solids.

Professor Melrose received the PhD degree from Cambridge University in 1974. He was a visiting scientist in the MIT Department of Mathematics in 1974-75 on a grant from the United Kingdom Science Research Council. His field of special interest is partial differential equations.

Professor Randall received the BAAE and MS degrees in aeronautical and astronautical engineering from Ohio State University in 1971, and will receive the PhD degree from the University of California at Los Angeles this year. His areas of special interest are planetary boundary layer and cumulus convection, numerical weather prediction, and atmospheric dynamics.

Professor Scaturro received the BS degree from Cooper Union for the Advancement of Science and Art in 1972 and the MA degree from Columbia University in 1974. He will receive the PhD degree from Columbia University this year. His area of expertise is experimental plasma physics.

Bartl Named To ILO Post

The appointment of J. Peter Bartl as Industrial Liaison Officer has been announced by Samuel A. Goldblith, Underwood-Prescott Professor of Food Science and director of MIT's Industrial Liaison Program.

Mr. Bartl returns to the Institute



Professors John Dugundji and George Wolf, president and secretary of the MIT chapter of the Society of the Sigma Xi, presented a check for \$2,000 to Professor Margaret MacVicar, director of the Undergraduate Research Opportunities Program (UROP) with Keatinge Keays, UROP liaison officer for Sigma Xi, looking on. The money will be used to support individual student proposals for materials.

Former MIT Researcher Arrested in Argentina

MIT friends of an Argentine physicist say they have information of his political arrest in Buenos Aires on April 19.

Richard Frankel, a sponsored research staff member at the Francis Bitter National Magnet Laboratory, said he learned from two sources in Argentina of the arrest of Antonio Misetich, 37, a former DSR staff member who worked at the Magnet Laboratory from 1966-71.

Dr. Frankel and others at the Laboratory have since conducted a letter writing campaign to locate Dr. Misetich and determine the charges filed against him. They said they enlisted the aid of the National Academy of Sciences to send telegrams in the physicist's behalf. President Jerome B. Wiesner said he also sent

Weyerstahl Named Visitor

Dr. Peter K.E. Weyerstahl, professor of organic chemistry at the Institute for Organic Chemistry, Tech-nical University of Berlin (TUB), has been appointed visiting professor in the MIT Department of Chemistry.

Professor Weyerstahl comes to MIT as part of the MIT-TUB Exchange Program.

Professor Weyerstahl studied at the University of Leipzig and TUB, where he received his doctorate in 1961. From 1960-66 he conducted research in petrochemistry at ESSO in Hamburg.

He returned to TUB in 1966 as chief assistant at the Institute of Organic Chemistry and was appointed professor in 1970 when he also served as dean of the Faculty of General Engineering Sciences. Since 1971 he has been chairman of the Faculty in the Department of Synthetic and Analytical Chemistry.

Telephone Reminder

Beginning Monday (May 10), Class A telephone (unrestricted) users are reminded to dial 6 -instead of 9-when making long distance calls. By dialing 6, most calls will be routed over Wide Area Telephone Service (WATS) lines, resulting in a saving of approximately 12 percent on the toll charge.

a telegram in behalf of Dr. Misetich. Dr. Frankel said that in a call to the Argentine Embassy in Washington, DC, Secretary Rubio of the Embassy staff confirmed Dr. Misetich's arrest by the official police and said that he is under investigation, being held without charge, and in good health. Argentina is currently in a state of siege; civil rights have been suspended and individuals may be detained without charge, Dr. Frankel said.

Dr. Misetich received the PhD degree in 1964 from the University of Buenos Aires. He left MIT in 1971 to work for the Comision Nacional de Energia Atomica (Argentine atomic energy commission) in Buenos Aires where he is now staff scientist.

Dr. Frankel said anyone wanting to help Dr. Misetich may contact him on x3-5520 or write a letter expressing concern to Capitan de Navio Carlos Castro Modero, Sr. Presidente de la Comision Nacionale de Energia Atomica, Av. de Livertador 8250, Buenos Aires, Argentina.

Boston is Focus Of Photo Contest

Get to know one city well if you really want to understand how all cities operate-that's the advice Professor Robert M. Hollister, undergraduate officer for the Department of Urban Studies and Planning, gives MIT students.

Boston has been the target city of several recent "getting-to-knowyou" programs the department has offered and Professor Hollister wants students to continue to focus on the Hub through the summer vacation-this time with their cameras.

He has organized a photo contest, open to all MIT undergraduates, on the subject of Boston-its people, buildings, activities, moods, etc. First prize is \$50, second prize, \$30 and third prize, \$20.

Contestants should enter a set of six black-and-white photographs no smaller than 7-by-10 inches and no larger than 11-by-14 inches. Entries will be judged on interest, clarity of statement about the city, coherence of the set, originality and technical ability. Entry deadline is Sept. 22. Entries should be hand-delivered to the Urban Studies Program in Rm. 7-335. Ruth Kolodney at Ext. 3-4409 may be contacted for additional information.

Technology & Policy Program Enrolls 25

Some 25 graduate students have been admitted to the new Technology and Policy master's degree program in the School of Engineering which will begin its first full year of operation in September 1976, Professor Richard de Neufville, chairman of the program, has announced.

The program, authorized by the faculty last year, will prepare students for leadership in the development, use, assessment and control of technology. It is designed to train professionals in formulation, analysis, specification and implementation of policy in technical areas such as environmental management, nuclear power, materials recycling and transportation.

"Progress so far has been most encouraging," Professor de Neufville said. "We believe we are establishing an excellent, stimulating program in the best traditions of MIT."

Students will spend one third to one half time in social science subjects, with engineering and science making up the remainder. In addition to an in-depth concentration in a selected technical area, students will be expected to develop skills in the use of systems analysis and economics and an understanding of the legal, political and societal forces shaping the policy-making process.

Professor de Neufville said that two new subjects are now being developed for the program under a grant from the Sloan Foundation. More will be prepared next year.

Professor Thomas Sheridan of

mechanical engineering and Dr. Marvin Sirbu, a research associate in the Center for Policy Alternatives, are creating an intensive proseminar (TPP 11 and 12) which will integrate technical and analytic knowledge through projects and case studies involving actual policy problems.

Professor Martha Weinberg of political science is developing a new subject on the policy-making process (17.750), based on her experience in state governments in Massachusetts and Illinois.

Students admitted for the first year come from all areas of engineering and include three women, Professor de Neufville said.

"The number of students was deliberately limited to assure the close faculty supervision essential in any new program," he said.

In addition to those mentioned above, engineering faculty members working in the program include Professors Joel Clark of materials science and engineering, Jack Ruina of electrical engineering and computer science, Lawrence Evans of chemical engineering and Amedeo Odoni of aeronautics and astronautics.

Also on the steering committee for the program are Professors Lawrence Susskind of urban studies and planning, Jeffrey Meldman of management and Ted Greenwood of political science.

Students interested in the program may get further information from any of those persons.

R. G. Gallager Appointed ESL Associate Director

Professor Robert G. Gallager has been appointed Associate Director of the MIT Electronic Systems Laboratory (ESL), effective April 15, 1976.

Announcement of the appointment was made jointly by Professor Wilbur B. Davenport, Jr., head of the Department of Electrical Engineering and Computer Science, and Professor Michael Athans, Director of ESL.

At the same time it was announced that Professor Leonard A. Gould has asked to be relieved of his duties as Associate Director of ESL, a post he has held since June 1970. This move will allow Professor Gould to devote more time to his activities as undergraduate officer of the department and he will also continue to participate in ESL research programs.

Professor Gallager's primary responsibility in ESL will be to coordinate research

in the area of communications systems. Research in data communication networks is an expanding area in ESL and there is a need for longrange planning

about how this expansion should take place and how it should be coordinated with the other activities of ESL

MIT in 1957 and 1960, respectively. From 1953 to 1954 he was a mem-

ber of the technical staff at Bell Telephone Laboratories and from 1954-56 was in the Signal Corps of the US Army. He has been at MIT since 1956 and was associate chairman of the faculty from 1973 to 1975, and is currently a professor of electrical engineering.

He is the author of the textbook Information Theory and Reliable Communication (Wiley and Sons, 1968), and was awarded the IEEE Baker prize paper award in 1966 for the paper A Simple Derivation of the Coding Theorem and Some Applications

He was a member of the Administrative Committee of the IEEE group on Information Theory, from 1965-70 and was Chairman of the group in 1971. His major research interests are computer communication networks, information theory and computer architecture.

Professor Gallager and his wife Ruth live in Lexington with their three children, Douglas 16, Ann 13, and Rebecca 11.

CSF Campaign Reaches \$6,700

As of Monday (May 3), 261 members of the community had donated

after nearly three years in industry with AMP, Inc., where his most recent position was as metrology supervisor in charge of the department responsible for designing online test and process control equipment as well as maintaining and calibrating measurement equipment. While at AMP he also designed several products for the automotive industry and through publication of an SAE paper and presentations at various professional meetings, became known for his work on automotive diagnostics.

The Industrial Liaison Program was formed more than 25 years ago to provide a bridge between the "state-of-the-art" as represented at MIT and industrial leaders.

Mr. Bartl simultaneously received three bachelor's degrees in 1967two from MIT (in industrial management and electrical engineering) and one from Lawrence Universitywith his thesis successfully forecasting the price of an industrial plastic and has taken several graduate level courses in the communication and control sciences.

Born in Philadelphia in 1931, Professor Gallager received a bachelor's degree in electrical engineering in 1953 from the University of Pennsylvania, and the SM and ScD degrees in electrical engineering from

\$6,700 to the Community Service Fund, according to Joseph S. Collins, secretary of the Board of Trustees of the Fund.

"That's an encouraging begin-ning," he said, "but a long way off from the \$30,000 campaign goal."

CSF has received proposals from more than a dozen individuals and organizations-including six firstrequests-seeking time nearly \$62,000 in support.

"The trustees are evaluating the proposals now," Mr. Collins said. and will begin the allocation process within the next week. That's why it's important to encourage contributions now, so that the trustees will have an accurate estimate of what funds will be available to support MIT's volunteers in the community.

Contributions to the Community Service Fund may be made in cash or by payroll deduction. All contributions are tax deductible.

Tech Talk, May 5, 1976, Page 3

Chinese Earthquake Scientists Visit MIT

Eleven earthquake specialists from the People's Republic of China visited MIT last week to discuss earthquakes and earthquake engineering.

The visit was coordinated by Professor William F. Brace of the Department of Earth and Planetary Sciences, who had met some of the Chinese on a visit to China several years ago, and by Professor Robert Whitman of the Department of Civil Engineering.

Professor Whitman said that it was the first Chinese delegation to the US whose primary interest was in earthquake engineering.

One group of the visitors-many of whom were from the Institute of Engineering Mechanics in Harbin, Manchuria-spent the entire threeday visit (April 26-28) in the Department of Civil Engineering. The others divided their time between the two departments.

Besides the many participants from MIT, there were also representatives from several local engineering firms-Geotechnical Engineers, Inc., Stone & Webster Engineering Corporation, and Weston Geophysical Engineers.

Two of the Chinese also gave talks.

Professor Liu Hui-hsien spoke on "Engineering Aspects of the Haicheng Earthquake," while Madame Ma Chin spoke on "Earthquake Migration and the Development of Fracture."

"There was a lot of good two-way communication," Professor Whitman said.

The visit was arranged through the National Academy of Sciences' Committee on Scholarly Communication with the People's Republic of China, which is chaired by Professor Frank Press, head of the Department of Earth and Planetary Sciences.



May 5 through May 16

Notice: If your club or other activity is meeting during the summer, please contact the Calendar Editor by 12 noon, Friday, May 14. Otherwise your notice (whether it currently appears in the Calendar or the Institute Notices section) will be removed and will not be reinstated until a new listing is received.

Events of Special Interest

Awards Convocation - Thurs, May 6, 11am, Kresge Little Theatre.

norary Matrons of MIT - Luncheon for Honorary Matrons will be Thurs, May 6, 12n, Stu Ctr Mezzanine Lge. There will be a tour of the Chemical Engineering Center at 2:15pm.

Whither the Research University?* - Frank Press, Robert T. Shrock Professor of Earth & Planetary Sciences; head, Department of Earth & Planetary Sciences; 1975-1976 Killian Award Lecturer. James R. Killian, Jr. Faculty Achievement Award Lecture Series. Tues, May 11, 4pm, Rm 54-100.

Cable Television Committee Open Hearings** - Open forum to discuss policies to guide cable operation. Wed, May 12 topic will be establishing guidelines for the suitability of material and particular uses of the cable. 3pm, Rm 9-150.

Seminars and Lectures

Wednesday, May 5

Electrophoresis in Velocity Sedimentation of Mammalian Cells* - Nicholas Catsimpoolas, food biochemistry. Nutrition & Food Science Seminar. 9am, Rm E18-408.

Preliminary Results of Current and Sea Level Observations in the Gulf of Mexico* - Wendell Brown, University of New Hampshire. Oceanography Sack Lunch Seminar. 12n, Rm 54-311. Bring lunch, coffee available.

Migration and Ethnicity in India* — Myron Weiner, political science depart-ment head. South Asia Colloquium. 12n, Rm E53-482.

Comparison of Predicted and Encountered Geology in Seven Colorado Tunnels* — Charles H. Dowding, civil engineering. Gilbert W. Winslow Career Development Chair Seminar Series on Treatment of Uncertainty in Geotechnical Engineering. 2pm, Rm 1-350. Coffee 1:45pm.

Ion Energy Measurement in Tokamaks* - Don Cook, G. Nuclear Engineering Plasmas & Controlled Fusion Seminar. 3pm, Rm 38-136.

Amorphous Materials* — Roy Kaplow, materials science & education. Materials Science Panel Seminar. 4pm, Rm 13-5101. Refreshments 3:30pm, Rm 13-5002

Getting People to Give Blood: Ideologies, Practices and Issues* - Alvin Drake, systems science & engineering, associate director of Operations Research Center. Technology Studies Seminar. 4pm, Rm 20D-205. Coffee 3:30pm.

