

Re-enactment of Ellen Swallow Richards' Test of the Charles to Be Staged

A sampling of water from the Charles River will be made at 11am Tuesday, Oct. 30, at Boston's Dartmouth St. pavilion, commemorating the 100th anniversary of Ellen Swallow Richards' first testing of the Charles for pollution.

The re-enactment will be carried out in connection with the publication this week of a new book on the life of MIT's first woman graduate, *Ellen Swallow, The Woman Who Founded Ecology*, by



Ellen Swallow Richards when she was an instructor in sanitary chemistry at MIT.

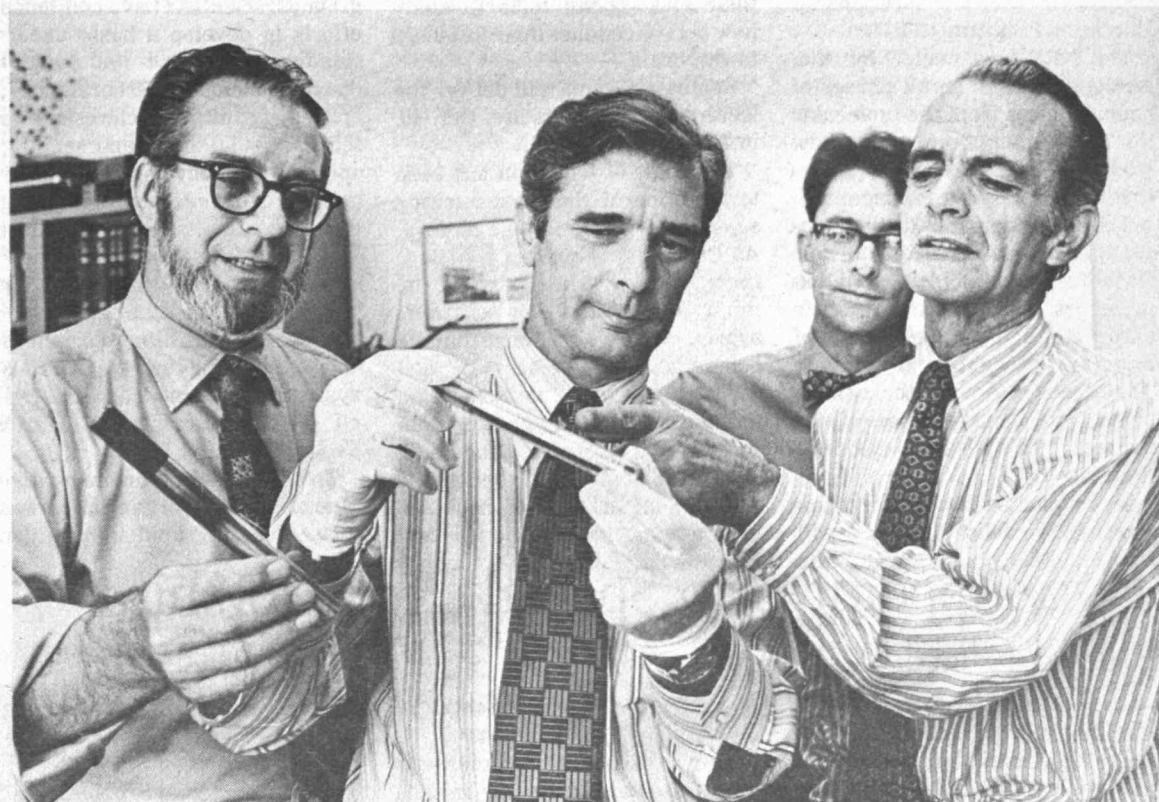
—Photo from MIT Historical Collections.

Robert Clarke, published by Follett Publishing Co., Chicago.

Portraying Ellen Swallow Richards in the event will be Mrs. Kathleen C. Swallow, a first-year graduate student in chemistry. Mrs. Swallow is married to Lt. Stephen T. Swallow, a dentist at the Portsmouth, N.H. Naval Station, who is a descendant of Ellen Swallow Richards's uncle. (Ellen herself was an only child and she and her husband, Professor Robert H. Richards, had no children.)

In the re-enactment, the present Mrs. Swallow will contrast the quality of the Charles River today with what it was when Ellen Swallow Richards made her analysis a century ago.

Members of the Institute community, particularly women students and alumnae, are invited to attend the event.



Quartz ampules containing first crystals grown in space are inspected after their arrival at MIT for "months" of analysis. Professors August F. Witt, center, and Harry C. Gatos, right, of the Department of Metallurgy and Materials Science, designed the experiment, in which parts of three crystals grown at

MIT were melted and regrown under zero-gravity conditions by Skylab 2 astronauts. With them are Clifford Herman, left, engineering assistant in the department, and Manfred Lichtensteiger, on the research staff at the Center for Materials Science and Engineering.

\$573,000 HEW Grant

MIT to Join in Study of Elderly Housing

By SALLY HAMILTON
Staff Writer

MIT and the Philadelphia Geriatric Center will collaborate, beginning this fall, on a three-year \$573,000 study of federally-financed housing for the elderly.

The study is the first national post-construction evaluation of the housing program. It is being funded by the US Department of Health, Education and Welfare's Administration on Aging.

Dr. Sandra C. Howell of Newton Highlands, a psychologist who was recently appointed faculty research associate in the MIT School of Architecture and Planning, is the principal investigator for the national study. She was formerly assistant professor of social research and senior associate at the Levinson Gerontological Policy Institute at Brandeis.

The project will focus on appraising the overall design and operation of housing in relation to

the needs of the aged. It will also determine necessary crime prevention and safety specifications for future dwellings.

The study is expected to lead to the formation of guidelines and performance specifications for the planners and architects of future housing for the aged.

The investigation will take the form of environment-behavior observations of more than 75 sites throughout the nation. Much of the study will also involve interviews with tenants, planners, architects and law enforcement bodies to determine the actual uses of space and equipment in dwellings. Data will be integrated on environmental, technical, sociological and behavioral factors—all of which affect housing specifications for the elderly.

Chester L. Sprague of Cambridge, associate professor of architecture, will be an architectural associate to the project.

Pamela Dinkel of Boston, who has her master's degree in landscape architecture from North Carolina State University at Raleigh, will be field director for the study. She has received an appointment to the DSR staff. Roberta P.J. Kurland of Cambridge, will serve as administrative assistant to the study's staff.

In addition fifteen graduate students in the School of Architecture and Planning will work on the project.

The first phases of the study will be based in Massachusetts and will involve planning research methods to be used in the national study.

Dr. M. Powell Lawton, research psychologist at the Philadelphia Geriatric Center, has been designated subcontractor for the segment of the project studying environmental security problems of the aged.

Daylight Saving Ends Oct. 28

Daylight Saving Time ends at 2am Sunday, Oct. 28. Clocks should be set back one hour.

The return of Eastern Standard Time also means darkness falls an hour earlier, and calls for a reminder about Campus Patrol's escort service.

Persons who are at MIT beyond normal working hours are invited to call Campus Patrol, Ext. 3-2997, to have an officer meet them en route to a parking area or other remote locations. Likewise, people working late or in unpopulated areas are advised to alert Campus Patrol of their location.

Two Appointed to Special Professorships

Baddour Named duPont Professor

Dr. Raymond F. Baddour, professor and head of the MIT Department of Chemical Engineering, has been named Lamont duPont Professor of Chemical Engineering at MIT.

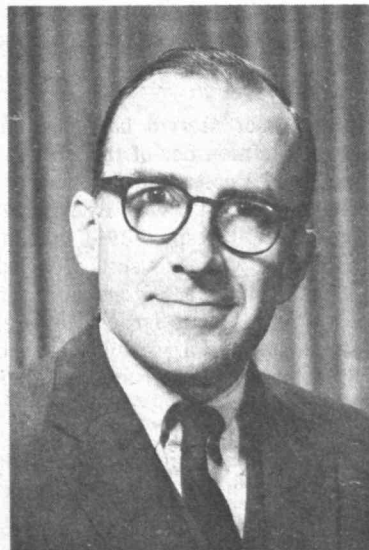
Announcement of the appointment was made by Dean Alfred H. Keil of the MIT School of Engineering. Professor Baddour will continue as department head, a position he has held since 1969 when he succeeded the late Professor Edwin R. Gilliland.

Professor Baddour, internationally known for his work in chem-

(Continued on page 2)



Professor Baddour



Professor Merrill

Merrill Appointed Dubbs Professor

Professor Edward W. Merrill, a leader in the application of chemical engineering to medicine and an authority on polymer chemistry and physics, has been appointed Carbon P. Dubbs Professor of Chemical Engineering at MIT.

He succeeds Professor Hoyt C. Hottel, the first to hold the Dubbs chair after it was established in 1966.

Announcement of the appointment was made by Dean Alfred H. Keil of the MIT School of Engineering, and Professor Raymond

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Fiction writer Tillie Olsen is writer in residence at MIT. Story on Page 3.

President Wiesner fills out a contribution card to begin United Way campaign. See photo, Page 2.

Evening hours scheduled for blood drive, which begins Monday. Story on Page 3.

World's Top Brain Scientists to Meet for Symposium

Many of the world's top brain scientists will gather at MIT October 29-30 to describe their personal experiences in the field and to discuss the present and future of man's study of the brain and nervous system.

The two-day symposium, entitled "The Neurosciences: Paths of Discovery," has been organized to honor the seventieth birthday of Professor Francis O. Schmitt, prominent MIT neuroscientist and founder of MIT's Neurosciences Research Program (NRP).

The NRP is a center for theoretical research on all phases of neurosciences from the molecular level to the mental life of humans. NRP acts as a world communication center for neuroscience.

The 30 participants in the symposium have been asked to describe the people, ideas and experiences that have shaped their careers and the development of important concepts and trends in neuroscience. Among the participants will be six Nobel Prize winners in physiology, medicine or chemistry.

In conjunction with the symposium, Dr. John Z. Young will

deliver the first F.O. Schmitt Lecture in Neuroscience. Recipient of the medal and prize of the newly established F.O. Schmitt Lectureship in Neuroscience, Dr. Young will speak on "Sources of Discovery in Neuroscience." Professor Young has done pioneering research on the nervous systems of squid and octopus. He is perhaps best known for the discovery of the giant nerve in squid. This giant nerve gave neuroscientists one of their most useful tools to study how nerves conduct their impulses to the brain.

Professor Young will deliver the lecture at 8pm, Tuesday, Oct. 30, in Kresge Auditorium.

The study of the brain has been termed one of the most exciting scientific problems of this century. As Professor Schmitt stated in a recent paper: "The brain and the mind are central to so many aspects of man's existence that the beneficial consequences of scientific progress in understanding them are potentially greater than for any other scientific endeavor."

"This explains both the rapidly growing importance of neuroscience among the life sciences and

Programs and posters listing further information about speakers and topics scheduled for the brain symposium are available on a limited basis from Information Office, Room 7-111.

the resulting influx of brilliant scientists from other areas such as mathematics, physics, chemistry and engineering.

"With these varied backgrounds, scientists have combined efforts to develop a basic understanding of nervous and mental diseases, including cerebral palsy, epilepsy, multiple sclerosis and schizophrenia, aging and senility, optimal brain development, memory storage and recall, learning and education, and the neural basis of psychological functions."

Impressed by the need for theory to bridge the gaps separating the scientific disciplines involved in studying the nervous system, Professor Schmitt founded the Neurosciences Research Program in 1962.

The basic idea of this innovative type of scientific organization was to establish a rapid information

exchange among scientists working at the cutting edge of neuroscience research. The NRP also organized multidisciplinary attacks by carefully selected "task forces" of experts to develop new theories that could bring breakthroughs in brain research.

By selecting appropriate task-force participants, the NRP aimed at keeping the theoretical research flexible, as scientific research progressed. This is in contrast to the traditional research institute which tends to become "frozen" to the research in its own laboratories.

This model of scientific organization has subsequently become widely recognized and adapted to other research fields as an important method of building new scientific understanding from the flood of information being generated at an accelerating rate by research.

Sponsored by MIT and funded by federal agencies, the NRP enlists the aid of 36 associates in planning its activities. These associates are world leaders in neuroscience-related fields, such as mathematics, physics, biochemistry,

biology, neurology and psychology.

Among the present contingent of NRP associates are five Nobel Prize winners. Present associates are from distinguished research and educational institutions in the US, Germany, England, Sweden, Scotland and Israel.

Besides its associates, the NRP maintains a professional staff and a contingent of staff scientists who conduct a program of work sessions, intensive study programs and publishing. The work sessions bring together authorities in a specific promising area of neuroscience for a several-day-long conference session.

The intensive study programs usually last several weeks and draw about a hundred neuroscientists from around the world. The programs are designed to bring together a wide range of neuroscientists and draw attention to emerging opportunities for research.

Over the last nine years approximately 1,200 neuroscientists have participated in the various NRP programs.

Two Appointed to Special Professorships

Baddour Named

(Continued from page 1)

ical engineering processes, has made significant contributions in the application of chemistry and physics in many areas—including the mechanism of heterogeneous catalysis, the application of plasmas to chemical reactions, the process of ion exchange and the fundamental principles of the flow of molecules adsorbed on surfaces.

His work on mass transfer in packed beds led to the more effective operation of large scale chromatographic separation plants, a technology which led to the formation of Abcor, Inc., of Cambridge, a firm specializing in the design and construction of plants using advanced separations techniques.

Professor Baddour's work has attracted wide interest and many of the outstanding doctoral students in chemical engineering at MIT have selected him as their thesis supervisor.

Professor Baddour, a native of Laurinburg, N.C., received the SB degree from the University of Notre Dame in 1945 and the SM and ScD degrees from MIT in 1949 and 1951. He joined the MIT staff as an instructor in 1948 and served as assistant director of the MIT

Engineering Practice School at Oak Ridge, Tenn., in 1948-49. He became assistant professor in 1951, associate professor in 1957 and professor in 1963.

As head of the department, Professor Baddour has been instrumental in the formation of several transdepartmental programs, including a program of enzyme technology which now involves a dozen faculty and research staff members from four departments, and similar programs in catalysis, ion exchange, and high temperature reactions. Recently, he proposed the campaign for a new chemical engineering building—which is now under construction—and took a leading part in the fund raising for it.

