Massachusetts Institute of Technology

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TECHNOLOGY REVIEW HONORED-Donald M. Bowman, left, UCLA assistant chancellor and a director of the American Alumni Council, presents the Council's Ernie Stewart Award to Technology Review, recognizing the MIT Alumni Association's magazine for "outstanding examples of service." Accepting are John I. Mattill, second from right, Technology Review editor since 1966, and Donald P. Severance, Alumni Association executive vice president. The Stewart Award also was given to the Stanford Alumni Association. Accepting for Stanford is Mrs. Janet D. Sharpless, former Stanford Alumni Association assistant director. Mrs. Sharpless, a Stanford fund raiser, is the wife of Karl B. Sharpless, associate professor of chemistry at MIT.

'Uncompromising Quality'

Technology Review Honored

Technology Review, the national magazine published by the MIT Alumni Association, has won the highest award of the American Alumni Council, which praised the publication for its "remarkable, indeed unique, sense of mission.'

The Ernie Stewart Award was one of five given to the MIT Alumni Association during the council's annual national convention, held in Boston last week. Four of the awards went to Technology Review, whose editor is John I. Mattill.

Other awards were:

-A special citation for its articles on energy to Technology Review.

-A special citation for "writing and editing of difficult subjects" to Technology

-A "publication of distinction" award which designates Technology Review among the 13 best alumni magazines in the United States in 1974.

-A "citation for special excellence" for a reunion gift mailing to the Class of 1949 by the MIT Alumni Fund.

The Alumni Council's Ernie Stewart Award is given "for outstanding examples of service rendered during the year to institutions or to the cause of education by organized alumni effort." The award also was given to the Stanford Alumni Association for a series of paperback books The Portable

The council's citation said:

"These two pace-setting publications must be considered giants in the field. Yet they are honored by this award not simply for being great publications. Rather, they have been singled out for recognition for their remarkable, indeed unique, sense of mission: to render service not only to their alumni, but others as well, by offering intellectual stimulation of uncompromising quality..."

The presentation marked the second time the Stewart Award has come to MIT. The first time was in 1968 when the award recognized the work of the Long Range Planning Committee of the Alumni Association, whose report had been completed in the previous

Management Review Reports On Financial Data Security

How secure is the computerized information stored and processed by financial institutions?

A survey in the Boston area, conducted by Torben G. Gronning of MIT, has found that data managers generally feel confident about safeguards, but Mr. Gronning questions whether such confidence is justified.

Writing in the current issue of MIT's Sloan Management Review, the nation's largest student-edited business review, Mr. Gronning says:

"It was found that managers generally feel quite confident about the adequacy of the current level of protection of data from destruction, modification or disclosure (either intentional or accidental).'

However, Mr. Gronning says, the survey also found that preventing the disclosure of client information "was believed to be less imperative than prevention of destruction/modification (for example, fraud and embezzlement)."

Mr. Gronning, a member of the Sloan Information Systems Security Project at MIT, said the findings of his survey "appear to be reasonable and consistent, and accordingly may be taken as representative of the financial community at large.

"We conclude," he continued, "that financial institutions are concerned with data security, and that they have taken action to adopt what is considered a reasonable level of data security given

Hearings on TV

The television room on the third floor of the Student Center will be open, beginning Wednesday morning, for those who want to watch the House Judiciary Committee hearings.

current needs."

Mr. Gronning, however, questions whether financial institutions recognize the need to intensify future security in light of "the deep changes which data processing currently is undergoing."

"Based on the survey results, the obvious expectation is one of little or no change at all (in security). The state of the art in data security is characterized as largely satisfactory by the sample of

"This raises the serious question of whether managers in the financial community have anticipated adequately the changing demands for security... This question, in turn, leads to the consideration of (Continued on page 5)



Got a lock problem? Here are the men who can solve it. From the left, in the MIT lock shop, are Charles R.

Emerson, lead locksmith, Terry McCarthy and George Glanopulos. See story on page 3.

Five Named Visiting Faculty Members

The executive committee of the Corporation recently approved the appointment of two visiting professors, one visiting associate professor and two visiting assistant

Professor Lennart A.E. Carleson, of Sweden, director of the Mittag-leffler Institute at the University of Uppsala, Sweden, who was a former visiting professor at MIT in 1957 has been appointed visiting professor in the Department of Mathematics for one year beginning July 1. Dr. Carleson graduated from the University of Uppsala in 1947 and received the doctorate degree there in 1950.

Professor James S. Hekimian, dean of business administration at Northeastern University, has been appointed visiting professor in the Sloan School of Management for four months, effective September 1. Professor Hekimian graduated from Harvard University in 1954 where he completed a MBA in 1956 and DBA in 1963.

J. Karl Hedrick, associate professor at Arizona State University, has been named visiting associate professor in the Department of Mechanical Engineering for one year, effective July 1. He is a graduate of the University of Michigan and received an MS in 1970 and the PhD in 1971, both from Stanford University.

Hideo Okamura, of Japan, was also named to the Department of Mechanical Engineering as assistant professor for one year, beginning July 1. An assistant professor at Sophia University in Tokoyo, Dr. Okamura graduated from the Waseda University, Japan, in 1952 where he also completed an MS in 1954 and the doctorate in 1972.

Ezio Tarantelli, of Italy, assistant professor of economics and financial policy at the University of Rome, has been appointed visiting assistant professor in the Sloan School of Management for four months, beginning September 1. Dr. Tarantelli, who received the doctorate degree from the University of Rome in 1965, also studied at the University of Cambridge, England and at MIT

Food Experts Plan Seminar

MIT's International Nutrition Planning (INP) Program has scheduled two major seminars at which international malnutrition problems will be explored.

On Thursday, July 25, Dr. Don Paarlberg, director of agricultural economics for the US Department of Agriculture, will keynote a seminar entitled The World Food Crisis: Problems and Policy Alternatives.

Tuesday, July 30, INP will present a seminar on An International Nutrition Agenda for the Next Decade, at which Dr. Carl E. Taylor, head of the Department of International Health at Johns Hopkins University, and winner of the Edward M. Ryan Prize for International Nutrition Research, will

(Continued on page 5)

MIT Scientists See Nuclear Dangers

Four MIT scientists are among the signers of a statement saying that recent global events have created a new and deepening

threat of nuclear destruction. The warning comes from the United States and Canadian Pugwash groups, which are unofficial but influential organizations of leading scientists, disarmament experts and others concerned about the dangers of nuclear technology. They take their name from Pugwash, Nova Scotia, where East-West conferences on science and world affairs began 17 years

Their statement, which says they had been lulled into a false sense of complacency only to have a "rude awakening," was issued at a news conference in MIT's Center for Theoretical Physics by Dr. Bernard T. Feld. Dr. Feld, professor of physics on leave from the Institute, is the secretary-general of the London-based Pugwash organization.

Others at the news conference

(Continued on page 3)

Program of Sonatas To Close Concert Series

Violinist Stephen Erdely, a member of the MIT music faculty and his wife, Beatrice Erdely, a noted pianist, will give the final concert in the Festival of Summertime Chamber Music, Tuesday, July 30, 8pm in Kresge Auditorium.

Featured works in the program of classical and contemporary sonatas will be Mozart's *E-flat Major* K. 481, Beethoven's *F-Major*, Op. 24, Norman Dello Joio's *Variations and Capriccio* (1948) and the late Darius Milhaud's *Second Sonata* (1917).

The concert is sponsored by the MIT music section and is free and open to the public.

Stephen Erdely, a former violinist with the Cleveland Orchestra under the late George Szell for 15 years, joined the MIT faculty last fall and is associate professor of music. A native of Hungary, he received his training in Europe as a pupil of Ede Zathureczky, Leo

Weiner, and Zoltan Kodaly at the Franz Liszt Music Academy in Budapest.

Before joining the Cleveland Orchestra in 1950, Professor Erdely toured widely in recitals in western Europe where he was a recognized recording artist.

Beatrice Erdely, who is a member of the music faculties at the New England Conservatory of Music and Brandeis University, began her piano studies at the American Conservatory of Music in Chicago. Among her teachers were Henriot Levy in Chicago and later Eduard Steuermann of the Juilliard School of Music in New York.