Reliability and Fault Tree Analysis* - J. Olmos; (no title)* - M. Yeung, G. Nuclear Engineering Seminar. 4pm, Rm NW12-222.

Evolution of a Nuclear Reaction* - Herman Feshbach, physics, head of department. Undergraduate Physics Colloquim. 4:15pm, Rm 4-339. Social hour follows.

The Biology of Creativity* - Alexander Alland, Jr, anthropology, Columbia University. Anthropology/Archaeology Lecture on Human Nature: Biological and Environmental Determinism. 4:30pm, Rm 10-250.

Thursday, May 6

Solitons in Elementary Particle Physics* - C. Rebbi, physics, visiting. Engineering Applications of Nonlinear Wave Phenomena Seminar. 1pm, Rm 38-201

Structured Receivers for Quantum Coherent State Communication* - S. J. Dolinar, G. EECS Optics Seminar. 2pm, Rm 36-428.

Presentation of Student Papers* - Seminar on Materials Resource Policy. 3pm, Rm 13-5101.

Ultrasonic Detection of Lung Disorders* - Dr. Theodore Rhyne, Non-Invasive Diagnostic Laboratory, MGH, EECS. Biomedical Engineering Center for Clinical Instrumentation Seminar. 4pm, Rm 36-428.

Petroleum Recovery* - L. E. Scrivan, chemical engineering & materials science, University of Minnesota. Chemical Engineering Seminar. 2pm, Rm 66-110.

Numerical Modeling* - J. E. Kerwin, naval architecture. Ocean Engineering Department Tankard Seminar. 3pm, Rm 3-446. Refreshments 4pm, Rm 5-314.

Some Flow Properties of Human Blood Cells* - Dr. Harry L. Goldsmith, experimental medicine, McGill University, Montreal. Mechanical Engineering Seminar. 3pm, Rm 3-133. Coffee 4pm, Rm 1-114.

Heterogeneity Structure at the Base of Earth's Mantle and its Tectonic Implications* — Selwyn Sacks, terrestrial magnetism, Carnegie Institution of Washington. Earth & Planetary Sciences Colloquium. 4pm, Rm 54-915.

Trapped Electron Instability and its Control* - Amiya K. Sen, Columbia University. RLE Plasma Dynamics Seminar. 4pm, Rm 36-261.

Light Scattering in Diamond* - A. K. Ramdas, Purdue University. Center for Materials Science & Engineering Seminar. 4pm, Rm 9-150. Tea 3:30pm.

The Meaning of Life* — Mary Mothersill, philosophy, Barnard College. Philosophy Seminar. 4pm, Rm 14E-304.

Monday, May 10

The Bumpy Torus - An Alternative Controlled Fusion Reactor Concept* -Lawrence M. Lidsky, nuclear engineering. Nuclear Engineering Seminar. 3:30pm, Rm NW12-222. Coffee 3pm.

Some Fluid Dynamical Problems of Cell Biology* - Harvey P. Greenspan, applied mathematics, chairman of Committee on Applied Mathematics. Applied Mathematics Colloquium. 4pm, Rm 2-338. Coffee 3:30pm, Rm 2-349.

On Removal for Phytoplankton Control - A New Lake-Management Technique^e — Jerome Carr, environmental specialist, Carr Research Laboratories. Civil Engineering Ralph M. Parsons Laboratory Water Resources & Environmental Engineering Seminar. 4pm, Rm 48-316. Coffee 3:45pm, Rm 48-410.

Computer Managed Parts Manufacturing* - Nathan H. Cook, mechanical engineering. Mechanical Engineering Seminar on Mechanics of Materials. 4pm, Rm 3-133. Coffee 3:30pm, Rm 1-114.

Tuesday, May 11

Slide-Away Distributions and Relevant Collective Modes* - Francesco Pegoraro, visiting scientist, RLE. RLE Plasma Theory Seminar. 11am, Rm 36-261

Student-Faculty Discussion on Division III Future* - Mechanical Engineering Systems & Design Division Seminar. 12n, Rm 3-465. Bring lunch, coffee & tea provided.

Attraction Electromagnetic Lateral Guidance for Ground Transportation* -Omezie Ajumobi, G. Mechanical Engineering Seminar. 1pm, Rm 3-465. Coffee & tea.

Generation of Impact Noise by Flat Wheels and Rail Joints* - Istvan Ver, Bolt, Beranek & Newman. Applied Mechanics Seminar. 3pm, Rm 3-133. Coffee 4pm, Rm 1-114.

A Total Energy System for Boston* - Students in Nuclear Reactor Design Course 22.33. Results of a preliminary study of feasibility of a system which utilized nuclear power to supply Boston with thermal and electric energy. 3:30pm, Rm NW 12-222.

A Systems Design of a Prototype Space Cology* — James McCarthy, aero/astro, director of Center for Space Research; and students. Aero/Astro General Seminar. 4pm, Rm 35-225. Coffee 3:30pm, Rm 33-222.

USA/USSR Maritime Balance 1945-1985* - Chris Wright, US Navy. CIS Seminar on Technology & International Security. 4pm, Rm E53-482.

Methylene and its Reactions* - H. F. Schaefer, III, chemistry, Berkeley, Seminar in Physical Chemistry. 4pm, Rm 4-370. Coffee 3:45pm, Rm 6-321.

Strabismus Evaluation: Space Mechanics May Provide New Fundamental Approach* — Johh B. Lenox, MD, rehabilitation engineer, Texas Institute for Rehabilitation & Research. Harvard-MIT Rehabilitation Engineering Center Seminar. 4pm, Rm 10-105. Refreshments 3:30pm.

Structure and Function of Influenza and Parainfluenza Virus Membranes* - Dr. Purnell Choppin, Rockefeller University. Biology Colloquium. 4:30pm, Rm 6-120. Coffee 4pm, Bldg 56, 5th floor vestibule.

Wednesday, May 12

Six-Degree-of-Freedom Human-Eye-Ball Analysis* - John B. Lenox, MD, Texas Institute for Rehabilitation and Research. Mechanical Engineering Seminar. 10am, Rm 3-465. Coffee & tea.

Towards a Dynamically Accurate Eddy General Circulation Model for the Oceans* — David Haidvogel, G. Oceanography Sack Lunch Seminar. 12n, Rm 54-311. Coffee available, bring lunch.

Electron Cyclotron Measurements in Alcator* - Dave Komm, G. Nuclear Engineering Seminar. 3pm, Rm 38-136.

A Study in Employer Paternalism in a Steel-Milling Community: Joeuf, France 1870-1914* Veronique de Montremy-Goupy, G, Harvard University. Technology Studies Seminar. 4pm, Rm 20D-205. Coffee 3:30pm.

Enzymes and Alloys: What Do They Have in Comme Catalysts. - Keith H. Johnson, materials science. Materials Science Panel Seminar. 4pm, Rm 13-5101. Refreshments 3:30pm, Rm 13-5002.

Research* - H. M. Wood, G. Chemical Engineering Seminar. 2pm, Rm 66-110

Power and Propulsion* - A. D. Carmichael, power engineering. Ocean Engineering Department Tankard Seminar. 4pm, Rm 5-314. Refreshments 3pm, Rm 3-446.

High-Gradient Magnetic Separation (HGMS) at Elevated Temperatures* - 1. Y. Akoto, G. Chemical Engineering Seminar. 3pm, Rm 66-110.

Community Meetings

Alternative Lunch Service Petition Drive - Sale of cheap, wholesome, nutritious, low fat & cholestrol lunches Thurs & Fri, May 6 & 7, 11:30am-1pm, Bldg 10 Lobby. Thurs menu: faelafal sandwich, appledate squares, cider. Fri menu: tan pups (deep-fried wheat protein), vegetable pie, grape-strawberry smoothies. Complete lunch about \$1.50, available a la carte. Sign petition if you like the food. Sponsored by Vegetarian Community & ECHOE (Earth Campaign Against Hunger & Overeating).

Evening at De Cordova Museum - For MIT Club of Boston members and their guests. Sat, May 8, grounds open for walking on trails, etc at 6pm; Museum galleries open 8pm. Wine and cheese. Cost: \$3.75/person. Make reservations early, group size limited. MIT Club of Boston, Rm E19-438.

International Cooking -- Sponsored by TWO. Spring pot luck dinner, Wed, May 12, 8pm, Rm 10-340. If you would like to come please call Judy Cooper, 625-1062 or Jenny Gordon, 547-6471.

MIT Women's Forum** — Meetings Mon, 12n, Rm 10-105 (Tues in case of holiday.)Mon, May 10: "Betty Tells her Story" — A film by Diane Brandon concerning society's emphasis on outward physical beauty.

MIT Pension Association - Special meeting Mon, May 10, 4pm, Rm 10-250 to discuss "Some Questions and Answers about the Retirement Plan for Staff Members"

MIT Club of Boston Luncheon Meeting - Bob Woolf, sports legal advisor, will speak on "The Management of Professional Athletes" at luncheon meeting Thurs, May 13, 12:15pm, Aquarium Restaurant, Bos. Reservations: Ms. Kiirats, x3-3878. Cost: \$4.25, payable at door.

The Wives' Discussion Group** - Led by Myra Rodrigues, social worker; Charlotte Schwartz, sociologist, & Carol Hulsizer, faculty family in residence, Ashdown. Wed, 2:15pm, Stu Ctr West Lge. Babysitting Stu Ctr Rm 473.

Low Back Clinic** - Taught by Maggie Lettvin. Thurs, 1-2pm, Stu Ctr West Lge. \$3/session. Please bring 3 pillows.

Social Events

Strat's Rat - Sat May 8, 8:30pm, Sala or Lobdell. Free, light & dark beer sold (\$.35/16 oz glass). Bottles of wine & coke also available. WTBS providing live announcer & records. College ID required.

24 Hour Coffeehouse* - Enjoy relaxing conversation, piano playing, inexpensive food, candy & drinks. Open 24 hours per day, 7 days per week, Stu Ctr 2nd fl lge.

Movies

Man of Aran; Louisiana Story (Flaherty)** - Film Section. Wed, May 5, 7pm, Rm E21-010, Free.

Fluid Dynamics of Drag (2 parts)* - Fluid Mechanics Films. Thurs, May 6, 4pm, Rm 33-319. Free

Love and Death** - LSC. Fri, May 7, 7 & 9:30pm, Kresge. Admission 75¢, MIT or Wellesley ID required.

Shadows of our Forgotten Ancestors (Parajanov)* - Film Society. Fri, May 7. 7:30 & 9:30pm, Rm 6-120. Admission \$1.

Play Misty For Me* - MidNite Movie. Fri, May 7, 12m, Lobdell or Sala. Free, MIT or Wellesley ID required. Bring Blanket to sit on.

Shampoo** - LSC. Sat, May 8, 7 & 9:30pm, Rm 26-100. Admission 75¢, MIT or Wellesley ID required.

Shadows of our Forgotten Ancestors (Parajanov)* - Film Society. Sat, May 8, 7:30 & 9:30pm, Rm 6-120. Admission \$1.

King Kong** - LSC. Sun, May 9, 6:30 & 9pm, Rm26-100. Admission 75¢. MIT or Wellesley ID required.

Dr. Strangelove** - Humanities Film. Mon, May 10, 7pm, Rm 10-250. Free.

Wavelength (Snow)** - Film Section. Tues, May 11, 7pm, Rm E21-010. Free.

Woman in the Dunes (Teshigahara)* - Film Society. Fri, May 14, 7:30 & 9:45pm, Rm 6-120. Admission \$1.

Phantom of the Paradise** - MidNite Movie. Fri, May 14, 12n, Sala or Lobdell. Free, MIT or Wellesley ID required. Bring blanket.

Wellesley Events

The Wellesley College Black Repertory Total Theatrical Experience[®] – Adaptation of James Weldon Johnson's God's Trombones: A Black Religiou Experience. Fri, May 7-Sun, May 9, 8pm, Alumnae Hall. Tickets \$2.50, \$1.75 students.

Jewett Gallery Exhibitions - Women of Photography, organized by the San Francisco Museum of Art. Graphic Art from the Museum Collection organized by students in Museum Seminar Course. Both thru Sun, May 30.

Anodic Stripping Voltammetry — Potential and Applications for Trace Metal Analysis* — Rebecca Siebert, G; Electrochemical Detectors for Liquid Chromatography* - Thomas McNeel, G. Analytical Chemistry Seminar. 4pm, Rm 8-105

Life in Times of Crisis** - Robert Jay Lifton, psychiatry, School of Medicine, Yale University. Humanitas: An Evolving Perspective Seminar on Technology & Culture. 4pm, Rm 9-150.

Electric Charging in Fuel Filtration* - Peter Huber, G. Mechanical Engineering Thermal-Fluids Seminar. 4pm, Rm 5-234. Coffee 3:45pm.

What and Why is a Multi-Critical Point* - Michael E. Fisher, Cornell University. Physics Colloquium. 4:15pm, Rm 26-100. Refreshments 3:45pm, Rm 26-110.

Appearance of Acetylcholinesterase in Cerebro-ventricular Perfusates under Varying Experimental Condidions* - Marthe Vogt, Abby Rockefeller Mauze Visiting Lecturer. Institute of Animal Physiology, Cambridge, England. Laboratory of Neuroendocrine Regulation, Nutrition & Food Science Lecture. 4:30pm, Rm 54-100. Sherry 4pm.

Friday, May 7

Transportation Management: Is it Self-Destructive?* - Charles Baker, president of Harbridge House, Inc. Center for Transportation Studies Luncheon/Seminar. Luncheon 12n (\$1), lecture 12:45pm (free), Stu Ctr Mezzanine Lge

Ultralow Interfacial Tension and Chemical Flooding Processes for Improved

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Adventures of a Physicist Immigrant* - Victor F. Weisskopf, Institute Professor and professor of physics, emeritus. Physics Seminar. 4:15pm, Rm 4-339. Social hour follows.

Thursday, May 13

Presentation of Student Papers* - Seminar on Materials Resource Policy. 3pm, Rm 13-5101.

Microcomputer Networks in Control Applications* - Scott E. Cutler, G. Laboratory for Computer Science Seminar. 3:30pm, Conference Rm 512A, 545 Tech Square. Refreshments 3pm.