Professor Baddour has been active in MIT committee work. He has long served on both the Faculty Library Committee and the Library Committee for Russian Literature. He was a member of the Committee on Curricula for three years and chairman in 1964-65. He was a member of the Committee on Educational Policy from 1966-70 and served 1966-67 as a member of the Engineering Council and as the School of Engineering representative to the Committee on Educational Policy.

In the summer of 1970, he was a key participant in the month-long Institute-sponsored Study of Critical Environmental Problems held at Williams College. From 1970-72, he was chairman of the Institute's Task Force on Environmental Quality.

During the 1967-68 academic year, he held a National Science Foundation Senior Postdoctoral Fellowship which he used for research at Massachusetts General Hospital on natural membranes and the formation and characterization of synthetic membranes which mimic some of the properties of biological membranes.

Professor Baddour is a member of the American Institute of Chemical Engineers and represented that group in 1959 at the 8th Mendeleev Conference on General and Applied Chemistry in Moscow. For many years, he has been a leader in organizing efforts to make Russian technical information available in the US.

Professor Baddour also is a member of the Society of Sigma Xi, the New York Academy of Sciences, the American Academy of Arts and Sciences and the American Institute of Chemists.

He makes his home in Belmont, Mass.

Merrill Appointed

(Continued from page 1)

F. Baddour, head of the MIT Department of Chemical Engineering.

Professor Merrill helped develop a technique that may be used to treat newborn infants with hyaline membrane disease, a leading cause of death among newborn babies, particularly those that are premature. Earlier, he was a co-developer of the GDM (Gilinson-Dauwalter-Merrill) Viscometer, valuable in measuring viscosity of non-Newtonian fluids, such as blood. In 1963, he organized the subject, *Chemical Engineering in Biology and Medicine*, the first subject of its kind ever offered by a chemical engineering department.

In polymer technology, Professor Merrill has been the principal leader in the MIT department over the past six years in polymer teaching and research, historical-

ly an area of MIT leadership. First organized by Warren K. Lewis in 1910, MIT for years had the only chemical engineering department in the US with a strong polymer program.

A graduate of Harvard College, he received the ScD from MIT in 1947. He became assistant professor at MIT in 1950, associate professor in 1959 and professor in 1964. From 1952 to 1958, he also was a visiting lecturer at Harvard where he continued a chemical engineering subject originated in the chemistry department there by MIT Professor William H. McAdams, now professor emeritus under whom Professor Merrill studied as an undergraduate at Harvard.

Professor McAdam's wife, Mrs. Jean Dubbs McAdams, is one of the three children of the late Carbon P. and Bertha E. Dubbs who established the Dubbs profes-

sorship at MIT in honor of their parents in 1966. The others were Carbon C. Dubbs, a 1935 graduate of MIT, and Mrs. Bertha Dubbs Cardinal. Carbon P. Dubbs, a leader in the petroleum industry, perfected many then-revolutionary inventions related to the production of gasoline and other valuable products from hydrocarbon oil.

Professor Merrill has been an associate member of the medical staff and a consultant in chemical engineering at Peter Bent Brigham Hospital since 1960, a consultant at Massachusetts General Hospital since 1964, a consultant in surgery at Beth Israel Hospital since 1969, and a visiting research associate in surgery at Children's Hospital, Boston.

Professor Merrill is the author or co-author of nearly 100 profes-



UNITED WAY campaign leader, Dr. John Ross, left, watches MIT President Jerome B. Wiesner fill out a contribution card for the Institute's drive that begins officially today. The goal is \$150,000 from 7,000 givers. Chief solicitors for the campaign met Oct. 18 at a Bush Room luncheon for a briefing on the campaign. Dr. Ross, Frederick George Keyes Professor of Chemistry, said the 200 United Way agencies provide many services "in the communities where we work and live..." Separate pledge cards will be distributed making possible contributions to the United Black Appeal as well as to the United Way.

sional papers, most of them in the polymer or bioengineering fields. He has been awarded 15 different patents.

He is a Fellow of the American Academy of Arts and Sciences and a member of the American Institute of Chemical Engineers, the American Chemical Society, the Society of Rheology-American Institute of Physics, the Society of Sigma Xi, and the American Society of Artificial Organs.

Professor Merrill is a former acting president of the Harvard Preschool, served as a member of the vestry of Christ Church, Cambridge, and currently is president of the trustees of the Buckingham School, Cambridge, and a trustee of Browne and Nichols School, Cambridge.

He makes his home in Cambridge.

TECH TALK

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New Revenue Sharing Plan to Benefit Faculty Participants in ILP and Associates Program

A Revenue Sharing Plan, through which MIT faculty members can directly benefit from participation in the Industrial Liaison Program and the MIT Associates Program, was announced at last week's faculty meeting by Chancellor Paul A. Gray.

The plan provides for 10 percent of the gross income of the programs to be set aside each year in a fund that will be distributed to faculty members for use in educational and research activities. In the year ending June 30, 1973, this would have totaled approximately \$150,000.

A major goal of the plan,

Chancellor Gray said, is to double the number of companies participating in the programs, which he said provide a significant part of the Institute's unrestricted income and also serve as a prime source for the high level of gift support MIT receives from industry.

It is hoped that the Revenue Sharing Plan will accomplish this, he said, by leading to greater participation of faculty members in the programs.

"It is you who provide the intellectual content" on which the programs are based, Dr. Gray told the faculty members at the meeting.

He said the starting date for the plan had been set retroactively at July 1, 1973. This would provide "some opportunity," he said, "to test the impact of the plan in the current year."

The Industrial Liaison Program, which has been in existence 25 years, ties the Institute to about 100 leading American companies. The arrangement, under which the companies make unrestricted grants in support of MIT's research and education program, gives them access to MIT faculty members—often for dealing with immediate operational and technical problems—as well as to the

Institute's research publications, seminars and libraries.

The Associates Program was established in 1961 as a parallel program for small to medium-sized business firms primarily located in the New England region. Some 30 companies are currently enrolled.

Kenneth S. Brock, director of resource operations, prepared a summary of the plan, which was distributed to faculty members. It gave these details:

The funds set aside each year may be used for purposes for which other support is not readily available such as extra help for a student, equipment, travel, subscriptions and proposal writing expenses. Funds could also be pooled to meet a general departmental need.

The directors of both programs, working with the Faculty Committee on Industrial Liaison, will develop an equitable procedure for distributing the funds. The procedure will be based on individual faculty members' participation in the programs—such as time spent with visitors, participation in symposia, publications made available and travel.

At the end of the year, the Industrial Liaison Program would:

Notify each faculty member of the amount credited to him or her.

Notify each department head of the total amounts credited to the department and to whom they are credited.

Make these amounts available to the faculty member for the purposes described in the plan, subject only to the endorsement of the department head.



Tillie Olsen

Fiction Writer Tillie Olsen In Residence

By DAMON R. WRIGHT
Staff Writer

The Department of Humanities has announced that fiction writer Tillie Olsen is serving as a writer-in-residence at MIT during the first half of the academic year and the Independent Activities Period in January.

Ms. Olsen, who will be teaching two classes during IAP, is the author of several pieces of short fiction and articles. Her story, "Tell Me a Riddle," received the O'Henry award as the best story of 1961 and her article, "Silences—When Writers Don't Write," *Harper's*, Oct., 1965, has been widely acclaimed. Her fiction has been anthologized many times.

Nebraska born, Ms. Olsen has lived in San Francisco most of her life. Her origin and identification are primarily working class. She has been a long standing feminist and activist.

In 1955-56 Ms. Olsen was granted a Stanford writing fellowship. She was associated with the Radcliffe Institute from 1962 to 1964. In 1966 she was awarded a National Endowment for the Arts grant and was "the writer" at Amherst College in 1969-70.

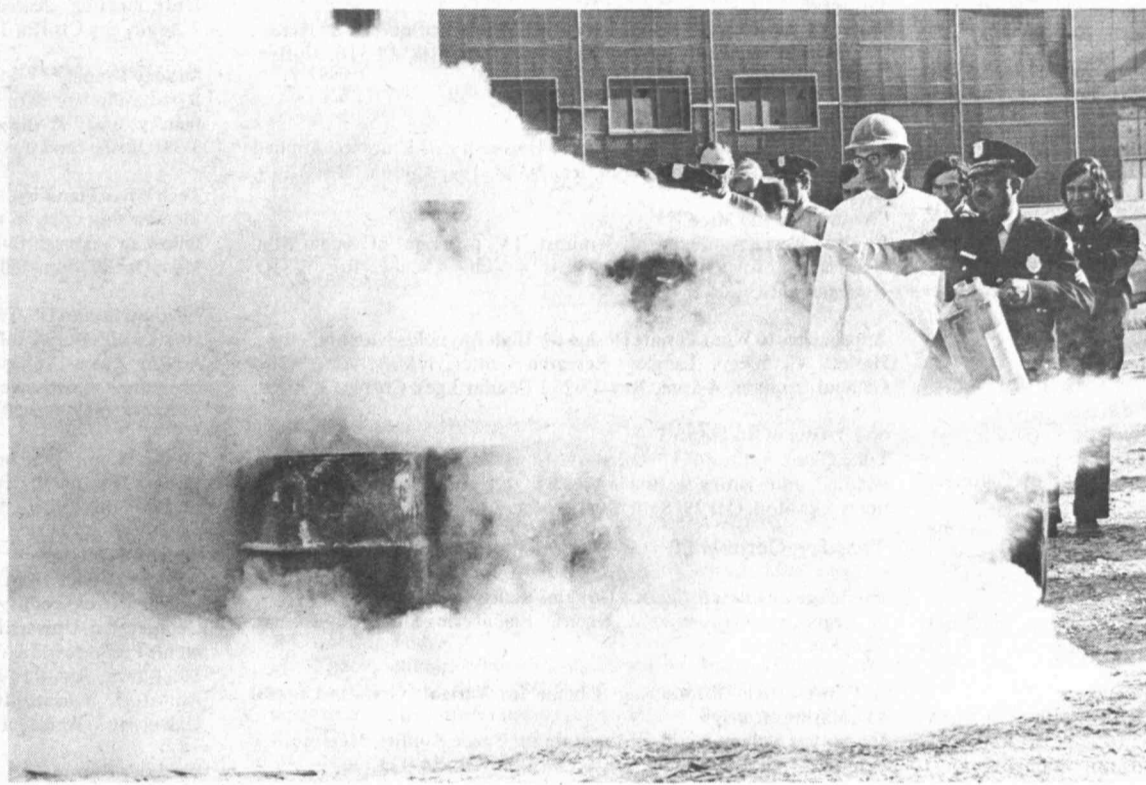
Last spring, Tillie Olsen taught the graduate writing seminar at Stanford University's Creative Writing Center as well as a class on women in literature.

One of the classes Ms. Olsen will teach during IAP will be a writing seminar.

"Or perhaps I'll meet with students who, like me, believe that science fiction is lacking in vision and imagination as far as the human changes that are possible—students who are interested in a literature which combines the technological and scientific with true imagination."

Tillie Olsen is acutely aware of where she is and what she is doing at MIT.

"Walt Whitman spoke of 'the technological sublime.' The 'technological sublime' has been lagging as far as women and other groups are concerned. We need to be conscious of those others who might be able to make valuable contributions, literary and otherwise, if their conditions were such that they could."



UNDER CONTROL—Sgt. Robert Brown, one of 40 MIT Campus Patrol members who took a special firefighting course last week, (Oct. 16-18) puts out a smoky blaze. The three-day course was arranged by the MIT Safety Office and the Polaroid Safety Office to familiarize personnel with the various types of fire and firefighting equipment. William H. MacLachlan,

engineering assistant in the Safety Office, organized MIT's involvement in the course. Phillip Marvel of the General Equipment Co. of Medford, a firefighting equipment manufacturer and distributor, who provided the instruction, is standing next to Sgt. Brown. The former Simplex property at Pacific and Sydney Streets was used for the firefighting sessions.

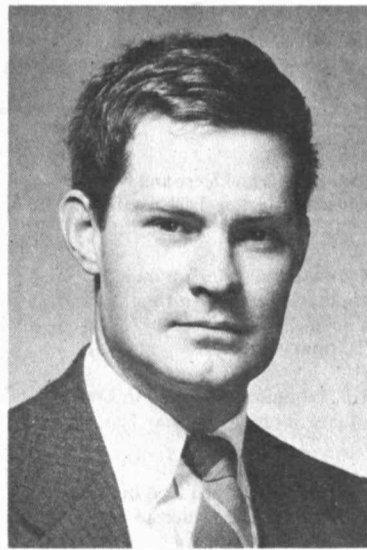
J. G. King New RLE Associate Director

Professor John G. King, distinguished teacher and researcher in the physics department, has been named an associate director of the Research Laboratory of Electronics (RLE).

The announcement was made by Albert G. Hill, Vice President for Research, and Henry J. Zimmermann, director of RLE.

Professor King has been affiliated with RLE since 1950 when, as a graduate student, he worked with Professor Jerrold R. Zacharias on molecular beam methods of measuring atomic hyperfine structure and nuclear moments. This work led to the development of the cesium atomic clock.

Dr. King joined the faculty in 1955 as assistant professor, became associate professor in 1958 and professor of physics in 1965. He has participated in the evolution of new methods of classroom teaching and in the development of more effective laboratory instruc-



Professor King

tion. Among other honors, he was the recipient of the Harbison Award, a \$10,000 award for outstanding contributions to teaching, in 1971.

Following his work on hyperfine structure and nuclear moments,

his research interests included precise measurement of atomic charge neutrality and studies of superfluids at temperatures near absolute zero. More recently he has concentrated his efforts on the development of the "molecule microscope," an instrument that uses neutral molecules to study surface phenomena.

Experimental versions of a number of different forms of the molecule microscope have indicated interesting possibilities for the study of weak binding forces at the surface of semiconductor materials and biological molecules.

Professor Samuel J. Mason of the Department of Electrical Engineering, named an associate director of RLE in 1967, will continue in that role. Professor George G. Harvey who was affiliated with RLE since its founding and has been an associate director since 1952, retired from MIT on June 30, 1973.