Mrs. Erdely has performed as a recitalist in New York City, Chicago and Cleveland and as soloist with the Chicago Symphony and the Cleveland Orchestra. In the coming year she will be soloist with the MIT Symphony Orchestra under conductor David Epstein.

Nine Appointed to Faculty

The executive committee of the Corporation recently approved the appointments of nine assistant professors to the MIT faculty.

Three assistant professors were named to the Sloan School of Management faculty. They are:

Reuben T. Harris, Jr., a former lecturer in the School of Business Administration at the University of California at Berkeley, was named to the Sloan School faculty for three years, effective July 1. Dr. Harris was a graduate of Antioch College in 1969 and received the MBA the following year from the University of Rochester. He completed a doctorate this year at Stanford University.

Stephen J. Kobrin was appointed to the Sloan School faculty for two and a half years, beginning January 1, 1975. Dr. Kobrin is a teaching assistant at the University of Michigan where he expects to complete a doctorate this year. He received an B Mgt Eng from Rensselaer Polytechnic Institute in 1960 and an MBA from the University of Pennsylvania in

Jeffrey A. Meldman who has been an instructor in electrical engineering at MIT for four years was appointed to the Sloan School faculty for three years, effective July 1. An MIT graduate in 1965, he received the LLB in 1968 from Harvard Law School. He received the SM degree in electrical engineering from MIT in 1970 and expects to complete his doctorate here later this year.

Robert W. Field and Ellen J. Henderson were appointed assistant professors in the Department of Chemistry for three years each, effective July 1.

Dr. Field is a former assistant professor at the University of California at Santa Barbara. A graduate of Amherst College in 1965, he received the PhD from Harvard in 1972.

Dr. Henderson comes to the Institute from a post as research staff member of the British Medical Research Council at the University of Edinburgh. She received a BS degree in 1966 and a doctorate in 1971, both from Purdue University.

Kenneth R. Manning and Langdon Winner were named to the faculty of the School of Humanities and Social Science for three years each, effective July 1.

Dr. Manning, a graduate of Harvard in 1970, received a MA in 1971 and a doctorate this spring, both from Harvard University. He has 1. 17

for the past two years.

Dr. Winner, formerly assistant professor at the University of Leiden, Netherlands, graduated from the University of California at Berkeley in 1966. He completed an MA in 1967 and the PhD in 1973, also from the University of California at Berkeley.

been a teaching fellow at Harvard

Christopher F. Arterton was appointed to the faculty of the Department of Political Science for one year, beginning September 1. Mr. Arterton, an instructor at Wellesley College in 1973, expects to receive a doctorate at MIT this year. He received the BA from Trinity College in 1966 and MA from the American University in Washington, D.C. in 1968.

James P. Kostman was appointed to the Department of Philosophy for three years beginning July 1. Mr. Kostman is a former teaching assistant at Stanford University where he expects to complete his doctorate later this year. He received an AB in 1968 from Princeton University and B. Phil from Oxford University, England, in 1970.

New Firm Joins Polymer Program

Instrumentation Laboratory, Inc., of Lexington, Mass. has joined International Telephone and Telegraph Corp., Rogers Corp., and USM Corp. as a member of the MIT-Industry Polymer Processing Program, Professor Nam P. Suh, program director, has announced. Professor Suh is also associate professor in the Department of Mechanical Engineering. Instrumentation Laboratory, Inc. is a leading firm in medical instrumentation, which requires sophisticated polymer processing technology.

The program is a cooperative MIT-Industry effort to innovate and improve polymer processing techniques. Faculty and student researchers at MIT, with the assistance and advice of member firms, pursue new ideas for industrially viable polymer processing techniques in an educationally and intellectually stimulating and rewarding atmosphere.

Government participation comes from the National Science Foundation's Experimental Research and Development Incentives Program, which has funded the program to determine how government can stimulate industrial research and develop-

Dr. Howell Is Trailblazer in Elderly Housing

(The following article is reprinted from The Boston Globe.) By Joseph Levin

Uncle Sam has tied the marital knot between gerontology and the architectural sciences—and it's about time. They have a couple of babies and more are on the way.

To be serious about the new trend, one has to realize hundreds of millions of dollars have been poured out by the US Department of Housing and Urban Development (HUD) and by the treasuries of the states in an attempt to create decent housing for the elderly. Often results have been poor in terms of living satisfaction.

Mostly the problems grew out of (1) failure to pay due attention to the in-house living and social needs of intended residents, (2) failure to consider external factors as site location, nearness to stores, hospitals, nursing homes and other conveniences and (3) inadequate neighborhood acceptance.

A trailblazer in bringing about this formal union of gerontology and architecture is Dr. Sandra Furthermore, as the work moves toward completion in 1976, the Howell project will produce a series of handbooks written to inform city planners, housing developers, architects and designers, and the elderly themselves.

This is a formidable undertaking by a woman who started her academic career by being a philosophy major at the Berkeley campus of the University of California. Attracted by the growing rapprochement between health sciences and home care after World War II, she took a master's degree there in medical care planning, then moved east to St. Louis to work for Jewish Hospital's Department of Rehabilitation, where she trained teams of health workers to take care of patients in their own homes to prevent them from becoming institutionalized.

Later she took a PhD at Washington University in St. Louis in the field of environmental psychology. When she went to Brandeis, she initiated a series of workshops that brought architects and social scientists together. She has

She has put forward such innovative ideas as color coding the corridor on each floor for the guidance of persons using elevators. A variation of that idea includes the use of schematics, similar to those used in subway stations.

Speaking of internal traffic flow, one of her favorite photos shows elders sitting in chairs facing the mailboxes in the lobby of a housing project. They prefer to sit there, "where the action is," she says, and thus enjoy casual contacts with their neighbors. She thinks design should recognize this human need and perhaps enlarge the lobby to provide community space.

Another of her photos shows an empty community center at a project, with structural pillars cutting off the view from the back part of the room.

Incidentally, to provide more social opportunities "where the action is," she has advocated and succeeded in getting a developer to put a community room next to a laundry room—one to each floor.



Members of MIT elderly research team include, from left, Diane Helgren, Grace Collins, Ken Hanrahan, Pamela Dinkel, Dr. Sandra C. Howell, Gayle Epp, Andrew Miao and [seated] Wilbur Jack-

son, photographer. Other team members are Chester
L. Sprague, associate professor of architecture;
Charles Cofield, Karen Outz, Daphine Petri and Rod
Porke

Howell, formerly of Brandeis University and now associated with Massachusetts Institute of Technology.

She has received a \$573,000 grant from the US Department of Health Education and Welfare's Administration on Aging for a massive piece of research known as "Design Evaluation—Uses of Elderly Housing."

At Tech her work has been advanced through the enthusiasm of young architectural students—a team varying seasonally from five to 15 members. Dr. Howell adds: "Don't forget to give credit also to the hundreds of elderly persons who have opened their homes to talk to our team members about what's good or bad about public housing for the elderly."

Her project zeroes in on properties built with HUD funds but doesn't stop there. The project already has 54 sites for elderly housing under study across the nation. Dr. Howell's studies have already resulted in design ideas for senior housing projects at Maverick Square (East Boston), River street (Mattapan).

But those are merely beginnings. Her work has won warm acceptance from the State Department of Community Affairs, which funds state-subsidized housing, the state Department of Elder Affairs, which is seeking a larger voice in site selection and design of housing for the elderly, the Boston Housing Authority and the New York State Urban Development.

conducted these also at MIT, the University of Texas and Virginia Polytechnic Institute.

In a sense her Federal project is an extension on a national scale of what she has been doing at the local level. Her efforts involve both providers and consumers of public housing for the elderly.

Architects and developers, she says, have been working in the dark for years, as far as knowing the housing needs of old people and how well the buildings they put up have met those needs.

Dr. Howell says she is trying to develop ways of evaluating the "performance" of a building in tenant's terms. Architects and builders, she says, talk about design and materials, developers about costs. Tenant satisfaction and behavior are never really given high priority.