Shock Tube Study of Hydroxyl Radical Reactions* - Tom Kenney, G. Mechanical Engineering Thermal-Fluids Seminar. 4pm, Rm 5-234. Coffee 3:45pm.

Repetitive X-ray Bursts, the Latest Excitement in Astronomy* - Walter H. G. Lewin, physics. Physics Colloquium. 4:15pm, Rm 26-100. Refreshments 3:45pm, Rm 26-110.

Nonlinear Wave Problems in Plasmas* - Abraham Bers, electrical engineering, RLE. Engineering Applications of Nonlinear Wave Phenomena Seminar. 1pm, Rm 38-201.

Friday, May 14

Temperature Programmed Desorption in Fundamental Adsorption and Catalysis

Lobby 7 Events

The Amazing Bob Fellows* - Magician in Bldg 7 Lobby Wed, May 5, 12n.

The Word of Mouth Chorus* - Thurs, May 6, 12n, Bldg 7 Lobby.Free.

The Degas String Quartet* - Wed, May 12, 12n, Bldg 7 Lobby. Free.

The MIT Brass Choir* - Wed, May 12, 12 midnight, Bldg 7 Lobby. Free.

MIT Brass Ensemble* - Concert in Bldg 7 Lobby Fri, May 14, 11:15pm. Free.

Music

Noon Hour Chapel Concert* - Sadako Yokoyama and Yuko Hayashi, flute & harpsichord duets. Thurs, May 6, 12n, Chapel. Free.

MIT Symphony Orchestra Concert* - David Epstein, conductor. Program Debussy's Prelude a L'Apres Midi d'un Faune; Falla's Nights in the Graden of Spain with pianist Ophra Yerushalmi and Stravinski's L'Oiseau de Feu. Sat. May 8, 8:30pm, Kresge. Admission \$1 at door.

MIT Choral Society* - John Oliver, conductor. Program includes works by Stravinsky and Dallapiccola. Soloists: Susan Larson, Beverley Morgan, Alex Stephenson & Kenneth Hamilton. Sun, May 9, 3pm, Kresge. Tickest: x3-4720.

MIT Gospel Choir* — Benefit concert with guest choirs from the Boston area. Sun, May 9, 7:30pm, Kresge. Admission \$2, \$1 students. Tickets: x5-8654 Dorm or x5-7568 Dorm.

cert — Concert by BSO violinist Michael Zaretsky and pianist Phyllis ss. Program includes works by J. S. Bach, J. C. Bach, P. Hindemith and G. esco. Mon, May 10, 7:30pm, Talbot Lve, E. Campus.

Roots of American Music — The Boston Camerata, directed by Joel Cohen. s, May 11, 8:30pm, Chapel. Free.

nbridge Symphonic Brass Ensemble* — Noon Hour Concert Series. Thurs, v 13, 12n, Chapel. Free.

Brass Ensemble* - Concert in Hayden Courtyard, Tues, May 11, 5:15pm.

iam L. Abramowitz Memorial Concert* — The Amadeus Quartet performworks by Haydn, Mozart & Beethoven. Sponsored by Humanities Departt. Sun, May 16, 8pm, Kresge. Free, tickets required. Send self-addressed apped envelope to Music Section, Rm 14N-236.

mber Music Society Concerts* — Wed, 5:15pm, music library, Bldg 14E. e. Info: x3-4892.

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le) 20. Folk Dance Club — International: Sun, 7:30-11pm, Sala. Balkan: 7:30m, Stu Ctr Rm 491. Informal: Fri, 12n-2pm, Kresge Oval (in good weather). eli: Thurs, 7:30-11pm, Sala.

heater and Shows

One Act Comedies^{*} — *The Real Inspector Hound* and *After Magritte*, by 1 Stoppard. MIT Community Players. Thurs, May 13-Sat, May 15, 8pm, see Little Theatre. Tickets available beginning May 8; \$2.50, \$2 w/MIT stu-1D; in Bldg 10 Lobby (12n-2pm) or make reservations at x3-4720.

Exhibitions

Exhibition and Sale of Paintings and Pottery* — Works by Maria Vitagliano. Sponsored by Student Art Association. Opening Fri, May 7, 7:30-10pm; exhibit/sale thru Tues, May 11. Hour: 10am-2pm & 4-8pm; Stu Ctr West Lge. Refreshements.

CAVS Exhibition* — New wall works with net by Virginia Gunter. Tues, Apr 27-Tues, May 11, 9am-5pm Mon-Fri, 40 Mass Ave. Free.

Original Oriental Print Exhibition and Sale⁴ — Sponsored by Student Art Association. Works provided by Marson, Ltd. Fri, May 14, 10am-6pm, Stu Ctr West Lge.

Creative Photography Gallery Exhibit* — Works by Melissa Shook. Fri, Apr 23-Sat, May 15, Mon-Fri 10am-6pm, weekends 12n-6pm, Bldg W31.

Selections from an Autobiography[•] — Recent oil paintings by Lowell Nesbitt. Sponsored by Committee on the Visual Arts. Sat, Apr 17-Sat, May 15, 10am-4pm Mon-Sat, Hayden Gallery. Public preview Fri, Apr 16, 8-10pm.

Hayden Corridor Gallery Exhibit* — Selection of graphic work by Josef Albers and Karl Gerstner from MIT art collections. Thru Sat, May 15. Open daily.

Architecture and Urbanism: A Fantastic Voyage* — Exhibition of photographs and slides from Rotch Library collection. Sat, May I-Sun, June 6; Mon-Thurs, 9am-11pm; Fri, 9am-8pm; Sat, 10am-6pm; Sun, 1-11pm; Rm 7-238. Free.

Strobe Alley* — High speed photographs by Harold E. Edgerton, Insitute Professor and Professor of Electrical Measurement, Emeritus. Bldg 4, 4th fl.

Music of the Celestial Dieties* — Music Library exhibit of manuscript facsimiles & pictures. Daily, Bldg 14E. Hart Nautical Museum⁶ — Permanent exhibit of rigged merchant and naval ship models of yachts and engine models. Bicentennial exhibit: "1776-1976" a frigate, 2 schooners, a gondola, and the Durham boat of the American Revolution. Open daily in Bldg 5, 1st floor.

MIT Historical Collections* — Permanent exhibition Mon-Fri, 9am-5pm, Bldg N52, 2nd floor. Bicentennial Exhibits: Katharine Dexter McCormick, '04; Vannevar Bush, '16; Karl Taylor Compton, and Norbert Wiener, Bldg 4 corridor. The New Technology Exhibit: 2nd floor balcony.

Athletics

Home Schedule* — Wednesday, May 5 — V Lacrosse. Vermont, 4pm, Briggs Field. Thursday, May 6 — V Golf. Trinity, Bowdoin, 12:30pm, Braeburn Cntry Club, Bklne. W V Tennis. Salem State, 4pm, duPont courts. Friday, May 7 — JV/F Tennis. Lawrence Academy, 3pm, duPont courts. Saturday, May 8 — V Baseball. WPI (2 games), 1pm, Briggs Field. JV/F Lacrosse. Trinity, 2pm, Briggs Field. Sunday, May 9 — W Sailing. MIT Team Race, 9:30am, Charles River Lower Basin. Wednesday, May 12 — V Baseball. Northeastern, 3pm, Briggs Field. JV/F Tennis. Phillips Exeter, 3pm, duPont courts.

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

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

Send notices for May 12 through May 23 to the Calendar Editor, Room 5-111, Ext. 3-3279, before noon Friday, May 7.

9 Receive Ida Green Fellowships

By KATHARINE C. JONES Staff Writer

Nine women begin graduate studies at MIT in September as Ida M. Green Fellows.

Seven will be sponsored by Ida M. Green Fellowships and two will be Honorary Fellows. The outstanding qualifications of the Honorary Fellows merited special recognition, but their funding will come from National Science Foundation scholarships. Three of the nine will receive the SB degree from MIT in May.

MIT's Ida M. Green Fellowships, awarded this year for the third time, are made possible by a \$1 million gift from Cecil H. and Ida M. Green of Dallas, Tex., who intended them primarily for women graduate degree candidates committed to furthering their careers at an institution polarized around science and technology.

The awards provide \$4000 in tuition assistance for the 1976-77 academic year and a nine-month stipend of \$2925.

Announcement of the award recipients was made by Jeanne E. Richard, assistant dean of the Graduate School.

The seven regular Ida M. Green Fellows are:

Deborah E. Cohn, a senior at Franklin and Marshall College from Philadelphia, Penn. An accounting major with strong background in mathematics and computer use, Ms. Cohn tutored basic accounting students at Franklin and Marshall for two years. She was elected to Phi Beta Kappa as a junior and received the Jacob J. Miller Prize, given each year to the junior with the highest academic achievement in business administration. For two summers she worked at the accounting firm, Coopers and Lybrand. She has twice served as editor-in-chief of the college yearbook. An accomplished musician, she is a flutist with the college concert and marching bands and with the Woodwind Ensemble and Chamber Orchestra. Ms. Cohn will begin a doctoral program in management science at the Sloan School. Her ultimate goal is university teaching in quantitative methods or business consulting. Karen J. Dominguez, a 1975 graduate of the University of California at Los Angeles from Hawthorne, Cal. Ms. Dominguez worked for a number of years before entering college. She was secretary to the vice president of university planning at the University of Southern California, secretary to the dean at Harvard Graduate School of Design, and administrative assistant at Walden Stock and Commodity Investment Co., Cambridge. In 1972 she began undergraduate studies in the UCLA Fine Arts Department where she was elected to Phi Beta Kappa. For one of her seminars she conducted empirical research on the squatter settlements and urban redevelopment program in Tijuana, Mexico. She received a President's Undergraduate Fellowship to finance writing a book on perceptual psychology as applied to the field of design. Ms. Dominguez, a summa cum laude graduate of UCLA, will move to Cambridge with her family and begin a three and a half year program in the School of Architecture leading to the M.Arch degree.

Elizabeth Kirkman Emerson, a 1973 graduate of Princeton University from Philadelphia, Penn. After studying one year at Vassar College, Ms. Emerson transferred to Princeton where she received the AB degree in psychology with high honors. Since 1974 she has been employed as research associate in the Environmental Group at University City Science Center in Philadelphia. Her work there has involved environmental education and problem-solving and has dealt with such projects as conserving energy in New England, contesting water allocation policies of the Delaware River Basin Commission, and developing a national conduit for appropriate technology. Ms. Emerson will work for the MCP degree in the MIT Department of Urban Studies and Planning.

Carolyn S. Mendelson, who will receive the BA and MA degrees from Brandeis University this spring, from Waltham, Mass. Ms. Mendelson transferred to Brandeis after studying one year at Rice University. From 1973-74 she was head of the grading program for freshman calculus at Brandeis. Also in her sophomore year she was Louis Dembitz Scholar. She has served as office assistant in the Brandeis Graduate Housing Office and programmer for a research project in commutative algebra. Ms. Mendelson is interested in applying the techniques of pure mathematics in analysis and differential geometry to some of the problems of physics. She will begin a doctoral program in the MIT Department of Mathematics and plans on a career that involves mathematics research and teaching.

Helen Phoebe Sdougos, a senior in mechanical engineering at MIT from London, England. Ms. Sdougos will receive the SB degree from MIT this month after three years of study at the Institute. She speaks fluent French and Greek, has an extensive knowledge of classic and modern theater, and is an accomplished pianist. She plans to pursue a program in biomedical engineering. Ms. Sdougos will begin working toward the SM degree this year, with a longer term goal of a PhD program. Diane C. Simmons of Cornell University from Cos Cob, Conn. At the beginning of her junior year, Ms. Simmons transferred from Mount Holyoke College to Cornell where she will receive the BSEE degree later this month. She has tutored in mathematics, science and engineering since her freshman year and at Cornell is active in the Society of Women Engineers. She is a member of Eta Kappa Nu and Tau Beta Pi, honorary scientific societies. During the summer of 1975 she was a technical aide in the Electronic Power Systems Laboratory at Bell Laboratories where she developed a method of predicting the electromagnetic interference generated by DC/DC converters. Ms. Simmons, whose special interests are electrophysics and communication and information systems, will begin a PhD program in the Department of Electrical Engineering and Computer Science.

Amy S. Weinberg of McGill University from Brookline. Mass. Ms. Weinberg, a joint-honors student in linguistics and philosophy, will receive the BA degree from McGill in June. She has been president of both the Linguistics and Philosophy Students' Union arranging for guest speakers and representing students on departmental committees. She is a university scholar and received the James D. Ross Prize for philosophy. Fluent in French, she has also studied Chinese and German. Ms. Weinberg will begin a PhD program in the MIT Department of Foreign Literatures and Linguistics where she will concentrate in syntax and theoretical linguistics.

The two honorary Ida M. Green Fellows are:

Beth C. Levin, an MIT senior in electrical engineering and computer science from Denver, Col. Ms. Levin was born in New Delhi, India, and grew up bilingual. Extensive travelling led to an interest in language which she has pursued in MIT studies. At MIT she has participated in foreign freshman orientation and has been an associate freshman advisor. In the summer of 1975 she worked at Intermetrics Inc. where she documented parts of the HAL/S AP101 compiler for the Compiler Description Document. Ms. Levin will enter a doctoral program in the Department of Electrical Engineering and Computer Science and plans to specialize in artificial intelligence, combining her interests in language and computer science.

Laurel A. Fisher, an MIT senior in sciences-nutrition life from Phoenix, Ariz. Ms. Fisher, with the support of UROP and the College Work-Study Program, has worked in MIT's Laboratory of Neuroendocrine Regulation. During the summer of 1974 her research was supported by the National Science Foundation's Student Originated Studies Program. Her research has involved a series of experimental studies designed to determine the extent to which changes in diet constituents might alter brain biochemistry and behavior. She is co-author of several papers and abstracts published in professional journals. She also has tutored math in public schools and served as a departmental undergraduate representative to the Undergraduate Affairs Committee. Ms. Fisher will work for the PhD degree in the Department of Nutrition and Food Science, specializing in the field of nutrition and brain function.