Grants for 6 MIT Activities Approved by Arts Council

MIT's Council for the Arts program and information committee has recommended and the Council's executive committee has approved six grants for activities in the arts at MIT. They are:

—\$2,300 to the MIT Dance Workshop in support of three part-time dance instructors and to supplement the salary of Pat DeAngelis, the Workshop's leader;

—\$500 to Otto Piene in support of a multi-media exhibit, entitled

Weather to be mounted in the lobby of Building 7 from Dec. 5 through Dec. 15;

—\$1,000 to *Free Parking*, the student literary magazine, to underwrite part of the deficit for three issues in the current academic year;

—\$2,500 to the Student Art Association to support salaries for part-time instructors, in a renewal of the Council's grant last year in the

same amount;

—\$1,500 to the Visiting Poets Series to help the program attract poets and literary critics to MIT for public readings and discussion;

—\$3,770 to the Arts Facilities Planning Group under Professor Donlyn Lyndon in support of a study for the Council's Planning and Facilities Committee.

Evening Hours For Blood Drive

In an effort to reach a goal of 1600 pints of blood, donors will be able to give during evening hours for the first time in the history of the MIT Red Cross Blood Drive—Monday, the first day of the drive, blood will be taken from 9:45am until 9:15pm.

During the remainder of the week donations will be taken from 9:45am to 3:30pm.

The Massachusetts Red Cross Blood program has announced that Blood Centers will accept any blood donations directed for the victims of the Middle East crisis.

Appointments are now being made for the drive. Appointment forms have been mailed to faculty and employees and are being distributed in dormitories and fraternities. Forms and information are available at the TCA office, Rm. W20-457 in the Student Center, Ext. 3-7911.

Lobby 'Drawing'

An environmental drawing by Lowry Burgess, a fellow at the MIT Center for Advanced Visual Studies, is scheduled for completion tomorrow, Thursday, Oct. 25.

The conceptual work, titled "Garden into the Air, Returns/Phoenix," will be in two parts. In the lobby of Bldg. 7 water prisms will be set on the floor among aluminum ovals and cones of colored pigment. The prisms will reflect the late afternoon sun.

The drawing will be "tied" conceptually to the small grove of trees adjacent to the MIT Chapel.

THE INSTITUTE CALENDAR

October 24
through
November 2

Events of Special Interest

Can Congress Really Affect Military Programs**
Congressman Les Aspin, Wisconsin. Arms Control Seminar. Wed Oct 24, 4-5:30pm, Rm 9-150.

U.N. Week: International Students Day
International students and their spouses invited to attend, Wed, Oct 24. Registration, 9:30am, Doric Hall, State House; address by Governor Francis W. Sargent, 10:15am, Leverett Saltinstal Bldg; and presentation and panel of experts discussing the international fisheries problem, Gardner Auditorium; luncheon; workshops in the afternoon. If interested, contact Ellen, Foreign Stu Office, x3-3795.

The "Responsibility" of Artists
A panel discussion, moderated by sculptor Harold Tovish, in conjunction with the juried exhibition at Hayden Gallery of BVAU works. Panel participants are painter Bilge Friedlaender, humanities professor Louis Kampf, painters Lois Swirloff and Arnold Trachtman. Thurs, Oct 25, 8-10:30pm, Sala de Puerto Rico.

Seminars and Lectures

Wednesday, October 24

Recent Developments in Understanding the Stability of Colloidal Suspensions*
J. Theodor G. Overbeek, visiting professor. Chemical Engineering Seminar. 12n, Rm 10-105 (Bush Rm).

Kinetic Theory of Binary Mixtures*
J. Castresana, graduate student, Nuclear Engineering Doctoral Seminar. 2pm, Rm 24-307.

The Physiological Basis of Acute Pulmonary Edema*
John Erdmann, M.D., Mass General Hospital. Harvard-MIT Program in Health Sciences & Technology Pulmonary Research Task Group Seminar. Also, discussion of "Young Investigator Pulmonary Research Grants." 3pm, Rm 12-150.

Gamma Transport in Fast Reactor Media*
M. Karla, graduate student, Nuclear Engineering Doctoral Seminar. 3pm, Rm NW12-222.

The Effect of Refueling Decisions on Engineering Constraints for PWR's*
T. Rieck, graduate student, Nuclear Engineering Doctoral Seminar. 4pm, Rm NW12-222.

Earthquake Prediction: The Physical Basis*
Dr. Christopher H. Scholz, Lamont-Doherty Geological Observatory, Columbia University. Earth & Planetary Sciences Colloquium. 4pm, Rm 54-100. Tea, 3:30pm, Rm 54-923.

Thursday, October 25

Kinetic Flow into Capillaries for Simple Gas*
Dr. Jury D. Nagornykh, research fellow, aero/astro. Aero/Astro Seminar. 3pm, Rm 33-206.

Humanities Reading*
Open reading of works by students, faculty, staff. 3:30-5:30pm, Rm 14E-304.

Some Problems in the Vibration of Initially Curved Beams and Plates*
Prof. J. Rossetos, Northeastern University. Interdepartmental Acoustics Seminar. 4pm, Rm 5-134. Coffee, 3:30pm, Rm 1-114.

An Overview of Current Air Transport Problems*
Sturat G. Tipton, chairman, Air Transport Association of America. Flight Transportation Seminar. 4pm, Rm 35-225. Coffee, 3:30pm, Rm 33-411A.

Particle Production at Large Transverse Momentum*
Prof. Pierre Piroué, Princeton University. Physics Colloquium. 4:15pm, Rm 26-100. Refreshments, 3:45pm, Rm 26-110.

Multi-Purpose Uses of Water Resources in the Soviet Union: Theory and Practice*
Anatoly Hochstein, former Soviet planner, Graduate Economics Association Seminar. 4:30pm, Rm E52-391.

Engineering Applications of Digital Image Processing**
Dr. L.J. Henrikson, Aerospace Corporation, Electrical Engineering Seminar. 5pm, Rm 39-400.

The End of Objectivity: Heidegger and the Shaking of the Foundations*
Dr. Gian-Carlo Rota, applied mathematics and natural philosophy; Dr. Victor Weisskopf, institute professor of physics. Technology and Culture Seminar. Last of three sessions. 5:15pm, Rm 9-150. Buffet supper 6:30pm, Stu Ctr Mezzanine Lge. Fee \$1. Open discussion, 7-9pm.

Optical Pulses in Near Resonant Vapors: a Case of Strongly Non-Linear Propagation*
Prof. Erac Courtens IBM Research Lab. Lab for Laser Physics Seminar. 11am, Rm 26-414. Coffee, 10:30am.

A Crisis at the Penn Central Railroad*
Victor Palmieri, president of Pennsylvania Company, former moderator of "The Advocates." Center for Transportation Studies Luncheon/Seminar Series. 12n, Stu Ctr Mezzanine Lge. Buffet lunch \$2.

Opportunities and Problems in Negotiating With the Russians Under the US-USSR Joint Agreement for Cooperation and Scientific Exchange*
Arthur E. Humphrey, dean of engineering, University of Pennsylvania. Faculty Visitation, Chemical Engineering Seminar. 2-4pm, Rm 54-100.

Can We Clean Up the Internal Combustion Engine?*
John B. Heywood, mechanical engineering. Mechanical Engineering Seminar. 3pm, Rm 3-133. Coffee, 4pm, Rm 1-114.

Geometric Optics in Moving Plasmas**
Prof. I. B. Bernstein, Yale University. RLE Seminar. 4pm, Rm 36-261.

High Resolution Electron Microscopy Applied to Metastable Solids: What Can It Do?*
Prof. John B. Vander Sande, metallurgy and material science. Center For Material Science and Engineering Colloquium. 4pm, Rm 9-150. Coffee, 3:30pm.

Monday, October 29

Diffusion and Electrical Conductivity in Some Non-Stoichiometric Oxides*
J. B. Wagner, Northwestern University. Metallurgy and Material Science Colloquium. 4pm, Rm 6-120. Coffee, 3:45pm.

Some Recent Applications of Risk Analysis to Civil Engineering Projects*
Prof. C. A. Cornell, civil engineering. Water Resources & Hydrodynamics, Civil Engineering Seminar. 4-5pm, Rm 48-316. Coffee, 3:45pm, Rm 48-410.

Inverse Eigenvalue Problems*
Prof. Victor Barcion, mathematics, University of Chicago. Applied Mathematics Colloquium. 4pm, Rm 2-338. Tea, 3:30pm, Rm 2-349.

"Your Place and Mine"***
Eunice West, producer of feminist TV program of same title. Association for Women Students. 4-6pm, Cheney Rm 3-310. Refreshments.

Approaches to Wind Tunnel Design for High Reynolds Number*
Harleth G. Wiley, Langley Research Center, NASA. Aero/Astro General Seminar. 4-5pm, Rm 37-252 (Marlar Lge). Coffee, 3:30pm.

MIT Writer in Residence*
Tillie Olsen, author of O Henry Award winning short story "Tell Me a Riddle", and visiting lecture in the Dept of Humanities, will read from her works Mon, Oct 29, 8pm, Stu Ctr Mezzanine Lge.

Tuesday, October 30

Discharge Characteristics of a Double Discharge TEA Laser*
N. Ceglie, graduate student. Nuclear Engineering Doctoral Seminar. 12n, Rm 38-166.

A Conservative Differencing Scheme for Variable Grids in General Circulation Models*
Dr. Milton Halem, Goddard Institute for Space Studies. Meteorology Seminar. 4pm, Rm 54-100. Coffee, 3:30pm, Rm 54-923.

On The Forced Motion of a Two or Three Dimensional Body in a Free Surface*
Dr. Ronald Yeung, research associate, ocean engineering. Ocean Engineering Seminar. 4pm, Rm 3-446. Coffee, 3:30pm.

Pan Africanism*
Courtland Cox, Drum & Spear Bookstore, Washington, D.C. Community Fellows Program Seminar. 5-6:30pm, E40-160.

The Neurosciences: Paths of Discovery*
Prof. John Z. Young, neuroscientist, University College London. Francis O. Schmitt Lecture. 8pm, Kresge.

Wednesday, October 31

Diffusion in Dense Fluids*
P. Furtado, graduate student, Nuclear Engineering Doctoral Seminar. 2pm, Rm 24-307.

Alchemy, Ancient China and Here and Now*
Dr. Brian Schwartz, Magnet Lab, Prof. Nathan Sivin, Humanities. Concourse Halloween Forum. 3-5pm, Rm 10-105.

What's New With Asthenospheric Bumps?*
Dr. H. W. Menard, Scripps Institute of Oceanography, University of California, La Jolla. Earth & Planetary Science Colloquium. 4pm, Rm 54-100. Tea, 3:30pm, Rm 54-923.

Response Matrix Techniques Applied to LWR's*
Y. Lukic, graduate student. Nuclear Engineering Doctoral Seminar. 3pm, Rm NW12-222.

Coolant Mixing in Wire-Wrapped Rod Bundles*
A. Hanson, graduate student, Nuclear Engineering Doctoral Seminar. 4pm, Rm NW12-222.

Case Histories and Successes of Operations Research in Energy Policy and Planning*
Prof. J. G. Debanne, visiting professor, ocean engineering. Operations Research Center Seminar. 4pm, Rm 24-121. Refreshments.

Thursday, November 1

Flow of Gas Mixtures into Capillaries*
Dr. Jury D. Nagornykh, research fellow aero/astro. Aero/Astro Seminar. 3pm, Rm 33-206.

Thermal Radiative Properties of the Noble Metals at Cryogenic Temperatures*
William Toscano, graduate student. Thermodynamics, Mechanical Engineering Doctoral Thesis Presentation Seminar. 4pm, Rm 3-343. Coffee.

Physics of Condensed Matter - Research at Home by Four Disabled Soviet Physicists: Levich, Asbel, Voronel & Giterman*
Prof. Moisei Giterman, Bar-Ilan University, Israel, Physics Colloquium. 4:15pm, Rm 26-100. Refreshments, 3:45pm, Rm 26-110.

Economic Aspects of Technology Adaptation for Development*
Prof. Richard S. Eckaus, economics. Technology Adaptation Program Monthly Seminar on Technology in Developing Nations. 5:30-7pm, Rm 9-150.

Friday, November 2

Underwater Photography*
Prof. Harold E. Edgerton, Mr. Charles E. Miller. On the use of the xenon flash lamp, motion pictures illustrating the problems of deep sea photography, and others on sea life. 12n, Rm 10-250.

Liquid Phase Reforming of Organics in Waste Water*
S. Amin, graduate student. Chemical Engineering Doctoral Seminar. 2pm, Rm 10-105.
Technology Assessment - A New Demand on Engineering Education*
Joseph F. Coates, National Science Foundation. Mechanical Engineering Seminar. 3pm, Rm 3-133. Coffee, 4pm, Rm 1-114.

Mass and Heat Transfer to Freely Suspended Spheres and Discs in Turbulent Agitated Tanks*
P. Wadia, graduate student. Chemical Engineering Doctoral Seminar. 3pm, Rm 10-105.

Material Science in the Soviet Union*
Prof. Moisei Giterman, Bar-Ilan University, Israel. Material Science Colloquium. 4pm, Rm 9-150. Refreshments, 3:30pm.

Community Meetings

Student Committee on Education Policy
Work meeting: degrees, grading, units & requirements. Wed, Oct 24, 7:30pm, Stu Ctr Rm 353.

Sunday Brunch**
Association for Women Students. Informal buffet with students, faculty, staff & their families. Sun, Oct 28, 9-11am, Cheney Rm 3-310. Bring food if you wish to.

Tech Wives Plan First Meeting
Membership open to wives, mothers or sisters or any student, teaching fellow or research fellow. Learn about activities and interest groups. Mon, Oct 29, 8pm, Sala.

Introduction to OS/TSO**
Non-credit course, Information Processing Center. Oct 15, 17, 19, 24, & 26, 11am-12:30pm, Rm 39-530. Open to community with computer experience & knowledge compiler language. Register, Lynne Penney, Rm 39-427, x3-6320. Fee: \$5.

Student Committee on Educational Policy
Robert Weatherall, Director of Career Planning and Placement will speak on this subject. Wed, Oct 31, 7:30pm, Stu Ctr Rm 353.

Pre Law Meetings
Representatives from the following law schools will hold meetings: **University of Pennsylvania** - Wed, Oct 24, 5:30pm, Rm 4-163. **Georgetown University** - Thurs, Oct 25, 9am-12n, make appointments Preprofessional Office, 26-244. **New York University** - Fri, Oct 26, 1-2pm, Rm 4-149. **University of Michigan** - Mon, Oct 29, 4pm, Rm 4-163. **Vanderbilt** - Tues, Oct 30, 12n, Rm 4-231. **Suffolk University** - Wed, Oct 31, 12n, Rm 4-159.