[Dr. Howell told Tech Talk she will attend a National Academy of Science conference on expanding building performance criteria in August, to exchange ideas with building industry leaders.]

Since she started her research she has been talking with the state Housing Finance Authority and has been able to sit in on design reviews and to influence the living arrangements.

This deals with such homely things as height of kitchen cabinets, arrangements of porches and patios, choice between high and low rise buildings, consideration of internal and external traffic flow and many other problems.

She points to design failures in two federally subsidized housing projects for elders where the internal layout provides no crossventilation and off-size windows are too narrow to accept individual air conditioners.

She has a lot of reservations in general about age-segregated public housing for the elderly. She points to national statistics showing 70 percent of the elderly live in their own homes. "Something," she says, "ought to be done also to make those homes more livable."

She has developed a set of criteria for site selection, but emphasizes strongly that relocation of an elder from the community he or she has lived in for a long time could shorten the elder's life.

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Five Receive Health Sciences Fellowships

Five MIT graduate students have been selected to receive fellowships from the newly established MIT Health Sciences Fund. They are:

Chester H. Conrad of Kew Gardens, N.Y., who is studying the elucidation of mechanisms of certain important cardiac arrythmias, common causes of sudden death, in the Department of Electrical Engineering and the Harvard-MIT Medical Program.

Stephen C. Jones of Beverly Farms, who is conducting a study of the use of ¹¹C-Glucose for measuring normal and abnormal cerebral metabolism, in the Department of Nuclear Engineering.

David W. Levine of Somerville,

Pugwash

(Continued from page 1)
were Dr. Alexander Rich, Sedgwick Professor of Biophysics at
MIT; Abram Chayes, professor of
law at Harvard University, and
John Voss, executive officer of the
American Academy of Arts and
Sciences. Dr. Frank Press, Robert
R. Shrock Professor of Geophysics
and head of MIT's Department of
Earth and Planetary Sciences,
and Dr. George W. Rathjens, MIT
professor of political science, also
signed the statement.

The statement, titled "The Uncontrolled Atom: A Crisis of Complacency," said that Pugwash members had been lulled into thinking the arms race was being brought under control by a series of international agreements such as the limited test ban treaty, the non-proliferation treaty and the Strategic Arms Limitations Talks, known as SALT.

But this complacency has been shattered, it said, by such events as the detonation of a nuclear device by India, the American offer of nuclear power plants to Egypt and Israel and the failure of President Nixon's recent Moscow summit meetings to halt the increase of missiles and other ad-

who is applying an engineering approach to the development of a new technique for the growth and culturing of normal human cells, in the Department of Nutrition and Food Science.

Dusan G. Lysy of Cambridge, for a study of the adsorption characteristics for water and other small molecules on different classes of biological macromolecules, in the Department of Physics.

Jay J. Schnitzer of Meredith, N.H., who is studying the transport of albumin and low density lipoprotein across the arterial wall, in the Department of Chemical Engineering.

Announcement of the fellowship awards was made by Dr. Irwin W.

vanced weapons.

"Things that we felt were going well were, in fact, going badly," Dr. Feld said. "We came to the realization that everything seemed to be unraveling."

Dr. Rich said the agreements "that have come through have been essentially cosmetic in nature. In fact, the world is becoming a much more dangerous place to live in."

If the spread of nuclear power is to be controlled—there are estimates that as many as 24 nations could possess atomic weapons within ten years—then the superpowers must take action to restore "an ethic of arms control," the statement said. This would include a comprehensive test ban treaty and a significant reduction in weapon stockpiles, the Pugwash spokesmen said.

Health Seminar

Dr. Jan Kostrzewski, Poland's minister of health, will speak on Friday, July 26, at a seminar sponsored by the Harvard School of Public Health and MIT's International Nutrition Planning Program at 2pm in the Kresge Building Auditorium at the Harvard School of Public Health.

Sizer, dean of the Graduate School. Candidates for the awards were nominated by department heads and directors of interdisciplinary programs in the health sciences.

The fellowships, which are for a 12-month period beginning Sept. 1, 1974, will pay full tuition and medical fees and carry a stipend of \$3,600. They are part of a \$245,000 grant from the Health Sciences Fund, which also will support nine research projects in health sciences by MIT faculty members and collaborating investigators in the Boston biomedical community.

The Fund is administered by a board of directors composed of President Jerome B. Wiesner, MIT Corporation members Dr. George W. Thorn and Uncas A. Whitaker, and Dean Sizer.

Dean Sizer said the directors believe the students selected show outstanding promise. Research progress of this first group will be reviewed at a joint meeting of the fellows and directors in the fall of 1974. Dean Sizer said the directors hope the progress will be of sufficient quality to pave the way for renewal of the fellowship program in future years.

Obituary

Caroline Barrett, Oldest Alumna

Mrs. Caroline Whitney Barrett of Ipswich, the oldest MIT alumna, died on Friday, July 19 at the age of 104.

Mrs. Barrett who was born in 1870, attended MIT between 1892-1893. She was the sister of the late Dr. Willis R. Whitney, MIT '90, life member of the Corporation and a noted chemist, educator and inventor.

She leaves two daughters, Mrs. Agnes Wendel and Jean Barrett, both of Ipswich; two grandchildren and five great grandchildren

Elm Blight Toll Grows



Sad but now annual sight. Tree specialists from Frost & Higgins of Burlington, Mass. destroying an elm on Vassar Street last week. Elm logs are shredded as they are cut and later buried to prevent the spread of disease. Laurence Pickard of physical plant said he hopes a tree replacement program will begin on campus in the near future and will include a wide variety of blight resistant trees such as oaks, maples and ash.

Photos by Rich Williams

Laurence Pickard, manager of grounds in physical plant, is playing the wait-and-see game in an effort to save several campus elms with Dutch elm disease.

Last week seven of twelve elm trees, all of venerable size and afflicted with the disease (Ceratocystis ulmi), were felled after a recent heat wave had left all their major limbs flagged and beyond treatment.

The remaining five afflicted trees do not have serious cases. Two are located in Killian Court, and have yet to show the first visible signs of blight—although test results on the trees indicate they carry the fungus.

Mr. Pickard and other members of the ground crew, are closely watching the other three diseased elms, isolating their roots with chemicals, gradually pruning out infected branches and hoping the disease will be arrested through a combination of treatments.

The now-precious trees do not get the axe without a battle to save them. Each year the English elms receive a series of blight prevention treatments including spraying, root aeration and injections of fertilizers and Benlate, a chemical product administered through tubes inserted at the base of a tree.

The elm disease fungus which is carried by bark beetles, attacks the vascular system of the tree clogging the passage of water and minerals.

In the previous seven years seven elms—including four from the Killian Court—have been cut down. State law requires that diseased trees be removed to prevent further contagion.

Do-It-Yourselfers Cause Problems for MIT Locksmiths

By ROBERT C. DiIORIO Staff Writer

Where would you find 9,000 locks, more than 18,000 keys—and three locksmiths who take a dim view of do-it-yourselfers?

If your answer is, "At MIT," you're right.

Charles R. Emerson, Terry McCarthy and George Gianopulos make up MIT's trio of locksmiths. Together, they possess more than a half-century's experience and are representative of the scores of skilled people whose work, while vital to the daily operation of the Institute, is carried on largely out of view of most of the 17,500 people making up the MIT community.

Despite their expertise, Mr. Emerson—the lead locksmith—Mr. McCarthy, a native of County Roscommon, Ireland, and Mr. Gianopulos, who joined MIT just two weeks ago, have a lock problem they can't solve by themselves.

"Do-it-yourselfers. They really cause us problems," the locksmiths told Tech Talk the other day.

"Absolutely nobody but us should touch any lock. We have a sophisticated system that requires professional attention. The biggest favor Tech Talk can do for the Lock Shop is to tell people to keep their hands off. If there is trouble with a lock, people should dial FIXIT (the MIT extension that reaches the building department's control center) and report it. We'll do the rest."

It was an article on the sophisticated MIT lock and key system in Doors and Hardware, a monthly publication with a circulation of 8,500, that prompted Tech Talk's visit to the Lock Shop.