THE MIT BRASS ENSEMBLE, an 18 member group that plays music of the Baroque and Renaissance as well as 20th century compositions, is rehearsing for three concerts to be given the week of May 9. The Ensemble, an offshoot of the Chamber Music Society, will serenade strollers at the Memorial Drive mall on Sunday, May 9, from a station between Boylston St. and Western Ave. Two final-week-of-classes concerts will be given on campus: the first in Hayden Courtyard at 5:15pm on Tuesday, May 11; the second in Lobby 7 at 11:15pm on Friday, May 14. Compositions by Handel, Dukas, Pezel, Dahl, Joplin and others will be played at the concerts. The MIT Brass Ensemble, organized in 1973, has been directed since 1974 by Robert F. Pettipaw (back to camera), technical assistant in the MIT Department of Humanities.

Three Win Grants For Foreign Study

Three MIT graduate students in the Department of Political Science have received grants enabling them to conduct doctoral research in Western Europe.

They are Lee Otterholt of Eau Claire, Wisconsin, and Eusebio Mujal-Leon and Philip Dine, both of Washington, DC.

Lee Otterholt has received an ITT grant to study in Norway where he will examine the struggle between tradition and modernity and how it affected the 1972 referendum on European Economic Community (Common Market) membership.

Eusebio Mujal-Leon is one of 20 Americans to receive a Social Science Research Council grant. He will travel to Spain and study the

Lucas Receives National Award

Mr. Glenn E. Lucas, a graduate student in Nuclear Engineering, has been awarded the Joseph Warren Baker Fellowship in Engineering for 1976. Spanish Communist Party.

Philip Dine has also received a Social Science Research Council grant as well as grants from the Deutsche Akademische Austauschdienst (German Academic Exchange Board) and the Conference Group on German Politics. He will divide his time between France and Germany doing a comparative study of French and German trade union responses to immigrant workers.

Evans Appointed Acquisitions Editor

The appointment of Arthur B. Evans as acquisition editor for mathematics and science at the MIT Press has been announced by Frank Urbanowski, director of the Press.

Mr. Evans, previously associated with Macmillan, Inc., and W.H. Freeman and Co., comes to the MIT Press from Ginn and Co., where he was program director for mathematics and science at Xerox College Publishing. He is a graduate of Franklin and Marshall College.

Burner to Advise Lehigh University

Weston J. Burner, director of the Information Processing Center has been named to the Visiting Committee of the Lehigh University Computing Center and Center for Information Services. He will serve for a three-year term, effective July 1, 1976. This award is made to one graduate student each year by Research Corporation, a New York foundation for the advancement of science and technology. The fellowship carries a stipend of \$6,000 and a contribution of \$2,000 for the use of the department in which the Fellow is enrolled.

Eligibility for the fellowship requires a bachelor's degree and plans for a professional career in engineering or engineering administration. An engineering school may select only a single nominee each year to be judged against candidates nominated by other schools of engineering across the country.

The fellowship is named for the late Dr. Barker, former dean of engineering at Columbia University and former president and chairman of the board of Research Corporation. Dr. Barker is an alumnus of MIT, Class of 1916, with BS and SM degrees in electrical engineering.

Mr. Lucas is the second MIT student to receive this award. Mr. Evans lives in Duxbury. He and his wife have three daughters.

Forester to Speak At Union College

Jay W. Forrester, Germeshausen Professor at MIT's Sloan School of Management, will deliver the 46th Steinmetz Memorial Lecture May 5 at Union College Memorial Chapel, Schenectady, N.Y. His lecture is titled "Dynamics of Social Systems."

The lecture series honors the memory of Charles Proteus Steinmetz, who was consulting engineer for General Electric from 1893 until his death in 1923. Dr. Steinmetz patented more than 100 inventions.

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This Week in Sports Women's Sailing Team Qualifies for Nationals

By PETER M. CLOSE Director of Sports Information

It was only fitting that the host of the upcoming National Women's Intercollegiate Sailing Championships should qualify for that event.

MIT will play host for the Nationals on June 1-3 at their Charles River facility and the Tech sailors earned their place by winning the New England team title April 25. Nine schools vied for the New England spots open for the Nationals. Defending champion Tufts and always-tough Radcliffe were the co-favorites for this year's regional finalists.

Junior captain Barbara Belt (Severna Park, Md.) and her crew of Sally Huested (Camarillo, Cal.) got MIT going, scoring a low-point skipper total of 32 in the "A" division. In the "B" division, freshman Debbie Meyerson (Southfield, Mich.) and her crew of freshman Audrey Greenhill (East Hills, NY) and sophomore Alanna Connors (Greenwich, Conn.) scored 26 points to give Tech a winning low-point team total of 58 points. Radcliffe followed with 71, Boston University was third with 80, Rhode Island fourth with 88, and defending champion Tufts rounded out the top five with 89.

The winning MIT crew received the Jerry Reed trophy, emblematic of the New England women's intercollegiate sailing championship. Jerry Reed, the retiring MIT sailing master, has been a pioneer of intercollegiate sailing for the past forty years.

The last time a MIT sailing team won the New England women's sailing title, in 1973, the team went on to win the National title. This year, Coach Stu Nelson figures his team has a good chance to dethrone two-time titlist Princeton.

Last year, MIT placed seventh in the New Englands, and did not qualify for the National Championship.

Tennis Reservations

Applications will be accepted beginning Monday (May 10) for the indoor tennis season beginning Sunday, Oct. 31. Season reservations may be made and confinmed in person with Mr. Motroni at the Carr Indoor Tennis Center from 8am-4pm daily.

Lilly Lee Receives **Collamore-Rogers**

Lilly C. Lee, a first-year graduate student from Agincourt, Ontario, has been selected to receive the 1976-77 Collamore-Rogers Fellowship.

A graduate of the University of Toronto, Ms. Lee was first in a class

of more than 100 receiving degrees in civil engineering. At

MIT she is

Still on sailing, the MIT men's team missed qualifying for the North American Championships by a twopoint margin. Tufts, a perennial intercollegiate powerhouse in this area, retained its New England championship over Yale. Tufts scored 52 points, followed by Yale at 77, Harvard third with 86 and MIT fourth with 88. The top three qualify for the national event.

MIT's fourteen men's and women's winter intercollegiate varsity teams totaled 105 wins, 74 losses and one tie, for a .586 winning percentage. These teams included men's and women's basketball, fencing, gymnastics, swimming, and men's pistol, rifle, skiing, squash, track and wrestling.

. . . .

In the world of track, MIT scored 191/2 points in the annual Greater Boston Outdoor Track Championships. Northeastern won the event over Harvard in the seven team field. MIT finished sixth.

MIT's talented junior Rich Okine (Aflao, Ghana) won the GBC 120 yd. high hurdles with a fast 14.6. Other **Tech entries were Frank Richardson** (Sac City, Iowa) 14:11.8, third in the three mile; Jeff Baerman (Skokie, Ill.) 4:17.3, fourth in the mile; Greg Hunter (Brighton, N.Y.) 178' 11" fourth in the javelin, and Jim Williams (Suffield, Conn.) 14 feet, fourth in the pole vault.

The engineer track team travels to Bowdoin College this weekend for the Eastern Outdoor Small College Championships.



Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full name and Institute extension. Only Institute extensions may submit ads by coming in person to the *Tech Talk* office, Room 5-111 and presenting Institute identification. Ads may be telephoned to Ext. 3-3270 or mailed to Room 5-111. Please submit all ads before noon, Friday, May They will be printed on a first come, first served ba as space permits.

For Sale, Etc.

Olympic int stereo sys w/Garrard changer, 8 trk, v gd cond, \$75. x5-6249 Dorm.

IBM mdl B std 11" elec typwrtr, pica w/repeat keys, nds some work. Steve, x3-7315.

Computer A-card files, Shaw Walker; 3"x21/2" index card files. Furn Exch, Windsor St, open Tues & card files. Furn E Thurs, 10am-2pm.

Realistic STA-45 fm rcvr, 15 W/ch, inputs phono, aux, tape mon, wint cab, wi demo, \$100 or best. x5-9331 Dorm.

Kenmore hvy duty washer, exc cond, \$150 or best. Bob G., x3-7734.

Kirk & Sons slvrware, Florentine pattern, perf cond: luncheon knife, \$35.60; 2 teaspons, \$23.60/ea; fork, \$36.80; sugar spoon, \$31.20. Carol, x3-1332. Pink appl: GE elec range, \$50; GE refrig, \$60; Sears Wd highchr, 3 mos, best; 5 spd girl bike, gd cond, best. x3-6487.

Garrard SP20 trntbl w/Empire crtrdg, \$15; GE Wildcat stereo, auto, \$20. Deb McKechnie, x5-7218 Dorm Phys Review Letters & Phys Today, 1/72-3/76, best.

etris, x3-5557

Karate gi, sz 3, v gd cond, \$15; Royal Robbin rock climbing boots, f sz 7, nw, \$38. x3-6025.

Refrig, 2 cu ft, \$45; wint Span provincial hdbrd, best; used m & f 3 & 10 spd bikes, \$45-\$100. Joel, 876-6555, 5-6pm wkdys, all day Sat.

Refrig, 7.6 cu ft & 1.9 cu ft frzr, lk nw, \$120, x5-6486 Dorn

Refrig, 2 yrs, gd cond, \$65. Joan, 787-1811.

Kenmore dishwash, prac nw, port auto, \$120 or best; Coleman 2 plate stove, fuel operated, \$12 or best. Mary Rose, 254-5780, aft 7pm.

Rugs, 9x6, gold \$30, yel \$35, x3-4361

Genuine leath Indian handbag, embroidered w/mir-rors, \$70 value, \$30 or best; blu soft leath loafer w/2" heel, sz 8 ½ M, nw, made in Paris, \$40 value, \$20 or best. Irene, 738-4675.

Pr Gdyr 6.45x14 tires mtd Ford rims, exc cond, \$50. Steve, x5588 Linc.

Sci Amer, 5 yrs, 1/67-12/70, 3 missing, exc cond, make offer. Seth, x3-2627.

Stereo rcvr, Camb Audio 1500, nrly nw, \$140. Jeff Greene, 266-2968.

Asst f winter clothes, sz 13, cheap; Plant-Gro L twn bed, firm, gd cond; asst other furn. Pat, 267-5698, evgs best.

Twn bed; couch; both gd cond. Jack, 267-1352.

Polaroid 420 folding pack camera w/490 focused flash, lk nw, \$20; canvas camp cot, \$5. Hank, x8-4166 Draper.

Tube tent, 2-man, about 10 lbs, coated poplin, \$25. Martha, x3-4710.

Alvarez classical guitar, perf cond, w/soft case, \$75. x5-6689 Dorm.

Polaroid SX-70 deluxe, almost unused, recently bought, \$110; film, \$4. Call 494-8882, evgs.

Furn: baby equip:hsehold goods; lvg entry, everything must go; 3 spd m bike, exe cond, \$40. Call 354-3976, evgs.

K set; LR furn; desk; bkcse; Fulda 185x14 stl belted stud radial snows; 1 Peugeot 504 wgn whl; trntbl. x8-1193 Draper.

Lg freezer, could be converted into refrig/frzr w/nw thermostat, \$20; plush royal blu rug, 9x12, \$30. Vi-vian, x5-8545 Dorm.

Sofabed, v gd cond, ask \$90. Call 547-3415.

Tires, 4 b nw Bridgestone Skyway-H, 13x1.65, 4 ply rating, polyester t-less ww, \$80. Call 965-4635.

F78x15 belted forglas Frstne tire, exc cond, \$13 or swap equivalent F78x14 or G78x15. Glenn, x8-1505 Draper.

KLH 52 stereo rcvr, orig \$350, 2½ yrs; Garrard 55-B trntbl; Fisher XP55-1 spkrs; Hanson Intnl wax ski boots sz 10-12; 204 cm K2 skis; Wilson T2000 tennis rckt strung w/gut; refrig w/legs. Joel, x5-6649 Dorm, lve msg.

Used books, hrdcover & paperbacks, lists avail; Campione del Mondo bike riding shoes, 9M, w/cleats, worn 4X, lk nw, \$15; VW stud snows w/rims, pr, \$15. x3-3842.

V sleek f life jckt, molded PVC foam, adjust side strap, lk nw, \$9; yng m sport coat, brgndy plaid, sz 20, b nw, orig \$22, \$12; b nw Pappagallo wht leath shoes, ankle strap, 9M, only \$7. x8-2577 Draper.

Packing boxes; bkshlvs; magnetic computer tapes & racks; shelving for printout or cards; Acco-Press printout binders. Call 547-3336.

F pure wool Norwegian cardigan, royal blu, slvr bt-tns, lg, \$40; gal sz tin lined copper teakettle, exc cond, \$30; bge 19: B sink w/chrome fixtures, \$25. Eva, 3-5742.

WI exch 10 spd Raleigh Record bike, gd cond, for 3 spd bike, gd cond; gn sz wtrbed w/thermostat, htr, liner, \$100. Doron, x3-7457.

Victor calculator mdl 1503 w/std, \$25. x3-7138. ~ AC, 8000 BTU, \$80. Betty, x182-183-277 Bedford. AR trntbl, \$50. x3-3506.

Asahi Pentax SP body, perf & cln lk nw, \$95; Super Takumer 1:2/55, \$30; GE b&w TV, 15", 2 yrs, exc cond, \$40. Terry, x3-5106, 11-1.

Lady Sunbeam heated hair curler w/all attach, b nw, \$10. Hank, x8-4166 Draper.

Garrard trntbl/changer, gd cond, \$20. Lee, x5-6687

Gilt mirror, \$10; 6 pc BR set incl 4 poster bed, \$180; bkcse, $8^{*}x^{2}$, \$60; hall tbl, \$25; dresser mirror, \$10; 2 file cabs, \$10; 5 ½ mtl K cab; \$7. Reed or Carol, 628-6641.

Dbl matt & box spr, \$25/both. Steve, x3-6037. Studio couch, \$15; Kodak Retina flash attach; 80 mm lens; Argus C3 flash attach; 2 H78x15 Ford mtd stud snows, x8-1589 Draper.