Women's Forum
Meetings and discussions. Mon, 12n, Bush Rm, 10-105.

Student Art Association**
Open drawing workshop. Tues, 7:30pm, Stu Ctr Rm 429.

Urban Action Volunteer & Resource Center
Volunteer tutors, teachers urgently needed in Cambridge and Boston schools, as well as volunteers for other community agencies. Mon-Fri, 9am-5pm, Stu Ctr Rm 437, or call x3-2894.

Course Evaluation**
Sponsored by TCA & SCEP. Come help out. Info, lve msg at TCA, Stu Ctr Rm 450, x3-4885.

MIT Club Notes and Meetings

Bridge Club
ACBL Duplicate Bridge. Thurs, 6pm, Stu Ctr Rm 407. IMP-scored team games (similar to rubber bridge scoring). Smaller IMP team games, Fri, 9:30pm, Sat, 2pm, Stu Ctr Rm 407. Intramural team championship (open to all) starts Thur, Oct 18; new entries might be accepted as late as Fri, Oct 19. Jeff, x3-5285 or 864-5571.

Chess Club**
Sat, Sun, 1:30-5pm, Stu Ctr Rm 473.

Chinese Choral Society**
Singing, Sun, 3-6pm, Stu Ctr Rm 473.

Classical Guitar Society
Classes, group or private. Mon & Thurs, 5-8pm; Sat, 8am-12n; Rm 1-132, 134, 136. Vo Ta Han, 494-8353.

MIT/DL Duplicate Bridge Club**
Tues, 6pm, Stu Ctr Rm 473. Jeff, x3-5285 or 864-5571.

Fencing Club**
Wed & Thurs, 6:30pm-9:30pm, DuPont.

Hobby Shop**
Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$10/term for students; 415/term for community. x3-4343.

Judo Club**
Sport and self defense. Mr. M. H. Yanagi, 5th degree Black Belt, chief instructor. Mon, Wed, Fri, 5pm; Sat, 1pm; exercise Rm, DuPont Gym. Beginners welcome. Info, Mike Portnoff, x3-7319.

Kung Fu Club**
Northern Praying Mantis. Tues, Thurs, 7-9pm, T. Club Lge. Info, H. C. Wong, 876-5071.

MIT Club of Boston*
Dinner meeting. Speaker John Kenneth Galbraith Wed, Oct 24, social hour 6:15pm, dinner 7:30pm, Marriott Motor Hotel, Newton. Reservations, Leena, x3-3878.

MIT Karate Club**
Evening classes, 8-10pm, Mon, Wed, DuPont Wrestling Rm. Demonstration and films of recent tournament by Mr. Tabata Wed, Oct 10. John Miller, x3-1588.

MIT Magazine: Free Parking
Weekly meeting. Sun, 8pm, Walker Mem Rm 316.

MIT Soaring Association*

General membership meeting. Thurs, Oct 25, 7:30pm, Stu Ctr Rm 473. Coffee & donuts.

MIT Wheelmen*

Wholesale parts orders placed, racing & touring events planned, informal discussion of everything about bicycling. Wed, 7:30pm, Rm 1-203.

Outing Club*

Mon & Thurs, 5-6pm, Stu Ctr Rm 461.

Rugby Club**

Practices, Tues & Thurs, 5:30pm, Briggs Field. Games, Sat, 1:30pm, Briggs Field.

Science Fiction Society*

Fri, 5pm, Rm 1-236.

Scuba Club**

Compressor hours: Mon, Fri, 4-6pm, Alumni Pool.

Scuba Club***

Pool session, Wed, Oct 24, 8-10pm, Alumni Pool.

Strategic Games Society*

Offers opponents and discounts on merchandise to members plus gaming periodical library. Sat, 1pm-1am, Walker Rm 318. Call Kevin Slimak.

Student Homophile League*

October meeting, Thurs, Oct 25, 8pm, Rm 14E-307. Help plan a weekend event, new people welcome. Hotline number is 492-7871, for information, talk, help in "coming out."

Student Information Processing Board Meeting*

Mon, 7:30pm, Rm 39-200.

Tech Engineering News**

General staff meeting, Sun, 5pm, Stu Ctr Rm 453.

Technique***

Yearbook staff meetings. Sat, 11am & Wed, 7:30pm, Stu Ctr Rm 451.

Tech Squares***

Western style square dancing. Tues, 8-11pm, Sala de Puerto Rico. Admission \$1, first time free.sb,

Tiddlywinks Association*

Wed, 8-11pm, Stu Ctr Rm 491.

Unicycle Club*

Meetings, Sun, 1pm, front Stu Ctr. Beginners welcome, we have unicycles. We now play "unicycle hockey."

Volleyball Club**

Serious volleyball, and eventual participation in Boston area tournaments. Sun (except vacations), 2-4pm, DuPont Gym.

White Water Club**

Pool session. Tues, Oct 30, 8-10pm, Alumni Pool.

Women's Gymnastics Club*

Mon-Fri, 5-7pm, DuPont Gym. Info, Ursula, x3-5954.

Wellesley Events

Baum Memorial Choir Concert*

Music of Purcell performed by Wellesley College Choir & Holy Cross Glee Club. Sun, Oct 28, 8pm, Houghton Memorial Chapel.

Moon Mysteries*

Three visionary plays by W. B. Yeats. Mon, Oct 29, 8pm, Alumnae Hall. Tickets available through coordinators office and at dorms.

Lecture*

"The Vitality of Myth," by Joseph Campbell. Tues, Oct 30, 8pm, Houghton Memorial Chapel.

Lilly Martin Spencer: The Joys of Sentiment*

Exhibition of many of the works of the Victorian painter. Through Nov 25, Main Gallery.

Greek Coins - Dewing Numismatic Foundation*

One of world's finest collections, formed by Arthur Stone Dewing of Cambridge Sculpture Court. Through Oct 31.

Social Events

Semi-Cultural Event**

Filipino Students Association. Sat, Oct 27, 7pm, Sala, Tickets \$2. Reservations by phone only, 354-1579 or 521-0222, evgs.

Skull House Skuffle**

Party, open to couple of Wellesley-MIT community, featuring Halloween tunnel, beer, live music. Sat, Oct 27, 7pm, Phi Kappa Sigma, 530 Beacon St. Free.

24-Hour Coffee House*

The MIT 24-Hour Coffee House has re-opened. Inexpensive food, candy, non-alcoholic drinks are sold. Relax, play games, read. Daily, Stu Ctr, 2nd fl Ctr Lge.

Pot Luck Coffeehouse**

Live entertainment, cider, donuts, coffee. 8:30pm-12m, W20 Mezzanine Lge, 3rd floor. Performers & others interested in helping out, call Doug, x8766 Dorm.

Friday Afternoon Club**

Music, conversation and all the cold draft you can drink. Fri, 6pm, the Thirsty Ear, Ashdown basement. Admission: \$1 men, 50 cents women. Must be over 18.

Muddy Charles Pub**

Join your friends for music, beer, wine, snacks, conversation at the Muddy Charles Pub, 110 Walker. Hours: Mon-Fri, 11:30am-2pm and 4-8pm; call GSC, x3-2195.

Deutscher Tisch

Wir treffen uns freitags von 1-2 in Lobdell, um auf Deutsch und ueber Deutschland zu reden. Wir sind an der schwarz-rot-goldenen Tischflagge zu erkennen.

Movies

Noise Pollution: **The Quiet Racket** (short) & **The New Pollutant or Noise Boom****

Barker Engineering Library Environmental Science Film Series. Thurs, Oct 25, 5pm, Fri, Oct 26, 12n 4th Fl Conference Rm (enter Rm 10-400). Free. Coffee.

Nicholas and Alexandra

LSC. Fri, Oct 26, 6:30pm, 10pm, Rm 26-100. Admission 50 cents, ID's required.

The Mephisto Waltz

Midnite Movie Series. Fri, Oct 26, 12m Sala. Free, ID's required.

Ashes and Diamonds (Andrej Wajda)

Film Society, Fri, Oct 26, 7:30pm, 9:30pm, Rm 6-120. Donation \$1.

Lawrence of Arabia

LSC. Sat, Oct 27, 5pm, 9:30pm, Rm 26-100. Admission 50 cents, ID's required.

Bell, Book and Candle

LSC. Sun, Oct 28, 8pm. Rm 10-250. Admission 50 cents.

Oil Spills: Santa Barbara: Everybody's Mistake and Oil Spoil!*

Barker Engineering Library Environmental Film Series. Thurs, Nov 1, 5pm, Fri, Nov 2, 12n, 4th Fl Conference Rm (enter Rm 10-400). Free. Coffee.

Funny Girl

LSC. Fri, Nov 2, 7pm, 10pm, Rm 26-100. Admission 50 cents, ID's required.

Kanel (Andrej Wajda)

Film Society. Fri, Nov 2, 7:30pm, 9:30pm, Rm 6-120. Donation \$1.

Psycho

Midnite Movie Series. Fri, Nov 2, 12m Sala. Free ID required, Bring your own blanket.

Music

Concert*

Nina Milkina, London pianist, will give a solo concert of sonatas by Scarlatti, Haydn, Mozart and Schumann. Wed, Oct 24, Kresge. Free.

Glee Club Concert*

The Glee Club will be joined by the Smith College Choir in a performance of "Ode on St Cecilia's Day," by Handel and "Hymn to St Cecilia" by Benjamin Britten. Sun, Oct 28, 3pm, Kresge. Tickets \$1 at door.

Recorder Ensemble**

Music provided, but bring instruments and any music you particularly wish to play. Tues, 7pm, ESG Hdqtrs, 6th fl bldg 24. All aficionados are welcome, freshmen encouraged to attend. Details, David Dreyfus, x3-7787.

Theater and Shows

Musical Theatre Guild*

"Man of La Mancha," Nov 2, 3, 9, 10 at 8pm, Sun, Nov 4 at 3pm, Kresge. Tickets \$3 (\$2 with ID) for evening performances, \$2.50 (\$1.50 with ID) for matinee. Reservations, call x3-6294 or x3-4720, or at box office on days of performances.

Dance

Folk Dance Club*

International, Sun, 7:30-11pm, Sala. **Balkan**, Tues, 7:30-11pm, Stu Ctr Rm 491. **Israeli**, Thurs, 7:15-10:15, T-Club Lge DuPont. **Afternoon dance break**, Fri, 12:30-1:30pm, Kresge Oval.

Exhibitions

Student Push Pin Shows*

Oct 15-Oct 31. Mon-Fri, 9am-10am; Sat, Sun, 12n-6pm, Creative Photography Gallery. Free.

Boston Visual Artists Union

An exhibition of 75 works by members of the BVAU selected by jury last spring. Hayden Gallery, Oct 19-Nov 10. Mon-Sat, 10am-4pm, closed Sun. Free.

7 X 7*

An exhibition at the Creative Photography Lab of forty-nine photographs by seven midwest photographers. Thurs, Nov 1-Wed, Nov 28, W31-310. Hours: Mon-Fri, 9am-10pm, Sat, Sun, 12n-6pm.

Hart Nautical Museum*

Permanent exhibit of rigged merchant and naval ship models, half models of yachts and engine models. Open daily in Bldg 5, 1st floor.

Music Library Exhibit

In honor of St. Cecilia, patron saint of music. Scores, books, pictures.

Athletics

Saturday, October 27

JV/F&V Cross Country. Eastern, 1pm, Franklin Park. **MV Sailing**. Fowle Trophy, 10am, Charles River Lower Basin.

Tuesday, October 30

V Soccer. Tufts, 2pm, Briggs Field.

Wednesday, October 31

JV/F Soccer. Phillips Exeter, 3pm, Briggs Field.

Squash Rally

Organizational meeting, varsity & freshman squash teams. Thurs, Oct 25, 5-6pm, Stu Ctr West Lge.

Religious Services and Activities

The Chapel is open for private meditation from 7am to 11pm every day.

Campus Crusade for Christ/College Life Family Time*

Singing, sharing, prayer & teaching from God's Word. Fri, 7-9:30pm, Rm 1-132.

Celebration of Holy Communion*

The Revs John Crocker, Episcopal Chaplain; Peter Johnson, Boston/Cambridge Ministries; and Constance Parvey, Lutheran Chaplain. Wed, 5:05pm, Chapel. Supper following 312 Memorial Dr.

Christian Bible Discussion Group*

Thurs, 1pm, Rm 20B-031. Prof. Schimmel, x3-6739. or Ralph Burgess, x3-2415.

Seminars on the Catholic Faith*

Catholic Belief I Introduction or refresher seminar on the teachings of the Catholic Church. Tues, 7pm, Bldg W2, 2nd fl seminar Rm. Father MacNevin, x3-2981. **Knowing and Believing**. Readings and discussion on the interaction of religion and culture. Thurs, 7pm, Bldg W2, 2nd fl seminar Rm. Steven Murphy, x3-2981.

Christian Science Organization*

Meetings, including testimonies of healing. Tues, 7:15pm, Rm 8-314.

Hillel Services

Mon-Fri, 8am, Rm 7-108; Fri, Traditional 6:45pm, Kosher Kitchen, Non-Traditional 8:45pm, Chapel, Sat, 9am, Chapel.

Islamic Society*

Juma prayers. Fri, 12:15pm, Kresge, Rehearsal Rm B. Discussion on the Qur'anic Interpretations. Sat, 5pm, ISC Lge, 2nd fl Walker.

Latter Day Saints Student Association*

Discussion of beliefs. Tues, 8am, Stu Ctr West Lge.

Protestant CommunionService*

Wed, 5:05pm, Chapel.

Protestant Worship Services*

Sun, 11am, Chapel.

Roman Catholic Masses*

Sun, 9:15am, 12:15pm, 5:15pm; Tues, 5:05pm; Thurs, 5:05pm; Fri, 12:15pm. Chapel. **All Saint's Day**: Thurs, Nov 1, 8am, 11:30am, 12:05pm, 12:45pm, 5:05pm, Chapel. **All Soul's Day**: Fri, Nov 2, 8am, 12:05pm, Chapel.

United Christian Fellowship*

Christians for Dinner and Sharing Meeting. Thurs, dinner, 5pm Walker, followed by singing, sharing, praying. 6pm, Rm 6-321.