Entitled "Security at MIT," the article details the security system that was developed as part of MIT's building program in the 1960s.

"When MIT moved to its current

found numerous ways of overcoming the challenge a lock possesses.

"Most importantly, keys could easily be duplicated with standard key blanks available in most key shops."

The system now in use makes it virtually impossible to reproduce



William H. Combs, superintendent of buildings, and Mrs. Marion Di-Sciullo check the file containing some of the keys for MIT's 9,000 locks.

campus site in 1915," the magazine reported, "the Institute's buildings were already equipped with a Yale six-pin, bicentric master-key system—a highly sophisticated system for those days. After World War II, however, MIT literally outgrew its old security system. Key-controls had become very relaxed and students had

a key without authorization. The key blanks are closely controlled by the manufacturer and the Institute.

William H. Combs, superintendent of buildings at MIT, explained how the new system developed.

"We decided then (in 1960) that we needed complete flexibility in our new security system. The system we were looking for had to give us the freedom to let certain people into certain spaces only and make re-keying changes easy when a key was stolen or lost. At the same time, we also wanted maximum protection."

The answer was the seven-pin bicentric lock system.

The bicentric lock is two locks in one. It has two keyholes. The individual key-holder's key fits one of the keyholes. The master key fits the other keyhole. Either one can open the lock.

Master keys are divided into levels. The top level key that can open all locks in a system is called the "grand master." A key that can open many, but not all, locks is a "master."

Because MIT is department rather than building oriented, with department activities located in more than one building, the need for a flexible system is great.

"What makes the new system so good is that it allows our employes and students access to special areas in several buildings while simultaneously allowing only those people into a building that have any business there after hours—such as cleaning and maintenance staff or members of the departments located in a particular building," Mr. Combs said.

More than 6,000 of MIT's 9,000

More than 6,000 of MIT's 9,000 locks have been converted to the new bicentric system.

The total expansion potential of the seven-pin bicentric system is staggering. Theoretically, up to 300 master keys with 72,000 individual keys are available in one master key system. "MIT takes the key control of the new system extremely seriously," the *Doors and Hardware* article concludes. "As William Combs explains, very few people have grand master keys. The grand master keys he has at his disposal give him access to over 9,000 locks on campus. Only two people are authorized to receive MIT's special restricted blank keys

"' 'This way we keep the risk of blank keys ending up in unauthorized hands at a minimum,' Mr. Combs points out."

MIT's busy locksmiths also provide extensive service on desk locks, padlocks and safe combination locks.

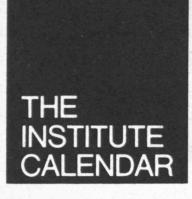
The shop also does considerable work for the campus housing department, Mr. Combs said.

All of this means that, unlike many areas of the Institute, the lock shop has no summer slow down. Just the reverse.

"It's our busy time of year," Mr. Combs said. "There are always many requests to change locks during the summer and there are always new people for whom keys are required."

Mr. Combs, whose responsibilities include all building services with the exception of cleaning and landscaping, also must keep ahead of the expansion program.

"It takes at least six months for new locks to be produced and delivered, so it is important to anticipate requirements, such as for the new chemical engineering building," he said.



July 24 through August 4

Events of Special Interest

A Festival of Summertime Chamber Music* — Sponsored by the MIT Music Section. Violinist Stephen Erdely, music faculty, and his wife, Beatrice Erdely, noted pianist, will present a concert of Mozart, Beethoven, Norman Dello and Darius Milhaud. Tues, July 30, 8pm, Kresge. Free.

Seminars and Lectures

Thursday, July 25

The World Food Crisis: Problems and Policy Alternatives* – Dr. Jan Paarlberg, US Department of Agriculture; Nevin Scrimshaw, head, nutrition & food sciences; Eugene B. Skolnikoff, director, Center for International Studies; F. James Levinson, INP program director, nutrition & Food Sciences. Program Seminar. 8pm, Rm E52-461.

Friday, July 26

A Study of Elastic-Plastic Analysis by Assumed-Stress Hybrid Finite-Element Model* – Robert L. Spilker, G. Aero/Astro Doctoral Thesis Seminar. 10am, Rm 33-206.

Health Planning* - Dr. Jan Kostrzewski, Mininster of Health, Poland. International Nutrition Planning Program, Harvard School of Public Health Seminar. 2pm, Kresge Bldg Auditorium G-1, Harvard School of Public Health.

Monday, July 29

Religion and Science* - Talk by Krishna Macharya, sponsored by SANGAM. 7:30-8:30pm, Stu Ctr Rm 491.

Tuesday, July 30

An International Nutrition Agenda for the Next Decade* – Panel of seven including Alan Berg, World Bank; Nevin Scrimshaw, head, nutrition & food sciences; Michael Latham, Cornell. International Nutrition Planning Program Seminar. 3-5pm, Rm E52-461.

Wednesday, July 31

Astrology* - Talk by Krishna Macharya, sponsored by SANGAM, 7:30-8:30pm, Stu Ctr Rm 491 .

Community Meetings

Picnic* - Sponsored by Sangam. Picnic trip to the White Mountains in New Hampshire, leaving MIT at 7am, Sat, Aug 8. Admission \$1. Info, call Subrahmanyam, 491-0080.

Women's Forum* - Meet with the Steering Committee to make plans for the fall. Mon, 12n, Killian Court; bad weather, Rm 10-280.

MIT Club Notes and Meetings

Bridge Club* - ACBL Duplicate Bridge. Open pairs Thurs, 7pm; tournaments Sat, 1:30pm, Stu Ctr Rm 473. Jeff, 864-5571.

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

Classical Guitar Society – Classes, group or private. Mon, Tues, & Wed, 5-9pm; Rm 1-132, 134, 136. New group class for beginners every month. Vo Ta Chuoc, x9623 Dorm.

Freshman Picture book** - TCA project. Meeting to start work on the Picture book will begin Mon, July 29, 7:30pm, TCA Office, Stu Ctr Rm 450, and continue throughout the week until completed. Everyone is welcome; we'll be typing, pasting up. Info, x3-4885, 12n-2pm.

Goju Karate Club* – Beginners enter class first week of each month. Classes Mon, Wed, 7-9pm; fri, 7-10pm; 4th fl Stu Ctr. Terry Gibbs, 440-9631

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

MIT/DL Bridge Club** - ACBL Duplicate Bridge. Tues, 6pm, Stu Cntr Rm 473. Jeff, 864-5571.

Scuba Club*** - Summer compressor hours: Mon & Thurs, 3-5pm.

Strategic Games Society* - Offers opponents and discounts on merchandise to members plus gaming and periodical library. Sat, 1pm-1am, Walker Rm 318. Info, Kevin Slimak, x0389 Dorm.

Tiddly winks Association* - Tues, 7:30pm, Stu Ctr Rm 407.

Social Events

Summer 12-Hour Coffeehouse — Currently open Mon-Fri, 9am-2pm and 5pm-12m; Sat & Sun, 12n-12m. Enjoy relaxing, conversation, piano playing, games, inexpensive food candy & drinks. Stu Ctr 2nd fl center lge.

Ten Little Indians – LSC. Fri, July 26, 7:30 &9:30pm, Rm 10-250. (Watch for signs on hot nights indicating showings in Rm 26-100). Admission 50 cents.

Red Roses of Taipei; The Glass Eye* - Chinese Student Club. English subtitles. Sat, July 27, 2 & 4pm, Kresge. Admission: \$2, \$1 members & children under 12.

Movies

Dharma* - SANGAM. Indian movie with subtitles. Sat, July 27, 6:30pm, Rm 6-120. Admission 50 cents with ID. Refreshments.

Thirst (Three Strange Loves) - Film Society. Directed by Bergman. Fri, July 26, 7:30 & 9:30pm. Rm 6-120. Admission \$1.

Topkapi – LSC. Sat, July 27, 7 & 9:30pm. Rm 10-250. (Watch for signs on hot nights indicating showings in Rm 26-100). Admission 50 cents.