Dreeps for sale, cute as kittens, hsebrkn. Ditto, x3-

Lg old desk, glass top, lots storage space, \$20. Alan Millner, 862-7893.

Qn sz bed w/frame, 9 mos, \$140; mpl bureau w irror, \$30; 4x6 Design carpet, \$30; coffee tbl, \$25. John: 965-3160

Sony stereo comp sys, amfm radio, trntbl, spkrs, best, x3-4904.

'67 Opel, runs, lvg cntry, must sell, ask \$150. Call 661-7425. Animals

Tiger, Goldie, Thysge & Miempie nd nw homes, free kittens, 2 mos old. Sue, x3-3795.

Found: adult m dog, Camb nr MIT, tan w/wht spots. x5-6420 Dorm.

Used but decent set of rerds "The Art of Listening"

Want 13" 4 hole whl to fit Mustang II. x3-6116.

Either/both issues of Armadillo comics, offer \$5/is-

Solid wd DR tbl, pref oak or wlnt. Susan, x3-7008.

Going on Ive? Married grad stus seek to care for sub-urb res in your absence, approx 9/76-9/77, flex ar-rangements & compensation. x3-7655.

Mature, gt f grad stu wants to hsesit for sum, wl care for hse, plants, pets, etc. Tina, x3-1541, lve msg.

Ride to Minn or Wisc, lve 5/19 or 5/20, wl share driving & exp. Julie, x5-6510 Dorm.

Nd I or 2 Commencement tckts, wl pay. Ingrid, x8-3958 Draper.

Graduation tekts nded, 3, wl pay. x5-6655 Dorm.

Furn hse or apt w/mod K, qt qrea, 9/76 thru 5/77, for visit prof & wife, no chldrn or pets, ample refs. R. H. Miller, x3-2263.

Camb-Bel area, sum sub, 1 or 2 BR apt. Yvonne

Copies of Frshmn Handbook; Frshmn Picturebook;

Gen Cat: Members of Fac & Admin: Pres Report; Stu Directory: Sum Session Cat; Technique; This is MIT: Treasurer's Report: Voodoo; etc, all years. Send to Historical Collections, N52-260.

Tekts for graduation, wI pay reas price. Dave, 641-0680, aft 6pm.

Sm apt in priv hse, BR, B, Kette, sitting rm, Belmont

Working parent(s), I nd after-sch care in Camb area, pref home w/brkn TV, also interested in others who share my problem. x3-5612.

F fac seeks to share sum hse within 100 mi radius of

Want I graduation tckt, all reas offers considered.

Nd 2 xtra tckts for grad ceremonies, wl pay reas amt. Sue, 876-1593, kp try.

Tckt to commencement exercises, if U have one U don't need, I could use it. x3-7787.

Graduation tekts nded, wl beat any offers. x5-8159

Nd tckt for commencement, wl pay. Call 933-1990.

One tckt to Wings Concert. Roy, x5-6248 Dorm.

Nd desperately 2 tekts to commencement. Rob, x3-

Kodak Instamatic camera w/auto film advance, gd price for working examples. Jim, x3-1926.

Want 2-3 BR hse w/yard, Arl/Bel area, reas rent, nr T. Maryanne, x3-6724.

Responsible admin staff member seeks oppty to

hsesit for fac member w/sabbatical lve during up-coming academic'yr, Camb or Bos loc best. x3-3837.

BR apt avail 6/1 in Nwtn area, all util pd. x3-6069.

Light-weight sleeping bag. Call 267-3717, aft 6:30pm.

Tang Hall, sum sub w/Sept opt, own BR in 14th fl river view apt w/2 f, mod K, Indry facil, gd maintenance, must be MIT affil, avail immed, \$131. Marsha, x3-1552, or Housing Office.

Camb, sum sub avail end May-beg Sept, by City Hall, walk to MIT, own BR, mod bldg, \$100.

Rmmate wanted for sum (into fall if desired), own BR, nr Inman Sq, semi-coop living, \$80 + util. Call

Sum sub w/fall opt, avail beg June, frndly rmmates, nr Inman Sq, \$50 + util. Dave, 491-0608.

Sum sub lux apt nr Cent Sq, share w/f grad stu, own rm, AC, dw & disp, nd own furn, \$150, pkg xtra. Call 492-8135.

Sum sub, immed opening, 3 BR Camb apt, 15 min walk MIT, \$84/BR. Call 547-3728.

Prsn for Back Bay, 3 BR apt, B, K, LR, on Fenway,

Fan for dorm rm, cheap. Sue, x5-7152 Dorm.

Roommates

Michael, 547-1221.

547-5107

Nd 2 tekts to graduation. David, 494-0388.

\$\$ for your graduation tckts. x5-7679 Dorm.

Sm refrig for \$50 or less. Pete, 536-1771.

Pr m ice skates sz 10. George, x8-2339 Draper.

Player piano rolls. Joan, x7002 Linc.

AC: f bike. Call 262-6153.

Homsy, 266-5318.

Hills area. Call 484-5724.

. Sherry, x3-4068

Kevin, x8-3695 Draper.

Dorm

3249

wl pay 1/2 Coop price. Call 494-8221, evgs.

sue. Erik, 492-0265, aft 5pm.

Lost and Found

Wanted

'67 Chevy Malibu, reblt eng, front end, nw radiator, 19 mpg; \$500. x3-4021.

'68 VW bug, It blu, 59 K, exc cond, 32 mpg, best Barry, x5-8475 Dorm.

'68 VW bug, exc working cond, \$750 or best. Bar-bara, x3-5706.

'69 Ply Cstm Sub wgn, p st & br, AC, air shocks, im-maculate, \$1,000 firm. Bob Cronin, x8-4417 Draper. '69 Austin America, 2 dr, 35 K only, 30 mpg, amfm radio, gd run cond, nds nw U-joints, \$450 or best. Joseph, x3-6784.

69 VW beetle w/sunrf, 52 K, gd tires, v gd cond, \$1,200. Hal, x5809 Linc '69 Travelall, 4 whl drive, 25 K, best. x3-4532.

'70 VW, exc cond, nw not reblt '74 eng w/14 K, 31 mpg, 1,295. x636 Linc.

'70 Chevy Imp, v gd cond, gd radials, 58 K. x3-2772. 71 Ply Fury III, V8 radials, well maintained, \$1,095.

Bob, x7296 Linc.

'71 Sprite trlr, slps 4, stove, refrig, sink, htr, surge brakes, xtra incl, \$1,000. Tony, x3-4600.

'71 Toyota Corona Mark II wgn, AC, 4 spd, radials, roof rack, just tuned, exc cond, 30 mpg, 90 K, \$1,400 or best. x3-6616.

clutch, 4 exc tires, amfm, hvy duty suspension, snows, v attractive, 62 K, \$1,295 or best. Bob, x3-7220. '72 Vega Htchbk, std, exc mech cond, v little rust, nw

'73 Vega Htchbk, slvr gray, 4 spd, am & stereo, snows, 39 K, exc cond, \$1,200. Roberto, 494-8317. '73 VW Superbeetle, 21 K, AC, amfm, I ownr, std, reg seviced, exc cond, \$2,450 or best. Lee, 494-0360, evgs

'74 Datsun B210, 2 dr sed, grn, std, am radio, 30 K, \$2,000. Engel, x8-1188 Draper.

'74 Mercedes Benz motor home, the last word in conv, comf & quality. W. Beebee, x8-3624 Draper. '69 BSA 650 cc, stock twin carbs, compl reblt (rings, bearings, brakes, etc), best; 36 hp VW eng, dismantled, best, x3-3413.

 $^{\circ}71$ Yamaha 350, gd cond, nw tire, lugg rack, 13 K, \$375. Call 965-2504, lve msg.

'73 Honda CB 175 twin, 2.8 K, \$500. x113 Linc. '74 72 mpg Honda XL-175, lk nw cond, only 595 orig

rd bike, steal it for \$599. x5844 Li

'75 Honda CB360T, 6 spd, disc br, fairing, lo miles, showrm cond, \$900 nego. Call 661-3339.

Suzuki 125, fac hop up kit, many xtras, strictly dirt, exc bike, best. Call 834-4836.

Housing

5445.

4242.

4832

4251.

7188

Lex, huge

492-8058, evgs

Back Bay, furn apt, K, sub June-Aug, \$300 incl util. Jeff or Art, 536-3931.

Back Bay Ig cln stu, sm, safe bldg, Mariborough St, nr Copley Sq, mod K & B, avail now w/fall opt. Call 536-6441.

Back Bay, sum sub w/opt, 2 BR, blk T, avail 6/1, \$250 incl ht, ht wtr. Call 353-0823, evgs.

Bel, beaut 6 rm apt nr shops & T, 3 BR, K w/self-cln oven, d&d, frost-free refrig, mod B, frpl LR, Indry, yard, garage, avail 7/1, \$350. Marion, x3-2023.

Bos, Fenway, nr Neastern, sunny BR apt, bay wndws, elegant B, nice street, blk from T, Indry in wndws, elegant B, nice street, blk from T, Indry i bsmnt, sub 6/1 w/Sept opt, \$162 incl ht. x3-6693.

Bos, sum sub avail anytime aft 5/15 to 8/15 w/opt, furn for sum, huge 25x25 studio, cherry panel, river view, frpl, 472 Beac St, conv to MIT, bldg unusually secure, pkg avail, \$200. Moore, x3-2501.

Bos, sum sub w/Sept opt, stu w/frpl, avail now, furn, \$125. Jackie, x3-5907.

Bos. short walk MIT, 3 rms, avail early June-8/28, blk Mass Ave bus, fully furn, all util, \$190. Eva, x3-

Camb, furn effic in Wstgate, avail 6/1-8/31, \$180 incl util. Call 494-8355, aft 7pm.

Camb, H Sq, mod BR apt, sub avail June, \$242. Call

Camb, lg stu apt, furn, 5 min to Harv, free pkg, great

refrig, avail 6/1 w/Sept opt, \$135 incl util. Bob, x3-

rms, compl furn, frpl, free pkg, \$250 + util. Call 491-

Camb, comf & conv, sunny BR apt btwn MIT & Harv, hrdwd floors, bay wndw, avail 6/1 or sooner. Dave, x3-4069.

Camb, mod BR, K, LR, B, dw & disp, AC, big wndws & closets, Indry in bldg, qt, Harv St nr Inman St, 20 min walk MIT, avail 6/1, \$260 incl ht, ht wtr. x3-

Camb, nice effic on Mass Ave, avail now, mins from MIT, \$190 all incl. Antonio, 494-8765.

Camb, Cent Sq sum sub w/fall opt, BR, mod K, AC

dw, off-str pkg avail, Indry facil & bsmnt storage in bldg, \$250 + elec. Eileen, x3-4271.

Camb 2 BR apt, furn (U keep), AC, avail sum w/Sept opt, \$300. x3-1965.

Lex, hse avail 6/1-12/1, cpls, no pets, 2 BR, study, LR, DR, frpl, lg yard, nr T, \$340 + util. Ann, 861-

Lex, huge contemp, gd views, 5 BR, select nbrhd, rent July-Aug/early Sept. x3-3148.

Camb, sum sub 6/1-8/31 nr BU Bridge & S&S,

working toward the SM degree, specializing in geotechnical engineering and plans to continue



through the doctoral level.

For the past year Ms. Lee has been a research assistant on the dredging research project in the Department of Civil Engineering, where she has performed laboratory tests as well as carried out extensive field work.

A native of China, Ms. Lee has lived in Honduras and is now a citizen of Canada. She is fluent in Chinese, Spanish and English. Ms. Lee plans a career in research, teaching and consulting. She also hopes to spend some time working in underdeveloped countries.

The Collamore-Rogers Fellowship was established to aid women students in graduate study. It provides tuition and a stipend for living expenses.

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washer, cheap. Larry, x3-3939

Brn wiglet, 100% human hair, orig \$19, nvr worn, \$5, Alice, x3-4897.

Wded hse lot, approx ¼ acre, overlks Bass River, S. Dennis, \$15,000. Judy, x8-2885 Draper.

Raleigh 3 spd bike, f, exc cond, \$60; Fischer 190 cm skis, must sacrifice, also ski boots. Jeff, x3-6328

Bike, tote, sgl spd, comes apart (2 pces) for easy storage, lk nw, \$30. Charlie, x3-4747, afts.

DR oak veneer sidebrd, \$25. Roberta, x3-4067.

Grandfather clock, just finished building, moving moon dial, 74" hi, blk wlnt, \$449. x5844 Linc.

Cartop camper, slps 4, compl w/stove, dinette, sunshade, bath encl, orig \$500, \$240; elec clothes dryer, fam sz, auto, low heat & cool settings, gd cond, \$45. Dave, x5514 Linc.

Bike, nds a little work but works as is, 3 spd Eng, \$20 or best. Mike, x5374 Linc.

Seagull long shaft 4 hp outbrd motor, exc cond, \$175. x8-1189 Draper.

Pr Ford 14" rims, 4 hole, w/mtd belted snows, \$20. Steve, x7367 Linc.

Must sell bef 6/1: dinette & chrs, \$50; chest of drwrs, \$30; desk, \$20; other hsehold items. Call 494-9062, morn & evgs.

Full sz violin w/bow, case, shldr pad, xtra str, perf for beginner, nds nw pegs, \$100 nego. Susan Hansen, x3-2871, lve msg.

Ital f 5 spd (derailleur) bike, 26", Pirelli tires, hand brakes, xtra big bskts, best over \$50; headlamp w/gen, \$5 xtra; hand crank ice cream freezer, old but works fine, \$5. Janis, x3-4716.

Old key wind railroad conductor's watch, made by Waltham ca. 1910, exc cond, \$75 firm. Bill Bradient, x8-1248 Draper.

Unused Gorham strl slvr, wht paisley pttn, list \$183/5 pc setting, wl sell 8 pl setting + 2 srvc pces for \$1,000. Bob, x3-7085.

Yamaha FG-101-1 full sz acoustic guitar, case & strap, nw, \$150. Terry, x3-5912.

Soligor zoom lens f3.5, 80-200 mm Soligor wide angle lens f2.8, 35 mm auto for Minolta mnt; both exc cond, best. Al, x7861 Linc.