Westgate Bible Study Meeting*

Includes study of the Gospel of Mark. Wed, 8pm, apt 1202 Westgate I.

Announcements

Chelsea Relief

A booth in Bldg 10 Lobby is collecting canned food and money for victims of the Chelsea fire. Volunteers needed to sort donated clothing at First Baptist Church, Bellingham Square, Chelsea. MIT Urban Action, x3-2894.

Boston Ballet Student Discount Tickets

First performance Nov 8-11, good seats still available for all series (3 performances/series). Get tickets at TCA office, 4th fl Stu Ctr, x3-4885.

UMOC is Coming!

Ordinary ugly types need not apply, only the truly disgusting have a chance to become the Ugliest Man on Campus. Call APO to enter or for details, x3-3788. Application deadline Sun, Oct 28.

Honorary Matrons Luncheon***

Albert O. Seeler, M. D., will speak. Thurs, Nov 1, 12:30pm, Stu Ctr Mezzanine Lge.

Placement Interviews

The following companies and schools will be interviewing candidates for placement Wed, Oct 24-Fri, Nov 2. Those interested may sign up for interviews Mon-Fri, 9am-4pm, Career Planning and Placement Office, E19-455, x3-4733.

Wednesday, October 24

Applicon, Inc.; Cornell Graduate School of Business & Public Administration; Jet Propulsion Lab.

Thursday, October 25

Jet Propulsion Lab; Amoco Production Co.; General Research Corp.; Gibbs & Hill, Inc.; I.T.&T. Corp.; Institute of Paper Chemistry; University of Southern California Graduate School of Business; Stanford University Graduate School of Business; Stanford University Graduate School of Business; TRW Systems Group.

Friday, October 26

TRW Systems Group; Babcock Graduate School of Management; John Hopkins University - Applied Physics Lab; Department of the Navy; University of North Carolina Graduate School of Business; Stone & Webster Engineering Corp.

Monday, October 29

Burns & Roe, Inc.; Center for Naval Analyses; GTE Sylvania; Network Analysis Corp.; Shell Co.; Westinghouse Electric Corp.; Corning Glass Works; Rockwell International; Sandia Labs.

Tuesday, October 30

Corning Glass Works; Rockwell International; Sandia Labs; B.F. Goodrich Co.; Hewlett-Packard Co.; IBM; Union Electric Co.

Wednesday, October 31

Ghost Dance, Inc.; Naval Underwater Systems Center; Stanford University Graduate School of Business; E.I. du Pont de Nemours & Co.; General Electric Co.

Thursday, November 1

E. I. du Pont de Nemours & Co.; General Electric Co.; Proctor & Gamble Co.; Motorola Inc.

Friday, November 2

General Electric Co.; Pfizer Inc.; Schlumberger Well Services.

(Continued on page 6)

Dining Service

Wednesday, October 24

Lunch: Italian spaghetti w/meat sauce
Dinner: Corned beef brisket w/horseradish

Thursday, October 25

Lunch: Swanky franks
Dinner: Roast sirloin of beef, au jus

Friday, October 26

Lunch: Chop suey over rice
Dinner: Baked haddock w/lemon butter

Monday, October 29

Lunch: Chicken & biscuit
Dinner: Roast leg of lamb w/mint jelly

Tuesday, October 30

Lunch: Beef & vegetable stew over rice
Dinner: Baked chicken leg

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 Oct 31 through Nov 9 to the Calendar Editor, Room 5-111, Ext. 3-3279, before noon Friday, October 26.

New UROP Listings

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. Undergraduates are also urged to check with the UROP bulletin board in the main corridor of the Institute.

Department of Nutrition and Food Science

The actual eating and nutritional habits of undergraduates is a poorly defined aspect of undergraduate life. For this reason, it is desired to conduct a survey and analysis of the eating habits of undergraduates, not only in Walker, the Student Center, etc., but also students eating in fraternities and their own rooms. Such a survey will require calculation of food intake, determination of serving size and number of meals consumed. Results from this analysis will be compared with National Research Council-National Academy of Sciences recommendations for dietary intake. In this manner, it is hoped to better understand the nutritional status of undergraduates today. Contact Prof. Samuel A. Goldblith, Room 16-315, Ext. 3-3104.

Council on Economic Priorities New York City

The US government is now leasing over 750,000 acres of coal-bearing lands in the west to private corporations, primarily oil and coal companies. This leasing of federally-held land in the West is accelerating rapidly, partly because of fears that a shortage of western coal will exacerbate the energy crisis. The CEP is currently beginning an intensive six-month study of these leasing practices because it appears that the rate and amount of leasing far exceeds the current or near-term demand for this coal and that it is being done without a national long-term strategy. CEP would like to discuss possible undergraduate and faculty collaboration on this study. The final report is circa January, 1974, so speed is important.

Foxboro Company Foxboro, Mass.

The Research Center of this company has proposed two project possibilities for undergraduates: (1) Outline, design and develop an extensive and inclusive model of the research function; how it relates to development and engineering functions; how it interacts with marketing and sales functions; and how it depends on company policies, economic constraints, and general market conditions; and (2) Investigation of the possible use of static punched card readers as means of establishing signal connections at the patchboard of an analog computer. The study will entail a detailed analysis of signal connection requirements and reflect how these requirements may be met using limited structure interconnectability means as static card readers.

New England Consortium on Environmental Protection (NECEP)

NECEP is an association of 14 colleges and universities that provides student training in environmental protection while providing a service to the New England region. NECEP is interested in meeting students and faculty interested in air pollution to work on its Regional Air Quality Program. Each state currently collects data to enforce its air pollution standards and this data will also be used to answer questions of land use and transportation planning and air quality impact of development. The regional program will assist the states in preparing for these new uses and users by developing the specifications for an air quality information system. The program has already identified the potential users of the information, types of information needed, and what data is currently available. The focus now is on research projects related to the following areas: (1) improved monitoring network to include meteorological data, new monitoring techniques and an expanded geographic coverage; (2) improved data analysis techniques and (3) improved data dissemination to users.

Sperry Rand Research Center Sudbury, Mass.

Sperry Rand has a terminal-oriented system implemented on a PDP-11 (referred to as the "system") and a second PDP-11 (referred to as the "test environment") that stimulates the first with requests which would arrive from a number of terminals. The test environment collects statistics on service delays. The objective is to measure the capability of the system. The simulation is incomplete in that the test environment can only transfer a limited number of types of requests to the system and these are insufficient to make a realistic measurement of the system capabilities. Sperry Rand would like to work with an undergraduate on developing the system further.

Nutrition and Food Science

Frozen Granule Formation—The feasibility of producing frozen drops of aqueous solutions by spraying the solution into chilled liquids would be investigated. The chilled liquids would include liquid nitrogen, liquid freon and ethanol (with dry ice). The frozen drops will be freeze dried and compared for the following properties: (1) Particle size distribution; (2) Rates of freeze drying under fixed conditions;

(3) Sorption properties of dry matrix; (4) Structure evaluation by microscope. Contact: Prof. James Flink, Room 16-114B, Ext. 3-6735.

Governor's Task Force on Metropolitan Development Boston

The Governor's Task Force on Metropolitan Development deals with urban and metropolitan problems by examining the process of decision-making in the Boston metropolitan region and developing specific proposals for improving that process. The task force has suggested a number of research areas for MIT undergraduates and faculty: (1) Examination of how other metropolitan regions deal with issues of metropolitan concern; (2) Analysis of some previous (and current) proposals for change in the institutions of the Boston metropolitan region; (3) Fiscal analysis of public investment in infrastructure and facilities; (4) Exploration of alternative strategies for improving the process of metropolitan decision-making; (5) Legal research; and (6) Analysis of political acceptability of various strategies.

Natural Resources Defense Council New York City

A public interest law firm, NRDC has sued on behalf of environmental and anti-poverty groups, as well as the UAW, to force EPA to stop stalling on issuing public health regulations limiting the lead content in gasoline. NRDC believes there is a strong legal case to make EPA issue stringent regulations based on information to date. NRDC wants to work on a project with an undergraduate to (1) Canvass the literature; (2) Treat conflicts in data and inconsistencies in conclusions; and (3) Investigate possible causal links between lead content and PPOM (special particulate matter known to correlate with cancer).

Nutrition and Food Science

Nutritional and Quality Deterioration during Food Processing—The freeze-drying process is well recognized as giving high retention of nutritional and organoleptic quality. This is especially true in standard laboratory procedures in which process conditions are used which would be uneconomic for industrial practice. Certain phases of the commercial process require elevated levels of heating. This is especially true for continuous processing which is just coming into industrial use.

One critical phase of the freeze drying process is the desorption period when essentially dry product is being heated to the process temperature. An important aspect of the economics is the loss of product quality which will result from using a higher process temperature. The problem to be investigated can also be stated, "how high a temperature can the product tolerate without significant loss of nutritional and organoleptic quality." Contact: Prof. James Flink, Room 16-114B, Ext. 3-6735.

Graduate Studies

The following brief descriptions of selected graduate fellowships and advanced study opportunities have been received recently by the Graduate School Office. More complete descriptions are available in the Office, Room 3-136.

The National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry

The awards will be made for research and study in one or more disciplines or fields of study such as, but not limited to, the following: mathematics, chemistry, physics, industrial education, engineering, and business technology, provided the area of study has potential application in the printing, publishing, and packaging industries.

The National Scholarship Trust Fund graduate fellowships will be awarded to students who (1) plan to seek employment at the professional and management or education level of the graphic communications industries, (2) have demonstrated ability and special aptitude for advanced education in the sciences and education, and (3) have been admitted to graduate status by the institutions they select or will have been so admitted prior to beginning their fellowship tenures. Application forms are available in Room 3-136. Deadline: February 1, 1974.

Wellesley College Fellowships for Women

A number of substantial fellowships are available for graduates of Wellesley and other American institutions to support graduate studies. See poster in Graduate Office, Room 3-136. Deadline: December 15, 1973.

Graduate and/or Postdoctoral American Academy in Rome 1974-75 Rome Prize Fellowships

Fellowships will be awarded by independent juries, upon evidence of the ability and achievement of artists and scholars of exceptional promise ready to do independent work in the fields of: architecture, classical studies, environmental design, history of art, landscape architecture, musical composition,

painting, post-classical humanistic studies and sculpture.

Fellowships are open to all citizens of the US and are offered for a period of two years beginning Oct. 1, 1974. There is the option, however, of accepting the award for one year only. Although there is no age limit on applicants, the Academy is especially interested in young candidates of outstanding promise. Each fellowship offers about \$4,600 a year, which includes a residence and studio or study, and use of the library and other Academy facilities. Special allowances are provided for married Fellows and their families.

Requests for applications should be addressed to the New York Office, American Academy in Rome, 101 Park Ave., N.Y., N.Y. 10017, and must specify the particular field of interest. Deadline for applications is Dec. 31, 1973. See the Foreign Study Office, Room 10-303, Ext. 3-5243 for further information.

Inter-American Foundation, the Latin American and Caribbean—Learning Fellowship On Social Change

The fellowship provides opportunities for scholars to learn from Latin American and Caribbean social change programs. The Inter-American Foundation is making available a small number of pre- and postdoctoral research fellowships designed to enable the Fellow to study the change process from the participant's perspective. To this end, the Foundation collaboratively arranges affiliation with either a Foundation-supported development project or an agency retained to evaluate such projects. Upon completion of the field work phase of the research, Fellows are invited to spend up to three months as interns with the Foundation analyzing their data and writing up their results.

In addition to being specialists in the behavioral sciences or the professions, Fellows must evidence a commitment to multi-disciplinary inquiry and be knowledgeable about Latin American or Caribbean area studies.

The Fellowship is open to doctoral candidates and postdoctoral scholars in the social sciences and professions. They must be able to write and speak a language of the Caribbean or Latin America area. Doctoral candidates must be enrolled in higher education institutions in the US and have fulfilled all degree requirements other than the dissertation at the time of award. Fellowships are open to all without regard to citizenship, sex, or age.

Six Appointed To CSF Board Of Trustees

Six new members have been named to the MIT Community Service Fund board of trustees by President Jerome B. Wiesner.

They are: Lt. Robert J. Armstrong, a graduate student in naval construction and engineering; Professor John Elliott of the Department of Metallurgy and Materials Science; Mrs. Artemis Gyftopoulos of the Technology Matrons; John E. Newcomb, Jr., of the Office of Personnel Services; Jack I. Raffel of Lincoln Laboratory Group 23; and Professor George B. Thomas, Jr., of the Department of Mathematics.

Yet to be appointed are three undergraduate trustees who will be nominated by the Undergraduate Association.

CSF was established in 1968 as a means of providing support for community services in which MIT people participate as volunteers. Its board of trustees includes representatives from all major MIT constituencies.

Continuing as trustees are: Dr. Peter P. Gil, associate dean of the Sloan School of Management, and Gregory Smith, a member of the Corporation, co-chairmen; Mrs. Ellen R. Beatrice, a graduate student in urban studies and planning; Carole Bertozzi, an alumna; Dr. Benjamin Brettler, an alumnus; Professor Anthony P. French, of the Department of Physics; Mrs. Yvonne Gittens, an employee in urban studies and planning; Mrs. Katherine Hanson, a student wife; Thomas Lynch, an employee in biology; John Mack, a graduate student in management; Joanne Miller, a staff member in the News Office; Professor Leon Trilling, of the Department of Aeronautics and Astronautics; and Joseph S. Collins, special assistant in the Office of the Chairman, as secretary to the trustees.

Duration for field research is normally nine months. Deadline is Dec. 1, 1973. Applications may be obtained from: Learning Fellowship on Social Change, Inter-American Foundation, 1515 Wilson Boulevard, Rossly, Va. 22209. See the Foreign Study Office, Room 10-303, ext: 3-5243 for further information.

The Lady Davis Fellowship Trust

The trust announces the availability of awards for study, research or teaching on graduate or post-doctorate levels at the Hebrew University of Jerusalem and The Technion-Israel Institute of Technology, Haifa. Fellows will be selected on the basis of demonstrated excellence in their studies, promise of distinction in their chosen fields of specialization as well as on qualities of mind, intellect and character. The Fellowships are for study on either the graduate or postdoctoral levels, for research or for teaching to be conducted at the above institutions and are subject to acceptance and approval by the respective institutions.