Dharma* - SANGAM. Indian movie with subtitles. Sun, July 28, 3:30pm, Kresge. Admission 50 cetns with ID. Refreshments.

Failsafe – LSC. Fri, Aug 2, 7 & 9:30pm, Rm 10-250. (Watch for signs on hot nights indicating showings in Rm 26-100). Admission 50 cents.

Illicit Interlude (Bergman) - Film Society. Fri, Aug 2, 7:30 & 9:30pm, Rm 6-120. Admission \$1.

After the Fox – LSC. Sat, Aug 3, 7 & 9:30pm, Rm 10-250. (Watch for signs on hot nights indicating showings in Rm 26-100). Admission 50 cents.

Do Phool* - SANGAM. Indian movie with subtitles. Sun, Aug 4, 3:30pm, Rm 26-100. Admission 50 cents with ID. Refreshments.

Theatre

Alice!* – Musical adaptation of the Lewis Carroll classic by the MIT Community Players. Fri, July 26, 8pm; Sat, July 27, 4pm; Sun, July 28, 2 & 4 pm; Fri, Aug 2, 8pm; Stu Ctr Mezzanine Lge. Admission: \$1.50; children under 12, \$1. Reservations, x3-4720.

Dance

Folk Dance Club* - Imternational, Sun 7:30-11pm, Sala. Balkan, Tues, 7:30-11pm, Stu Ctr Rm 491. Israeli, Thurs, 7:30-11pm, Sala. Afternoon Dance Break, Fri, 12:30-1:30pm, Kresge Oval.

Exhibitions

Music Library Exhibit - Chinese musical instruments.

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.

Be-Ing Without Clothes* - Theme show created by Minor White while director of the Creative Photography Gallery. Hayden Gallery, Thru Fri, Aug 30, Hours: 10am-4pm weekdays, 12n-4pm weekends.

Hayden Corridor Gallery* — Modern prints from the Catherine N. Stratton Collection, including works by Robert Motherwell, Claes Oldenburg, Victor Vasarely, Larry Rivers and Frank Stella. Sponsored by Committee on the Visual Arts, thru Fri, Aug 30. Free.

Athletics

Community Softball League Schedule — Games start at 5:30, Briggs Field, at the field number indicated after the team names. Home teams are listed second. Wed, July 24 — SAE vs Dodgers, 5; Food & Nuts vs Turkeys, 6. Thurs, July 25 — Economics vs Ashdown, 4; No Names vs Motleys, 5; LCA vs Nine Planets, 6. Mon, July 29 — All Star Games, plus additional tie-breaker games. Tues, July 30 — Playoffs begin. For latest info, keep posted at du Pont equipment desk bulletin board. A few extra umpires, at \$4/game, are needed to umpire the bases for the playoff games. Call league commissioner, Sam Benichasa, x8-3686 Draper.

Religious Services and Activities

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

Campus Crusade for Christ/College Life* – Family time, singing, prayer, teaching from God's word. Fri, 7:30pm, Rm 37-252.

Christian Science Organization* – Meetings which include the sharing of healing experiences, every 2nd & 4th weeks of the month. Tues, 7:15pm, Rm 8-314.

Islamic Society* - Fri, 1pm, Kresge Rehearsal Rm B.

Roman Catholic Mass* - Sun, 10am, Stu Ctr West Lge.

United Christian Fellowship* - Singing, sharing, praying meeting. Thurs, 7pm, Westgate 708.

Westgate Bible Study* - Currently covering the Book of Revelation. Wed, 8pm, Westgate Apt 1210. Info, 404-8778.

Announcements

Official Notice — Registration material for the first term 1974-75 may be picked up in the Registrar's Office, Rm E19-335 Tues, July 30 and Wed, July 31, 9am-4pm. MIT ID must be shown.

Paper – Will be collected for recycling anywhere in and around MIT. If you are cleaning out files, saving newspapers or computer material, etc, call 723-4699 or 494-0284 to have it picked up. Thank!

Technology Children's Center Nursery School* – Applications now being accepted for the fall. Openings are available for 5,3 or 2 mornings for children ages 2½-5 years, in Eastgate and Westgate. Call Fran Olsen, x3-5907.

September 1974 Examination Period – Applications for postponed final and advanced standing examinations are due in the Schedules Office, Rm E19-338, on Monday, August 12.

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 Jule 31 through Aug 11 to the Calendar Editor, Room 5-111, Ext. 3-3279, before noon Friday, July 26.

Stone, Yellin Appointed To Faculty

Peter H. Stone, of Cambridge, visiting professor in the Department of Meteorology at MIT since 1972, has been appointed professor of meteorology effective July 1. In addition, Joel R. Yellin, of Lexington, senior research associate in the MIT Center for Policy Alternatives and lecturer in the Department of Political Science, has been appointed associate professor in the School of Humanities and Social Sciences for a three-year term.

Professor Stone served as assistant professor of dynamical meteorology at Harvard University from 1966 to 1970, during which time he was an Alfred P. Sloan research fellow. From 1970 until his appointment as visiting MIT professor, he was associate professor of dynamical meteorology at Harvard.

A staff meteorologist at the Goddard Institute for Space Studies, NASA, Professor Stone received the BA degree (1959) and PhD degree (1964) from Harvard. Since the early seventies he has also served NASA as an advisor

for outer solar system missions and the mariner mission to Jupiter and Uranus.

Professor Yellin, who received the BS degree from the California Institute of Technology (1962) and the MS and PhD degrees from the University of Chicago (1964, 1966) has long been associated with the Institute for Advanced Study at

IBM Recruiting

IBM representatives will visit the Career Planning and Placement Office (Rm 10-140) Wednesday, Aug. 6, to interview June or September graduates.

IBM is interested in persons with SB or SM degrees in electrical, mechanical or industrial engineering, mathematics or computer science for product development and manufacture. Sales positions are also available. Candidates should be US citizens or have permanent resident visas. Most positions are located in the northeast

To arrange an interview, visit the office or call Els Reed or Lynda Vincent, Ext. 3-4733. Candidates are encouraged to bring a resume to the interview. Princeton University.

A member of that Institute since 1969, he has served as visiting fellow and special visitor to its School of Natural Sciences and the Woodrow Wilson School, Princeton. From 1970-71 he worked as senior research associate at Yeshiva University in New York.

Dr. Yellin has also held visiting professorships at McGill University and the University of Toronto. During the summer of 1972 he was a member of a research team at the European Center for Nuclear Research in Geneva, Switzerland (CERN).

As a result of his recent research into the fields of population biology and demography, he is coauthoring a paper on human population growth with Institute Professor Paul Samuelson, which will appear in the Proceedings of the National Academy of Science. Approximately half of Dr. Yellin's academic time as associate professor will be devoted to the new Technologies Studies Program. The objective of that program is "to create a framework for studying and teaching about relations between human values choices and modern technology developments."



Calvin Campbell and Patricia Maroni.

-Photo by Margo Foote

Two Join News Office Staff

Photojournalist Calvin D. Campbell and writer Patricia M. Maroni have been appointed assistant directors of the MIT News Office.

Mr. Campbell, of Watertown, who joined the staff Monday, July 22, is a veteran photographer with nearly 30 years experience on the former Boston Herald Traveler, where he also wrote a weekly camera column. Most recently he has been associated with Polaroid as editor of instruction books and technical papers.

His book, Hidden Gardens of Beacon Hill, was published in 1973. At MIT Mr. Campbell succeeds Margo Foote, who resigned to return to a career in nursing.

Ms. Maroni was graduated first in her class in 1973 from Simmons College, with a major in journalism and graphic arts. She began her writing career at 16 with the Providence Journal-Evening Bulletin as a young people's correspondent and editor. Before coming to MIT, she was assistant editor of publications for Stone and Webster Engineering Corp.

A native of Providence, R.I., Ms. Maroni is the daughter of William F. Maroni, '50. She joined the staff on July 1.