Argus 810 super 8 movie camera, \$50; 9x12 deep pile rust rug, \$50. Irene, x8-3591 Draper.

M 26" 2 spd bike, \$15; Mamiya/Sekor 35 mm SLR, \$35; dinette set w/4 chrs, \$35; oscilloscope, \$15. John, x3-4462.

Mdl 2200 Addresser w/blank stencils & ample su ly ink; mdl 416 AB Dick mimeo, ample ink, ideal business or org, \$350 or best/both. x3-2119. ideal sm

Zenith port TV, works well, \$15; Admiral refrig, \$15.

Vehicles

'55 MG TF-1500, classic conv, functional artwork, in daily use, \$2,500. x3-6517.

'64 Corvair Monza, 3 spd, posi, reblt eng, exc body & int. John Z, 868-3474

'65 Olds F85, p st & br, auto, 8 cyl, '76 sticker, runs well, ask \$200, x5522 Linc.

66 Dodge Charger, exc cond, amfm 8 trk stereo, nw brakes, best around \$500. Call 323-8975.

'66 (late) Opel Kadett, economical, over 34 mpg, gd cond, sparingly used, 47 K, nw water pump, etc, \$590 or best. Call 862-4826.

'66 Ply Val, 4 dr, gd tires, 20 mpg, nw radiator, \$300. #N-4662 Draper.

Newton, 2 fam hse, 2 BR apt, sunporch, garage, Underwd Sch, conv to bus & tpke, chidrn & pets welcome, avail 7/1, \$350. x3-2291.

W Rox apt, 2nd fl 2 fam hse, 4 BR, 2 B, spac LR, DR uters, no pets of Bill Mac, x7075 Linc.

Som, sum sub 2-3 prsns, furh, \$165. x3-6669.

Som, sum sub, BR, K, LR, DR, pkg, furn, cool & qt, for responsible indiv or cpl, \$165 + util. Carl, x3-4853.

Topsfield, 6 rm hse, 2 BR, LR, K, DR, fam rm, breezeway & garage, $\frac{1}{2}$ acre lot, dead end st, avail 6/15, \$310 + util. Call 887-8418.

Apts avail Tang Hall, to MIT grads or affil. Housing Office, x3-5148.

Farm hse, qt entry surrounding in Line/Concord area, sum rental, Mark, x5-6650 Dorm.

Cottage, Owl's Head, Me., Penobscot Bay, avail for Tom, x613 Linc.

Ludlow, Vt, beaut mod & fully equip old farmhse, 11 acres, magnificent view, 6 BR, 3 B, sauna, sum rent \$500/mo, ski seas \$3,500, sale \$110,000. Call 484-

Madison, NH, secl nw mtn top hse, spectacular views, set in 100 priv acres, 5 BR, all conv, gd climb-ing, hiking, sailing, boating, swimming, \$700 July on-ly, x3-3641.

Highland lake, Stoddard, NH, lake front cottage all facil, frpl, scr porch, rowboat, beach, slps 6 comf hrs Bos, avail Aug 7-21, \$175/wk. Call 843-2279

Rent 2 BR cottage & bunkhse on sm, cln lake in Wht Mtns, canoe & rowboat incl. Call 1-369-8054, evgs.

Fam of 4 seeks lodgings Bklne w/in districts of Baldwin or Runkle sch, former IBM sys eng now in PhD prog at MIT, have unusual hse 20 mi Yale for rent surrounded by wds, nr lake, \$300 + util. R. Lander 5.1481 rent surrounded Lawler, x3-3481.

Rmmates, 2, share Arl apt w/f grad stu, porch, yard, nr H Sq bus, avail 6/1. Marjorie, x3-4915

avail sum & next yr. Steve, x3-6476

F rmmate wanted 7/1 or sooner-8/31 (psbly next yr), share 2 BR apt nr Kenmore Sq on Beac St, huge BR, qt secure bldg, \$127.50 + util. Susan, x3-5673.

F, sum & psby fall, MIT bldg across from Orson Welles, avail 6/1, \$106 + util. Marianne, 492-3098.

Carpools

Want ride from Arl Hts to MIT M-F, 9-5, wl share exp. Phyllis, x3-3821.

Miscellaneous

Math tutoring: 18.100, 18.701, 18.901, basic college math, MIT grad stu w/much exper, \$5/hr, cheap, x5-9864 Dorn

Exper flute instr by Eastman grad. x8-3558 Draper.

WI type theses, term papers, etc. IBM Correct Selec. en. x3-2362 Carr

Happy birthday, CBS, and TT, too.

Exper tchr of Eng as foreign language wl conduct group lessons, 9:30-11am, Tues & Thurs during June & July, ttl cost \$68, psbl babysitting arrangements made. Call 661-3722.

Graduating stus from Wash, DC: your fam can fly up & back for ½ off normal fare (charter rate). Janet, 354-2250.

WI type theses, pe theses, term papers, reports, etc. Correct Selec. Phyllis, x3-4237. IBM

Typing theses, manu, term papers, etc, IBM Correct Selec II. Linda, x3-7023.

bookkeeping duties. Excellent secretarial skills, in-cluding shorthand required. Formal training in music, drama, arts management desirable. Position is for academic year only. (Sept through May). B76-167 Secretary IV to faculty members working in manage

Secretary IV to lacuity members working in management science at the Stoan School of Management to type general correspondence, reports, class materials; answer phones; maintain records and files; arrange travel. Typing skill and the ability to type technical material and to handle an occasionally heavy work load required. B76-166 (5/5).

arrangements); act as liaison between students and section; type correspondence; maintain mailing lists; circulate activities announcements; handle some

Secretary IV to Science Librarian and Professional staff: type correspondance, reports; sort and dis-tribute mail; prepare payroll reports; maintain files and records: collect fines; coordinate maintenance and repair; handle meeting room reservations. Secretarial school training or experience, organizational skills and the ability to work without se supervision required. B76-109

Secretary IV to two faculty members in Center For Secretary in to two faculty memoers in Center For Space Research: type correspondence and reports; arrange meetings, travel; answer phones; provide liaison between students, staff and faculty. Requires excellent organizational and typing (including technical) skills; ability to work independently. B76-161 (4/29) 161 (4/28).

Secretary IV in MIT Press Acquisition Dept. Will type correspondence, proposals, contracts; maintain files; duplicate and distribute materials; help administer publishing contracts by obtaining signatures, processing documents, ordering royalty advances; provide liaison between acquisition editors and other Press departments. Required fast, accurate typing; good organizational skills; precision with detail; flexibility; knowledge of English usage. B76-163 (4/58) 163 (4/28).

Secretary/Receptionist III for Philosophy Depart-ment headquarters. Will answer phones; type cor-respondence and manuscripts; answer student and other inquiries; order textbooks, maintain student records, file. Required one year of secretarial ex-perience, good typing skills; ability to work with fre-quent interruptions. Familiarity with academic en-vironment desirable. B76-171 (5/5).

Secretary III to research group in Meteorology. Wil handle accounts: type correspondence and technical manuscripts; arrange travel; help with some technical work (computations, graphs). Requires good typing, competency in math. College background preferred. B76-162 (4/28).

Sr. Clerk III-IV in the General Purchasing Office to Sr. Clerk Interv in the General Parchasing Office type, distribute, follow-up on various purchasing forms; process invoices; type correspondence; answer several phone lines; arrange travel; reconcile monthly statements; open and distribute mail. Typing skill, facility with figures, ability to set priorities and work with frequent interruptions required. B76-160 (4/28).

Sr. Clerk III, part time in Medical Dept. Dental Clinic will type routine correspondence and forms; file patient records; answer phones and schedule ap-pointments in absence of senior secretary; handle other clerical projects as necessary. Good typing and the ability to work with detail in a busy office setting required. Previous office experience preferred. 20 hrs/wk (Mon-Fri, 1pm-5pm). B76-170 (5/5).

Sr. Clerk III in the Medical Dept. Records Room to Sr. Clerk III in the Medical Dept. Records Room to secure and maintain patient data, and code for inclu-sion in computerized system. Will also maintain records and corresponding index file; audit and code forms and perform related clerical procedures. Can-didates must have light typing skill, the ability to print legibly and to research data independently. A high degree of accuracy with detail also necessary. 37½ hr. work week. B76-169 (5/5).

Technician C, temporary in the Laboratory for Nuclear Science. Duties will include wiring, keeping Nuclear Science, Duties will include wiring, keeping apparatus in good condition; performing laboratory tests and analyses; handling epoxies. Knowledge of wiring and ability to solder required. Experience with machine and hand tools and with sheet metal desigable. Position is for up to a maximum of 1 year. H76-40, 41. (5/5).

Waitress/Waiter. Set tables, take orders, serve food mainessy mainer. Set tables, take orders, serve food and beverages on banquet trays. Clear and reset tables. Dust chairs, wipe table clean. Experience is helpful but not necessary. 11:00am-3:00pm, Monday-Friday. Job nos. H76-52, 33, 54; 5:00pm-9:00pm, Monday-Friday. Job nos. H76-56. All posi-tions may include weekend shifts. (4/28).

The following positions were still available at *Tech Talk* deadline. The date following each position is the date of the most recent *Tech Talk* issue in which the position was described.

ADMINISTRATIVE STAFF:

A76-4, Prog. Asst., Inf. Proc. Center (4/14) A76-8, Applications Programmer, Office of dmin. Inf. Systems (4/7)

- BIWEEKLY: B75-543, Sec. IV, Chemical Eng. (3/31) B76-83, Sec. IV, Medical Dept. (3/10) B76-90, Sec. IV, MIT Devel. Foundation (3/17) B76-93, Sec. IV, Mechanical Eng. (3/24) B76-110, Sec. III-IV, MIT Assoc. (3/31) B76-120, Sec. III-IV, Treasurer's Off. (4/7) B76-128, Tech. Asst. IV, Nutrition & Food Sci. (4/14)
- (4/14)
- B76-129, Sec. IV, Planning Office (4/14) B76-135, Sec. IV, Center for Cancer F
- (4/21) B76-141, Admin. Asst. V, Earth & Planetary Sci.
- (4/21)

- 4/21)
 B76-144, Editorial Sec. IV, Physics Dept. (4/21)
 B76-145, Sec. III-IV, Benefits Office (4/28)
 B76-147, Sec. III, Civil Eng. Dept. (4/28)
 B76-149, Tech. Asst., Medical Dept. (4/28)
 B76-150, Sr. Clerk III, Stud. Loan Office (4/28)
 B76-151, Sec. III, Medical Dept. (4/28)
 B76-154, Sr. Clerk IV, Comptroller's Office (4/28)
 B76-155, Sec. III, Alumni Placement Office (4/28)
 B76-156, Tech. Asst., Histo. Collections Dept. (4/28)
- /28)

Chomsky Named Institute Professor

(Continued from page 1) this knowledge must be innate.

These views of Professor Chomsky's have exercised a very direct influence on linguistics: they have radically altered the set of problems that linguists study and the type of answers that they seek. These views have also influenced cognitive psychology and those branches of philosophy that are concerned with cognition by openly challenging the widely held opinion that organisms acquire from experience (i.e., learn) most of the knowledge that makes their communication by language possible. This challenge has involved Professor Chomsky in a series of controversies with both psychologists and philosophers, among them some of the best known names in these fields.

Born in Philadelphia in 1928, Professor Chomsky completed his undergraduate and graduate education at the University of Pennsylvania where, in 1955, he completed his work for the PhD under the guidance of the well-known American linguist, Zellig Harris. He was a Junior Fellow of the Harvard University Society of Fellows from 1951-55. The major theoretical viewpoints of his dissertation, titled "Transforma-tional Analysis," appeared in the monograph Syntactic Structures, which was published by Mouton and Co., the Hague, in 1957.

In addition to a large number of articles, Professor Chomsky has published the following books on linguistics: Cartesian Linguistics (which was rated one of the ten best books of the 1960s by Time Magazine); Aspects of the Theory of Syntax; Sound Pattern of English (with M. Halle); Language and Mind; Studies on Semantics in Generative Grammar; Reflections on Language; and The Logical Structure of Linguistic Theory.

Dr. Chomsky joined the faculty of MIT in 1955 as an assistant professor in the Department of Modern Languages and Linguistics (since re-

Madden Named Fellow of AGU

Dr. Theodore R. Madden of Somerville, professor of geophysics and graduate registration officer in the MIT Department of Earth and Planetary Sciences, has been elected a Fellow of the American Geophysical Union.

The rank of Fellow, never held by more than three percent of the entire AGU membership, is awarded in recognition of acknowledged eminence in some branch of geophysics. Professor Madden was recognized for his advances in seismic and other geophysical theory and for inspiration of students and colleagues.

D76-34, Project Coordinator, Energy Lab. (3/24) D76-40, Tech. Asst., Architecture (3/31) D76-44, postdoc. res., Physics, Lab. for Nuclear Sci. (4/14) D76-45, Plasma Physicist, National Magnet Lab.

- (4/14)D76-46, Plasma Physicist, National Magnet Lab.
- (4/14)D76-47, Plasma Physicist, National Magnet Lab.
- (4/14) D76-48, Plasma Physicist, National Magnet Lab.
- (4/14)D76-49, Plasma Physicist, National Magnet Lab.
 - (4/14) D76-50, Theoretical Solid State Physicist,

named the Department of Foreign Literatures and Linguistics) and a staff member in MIT's Research Laboratory of Electronics. In 1958 he was made an associate professor and in 1961 was appointed full professor in the department. In 1966 he was named Ferrari P. Ward Professor of Modern Languages and Linguistics.

During his career at MIT Dr. Chomsky has taken leaves of absence to teach and do research at other institutions. From 1958-59 he was in residence at the Institute for Advanced Study at Princeton, New Jersey. Dr. Chomsky was Visiting Beckman Professor of English at the University of California, Berkeley, in 1966-67. In 1969 he delivered the John Locke Lectures at Oxford and the Shearman Lectures at University College in London. He delivered the Bertrand Russell Memorial Lectures at Cambridge University, London, in 1970. In January, 1976, he was Cecil H. and Ida Green Visiting Professor at the University of British Columbia at Vancouver where he presented a series of major lectures.