Fellowships are tenable for a period of one or two years. The grant is intended to defray the cost of the Fellow's transport and tuition and to meet all his reasonable expenses. Hebrew University and Technion officers will assist the Fellows in finding suitable housing.

Applications are available from the Foreign Study Office, Room 10-303, Ext. 3-5243, or directly from the Secretary General, Lady Davis Fellowship Trust, P.O. Box 1255, Jerusalem, Israel. Deadline: January 1st, 1974.

Latin American Teaching Fellowships for 1974-75

Awards are available to pre- and post-doctoral candidates in the natural and social sciences, engineering, law and business administration, who have completed at least two years of graduate study, and who have passed all preliminary requirements for the PhD or equivalent degree. Fellows will combine teaching duties at a major Latin American university with research and internship responsibilities. Deadline: Applications are being accepted now for the March selections. Applications are available from the Foreign Study Office, Room 10-303, ext. 3-5243, or directly from Latin American Teaching Fellowships, Fletcher School of Law and Diplomacy, Tufts University, Medford, Mass. 02155.

Elective Deadline

Friday, Oct. 26, is the last day for fourth year students to specify an elective for pass/fail grading.

Tech Matrons' Interest Groups Hold Classes

The Technology Matrons' interest groups have openings in classes for members of the Institute community. The classes include:

Crewel—Advanced course: Classes now meeting with Mrs. Rene Fell. For further information call Mrs. Ann Combs, 862-0929 after 5pm. Beginners' course: Six week series with Mrs. Priscilla Gray begins Oct. 30. For information call Mrs. Priscilla Gray, 729-4098.

Foreign Language Classes—Small and informal classes usually meet in the instructors' homes.

French: Beginning and intermediate conversational classes. For information call Mrs. Ann Biraben, 232-1088.

German: A continuing class, but newcomers with some facility are welcome. Meets Tuesdays at 8pm. For information call Mrs. Ann Smith, 862-8771.

Greek: A beginners' modern Greek language course; reading, writing and conversation. For information call Mrs. Marina Psychogeos, 325-1281.

Japanese Flower Arrangements—Sogetsu School. Classes given by Mrs. K. Nasubuchi. For further information call Mrs. Mabel Nevins, 272-1556.

Window-Sill Gardening—Classes for beginners and more advanced indoor horticulturists. Classes given by Mrs. Raymond Cronin at the Suburban Experimental Station, Waltham. For information call Mrs. Louise Meeks, 862-5591.

Yoga—For information call Eileen Turchinetz, 862-2613.

Social Science Research Council Fellowships and Grants to be Offered in 1973-74.

Fellowships and grants are for the advancement of research in the social sciences. Announcement booklets describing the programs of the fellowships and grants offered by the Council and the foreign area programs that it sponsors jointly with the American Council of Learned Societies are available at the Foreign Study Office, Room 10-303, Ext. 3-5243. Citizenship requirements and deadline dates vary. Check with the Foreign Study Office.

Special Fellowships

Teaching Assistants Program, Andover Summer Session, Phillips Academy Andover, Massachusetts

Openings for juniors and seniors in English, history and social sciences, mathematics, sciences, languages and art. Assistants work in traditional and experimental courses in a six-week enrichment program for able secondary students from all over the country, and help in the dormitory athletics and activities. Current juniors and seniors are eligible. Married students cannot be considered. The stipend for the summer is \$600 plus room and board. Additional information and applications are in the Preprofessional Advising and Education Office, Room 26-244, Ext. 3-4158.

Andover Teacher Fellowship

The Andover Teacher Fellowship Program prepares college graduates for a career in teaching, particularly in the secondary school. It gives a comprehensive training not only in classroom teaching, under the supervision of experienced teachers, but in all aspects of education in a residential school. Fitness for the full range of boarding school duties is therefore important criterion in the selection of Teaching Fellows. Both men and women are encouraged to apply. The fields open to Teaching Fellows are English, history, ancient and modern languages, mathematics, biology, chemistry, physics, general science, art, music, religion, and social sciences.

In addition to supervised experience, a Teaching Fellow receives a stipend of \$4,500 and is provided living quarters in a school dormitory or house and board in the school dining hall.

Further details and applications are available in the Preprofessional Advising and Education Office, Room 26-244, Ext. 3-4158.

'Nightshift' Show On Channel 5 Includes MIT

MIT will be one of six Massachusetts schools participating in Channel 5's "Nightshift," a new series of bi-weekly programs—aired from 2:10 to 2:40am—of outstanding creative film and drama talent.

MIT will join Boston University, Brandeis University, Emerson College, Harvard and the University of Massachusetts at Amherst in presenting original half-hour programming on a rotating basis beginning this month. Beginning in February, the Monday night shows will be shown on a weekly basis.

The first MIT program, scheduled for Oct. 29, will be "Firefighters"—a black and white documentary, running about 30 minutes, on the Boston fire department.

Annuity Discussion

Institute professors Franco Modigliani and Paul A. Samuelson plus other members of the finance group in the Sloan School and the Economics department will lead a discussion of the Tax-Deferred Annuity Program Tuesday, Nov. 13 from 5-7pm in the Sala de Puerto Rico.

The discussion will help those eligible for the plan choose between the options offered.

CLASSIFIED ADS

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 Insite extensions may be listed. Members of the community who have no extension 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 4-105. Please submit all ads before noon, Friday, October 26.

For Sale, Etc.

Crib, port plypn type, mesh sides, exc cond, yr old, \$15. Call, 494-9073, aft 12:30pm.

Bogner ski pants, 34W 32L, nrly nw, \$60 or best. Ed Franks, 267-3130, lve msg.

Tuxedo sofa, 84", ot grn, \$40; brn club chr, print ladies chr, \$25 ea. Shirley, x182-183-214 Bedford.

Sears Kenmore apt sz part washer, perf cond, yr old, orig \$170, ask \$90. Call, 494-8483.

Vac clnr, \$15; iron, \$14; hrdry, \$13; 2 tw matt, \$20/tog; shlvs for hi fi, \$35; darkrm set, \$30; Yashika camera, \$20; 2 snows, Pinto, \$20/tog. Peter, x3-6267.

Stud snows, pr, 650x13. x7516 Linc.

Mahog BR set, 3 pc, also couch & chr. Call, 354-7008.

TEAC 1230 tape deck, perf cond, \$270; umbrella tent, \$15; elec sew mach, \$30; Coleman propane lantern, \$11; air matt, \$5 ea; elec deep frying pan, \$8; furn, crtns, cheap. Call, 494-8349, evgs.

Bose 501 spkrs, yr old, perf cond. Lynette, x3-6718.

Moving, must sell 23" GE fan, 3 spd, \$5; Pyrex coffeepot, \$1; Norge 3 spd washer, yr old, orig \$225, \$150, nego; lg wh K cab, \$8. John Rosenberg, x3-4710.

Port KLH stereo rcdr, detach spkrs, nw stylus, orig \$200, \$65 or best Helen, x8-3501 Draper.

Plant sale: 5' split lf philodendron, \$22; 12" egg-shaped terrarium, mini plants, \$12; 15" mini palm, \$4; 17" corn, \$5; 10" spider, \$4; swedish ivy, \$3. x3-7137.

Wh provincial full sz bed fr, \$20. Yvonne, x3-7295.

Wilson tennis rckts, 2, cvrs, 1 has wd frame, v gd cond, hrdly used, \$12 & \$15 or best. Call, 536-5497.

Snows, pr, 775x14, v gd cond, mtd Chevy Imp, \$35. x5377 Linc.

Stuffed animals, b nw, all sz, shapes, styles, great gifts, rm decorations, wholesale prices, to 54" tall, \$3 & up. Call, 536-5497.

Upright vac clnr, \$10; elec fry pan, broiler lid, \$5; broiler oven, \$3; stereo, \$20. Dave, x3-7035. aft 3.

Bureau, \$10. Jorge, x3-2166.

Bike, m, 3 spd, w/chn, yr old, gd cond, \$40. John, x3-5582.

Antique Empire chest-on-chest, nds re-finish, \$50; sgl box spr & matt, gd cond, \$40. Allen, x3-7906.

IBM Exec typwrtr, proportional sp, mdl B, carbon ribbon, \$150. Call 494-9181.

Panasonic stereo, sm, compact, \$80; b&w TV, GE, \$30; sm 2 drwr desk, \$15; exc cond. Pedro, x3-2911.

Stereo sys, Voice of Music, 3 mos, exc cond; spkrs, \$80/pr; rcdr chngr, \$75; amfm tuner/amp, 50 w rms, \$345 or best for whole sys. Howie, 494-0289.

Stereo, B&R trntbl, Standard solid st amps, Bell & Howell spkrs, \$100. Jackie, x3-6639.

Standard amfm rcvr, Sony TC-125 cassette deck, Martin spkrs, \$150 or best. x3-5232.

Shower fixture for showerless bath, best. Mike, x3-7597.

Grand piano, 5' 11", Iver & Pond, \$100 or best. Call, 536-1300.

Plane ticket, Bos-London-Oslo, one way, best over \$10. Call, 861-9027.

Rieker buckle ski boots, f, sz 8 1/2 m, nw last yr, \$25. x3-2250.

Braun RL elec flash unit, used 2 mos, incl power pack, bracket, cables, cost \$125, ask \$100. Bob, x3-2706.

Fla real estate, 10 acres Econlockhatchee R, Nr Orlando, Cape Kennedy, Disney World, wooded, suit cntry estate, ideal weather, \$50,000 terms. x3-6121.

Sgl bed, box spr & matt, yr old. Dominique, x3-1636.

Skis, Fisher superglass, 200 cm, sgl seas, best. Dave, x3-4849.

Wntr coat, sz 9 midi, 100% wool, wine red, blk trim (Russian style), worn 1 seas, v gd cond, was \$120, ask \$45; Norge washer, copper, 15 lb, \$50. Eva, x3-5742.

Tires, 2, mtd, 600-13, \$15 ea; coat, f, Bonwit-Teller, sz 12, blk w/fur trim, \$125 nw, \$50. Arthur, x3-1930.

Kneissl Blue Star skis, 210 cm, w/geze step-in bndgs, \$100. Mike, 267-4935.

TEAC 3300-10 tape deck, b nw, orig packing, 10 1/2" reels, all solenoid operation, 2 yr wrnty; also Advent mikes. David, x3-4157.

Baby carriage, \$15; snow suit, 20-24 lbs, \$10; car st, \$4. Call, 494-9016.

Stamp collection, sets, sgls, blocks, 20-50% Scott, many lots less than 10% Scott. Ken, x3-6385.

Minolta SRT 101 camera w/f 1.4 mc Rokkor auto lens, lthr case, yr old, \$190. Ron x3-4211.

Rims, 2, 14", fit Chrysler product, \$12/pr. x8-2004 Draper.

Clarinet, gd cond, \$40; Lafayette 8 trk tape plyr, amp, 4 tapes, come hear. x9469 Dorm.

Sony tape decks, 2:366, ec, 3 heads, mixing, \$175; mdl 350, 3 heads gc, \$95; also Advent 101 Dolby, ec, \$85. Peter, 267-5238.

SCM std office mdl typwrtr, esc cond, \$30. Ginny, x343 Linc.

Waterbed w/thermostat, h, fr, liner, yr old, k sz, \$70 or best. Call, 628-4702.

Pioneer 727 rcvr, list \$400, \$295; sm Advent ldsprks, perf cond, \$110; both wrnty. Rich, 267-5238, aft 6.

Beaut 9x12 red & blk twd carpet, \$39; 2 brnr 3 temp hotplate, \$15; mtl shlvs, 12x36x72, \$10. Richard, 536-4308, late evgs.

Golf equip, Zenith b&w 21" TV, Sealy matt & box spr, furn & appl, see Sat, Oct 27. x3-6616 for directions.

TV, Magnavox, 19", nds wk, \$25. Joyce, x3-3467.

Polaroid print copier no. 230, prt, for 80 & 80A camera, exc cond, \$12.50. Bill, x5565 Linc.

'69 Ford LTD wgn, ac, stereo, \$1,000; Heathkit SSB transceiver, 80-10, ac & dc supply, \$200. Don, x465 Linc.

Panasonic fm-8 trk car stereo, w/spkrs, lock, key, b nw, list \$161, \$99. Howie, x5466 Linc.

Portacrib & matt, \$18; inf jmpwr-wrkr, \$9; GE steam & dry iron, \$5; 4 mtl tray tbls, \$5. x8-4095 Draper.

Pr stud 678x15 ww snows, balanced Chevy whls, \$40. Larry, x3-4749.

Patchwork quilts, handmade in Appalachia, also cstm orders, \$35 & up. Philippa, 492-1992.

Texas Instrument SR-10 elec calc, used few days, \$90. x3-7147.

Stud snows, E78-14, yr old, \$20. x3-6084.

Pr 200 cm wd skis, plastic bases, mtl edges, Dover bndings, safety straps, \$10; Campagnolo bike pump, nw, \$9. Edna, x3-7787.

Vivitar telephoto lens, 200mm, auto, Pentax, \$75. Jim, x3-2397.

Solid rock mpl desk, bureau, mirror, \$90; want VW 7 pass van, '70+. Linda, 262-4127.

Amer Airlines reservations, Bos-SF-Bos, 12/24/73-1/16/74, \$180 rd trip. x3-2128.

Rims, 2, 14", '66 Tempest, \$10; Motor's auto repair manual, '64-'70, \$4; 6 b nw Champion spark plugs, J-10Y, \$3/set. Larry, x3-4614.

Vehicles

'64 Olds sta wgn, Dynamic 88, nw tires, exh, wtr pump, \$200. H. Lander, x3-6077.

'65 Mustang, std, gd cond, \$250 or best. Carlos, x3-6220.

'65 Ford Frln, body exc, eng gd, std, \$250; also ski poles, 53", brly used, \$5. Bill Beebee, x8-3661 Draper.

'67 Merc wgn, 6 cyl, nw exh, br, etc, mtd snows, \$350 or best. Call, 566-2015.

'67 VW, gd cond, w/stud snows, \$700 or best. Mike, 3-5317.

'67 BMW 2000 sed, 52K, v gd cond, \$1,000 or best. Panos, x3-7010.

'69 Chevy 58, auto, nw tires, exc cond. Call, 472-4105.