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BOCCIE A LA MIT-The Italian game of boccie has four dedicated fans at MIT. From the left, Patricia Kraft, Tom Hansen, both graduate students, Wayne Iwaoka, a post doctoral student, all from the Department of Nutrition and Food Science, and Mark Weisman, a technical assistant in the department. The four play at noon time on Eastman Court and are surprised at the number of people who don't recognize the game. "The first day out somebody asked us where our mallets were," Weisman said. "He thought we were playing croquet."

Photo by Rich Williams

Review Reports On Data Security

(Continued from page 1) forces outside the financial community with potential for policy making.

"The changes necessary to create a high degree of privacy and integrity are so fundamental and far-reaching that it seems unrealistic to expect data security policy making to be limited to the information system users and the computer manufacturers.

"A third constituency is very likely to be active: the government."

In Sweden, Mr. Gronning says, recent legislative action has sought to eliminate the keeping of secret records and to permit individual knowledge of the existence, contents and use of all data file records. A Data Inspection Board has been created and all data files must be registered with the board.

The use of a general individual

identifier-such as the social security number-is permitted in Sweden only if the information user can document a genuine need, Mr. Gronning says.

"The result of such a law in the United States probably would be the abolition of the use of the social security number for commercial purposes, such as bank accounts, insurance policies and credit cards," Mr. Gronning said.

"There is much to indicate that the United States is headed in the same direction (as Sweden) but at a slower pace... Thus, in a climate where issues involving the rights of the individual are accorded increasing attention, policy making in the area of data security may occur as a result of legal imposition. If legal forces fail to act, the public may well have to be heard through spokesmen and activists, forcing organizations, manufacturers and governments to take

More Power Tools to Be 'Shockproofed'

MIT's physical plant department, in conjunction with the safety office, has begun a program to equip shops with portable devices called ground fault circuit interrupters to protect power tool users from serious or even fatal electrical shock hazards.

The device, which is plugged into a standard electrical outlet consists of a sensor which detects a current leakage to ground at the load and interrupts line current whenever that leakage reaches five milliamps. Interruption of line current takes place within 30 milliseconds after detection by the sensor, well within a single heart beat. Five milliamps is far below the point where an operator is unable to break free of the conductor or where bodily harm may occur.

According to William MacLachlan, of the safety office, leakages may occur in fixed equipment or portable tools because of worn insulation or other defects which could present a shock hazard to the user. Mr. MacLachlan said physical plant plans initially to provide its shops with seven portable devices which incorporate the circuit interrupter and four standard 15-amp receptacles. Three fixed devices will be installed on selected portable equipment.

A long term study will be done to determine the best way to protect employees using non-stationary

Softball Season Draws to Close

As the MIT Summer Softball League moved into the final week of the regular season, there were tight races in East and West Divisions, with two teams tied for first place in each division.

The timing of the competitions was not accidental.

"I had a hunch who the best teams in each division would be." Sam Benichasa, League commissioner explained. "When I made up the schedule, I arranged it so that the season would build up to a meeting of the best teams in the last week of play."

The West Division showdown between Metallurgy and Draper was held Monday night, with Metallurgy winning 7-5.

The East Division competition between Ashdown and Economics is scheduled Thursday, July 25, on Field 4. The game is expected to be a pitcher's duel between Benichasa of Ashdown, and Don Richter of Economics, both of whom have the lowest runsscored-against averages in the League.

League Play-offs begin Tuesday, July 30, and will last for three weeks. Schedule details are posted at the duPont equipment desk.

Meanwhile, Benichasa scheduled another All Star Game and Fun Day, to be held Monday, July 29. Players from all teams will be competing.

machines, and MIT personnel in various laboratory applications.

The present plan is an extension of an ongoing program begun several years ago to install ground fault circuit interrupters where power tools or other devices were being used in damp or wet locations or where there was a danger of electrical shock.

Food Seminar

(Continued from page 1)

be one of the speakers.

Dr. Taylor also will be the speaker at a dinner following the seminar at which the Ryan Prize will be formally presented.

The July 25 seminar will begin at 8pm in the Schell Room, E52-461. In addition to Dr. Paarlberg the speakers will be:

Professor Nevin S. Scrimshaw, head of the MIT Department of Nutrition and Food Science.

Professor Eugene B. Skolnikoff, director of the MIT Center for International Studies.

Professor F. James Levinson, INP Program Director, also a member of the MIT Department of Nutrition and Food Science.

Dr. Paarlberg, who has been director of agricultural economics for the Department of Agriculture since 1969, was Hillenbrand professor of agricultural economics at Purdue University from 1961-1969. From 1953-57 he was economic adviser to the secretary of agriculture and seved as assistant secretary of agriculture from 1957-58. From 1958-1961 Dr. Paarlberg was special assistant to the President of the United States and coordinator of the food-for-peace program.

Other speakers at the July 30 seminar, which will begin at 3pm in the Schell Room, will be:

Alan Berg, deputy director for nutrition of the World Bank's Population and Nutrition Projects Department.

Yaro Gandra, Professor of Nutrition at the University of Sao Paulo, Brazil.

Frank L. Goffio, executive director of CARE, Inc.

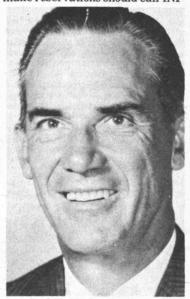
Nemat Ilahi, Joint Secretary of the Pakistan government's Planning Commission.

At present about 30 circuit interrupters are installed in such areas as the MIT swimming pool, sauna bath, towing tanks, and near sump pumps. The safety office plans a series of educational sessions this week for employees in the various physical plant shops including a film on the device and a questionand-answer session.

Michael Latham, Professor of international nutrition, Cornell University

Professor Scrimshaw of the MIT Department of Nutrition and Food Science.

The award dinner at which Dr. Taylor will receive the Ryan Prize will begin at 6pm in the MIT Faculty Club. Those wishing to make reservations should call INP



Dr. Carl E. Taylor

headquarters at 3-3131.

The Ryan Prize of \$10,000 was initiated by the James and Rachel Levinson Foundation of Pittsburgh on the basis of a grant received from Edward M. Rvan. retired chairman of the board of Ryan Homes, Inc.

The prize was established to encourage and promote applied research needed for large scale nutrition program development in low income countries.

It was awarded to Dr. Taylor after a nationwide competition, on the basis of research carried out in Punjab, India by Dr. Taylor and his colleagues at the Narangwal Rural Health Research Center.

M sgl spd bike, nds some work, \$10.

Morey Pope fbrglas surf brd, approx 9',

Dresser w/ drwr, exc qual & cond, \$80;

grn acrylon rug, 15x11, 6mos, \$100;

mtch formica top coffee tbl. \$20, end

tbl, \$15; Simmons hi-riser, exc cond,

\$60; foam cshns & cover, \$20. Bob,

Elec caluclator, 1 mo old, orig \$98, \$65 or best. x0101 Dorm, aft 5pm.

Fresh Polaroid color 108 film, 50 packs dated '75, \$3.40/ea. Don,

Tires, 2, C-78x13 t-less Delta super

premium, ww, v god cond, Hector,

Bike rack, 10 place, lock both whis,

\$85; nw lg Lear Siegler mtrcycl hlmt,

Kodachrome II color movie film,

Nikkormat FTN body, exc cond, 6

mos grnty, \$150. Ralph, x5545 Linc.

Land in Martha's Vineyard, W Tisbury

area, gd price range & fanancing avail.

Upright piano, gd cond. Neal, x3-2514.

Hseplants: prpl passion, lemon gerani-

um, begonias, wandering jew, african

violet, kalanchoe, etc, 50 cents & up. Peter, Rm 13-3078

best. x 3-4831.

x5892 Linc.

x8-3333 Draper.

\$11. Dave, x3-5121.

Nancy, x3-4433.

\$2/roll. Devon, x3-6250.

CLASSIFIED

Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full Institute extension. Only Institute extensions may be listed. Members of the community who have no extensions may submit ads by coming in person to the Tech Talk office, Room 5-111, and presenting Institute identification. Ads may be telephoned to Ext. 3-3270 or mailed to room 5-105. Please submit all ads before noon, Friday, July 26.

For Sale, Etc.

Eng baby carriage, exc cond, blu & wht, storage cover, \$50. M. Andresen, x3-6286.