Professor Chomsky's political activities also have brought him to national and international attention independently of his work in linguistics. His political books-among them At War With Asia, American Power and the New Mandarins, and Peace in the Middle East?-have been the subject of comment and controversy in this country and abroad.

Professor Chomsky has received honorary degrees from the University of London, the University of Chicago, Loyola University, Swarthmore College, and the University of Massachusetts. Delhi University, in India, honored him in 1972 with the Doctor of Literature degree, on which occasion he delivered the 1972 Nehru Lectures. Professor Chomsky is a Fellow of the American Academy of Arts and Sciences and of the National Academy of Sciences, and a member of numerous professional societies.

Professor Chomsky and his family make their home in Lexington, Mass

2,200 Alumni Expected For Technology Day

(Continued from page 1) gy, "Viruses, Cell Regulation and Cancer."

The alumni week program will include 13 major class reunions, seven departmental reunions, five "mini" class reunions and one living group reunion-the most reunions ever to take place on campus.

Technology Day '76 actually begins on Thursday night, June 3, with the traditional alumni night at The Boston Pops. Pops tickets will be available on Monday, May 12, in the lobby of Building 10. Call Joe Martori at x3-4876 for information.

The Friday program-in addition to the symposiums on energy and medicine-has a breakfast in the Sala de Puerto Rico in the Student Center, a memorial service in the MIT Chapel, a noon luncheon at which reunion classes present their class gifts and a late afternoon reception in the Sala de Puerto Rico.

There also will be "A Special Look at MIT in the 1920s," provided by Dr. James R. Killian, Jr., former MIT president and now Honorary Chair-

Rosenblith, Ross Elected By NAS

(Continued from page 1)

Karl W. Deutsch, former member of the MIT faculty, professor of government, Harvard University.

Joaquin M. Luttinger, '44, professor, Department of Physics, Columbia University.

Bruce H. Mahan, professor, Department of Chemistry, University of California, Berkeley, a member of the MIT Corporation's Visiting Committee for the Department of Chemistry

Kenneth G. McKay, '41, executive vice president, Bell Telephone Laboratories, Inc., a member of the MIT Corporation's Visiting Committee for the Department of Physics.

Norman A. Phillips, principal scientist, National Meteorological Center, former head of the MIT Department of Meteorology.

man of the Corporation; Dr. Charles Stark Draper, Institute Professor emeritus and professor of aeronautics and astronautics emeritus, and Dr. Harold E. Edgerton, Institute Professor emeritus and professor of electrical measurements emeritus.

The chairman for Technology Day 76 is Edward C. Ehrlich Jr. of Natick, class of 1955.

Drake to Discuss **Blood Programs**

"Getting People to Give Blood: Ideologies, Practices & Issues" will be discussed by Dr. Alvin W. Drake, professor of systems science and engineering and associate director, Operations Research Center, in the MIT Department of Electrical Engineering and Computer Science, at the Technology Studies Seminar Wednesday, May 5, at 4pm in Room 20D-205.

Menand Report

(Continued from page 8) used when the cable system covers public events, and in particular, disposition of video tapes, which can be subpoenaed.

"2. MIT should request the National Association of Foreign Student Advisors to take the lead, possibly in association with other educational associations such as the American Council on Education and the American Association of Universities, in making a study of the extent of surveillance by home governments on their nationals at American colleges and universities. Appropriate policy from such a study might well be recommended to the universities. Students, faculty, and administration on other campuses may have valuable contributions to make in this area.

"3. MIT should make a formal request to the Department of State and to the Assistant Secretary for Educational and Cultural Affairs that foreign embassies be directed to refrain from political intelligence gathering on college and university campuses and among foreign student groups off-campus.

POSITIONS **AVAILABLE**

This list includes all non-academic jobs currently available on the MIT campus. Duplicate lists are posted on the women's kiosk in Building 7, outside the offices of Special Assistants for Women and Work (10-215), and Minority Affairs (10-211), and in the Person-nel Office (E19-239). Personnel interviewers will refer any qualified applicants on all biweekly jobs Grades II-IV as soon as possible after their receipt in Personnel. Persons who are not MIT employees shoud call the Personnel Office on extension 3-4251.

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

Dick Higham	3-4278
Pat Williams	3-1594
Carolyn Scheer	3-1595
(secretary - Sally Erickson)	
Virginia Bishop	3-1591
Mike Parr	3-4266
Ken Hewitt	3-4267
(secretary - Joy Dukowitz)	The sector
Sally Hansen	3-4275
Lewis Redding	3-2928
Richard Cerrato	3-4269
(connatant Cusan Bracht)	

Admin. Staff, Systems Manager, to manage informa-tion systems for the Alumni Association. Duties in-clude analysis, development and maintenance of EDP and manual systems; training and supervision of clerical employees; provide technical liaison to related Departmental and Institute offices. A minimum of 5 years experience in systems analysis, programming, documentation, training and employee supervision required. Knowledge of MIT systems helpful. A76-12 (5/5).

systems helpful. A role (2/3). Sponsored Research Staff, postdoctoral position in experimental high energy physics (Lab for Nuclear Science). Must have thorough knowledge of multi-wire proportional chambers, Cerenkov counters, high pressure vessels, fast electronics; also background in theoretical physics and knowledge of a foreign language, preferably French. Knowledge of small and mini-computers desirable. Must be able to travel on short notice and spend long periods of time at foreign work sites. Positions begin approx. 10/1/76. D76-70, 71. (5/5). at foreign work sites. Po 10/1/76. D76-70, 71. (5/5).

Exempt, Admin. Asst., to the Secretary of the Alumni Exempt, Admin. Assi, to the Secretary of the Atumin Assn, will have overall responsibility for coor-dinating, monitoring and reporting activities of a large number of regional U.S. and foreign clubs. Duties include arrangements for Institute speakers at club functions, maintenance of computerized directory; distribution and some development of printed materials; providing information on club activities to Institute media; maintaining statistics; maintenance of related budgets. Will also perform general secretarial duties for the Assn. Secretary. Ad-ministrative skills, the ability to relate effectively to centor adjumi. Institute administrators and faculty senior alumni, Institute administrators and faculty schor adulm, institute administrators and faculty required. Several statistics; maintenance of related budgets. Will to senior alumni, Institute ad-ministrators and faculty required. Several years of applicable Institute experience preferred. Please sub-mit resume. E76-13 (5/5).

Exempt. Supervisor. Animal Laboratory, in the Center for Cancer Research to immunize and bleed animals; maintain complex transplant, immunization and breeding records; perform various measurements on newly arrived animals; schedule use and maintain and billitie and schedule use and maintain and animatic and schedule use and maintain and animatic and schedule use and maintain and animatic and schedule and animatic and animatic and animatic and schedule and animatic and animatic and animatic and schedule and animatic animatic and animatic and animatic and animatic animatic animatic animatic and animatic anim facilities in operating room; order and maintain sup-plies. 2 years of college in a Biology program or equivalent work experience required. Candidates must like working with animals and have the ability to perform duties with precision to assure quality of research programs. E76-14 (5/5).

Sponsored Research Staff in the Center for Cancer Research to perform research related to the study of the molecular biology of poliovirus: make solutions; assay virus; prepare infected cells and assist with ex-periments; order supplies and oversee equipment maintenance. Bachelors degree in Biochemistry or Biology required. Experience in Chemistry, Biochemistry or Biology required. Position begins mid-July, 1976. Recent graduates: Please submit list of relevant courses taken. D76-63 (4/28).

Sponsored Research Staff in the Center for Cancer Research to assist in experiments on RNA tumor viruses and work with laboratory animals; carry out general biochemical procedures; help maintain equipment; order supplies. Bachelors degree in Microbiology or Biology required. Experience with cell culture, animal care and microbiology helpful. Recent graduates: Please submit list of relevant courses taken. D76-62 (4/28).

Sponsored Research Staff in Sloan School System Sponkorea Research Stay in Stoan School System Dynamics Group to assemble, organize and maintain computer files of the System Dynamics National Model, a large-scale computer model of the U.S. economy; also organize and file computer output. Will be trained in Time Sharing command language, DYNAMO and PRIME, and participate in technical documentation. documentation. Computer programming experience required. Interest in social systems modeling, economics and system dynamics desirable. D76-64

(4/28).

Sponsored Research Staff. Energy Economist, in the Energy Lab's New England Energy Management In-formation System. Will design and execute projects to answer specific energy queries: data collection; use of computer and statistical techniques; econometric model development. Will assist students and other NEEMIS executed and the formation of th model development. Will assist students and other NEEMIS project participants. Write user guides for models and package programs. Write reports. Assist in interpretation of analytical results. PhD in Economics with emphasis on quantitative analysis and modeling,-working experience as an economist required. Familiarity with N.E. energy situation and related government operation also necessary. D76-61 (4/28)

Sponsored Research Staff in Mechanical Engineering Sponsored Research Siaj) in Mechanical Engineering to conduct research on the physiology of joints and total joint replacement devices; conduct *in vitro* ex-periments in mechanical simulation equipment and *in vivo* experiments with animals. Work sites will be on MIT campus and at Harvard Animal Facility, Concord, Ma, BS in Biology or Mechanical Engineering, familiarity with hydraulic servosystems and steain ense instrumentation, as well as some traand strain gage instrumentation, as well as some ex-perience in bioloby or medical field required. D76-67 (4/28).

Secretary IV-V to have responsibility for daily opera-tion of Medical Dept. X-Ray/ECG unit. Duties in-clude supervision of technician and clerk, overseeing clude supervision of technician and clerk, overseeing administration of govt.-required chest x-ray program; transcription of related reports; arrange-ments for special procedures at local hospitals; main-taining records and files. Will be trained to ad-minister routine tests to serve as backup to techni-cian. Excellent typing and ability to transcribe radiologic reports required. Candidates must have supervisory ability. 37 ½ hour week. B76-164 (4/28).

Secretary IV in the Humanities Department, to the Director of Drama and Conductor of the MIT Symphony. Will handle arrangements for concerts and drama productions (schedule programs, ticket

B76-157, Sec. III-IV, Artificial Intell. Lab. (4/28) B76-158, Sec. IV, Res. Lab. of Elec. (4/28)

ACADEMIC STAFF:

C76-4, Tech. Asst., Biology (4/28) C76-5, Tech. Asst., Mechanical Eng. Dept. (4/21) C76-6, Microbiologist, Medical Dept. (4/21)

SPONS. RES. STAFF

D75-48, Economist, Energy Lab. (6/25) D75-161, Economist/Policy Analyst, Energy Lab.

(9/10) D75-219, continuing education, Chemical Eng. (11/15)

D75-229, Research Engineer, Energy Lab. (11/19) D75-232, Programmer, Center for Space Research

(11/26) D75-243, postdoc. res., Computer Science, Ar-tificial Intell. Lab. (1/7)

D75-244, postdoc. res., Computer Science, Ar-tificial Intell. Lab. (1/7) D75-249, postdoc. res., Physics, Lab. for Nuclear

Sci. (1/14) D75-250 postdoc. res., Physics, Lab. for Nuclear

Sci. (1/14)

D76-12, postdoc. res., Physics, National Magnet

D'6-12, postdoc. res., Physics, National Magnet Lab. (2/18)
 D'76-14, Tech. Asst., Arteriosclerosis Center (2/18)
 D'76-17, Biochemist, Res. Lab. of Elec. (2/25)
 D'76-18, postdoc. res., Physics, Lab. for Nuclear

Sci. (3/3) D76-19, postdoc. res., Physics, Lab. for Nuclear

D76-21, Data Analyst, Energy Lab. (4/21) D76-22, Laser Physicist, National Magnet Lab.

(3/3)

D76-24, Programmer, Artificial Intell. Lab. (3/10) D76-30, Staff Scientist, Neurosciences Res. D76-30, Programmer, Aruncia Inteli, Lab. (3/10) D76-30, Staff Scientist, Neurosciences Res. Program (3/24) D76-31, Staff Scientist, Neurosciences Res. Program (3/24) D76-32, Staff Scientist, Neurosciences Res. Program (3/24)

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D76-52, Radioactivity Medical Res., Nuclear Eng. (4/14)

D76-53, Curricula Development, Center for Advanced Eng. Stud. (4/14) D76-56, Asst. Manager, MIT Sea Grant Program

(4/21) D76-57, Stress Structures Design, National Magnet Lab. (4/28) D76-58, Postdoc. Res., Lab. for Nuclear Sci.

(4/28) D76-59, Sea Water Analysis, (Biology/Chemistry), Earth & Planetary Sci. (4/28)

EXEMPT:

Nurse Practitioner or Physician Asst., E76-7, Nurse Practitioner or Physician Asst. Medical Dept. (3/24) E76-11, Dental Hygienist, Medical Dept. (4/22) E76-12, Asst. Chief Oper., Physical Plant (4/28)

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D76-51

E76-8.9

H76-52 A76-11 H76-55

H76-42, 2nd. Cl. Fireman/woman, Physical Plant (4/21)

he following po st issue of Tec	sitions have been FILLED since the <i>Talk</i> :
76-7	Admin. Staff
76-2	Admin. Staff
75-65	Admin, Staff
76-142	Sec. IV
76-103	Clerk III
76-51	Spons, Res. Staff
76-139	Sec. III pt.
76-131	Sec. IV

The following positions are on HOLD pending final

Sr. Clerk III
Spons. Res. Stat
House Mngr.
Waitress
Asst. Auditor
Waitress

Alternative Lunch Program Offered

A petition drive to establish an alternative lunch program will be launched this week by the Vegetarian Community and ECHOE (Earth Campaign against Hunger and Overeating).

Alternative lunches will be sold Thursday and Friday (May 6 and 7) in the Building 10 Lobby from 11:30am to 1pm. The Thursday menu will be faelafal sandwiches, appledate squares and cider; Friday will offer tan pups (deep fried wheat protein), vegetable pie and grape-strawberry smoothies.

Aim of the program is to provide inexpensive, nutritious low-fat and low-cholesterol lunches, according to Chiu-Nan Lai, one of the organizers. Lunches will be approximately \$1.50. Those who like the food will be asked to sign the petition.