'69 Rambler, gd run cond, \$950; '64 Olds, v gd run cond, \$450. x3-2412.

'70 Pontiac G Prix, bl w/blk v top, 2 dr, bckt sts, p st & br, exc cond, \$1,900. Judy, x3-6101.

'70 Mustang Boss 302, \$1,400 spent on nw eng, best. Call, 776-7253.

'70 VW bug, bge, exc cond; skate sharpening mach, exc cond, \$175; mechanical wallpaper cutter, best. David x3-5829.

'70 Pontiac GTO, 38K, v hrdtp, std, exc cond, \$1,400 or best. x319 Linc.

'71 VW camper, 57K, gd cond, rebilt eng. x3-7052.

'72 Plymouth duster, 26K, grn, spt cp, 2dr hrdtp, 4 spd std, lk nw, see wknds, \$1,800 firm. Sully, x8-4093, Draper, aft 4pm.

'73 CJ5 jeep, \$2,500. Al, x5873 Linc.

'70 Bridgestone 350, cheap, nds work. Nat, 846-6147.

'70 Honda CB450, luggage rack, manual, beaut cond, \$600. Call, 354-6566.

Honda 100cc trlbike, 900 mi, xtra tires, exc cond. x3-4333.

'71 Roadmaster travel trlr, slps 4 adults, 2 chldrn, stove, sink, ice box, 15", \$900. T. Jones, 726-3805, 9-5.

Housing

Arl, 8 Rm duplex, qt st, bsmnt, gar, washer & drier, \$300 + h. Call, 965-0372.

Bos, sunny stu, eat-in K, paint, free pking, avail 11/10, pref wkng f, reas rent, incl h & h wtr. Marie, x3-5232.

Bkline, Clev Crcl, 6 1/2 spac rms, porch, mod B, nr T, tennis ct, plygrnd, pking, family only. Diana, x3-6150.

Camb, Tang Hall, sub apt 16-A f, f-t grad stu, avail 11/1. Julie x3-2627.

Som, 2 BR, lg K, 15 min MIT, nr shops, T, avail 11/17, \$150 + util. Robert, x3-5150.

W Som, 3Rm, B, unfurn, no pets, sec & ref, \$143 incl util. x5777 Linc.

Wakefield, 3 BR, frml DR, frpl LR, eat-in K, gar, top loc, \$29,900. Call, 245-2459

Wrtwn, 3 BR duplex, LR, DR, lg K, B, bsmt, fenc yd, off st prking, 10 min T, avail 12/1, \$200. Joe, 181-56117 Millstone.

Sgl rm w/river view, apt nr MIT, share B w/1, breakfast priv. Call, 547-4763.

N Conway, wntr rental, 12/1-5/1, nw duplex chalet, frpl, ea apt slps 12. Dick Clark, x7139 Linc.

Animals

House-trained, playful kitten nds home. Call, 262-3192.

Terrier/poodle, m, 3 yrs, healthy & frisky, nds rm to run. Dennis, x3-5817.

Wanted

Used elapsed time hour meters, 2. Tony, x3-5783.

Used gas dryer. Al, 521-1150.

F. 2-4, for modern coed ski hse, 5 min Sugarbush & Glen Ellen, 2 LR, 2 frpl 4 BR, balc, total membership \$300. x8-3367 Draper.

Musicians, pro or amateur, brass, wdwind, banjo, etc, for Ragtime & Old Time Jazz biwkly jam sessions. Sam Benichasa, x8-3661 Draper.

Whls for 10 spd bike, front & rear (w/gears). x8-1325 Draper.

Functions eligible for max-min competition, continuous, have 2 derivatives, in region from A to B. Compatibility w/independent variables desired. M, W, F, 12n, Rm 2-390, see F.B.

Used cannister-type vac clnr. Ronda, x3-7271.

Ride/riders, alternate, Tewksbury-MIT, hrs flex. Ray, x3-7235.

Rmmate, f, Camb, own rm, 4 BR apt, LR, K, 10 min Central or H Sq, nr T, \$67 + util. Call, 547-0292.

HP-35. Bryan, x9364 Dorm.

Old trunks, wl pay. Call, 494-8153, aft 6.

Rmmate, m or f, 25 +, share N Camb apt 2-3 mos, own rm. x3-6162.

Datsun pick-up, '71 or newer. Ken, 256-4414.

Bug key. Fred, collect, 1-653-1236 (Natick).

HP-35. Larry, x8534 Dorm.

Violinist for amateur string quartet, meets Sun evg but nego. x3-4615.

Guitar for beginner, will sell elec guitar. Mike, x3-1830.

Artist to design cover of catalog, wl pay. Debbie, x3-3610.

Refrig. Jawaid, x0113 Dorm.

Riders, Newton Crnr, work 9-5. Susan, x3-2940.

Rmmate, lg hse, Chestnut Hill, furn, own rm, \$125 + util. Bill, x8-1485 Draper.

Refrig, sm or med sz. Yuen, 492-0494, evgs.

Ride, MIT-Bkline, Tues, 5:30pm. Tina, x3-2756.

Piano, studio or spinet, up to \$200. Bob, x3-2593.

Used tires, 2, 650x13 or A78x13, under 15K. Don, x7606 Linc.

Miscellaneous

Gen typing, manu & thesis, (no tech), IBM selectric. Wendy, x3-5115.

Tutoring in chem or math. Ed Friedman, x3-5230, lve msg.

If there is sufficient demand, an After School Day Care Program at MIT may be formed for K or grade-schoolers. Immediate or projected needs, call Shan, 876-4579, or Betty, 876-7737, evgs kp try.

Exp retired MIT secy wl do work at home, tech, thesis, manu, edit, etc, can pick up. 643-8067.

Sailing lessons, Bos harbor, beaut 30' sloop, \$15/day. Call, 522-1506.

Gen thesis typing. Nadine, x3-7843.

Wl do gen &/or tech translations, German/Eng. Diana, x3-7555.

Christmas is coming! Give yourself Maggie's self-designed fitness classes - everybody welcome. Athletic card required, credit given. M, W, F 12-1; T, Th 1-2; M-F 5-6, fencing rm.

Chinese &/or Japanese priv tutoring. Liu, x3-6705.

Wl type thesis, manu, term papers, etc, IBM selectric. x3-7062.

Parking

Note to parking sticker swappers: please remember to inform your supervisor and the Campus Patrol of the exchange you have made so that their records accurately reflect your new parking area.

Wl swap Windor for East, Albany or West Gar. x3-6726.

Positions Available

This list includes all non-academic jobs currently available on the MIT campus. A duplicate list is posted each Tuesday preceding Tech Talk publication date on the Women's Kiosk in the Bldg 7 lobby, and on the bulletin board outside the Office of Minority Affairs, 4-144. This list is also posted in the Personnel Office E19-239, on the day of Tech Talk publication. These postings are provided to encourage individuals from within the Institute to apply for positions for which they feel they qualify.

Virginia Bishop 3-1591
Mike Parr 3-4266
Philip Knight 3-4267
(secretary - Joy Dukowitz)

Sally Hansen 3-4275
Jack Newcomb 3-4269
Evelyn Perez 3-2928
(secretary - Mary Ann Foti)

Dick Higham 3-4278
Pat Williams 3-1594
Claudia Liebsny 3-1595
(secretary - Dixie Chin)

New Applicants should call the Personnel Office on extension 3-4251.

The following positions have been filled since the last issue of Tech Talk and are no longer available.

73-916-R	DSR Staff
73-971-R	Secretary IV
73-1077-R	Secretary III
73-479-R	Admin Staff
73-1015-R	Adm Stf-Plcmnt Coun
73-1036-R	Jr. Programmer V
73-1032-R	Admin Staff
73-1081-A	DSR Staff Prog
73-1064-R	Secretary IV
73-981-R	Secretary IV
73-742-R	Secretary IV
73-737-A	Secretary III
73-684-R	Tech Typist III
73-1089-R	Tech Asst Tr. IV
73-1087-R	Libr Gen Asst III
73-991-A	Libr Gen Asst III P-T
73-1086-A	Tech Typist III-IV
73-999-A	Clerk II
73-1044-R	Secretary III
73-1049-A	Secretary IV
73-1063-R	Secretary IV
73-1072-R	Secretary IV P-T
73-1021-R	Inf Staff Nurse P-T
73-1020-R	Inf Staff Nurse P-T

The following positions were on HOLD pending final decisions:

73-901-R	DSR Staff
73-1072-R	Secretary III-IV
73-1010-R	Admin Asst V
73-1033-R	Admin Asst V
73-1047-R	Admin Staff
73-1017-R	Editor-DSR Staff
73-1055-A	DSR Staff
73-137-R	Sys Prog-Adm Stf
73-498-R	Secretary IV
73-630-R	Secretary IV
7373-1085-R	Secretary IV
73-1061-R	Secretary IV
73-1039-R	Sr. Kpch Oprr III
73-1096-R	Sr Acct CK IV P-T
73-993-R	Tech Stat Typist III
73-883-R	Sr Clerk III
73-1067-R	Sr Clerk III
73-1069-R	Libr Gen Asst III
73-1054-A	Lab Asst
73-1029-R	General Helper
73-1095-R	Secretary III

Staff Recruiter (Admin. Staff) will report to the Employment Officer; will be responsible for coordination of search for well-qualified persons to fill non-academic staff positions. Particular emphasis will be given to assisting laboratories, centers, and departments in fulfilling Affirmative Action Plans with respect to research staff openings. Person will work closely with Personnel Officers and departments in defining description of positions and qualifications required. Frequent travel will be expected; experience in Personnel and/or recruiting required. Technical background with degree in Engineering or Science preferred. Please submit resume. 73-643-A (7/18).

Administrative Staff member will work in the area of resource development dealing with individual contributors. Develop strategies and programs, prepare reports, provide advice and counsel of a legal nature for resource development activity. Some travel required to represent MIT. Must have legal training and preferably some experience as a counselor in practice or a job situation utilizing legal training. Writing and organizational ability; motivation, enthusiasm required. 73-480 (5/30).

DSR Research Staff Engineer - Temporary in Mechanical Engineering will design and develop a high priority medical technique for heart attack victims. Work will consist of development of interfacing, control and timing circuits; aid in system evaluation once system is complete. BS(EE) with computer hardware emphasis; experience with mini-computer hardware; interest in developing a detailed circuit and following it to completion required. Temporary 10/73 to 7/74. 73-897-A (9/19).

DSR Staff member will plan, manage, and execute high-quality research projects having a strongly experimental orientation. Familiarity and experience with low-speed flight and wind tunnel testing methods and advanced piloting aviation type aircraft; Ph.D. in Aerodynamics and five years applicable research and development

Systems Analyst - DSR Staff at the Cambridge Project will adapt Time Series processor programs for use with the Consistent System on Multics. Knowledge of calculus, econometrics, statistics, and linear algebra; extensive PL/1 programming experience on Time Sharing Systems; familiarity with TSP-CSP required. Position is temporary until 6/74. 73-845-R (8/29).

Environmental Engineer - Administrative Staff in Physical Plant will organize and direct an Institute-wide energy conservation program. Survey campus buildings to determine areas of possible energy economy; plan procedures; maintain the Institute's compliance with environmental requirements. BS in Electrical Engineering with a basic knowledge of building Mechanical systems for heating, ventilating, and air conditioning. Experience in engineering design or operation of buildings. Experience in energy conservation helpful. 73-875-R (9/5).

DSR Staff at the Cambridge Project will maintain and develop a major Multics System's operating primitives including dynamic storage allocation routines and a PL/1 preprocessor needed to support programs. Will work with others in development of behavioral science applications software Multics and PL/1 experience; minimum 1 year system programming experience in the area of high order parsers, dynamic storage allocation, and multiprocess interactions required. 73-1057-R (10/3).

Director of Personnel Development - Administrative Staff will coordinate the Career Development and Training Programs for all non-academic personnel. Responsible for organization development; assess training needs; plan and develop new training programs; coordinate existing training and development programs; develop career planning and counseling capability. Experience in organization development and career development and planning desirable. 73-1116-A (10/17).

Administrative Staff - Associate Director of the Alumni Fund will be responsible for staff support to alumni boards and committees engaged in the annual solicitation for the Fund. Duties require extensive interaction with senior alumni and corporation executives throughout the country, and extensive interaction with senior members of the MIT faculty and administration. Incumbent must be an alumnus/alumna of MIT. The position will entail a moderate amount of travel. 73-1018-R.

DSR Staff in Metallurgy will perform scanning transmission electron microscopy and high spatial resolution electron probe microanalysis of biological specimens; prepare thin films to use as microanalysis standards; technical subjects. BS with experience in the performance of high spatial resolution and physical constants of thin films, or MS degree required. 73-1127-R (10/24).

Technical Librarian - Administrative Staff will design and implement procedures for organizing and maintaining an Industrial Administrative Information Systems. Process and document EDP reference manuals, technical journals, internally prepared documentation. Aid in implementation, and thereafter maintain, formal methods of interfacing with vendor support personnel. Be directly involved in process of documenting material developed by technical support group, including editing and re-writing of such material. Will also edit and re-write material for a Programmer's User's Guide. Knowledge of methods for development and maintenance of a Special Library required; minimal knowledge of data processing concepts and terminology desired. 73-953-A (9/19).

DSR Staff at the Aeroelastic and Structures Research Laboratory will be Project Engineer at a large subsonic wind tunnel. Plan, prepare, run and report production and research wind tunnel experiments. Related in the study of the aerodynamics of buildings and aircraft. BS degree in Aeronautical Engineering or equivalent experience required. 73-1004-A (9/26).

Administrative Staff in the Office of Personnel Relations will assist the Wage and Salary Administrator with the development implementation and long-term maintenance of a formal, integrated classification and salary administration program. BS degree or equivalent and 2-4 years of direct experience with the administration of a formal exempt classification and compensation system required. Familiarity with basic statistical methodology is desired. 73-1108-A (10/17).

Systems Programmer - Administrative Staff will provide technical expertise; develop and implement methods of improving computer performance. Minimum of two years S/360 or S/370 BAL (ALP) Assembler Language Programming experience. Knowledge of tele-processing, and COBOL or PL/1. 73-265-R (4/73).