Metal closet, 5½x3x21" deep (167x91x 53 cm), shelf & hanging bar, \$15. x9518 Dorm, evgs.

Pole lamp, 3 sckt, \$18; pr end tbls w/drwrs, 20" hi, \$40; mtch tbl lamps w/solid wd stand, \$35. Wayne,

Antiqued yel dresser, \$20; sm dresser, \$12; wd desk, \$7; iron brd & cover, \$6.

Margaret, x3-4873.

on, best. Bill, x3-2458.

Hp-35. nvr used, best. Rich, x3-2270.

VW bike rack, gd kind w/xtra rubber padding, \$10; VW locking ski rack, \$3; snows, 5.60x13 fit Datsun, \$30/pr; 2 fold chrs, wint finish, blk vinyl seats, (Continued on page 6)

Sports yrbks, 20, mostly baseball, '63

Softball Standings EAST WEST CENTRAL W Team W L Pct. Pct. Team Metallurgy Ashdown 0 1.000 1.000 Hydros 6 0 1.000 6 6 0 **Economics** 0 1.000 Draper Lab. 6 0 1.000 Motleys 4 1 .800 No Names LCA 2 .667 Fantoms 2 .667 4 2 .667 4 4 Baker 3 3 .500 Comets 3 3 Miscellaneii 3 3 .500 .500 Nine Planets E.E. 2 .333 Charlie Browns .500 .500 3 3 3 4 Chemistry 5 .167 Dodgers 5 .167 Food & Nuts 2 3 .400 Ocean Engg. Nutrition .167 5 MacGregor 1 .167 1 5 .167 5 O.R. Center 6 .000 Turkeys 0 6 .000 SAE .167 Last Week's Results

- All Martin Broad Services and	Last WEEK 5 Mesuits	
en militaria en encara la la compania de la compania del la compania de la compan	Metallurgy 13 Fantoms 0	
Ashdown 14 LCA3	Draper Lab 9 Nutrition 7	Hydros 8 No Names 6
Economics 7 Baker 6	SAE 7 EE 5	Food & Nuts 16 No Names 12
Nine Planets 16 Ocean Engg.5	Dodgers 25 Nutrition 7	Miscellaneii 11 Charlie Browns 8
Chemistry 5 O.R. Center 2	Comets 6 Dodgers 3	MacGregor 13 Turkeys 9

Extra umpires are needed for the playoffs. Call Sam Benichasa, Draper 8-3686 to sign up.

Tech Talk, July 24, 1974, Page 5

For Sale, Etc.

(Continued from page 5) \$15/pr. Jim V. x3-2173.

Scott LK-72, 60 W rms, tube-typed stereo amp, old but v gd cond, \$25; Jason 10 spd m bike, exc cond, \$90. Bob, x9461. Dorm.

Hoover 0519 spin-dry washer, port, connect to sink, ideal for apt, lk nw, yr old, less than half price, \$80. Holly

Norge refrig, \$50. Nick, x3-6920.

Fedders 8,3000 BTU, 12.5 amp AC, 75; Waste King conv-port dishwash, harvest, 2 cycl, stainless stl int, \$150. Joe, x3-3223.

Sony 252D r-tr- tape rcrdr, exc cond, dust cover, incl used tapes, \$80. Dan, 494-8780.

premium belted snows, Concorde F70-15, lk nw, ask \$50. Tom or Robin, 494-9131.

Tw matt, \$6; hamper, \$5; yel bath towels, lk nw, \$1.50/ea. Doreen, 491-0334, evgs.

Sofa & joined arm chr, \$30; tw bed w/blanket, \$20; 15" b&w TV, exc cond, \$35; end tbl, \$10; hichr, \$5; shag sweeper, \$10; iron, \$5. Richard, 395-0125.

Set Sears Signature golf clubs: 2 wds, 4 irons, putter, bag tees, 3 doz balls, gd cond, exc for beg, \$40. x9495 Dorm.

Beaut mtn lot Eidelweiss, Conway, NH, 3/4 acre, yr-rnd vac area w/lakes, pool, tennis, util ready for hse blding, ask \$6,850. x 3-6049.

Schwinn 20" sting-ray bike, banana crate, exc cond, nw \$120, \$55. Dave,

Canvas tent, 7x12, exc cond, used 2x, \$126, nw, \$60. Call, 665-4183, aft

Mpl K set, beds, bureaus, chests, lawn chrs, wardrobe closet, misc items. Call, 643-9643,evgs.

Lambretta TV 175 mtr scooter, 2-tone blu, xtra tires, exc cond, \$300 or best. Jerry, x3-6291.

Pioneer 424 rcvr, Pioneer trntbl 12 D/M91ED, Jensen X45 spkrs, top shape, \$500 nw, less yr old, \$325. Gog, 249-9364.

M 3 spd bike, gd cond, \$45; f 3 spd bike, Dainsh import, gd cond, \$50.

Frigidaire elec dryer, 5 yrs, perf operating cond, sell or trade for gas dryer similar cond; boy 20" bike w/banana seat, \$20. Carol, 489-2261.

lots marigolds, coleus, Plants: philodendron, sev others, back of Heat Transfer Lab. Penny, Rm 7-038.

Stoneware dishes, good lkng, plain contemp design, pale gray, ovenproof, compl srvc 8 incl 10 mtch srving pces. exc cond, orig \$120, \$65. x8-2577 Draper.

Old (1/3) but exc cond manual sew mach w/cab, \$15; sofa, \$5; lg 42x44 mirror w/frame, \$5; matt & box spr for dbl bed, \$10/ea. x3-2454.

Delux travel trir, 22', crnr K layout, self-contained, Magic Chef oven, 6 cu ft gas/elec refrig, full shower, auto water pressure, etc, lk nw, ask \$2,495. Paul x7511 Linc.

Columbia 20" girl bike, chrome fndrs, coaster brake, exc cond, \$25. Ron, x7779 Linc.

Gibson ES 330 semi-hollow body elec guitar, sunburst finish, case, acces, exc cond, \$250. Bill, 738-7830, aft 6pm.

Alamo bass guitar & case, gd cond, \$40: bass spkr cab. 2 nw hvv duty 12 spkrs. \$30. Larry, x8-4603 Draper.

Antique colsole victrola, exc cond, w/many albums, \$150. Call, 1-823-7609.

Pr Altec Lansing A7-500 W2 Voiceof-the-Theater spkrs. \$595. x3-7836.

Formica top chrome-legged K tbl w/lves, 4 mtch chrs, gd cond, all \$20.

Call, 232-8187, aft 6pm. Reblt Holly 3310 4 barrel carb, 650

CFM, off Chevy, \$25 or best. Rick,

Winnebago top for 1/2 ton pick-up, \$300. Call 646-6305.

Omega A-3 enlarger, 35 mm & half frame, immaculate cond, \$65. Don,

Columbia 5 spd m bike w/kryptonite lock & other acces, \$60; Zenith port 4 spd stereo phono, amfm audio, TDC stereo hdphones, \$99; over 6 0 clas rerds, \$50. Richard, x3-6028, aft 1pm. Handmade wood couch w/colorful cshns, 2 mtch chrs, all gd cond, \$40/set or buy sep. x3-2663.

cond; \$50/ea. Rob, x8-2876 Draper.

6,000 BTU, \$90; port washer, \$60; BR set, \$35; wd wardrobe, \$20; mtl cab, \$5. Karen, x3-3302.

Raleigh f 3 spd bike, nw, \$70. Ginny, x8-2583 Draper.

Prof 35 mm film sound Moviola, mtd perambulating editing tbl, bargain, \$200. Lawrence, x8-4526 Draper.

Vt land, Stowe area, 4+ acres partly wooded w/meadow & mtn range view, \$8,000. Call, 1-526-7746.

Land, 2.3 acres in Vt Grn Mts Natnl Forest, nr Mt Snow, Stratton ski areas. Don, x3-3550.