"Finally, the Institute should make it clear through its publications and official documents that all students and other members of the Institute community, whether American nationals or not, have the right to exercise constitutionally protected rights on this campus without fear. In addition the Institute should make it clear that no person should come onto the campus for the purpose of gathering information for any governmental investigative agency about other persons exercising their rights of free speech. All members of the Institute community should be reminded of the mutual tolerance and respect for the rights of others which for so long has characterized this campus and should be encouraged to accord tolerance to all members of the Institute community.

Robbins and Wiesner Taiwan Letters Issued

(Continued from page 1) Taiwan training contract.

"We regret to have to say that we have been unable to find convincing evidence that the primary objective of the training, as it is being carried out, is other than military, even though the opening lines of the contract cite the purpose to be the development of innovators and entrepreneurs. Therefore, we recommend either that the Program be revised by substituting distinctly non-military technology for the focus on inertial guidance or navigation, or that the Program be terminated.

"We hope these views of the Commitee are helpful to you in reaching your decision on behalf of the Institute.

"We are preparing a report to be presented to the faculty at the May meeting."

In his letter of response, President Wiesner said:

"Thank you for your letter conveying the judgment growing out of the review and discussions which the Committee on International Institutional Commitments has had to date regarding the Taiwan training contract. I understand that the CIIC plans to report to the Faculty at the May meeting. At the request of the Chancellor and myself, Dr. Thomas F. Jones has also been reviewing the process by which this contract was undertaken and its progress to date. While he has kept us informed, we look forward to a full report from him.

"From what the Chancellor and I know so far, we cannot come to the conclusion that military purposes were the objective of this program. We do feel, however, that the affiliations of the students in the program and the particular technology around which the program has been organized raise questions of the appropriateness of this program with respect to objectives stated in the contract—to develop entrepreneurial and innovative skills for the industrial development of Taiwan.

"Based on the information we have, including your letter, the Chancellor and I are asking the program's steering committee to recast the program to strongly emphasize the objective of developing capabilities for industrial and commercial applications in Taiwan. We plan to meet this week with the steering committee to discuss the future of the program.

"We appreciate very much the help that the Committee on International Institutional Commitments has given us."

The training program for the 15 students from Taiwan began in January, 1975, and is being carried out under a contract between MIT and the National Taiwan University. It is a two-year non-degree program due to end in December of this year. Teaching is done by faculty in the Department of Aeronautics and Astronautics who are experts in navigational instrumentation. But the program itself is administered through MIT's Center for Advanced Engineering Study which conducts a variety of special programs for engineers from industry and government in this country and abroad.

Purpose of the technology training program for Taiwan is to provide that nation with a nucleus of engineering entrepreneurs who might eventually, upon return to Taiwan, help Taiwan develop industries that depend on modern sophisticated high technologies, such as electronics, and compete in world markets with the products of those industries, thus enlarging the nation's economic base. Many Taiwan industries presently are labor-intensive, not technology-intensive.

In planning the course of instruction, National Taiwan University officials asked that it be organized around the technology that underlies one specific segment of the electronics industry, namely, the manufacturing of inertial navigation, guidance and control systems. These are systems that use gyroscopes, accelerometers, special purpose computers and associated electronics to provide automatic on board navigation, guidance or control for modern high performance vehicles including ships, airplanes, rockets, missiles, satellites, etc. (The word "inertial" comes from the fact that the spin axes of gyroscopes remain aligned with respect to the fixed-or inertial -space of the stars.)

Inertial systems were pioneered in the MIT Department of Aeronautics and Astronautics, primarily by Institute Professor Emeritus Charles Stark Draper who is known as the "father" of modern inertial technology. A department laboratory formed by Dr. Draper in the 1930s grew, over a period of many years, to become a major center for the design and development of specific systems for specific vehicles, including military missiles as well as space ships. The laboratory, for example, designed the systems used aboard the Navy's Polaris and Poseidon missiles as well as the systems used

aboard the Apollo mooncraft. The laboratory, which continues to work on military systems under contracts from agencies of the US Department of Defense, was divested from the university on July 1, 1972, and presently is an independent entity known as the Charles Stark Draper Laboratory in honor of its founder.

Although inertial systems originally began with military applications, in the quarter of a century or more since they came into use their applications have been extended to include systems for civilian airliners and ships. There has developed a large international market in the manufacture and sale of such systems for these civilian applications and several US companies are among those that compete in the field.

To provide the students from Taiwan with as much practical "hands on" experience as possible as well as formal classroom instruction, their program of study includes the requirement that they carry out a prototypical inertial navigation system as a laboratory project. Originally, the Draper Laboratory, because of its background and because it already possesses advanced test and shop facilities, agreed to have the students from Taiwan carry out the laboratory project at the Draper Laboratory and to provide the professional personnel to supervise that development. Professors at MIT, meantime, would provide classroom instruction.

Professors from MIT selected the 15 students from several dozen nominated by National Taiwan University and they arrived at MIT to start the program in January, 1975. In August, 1975, the US Department of State's Munitions Control Board requested that the Draper Laboratory not direct the "hands on" project in its own shops and facilities. The laboratory project was transferred to the MIT campus, the sophistication and scale of the system the students were working on was cut back, and a new contract was negotiated with National Taiwan University. The Draper Laboratory continues to provide professional personnel as lecturers and advisors.

While the Taiwan program was never a secret, students who make up a group known as the Social Action Coordinating Committee (SACC) did not become aware of it until January of 1976 when they began protesting that the technology being provided to the students from Taiwan would enable them, upon return, to carry out the design and development of an inertial guidance system for military missiles.

The Robbins Committee inquiry followed the protest. President Wiesner asked Dr. Jones to make a separate inquiry into the origins of the program and the backgrounds of the 15 students. Professors in charge of the program were under the impression that the Chung Shan Institute from which the students came in Taiwan was an operational part of the National Taiwan University, which, in its turn, is a part of the Taiwan Ministry of Education. Students protested that the Chung Shan Institute is not a part of NTU at all, but, rather, is a military research and development center operated by the Taiwan Ministry of Defense.

Menand Report Released

(Continued from page 1) viding advanced technology training for 15 graduate student engineers from Taiwan.

Dr. Wiesner, to whom the report was submitted, said he agreed with the general thrust of the recommendations contained in it. Dr. Menand said Eugene Chamberlain, associate director of admissions at MIT and head of MIT's foreign student office, is attending a meeting of the NAFSA in San Diego this week and will explore with his colleagues from other US universities the Menand recommendation about an investigation by NAFSA.

Dr. Menand said his report, in part, was based on interviews with numerous Chinese students studying in the Boston area without whose help and cooperation, he said, his inquiry would not have been possible.

Copies of Dr. Menand's full 35-page report are available from Dr. Menand in Room 4-246 and from the MIT Information Center in the lobby of Bldg. 7.

In addition to the full report, Dr. Menand also prepared a synopsis for broad distribution. The synopsis follows:

"The events of Feb. 6, 1976, during the forum on Taiwan sponsored by the Social 'Action Coordinating Committee and during which an MIT student who was taking still photos was persuaded to give u film to the SACC sponsors have been reviewed in detail. SACC members, Taiwanese and other Chinese and American students, and Institute staff have been wholly cooperative in providing information and personal views about this event. To the extent possible at this time a further inquiry has been made concerning both the relations between the Republic of China consulate in Boston and Republic of China students at MIT and the allegations that a welldeveloped information network under the direction of the Kuomintang Party in Taiwan is functioning at MIT and in Greater Boston. "The student, now an alumnus, who took the pictures was attending MIT for a two-year program to get an SM degree. He was sponsored by the Institute of International Education and was financially supported by a grant from the Republic of China Ministry of Defense. Although he is known to his friends to be a

naval officer, that information was not known to the Institute for neither the Institute for Interanational Education nor MIT asks a question about that on the application forms.

"During the latter part of the forum he sat near a representative from the ROC consulate, an official duly registered as a consular employee with the United States Department of State in conformity with the diplomatic and consular treaty between the United States and the Republic of China of May, 1943, still in force. The consular officer has been identified as a member of the Kuomintang and as head of a 'spy' or informing network in New England. The consular officer states that he is not a member of the Kuomintang Party nor head of any informing network

"The only facts known to SACC members at the forum were: (1) that the student was taking pictures, (2) that he was in company with a consular officer, and (3) that he was identified by some Taiwanese as a 'spy.' It was on this basis alone that the SACC members persuaded the student to relinquish his film. In return his image was erased from a video tape which had been recording the event. Subsequent statements about this student and an alleged spy apparatus have been used to rationalize the demands for the film.

"The inquiry into the assertion that

"There developed as a result a classic confrontation between a group determined to protect others and an individual whose property and whose acknowledged right to take pictures were being violated. The impasse was broken when the film was surrendered.

"This incident became more lurid as the terms 'spy,' 'informer,' 'naval officer,' and 'KMT agent' were widely connected with the student. Most of the campus student media, but not all, have avoided connecting the student's name with these epithets. The press nationally and in Taiwan and Hong Kong has carried stories about 'spying at MIT.' So far as is known the student's name has not been associated with these stories.

"The extent of an informing apparatus on behalf of the Republic of China at MIT has almost no basis in demonstrable fact. The Institute has received additional information about an informing apparatus functioning on the part of the Taiwan government and other governments around the nation. These reports give some substance to the charges and should be investigated. Nonetheless, there is clear legal right for the consulate to have continuing association with its own nationals. In addition, our interpretation of the Foreign Agents Registration Act does not require full-time students to register separately with the Departments of State or Justice. However, it is a fact that many Chinese students feel that their actions while in the United States are being observed and reported. This feeling itself is a very important fact which establishes an atmosphere within which many Chinese students at MIT function. The Institute views this situation seriously. "In summary, the incident of Feb. 6 occurred because of the nature of the academic-technological-political program under discussion and the excited atmosphere generated by the issue and the way in which it was being framed. Immediate conclusions were reached about the character of a member of the audience taking pictures. From that incident inferences were drawn and public statements issued as evidence without firm support. Despite the heat of the moment, a wiser course would have been to push for greater mediation and more importantly to have refrained from characterizing any person in terms which bring credit neither to him who is charged nor to

those making such charges. The atmosphere may have made it difficult for the ROC student to escape with his film but there was every need to protect him in his property and to seek outside mediation, as one student tried. There was clearly no need to have this incident escalate into lurid stories about 'Spies at MIT.' Less rhetoric and a greater sense of justice to individuals on both sides should govern all such situations.

"At the same time, it is vital to remember that many persons at MIT, chiefly students, have raised and continue to raise significant questions about the interface between science/technology and politics, not with an intent to harm the Institute but with what appears to be an intent to have that interface openly discussed as significant issues arise. The vigor of the questioning is hyperbolic and rhetorical at times, but that does not diminish the validity of the questions themselves. It is this context in which the 'spy' incident should be viewed.

"Clearly there are four interrelated issues to be faced.

"1. On this campus foreign students should be accorded the same First Amendment rights of American students.

"2. It should be anathema to this campus that anyone of this community or any person freely coming onto this campus would report on the exercise of First Amendment rights of any other member of this community to any government, political, or investigative agency, *domestic or foreign*. "3. In keeping with the openness of the MIT campus the rights of peaceful persons who do not otherwise violate Institute regulations or practices to attend open meetings on this campus should be respected. late and Taiwanese nationals is clearly within the limits of American law; many Chinese students, including Taiwanese and ROC students, carry on their lives at MIT as though fn fact there is a reporting mechanism at work; independent of whether there is a network functioning it is important that Institute policy on this matter be made abundantly clear to the MIT community, to entering students from overseas, and to consular and embassy communities both in Boston and in Washington.

"The inquiry which has been conducted concludes with the following points.

"1. An MIT student legitimately taking pictures at an open meeting was pressured into relinquishing his film in an atmosphere in which acquiescence was the only option open to him.

"2. The students sponsoring the meeting honestly felt that a danger to others might ensue if any pictures taken of individuals were used for reporting on those individuals.

"3. The political rhetoric generated at the forum over the issue of the training program and the nature of the Taiwan government created an atmosphere where the charge of 'spying' found easy acceptance and in the minds of the sponsors justified both the demands for the film and the conclusion that the student was a spy. This conclusion was further rationalized because of the presence of a consular person and because of assertions at the time that the student was a naval officer. A conclusion seems to have been reached that spying by taking pictures would be expected of the Taiwan government. "4. There is sufficient information supplied by SACC members and from other university sources in the United States to warrant a further and more detailed inquiry by some national education group into foreign surveillance activities by home governments on their own nationals in this country. "5. The subsequent publicity given this incident, couched in the lurid language of 'spy' and 'KMT informer,' has cast aspersions upon the student where his name may be associated with the charges.

the student is or was a spy has not uncovered any additional hard facts, except comments from two non-MIT students that the MIT student had said something to them about their being in a 'blacklist' at the consulate. The confrontation over the film took place in an atmosphere suggesting intimidation.

'Nonetheless, there seem to have been additional and important factors operating at the forum at this time. On the part of the forum sponsors there was the very real sense of harm that might be visited on Taiwanese speaking at the forum and opposed to the Taiwan training program. SACC had raised very critical questions and in a setting in which the character of the Taiwan government was highly criticized as being a repressive and dictatorial regime. The seriousness of the substance of the forum was heightened by the urgency of the issue and the language used to frame the matters under discussion. SACC members honestly felt that someone taking pictures might be placing other persons in real, possibly mortal, danger.

"4. The apprehension that there is

some form of surveillance network appears real and wide-spread and while the existence of such surveillance cannot be proven or disproven; the 'chilling' effect of these apprehensions is a fact of the immediate time that cannot be ignored. Quite probably, the incident of the picturetaking has tended to reinforce this apprehension.

"To assert these points is one thing; to develop operable statements or procedures for their practice is quite another.

"In summary, there is no direct evidence that there is a 'spy' network operating on this campus; the communication between the consu"Given the nature of this incident and the information which has come to light, the Institute should take the following steps.

"1. The Cable Policy Board should be asked to consider policies to be (Continued on page 7)

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