DSR Staff - Part-time will be the Cambridge Project's documenter. Edit, verify and sometimes write detailed reference documentation for consistent system programmers; write program descriptions to be included in an informal primer for the uninitiated and non-programming Consistent System User. Familiarity with on-line computing systems PL/1 or FORTRAN; ability to organize ideas into logic sequence required. 10 hour work week. 73-1074-R (10/10).

DSR Staff Systems Programmer at Project MAC will perform system analysis and system programming on a research version of the Multics operating system. SM or EE degree required; 2-3 years programming experience in the supervision of some advanced operating system required. Ability to contribute to research and work with students important. 73-1137-A (10/24).

DSR Staff - Systems Analyst at Cambridge Project will adapt Time Series Processor programs for use within the Consistent System on Multics. Knowledge of calculus, econometrics, statistics, and linear algebra; extensive PL/1 programming experience on Time Sharing Systems; familiarity with TSP-CSP required. This position is temporary until 7/1/74. 73-749-R (8/8).

Architect/Programmers - Administrative Staff in the Planning Office will work on the development of architectural programs for Institute buildings. Research and conduct preprogramming investigation of existing spaces and develop design Criteria and Standards for new facilities. Degree in Architecture; background in research methods; experience in design and general architectural procedures required. 73-879-R (9/15).

Scientific Programmer DSR Staff in Earth and Planetary Sciences will design and implement modifications to an existing scientific software system in connection with the Mariner 9, MVM, and other space-related experiments. Also write auxiliary data manipulation and display programs, run programs, analyze data. Experience working with a large scientific program; advanced knowledge of FORTRAN; math and/or engineering background on a bachelor's level required. Knowledge of System/360, assemble, JCL, and O/S would be helpful. 73-1094-R (10/17).

Planner/Architect - Administrative Staff in Planning Office will concentrate on long-range planning for existing environmental conditions, define problems, develop plans and design concepts; degree in Architecture required; degree in Planning preferred. Minimum of 5 yrs. experience and the ability to work independently important. 73-880-R (9/15).

Administrative Staff Planner will direct long-range physical planning for the various efforts of the planning team; develop budgets and schedule of government agencies and community groups. Must have a Masters degree in Planning and a minimum of 5 years experience. 73-535-R (6/13).

Administrative Staff Planner will direct long-range physical planning for the various efforts of the planning team; develop budgets and schedule of events. Will act as liaison between government agencies and community groups. Must have Masters degree in Planning and a minimum of 5 years experience. 73-535-R (6/13).

Engineering Assistant - Exempt in the Fuel Research Laboratory of Chemical Engineering will analyze and calculate emission rates of nitric oxide, carbon monoxide, carbon dioxide and soot from gas range burners. Will also design and make modifications to the equipment. Associate degree in Physical science or engineering minimum requirement. 73-1084-A (10/17).

Technical Assistant - Academic Staff in Nutrition and Food Science will study biochemical characteristics of the squid and use such data for the development of stable squid protein concentrate. Evaluate the Nutritive value of these products and develop means of utilizing these in foods. BS degree in Food Science Technology or Chemistry required. 73-968-A (9/26).

Technical Assistant - Academic Staff in Nutrition and Food Science will work on a study of the mechanism of chemical carcinogenesis in tissue culture. BS and MS in Biology and 1-2 years experience in tissue culture microbiology required. Ability to work independently a must. 73-1112-R (10/17).

Administrative Staff - Systems Programmer will work full time in the Programming Development Office on the 370/165. The job will consist of programming and maintenance, systems assurance, and user interface functions. Applicant should have some project management experience, and understanding of operating system, and a good working knowledge of assembler language. 73-795-R (8/15).

Administrative Staff Programmer for the MIT Information Processing Center must have experience and thorough knowledge of large-scale time-sharing computer system. PL/1 language, documentation and communication skills are necessary qualifications. The Users Services Group requires an individual who understands and is responsive to the needs of the Center's users. This person will be challenged in entering a new area of time-operation for this group which includes the following:

User Assistance - assisting users by providing programming information and debugging help and tracking down special problems.

User Information - instructional documentation and conducting seminars, workshops, and other courses. 73-640-A (7/11).

Industrial Hygienist - Academic Staff will work in the Environmental Medical Service to study and control occupational disease and other environmental factors such as noise, heat, pressure and toxic materials that may be physically or chemically hazardous to employee health. Will work closely with physicians, depts, supervisors. BS in Chemical Engineering is required. 73-336-A (4/29).

Senior Secretary V in the Arteriosclerosis Center will coordinate the office activities of the Director of a multifaceted medical research program. Schedule appointments, conferences, lectures, maintain student records and appointments and a variety of office files; periodically prepare reports; type manuscript reviews and other materials. Individual will have extensive telephone contact with other medical areas and patients. Good organizational skills, ability to establish priorities and supervise junior secretaries required. Knowledge of medical terminology and machine transcription helpful. 9:30-5:30. 73-1088-R (10/10).

Secretary IV will perform secretarial duties for the administrative officer of an academic department. Maintain department contract and personnel records. Excellent shorthand, dictaphone, typing skills needed. Organizational ability, familiarity with keypunch or computers desirable. 73-390-R (10/3).

Secretary IV to a professor and several faculty members in the new Division for Study and Research in Education will type classroom materials, reports proposals; handle all general secretarial duties. Good typing and dictaphone skills important; ability to establish priorities required. 73-959-A (9/19).

Secretary IV to two professors in the Lab for Nuclear Science will handle all general secretarial duties for several small projects. Good shorthand or ability to take dictation and highly skilled typing required. Initiative and organizational abilities important. 73-297-R (9/26).

Secretary IV to the headquarters staff of Housing and Food Services will type correspondence, special reports, budgets; assist in compiling and organizing data for special reports; handle all general office duties. Secretarial training; excellent typing and shorthand skills; knowledge of accounting and bookkeeping required. Ability to work independently important. 73-986-R (9/26).

Secretary IV to the Institute Secretary for Foundations will be responsible for budget accounting, file maintenance; research in reference materials. Maintain communications and smooth relations with top level offices of the Institute. Excellent secretarial skills, ability to organize and to use discretion required. Knowledge of MIT desirable. 73-976-R (9/26).

Secretary IV in Mechanical Engineering will handle general secretarial duties for a group of faculty, researchers, and students. Maintain accounts; type technical reports, proposals; transcribe from shorthand and machine dictation. Excellent typing required. Shorthand and dictaphone skills, ability to organize within a very busy office is important. 73-1048-R (10/10).

Secretary IV for Institute Secretary for Corporations will organize and run the office. Very accurate typing needed for some letter-perfect copy. Other typing duties require speed. Preliminary research on corporate prospects; gather backup information for visits; draft not-too-technical correspondence. Work closely with other Institute offices in obtaining pertinent data; receive visitors. Flexible, adaptable, good telephone presence. 73-1091-R (10/10).

Secretary IV in Academic department will type correspondence, proposals, DSR reports, manuscripts, these (much of it technical) keep DSR account records; maintain small library; compose routine letters; assist professor with details of registration. Ability to work independently and to write letters important; accurate typing essential; knowledge of shorthand, technical typing and bookkeeping preferred. 73-578-R (6/27).

Secretary III in the Humanities Library will handle general secretarial duties for the library; maintain payroll records; participate in interlibrary borrowing operation; assist with some bibliographic searching. Speed and accuracy in typing required; ability to work with detail important. Library experience helpful. 73-1051-R (10/3).

Secretary IV to Physician in Medical will schedule Faculty Health and DSR physicals; transcribe case histories, reports, and correspondence; handle all general Secretarial duties. Individual must be an experienced Medical secretary with excellent skills and knowledge of medical terminology. 73-1010-R (9/26).

Secretary IV (part-time) in Architecture will handle all secretarial and clerical duties for the History of Art Program. Type manuscripts for publication, books, correspondence; maintain filing system; assist in some library research. Excellent typing; fluency in reading and writing French; familiarity and/or background in art history required. 20 hour work week. 73-823-R (10/17).

Secretary III in Aeronautics and Astronautics will provide secretarial support for staff of a research group. Good typing skills, experience in handling accounts helpful. Ability to work independently important. Shorthand preferred. 73-956-R (10/3).

Secretary III for a group of faculty members and research staff in the Research Laboratory of Electronics. Type technical manuscripts, including setting format and verifying footnotes and references; handle all other general office duties. Excellent typing experience preferred. 73-861-R (9/5).

Secretary III in the Medical Department will transcribe clinic notes and case histories; assist with secretarial duties in a variety of areas; provide support during vacations, sickness, and lunch breaks. Accurate typing essential; previous transcribing experience and a knowledge of medical terminology required. 3 1/2 hour work week; 8:30-5:00. 73-1012-R (9/25).

Secretary III in the MIT Associates Program will handle general secretarial duties for one staff member servicing industrial firms' participation in the Program in their dealing with MIT. Excellent office, shorthand and typing skills required. Secretarial or business school background and previous experience desired. 73-1104-A (10/17).

Secretary III will handle general secretarial duties for one staff member; assist with work on an annual office-publication. Business or secretarial school background; good shorthand and typing skills required. Ability to work independently and to set priorities important. 73-1095-A (10/17).

Secretary III to two Geology professors in Earth and Planetary Sciences will monitor research and petty cash accounts; type proposals, class material, manuscripts. Ability to work with MIT accounting procedures important; good office skills required. Much contact with students in this busy office. 73-1105-R (10/17).

Secretary III to one staff member will take and transcribe dictation and handle all general office duties. Ability to organize and work independently; good secretarial skills required. Previous working experience and secretarial training preferred. 73-580-R (10/10).

Senior Accounting Clerk IV or Accounting Assistant V will maintain the payroll and monthly account statements and records for the Office of the President and the Chancellor and to assist in preparation of budget analysis, routine reports, some correspondence and questionnaires along with some general office responsibilities. Accounting background and experience with budgets would be helpful. Must be able to work independently and with little supervision and do own typing. 73-1099-R (10/10).

Senior Clerk IV Part-Time/Temporary at the Harvard-MIT Program in Health Sciences and Technology will handle general clerical work; assist in budget preparation and on special projects. Basic accounting skills necessary; accurate typing desired; ability to act independently important. Position temporary for 8 weeks. 20 hour work week. 73-1130-A (10/24).

Reactor Operator Trainee IV in Nuclear Engineering will serve as shift operator on the MIT Reactor after passing AEC Operators Exam. Two yrs of technical college education or its equivalent background will be necessary for preparing for operators' licensing. Knowledge of electronic circuits would be helpful. Ability to work under pressure of emergencies important. 40 hour work week. 73-988-R (9/26).

Senior Clerk III will take and process orders at Graphic Arts. Price and schedule Xerox work, handle requisition details. Knowledge of photography preferred, but not essential. 73-946-A (10/10).

Technical Typist III at the Information Processing Center will prepare technical documents relating to computer programming, mathematics and statistics. Set up and record original drafts, make corrections and produce final copy using the MTST. Maintain library of storage volumes or computer files. Technical typing experience, ability to learn MTST required. 73-1093-A (10/10).

Accounting Clerk III in the Comptroller's Accounting Office will cycle billing, file material, post on NCR - proving to controls, mailing and dunning. Accurate typing and the ability to work with figures and details important. 73-1133-R (10/24)

Payroll Clerk III in the Comptroller's Accounting Office will be staff distribution clerk, reconcile staff payroll suspense account, handle account adjustments. Minimum one year business school education or several years experience in the accounting field required. 73-1132-R (10/24).

Technical Assistant III - IV Part-time in Nutrition and Food Science will assist laboratory personnel in performance of spectrophotometry, fluorimetric, apectrophotometric, and other assays; prepare chromatographic columns and resins; and assist in washing laboratory glassware. 24 hour work week. 73-1090 (10/10).

Clerk Typist II (part-time) in the Mathematics Undergraduate Office will assist with a variety of clerical duties. Type bulletins, memos, letters, and sometimes quizzes. Ability to work as part of a group and deal effectively with many people and handle various tasks important. Accurate skills needed. 15-20 hours; morning preferred. 73-1101-R (10/17).

Technical Artist IV at Graphic Arts will size photos, paste-up copy and prepare finished mechanicals on brochures, reports, etc, for offset printing. Will make changes on drawings; operate headliner and typositor machines. 1-2 years applicable experience; knowledge of printing processes, type and leroey lettering; strong background in paste-up field. 40 hour work week. 8-5. 73-1123-R.

Painter in Physical Plant must have minimum of 5 years experience in all phases of painting, including interior and exterior work, preparation and mixing paint materials and matching colors, thorough knowledge of the various materials, tools, equipment and rigging used in the trade. Must have a Painter Rigger's License and be able to work effectively on staging and ladders. 40 hour work week. M-F. 73-1106-R (10/24)

Machinist B(Temporary 9 mo-1 yr) in Nuclear Engineering will work from blue prints, specifications, verbal instruction, or sketches. Set up and operate machine tools. Work in reactor machine shop on experimental and reactor components fabrication with supervision. Will handle and be exposed to radioactive materials. Strict adherence to approved radiation protection procedures will be required. Minimum 2 years applicable experience or graduation from a 2-year day technical school machinist course required. 73-1059-R (10/24).

Waitresses/Waiters (Part-Time) at the Faculty Club will set up silver and china on dining room tables. Take number orders; serve food and beverages. Clear, clean and reset tables. Experience helpful, but not necessary. Shifts: M-F 11:00am - 3:00pm. All positions may require weekend work. 73-1071-R, 73-1117-R, 73-1118-R.

General Helper in Graphic Arts Service will perform a variety of routine jobs such as cleaning, oiling and supplying raw materials to the bindery, pressroom, ozalid room, etc. Works in various groups doing other work as assigned. 40 hour work week. 73-1028-R (10/10).

2nd Class Engineer must have a Mass. second class Engineer's license or higher. Individual must be willing to work on any shift. 730182-R (4/73).

Electrician for Physical Plant will install and maintain all types of electrical equipment and systems. Ability to work from blueprints, verbal instructions or sketches as necessary. Some electronic experience desirable. Must be able to work all shifts and on irregular schedule. Minimum of five years experience and Mass. State license required. 73-1107-R (10/17).

Waitresses/Waiters (part-time) at the Faculty Club will set up silver & china on dining room tables. Take number orders; serve food and beverages. Clear, clean, and reset tables. Experience helpful, but not necessary. Shifts: M-F 11:00am - 3:00pm. (3 jobs). All positions may require weekend work. 73-1070-R, 73-1071-R, 73-921.