Compl Konica auto SLR camera outfit, incl blk camera body w/57 mm fl.4 lens, 28mm f3.5 wide angle, 100 mm f2.8 telephoto, 85-205 mm f2.8 telephoto, f4.5 zoom, asst fltrs & sundries, \$650. C. Therrien, x367 Linc.

Wool rug, cream, 12'x14' w/pad, \$125; qn sz xtra firm bed, yr old, \$110. Jerry, 262-2543 evgs.

AC, yr old GE 4000 BTU, exc cond Mike, x3-7170.

Hoover cannister vac; 18" wndw fan; 12" Sears b&w TV; 23" b&w TV; numerous hseplants: jade, christmas scheffleria, etc. Richard, cactus. x3-6026.

Bahamas 9 coin proof sets in cstm plastic holder & presentation case, \$69-'71, all 3/\$200. Bill, x8-4442 Draper.

Child auto safety seats, 2, Kantwet & Bunny Bear. Gerry, x3-6280.

British Seagull 5hp outbrd motor, long shaft, clutch, \$150. x3-7848.

Waterbed components, b nw, top quality, lowest prices. Sharon,

Hedstrom baby carriage converts to car bed; car bed w/safety clamps; both lk nw; 84" divan, gold, gd cond. Helen, x689 Linc.

Phillips m 26" 3 spd bike, \$25; KG mini-bike, 31/2 hp, \$85. Robert Strong, x8-1416 Draper.

Vehicles

'63 Ford Frlne, V8, fair cond, lving cntry, must sell, \$175; Explorer back pack & frame, med, ask \$20. Shabbir, x3-3788, lve msg.

'64 Olds, F85 deluxe, 63 orig K, exc eng, gd body, grnty 60 days, best over \$250. x8-2874 Draper.

'64 Chevy II, 83 K, 4 dr std, gd run cond, 2 snows, spare, \$250. Tony, x3-5764

'65 Ford Gal, low miles, gd cond, \$200 or best. Call, 547-2535, evgs.

'66 Buick Wildcat, 8 cyl, no mech problems, nw tires & batt, \$550 or best. Call, 783-0731, aft 5pm.

66 VW beetle, v gd cond, \$600 or best; pr AR 4 spkrs, run down but gd sound, reas, Carlos, x3-2223.

'66 Merc Comet conv, gd top, body, int, work done, many nw parts, moving, must sell, \$225 or best. refrig, exc cond, xtra lg freezer, v cold, 1st fl, avail 8/11, '75. x3-6596.

'67 Volvo 122S wgn, gd cond, \$695.

'68 VW bug, sunrf, amfm, gd cond, \$825 or best. Larry, x3-3623.

'63 VW fstbk, 35 mpg, gd cond, recently overhauled, nw batt, muff, clutch, snows, \$1000 firm. Eric, x3-6673.

'68 Camaro, std, 80 K, overhauled eng, runs great, \$800. So, 776-1133,

'68 Ford Flen epe, 6 cyl, low miles, exc cond, \$800; b&w 12" TV, \$40; K ware, \$30; port typwrtr, \$20. Call, 491-4342.

'69 Toyota Corona Mark II, v gd cond, 68K, nw exh & clutch, 4 spd std, amfm, slvr gray, \$975 or best. Bob, x3-7220.

'70 Ply Barracuda conv sport cpe, 383 eng, p st, amfm, gd run cond, \$1,300 or best. Call, 364-1798.

'70 MGB conv, reblt eng, nw paint, amfm, radials, \$1,650. Rosemary, x653 Linc.

'71 Opel wgn 1900, 20 K, gd cond, snows, \$1,400 or best; also sofabed; K tbl & 4 chrs; GE TV; others. Call, 494-9178.

'71 Chevy Vega, low miles, exc cond, \$1,395. Gerry, x7592 Linc.

'71 Vega htchbk, 4 spd, lo miles, exc Lost and Found cond, must sell, lving entry, best. x3-4200

'72 Pinto, 3 dr runabout, 4 spd, lg eng, 4adio, xtras, \$1,650. Steve, x7007

'74 Chevy Nova cstm, 4 dr, 7K, priv ownr, p st. radio, snows, almost nw: DR tbl & chrs; b&w TV; fm-sw radio; beds; vac; blender; desk & chr; baby furn; rugs; other furn; all exc cond.

'74 Dodge Dart, 4 dr, gd run cond,

BMW R60/5, nw cond. Call, 646-8681, aft 6pm.

Honda CB 450, exc cond, w/saddlebags, hirise hndlbars, luggage rack, must see to appreciate. Phil,

'73 Honda XL 175 mtrcycl, exc cond,

'73 Honda CB-175 mtrcvcl, lock & chn, luggage rack, back rest, 2.9 K, exc cond, \$570. Doug, 547-3398, evg or

Housing

Bklne, Cldg Crnr, stu apt, v convenient, no pets, sec dept, avail 8/31, \$129 incl ht & wtr. Marissa, x3-5203.

Camb, mod stu w/sep K, 287 Harv St, x3-3636.

Camb, 2 fam hse, blk M.L. King school, low taxes, yard, driveway, best

Camb BR unfurn nr Cent Sq., ht & ht water, avail 8/1. \$175. John x3-5923.

Cape Cod Bay, lux home Skaket Beach, Orleans, avail 8/1-8/16, \$275/wk. Call, 1-255-1868.

Cape Cod, Craigville Beach, 4 BR, LR, K, B w/shower, avail by wk, 8/3-8/10,

Littleton, 3 BR ranch, www, 240 lakefront, by appt only, \$47,500, nego, Call. 486-3683.

hse in heart of Old Town, wide brds, frpl, garden, pkg, blk town pier & sailing, \$49,000. Pieter, x8-1189 Dra-

Watertown, nw mod lg 5 rm apt, owner occup 2 fam hse, lg frpl LR, ww, ac, eat-in-K w/cabs, d&d, self-cln oven, frml DR, 2 BR, hrdwd flrs, 2 B, lg bsmnt, yard, off-st pkg, nr T, no chldrn or pets, \$350 + ht & til.

Winchester, splt entry, lovely crnr lot, 3-5 BR, frpl LR, DR, frpl fam rm, ht 2 car garage, sundeck off DR thru sliding glass doors, patio, low 50's. Dick

Winchester, 2 BR hse, avail 9/15, \$235. Bob Groeke, x3-1910.

Sub enormous BR apt, Marlborough St 100 blk, marble frpl, bay wndws, etc, pkg, avail now-8/31, \$195. Linda,

Eidelweiss, NH, sum rental propoerty slps 10, swim, tennis, \$200/wk. Call, 734-2221.

Stoddard. NH. 2 rental cottages secluded Highland Lake, all facil incl frpl, porch, rowboats, piers, 90 mi (2hrs) Bos, avail late Aug, x8-1566 Draper.

Animals

Rare wht Ger shep, AKC bred for chldrn & watchdog, some long hr.

Pony, 9 yr gelding, 12.2 hands, exc on trails, ribbon winner in ring, gd 4-H project for child w/som exp, registered Pony of Amer, \$250. Call, 894-0961,

Siamese kittens, 3 mos, raised w/parents, dog, chldrn, sealpt, choc pt, \$15/ea. x7237 Linc.

eyes tested, 8 wks, raised w/chldrn, dam on premises, x3-4630. Frndly 7 wk old blk f kitten nds home

Collies, sable & wht, AKC, wormed &

free, litter trained, Oxsanna, x3-5657.

Home nded for 7 mos part Persian kitten, v pretty, tortshell, spayed f, exc personality, everythg u want in a cat. Eileen, x3-1782.

Half registered Connemara/qrtr horse gelding, 7 yrs, rides Eng & jumps, still grn, nds intermed rider w/time to finish his schooling, 14.3 hands, palomino, no vices, gd home imp. must sell, daughter going to college. Call, 1-369-6014.

Lost: Reward for m Bulova Caravelle pckt watch engraved w/scroll "F", lost 7/12, duPont gym area, sentimental value. Ed, x3-3638.

Stolen: '67 MG 1100, Thurs, July 4, Dana St, Camb, answers to name of "Arnold," NC plates CVL 876, \$20 reward. Bob, x8-2826 Draper.

Wanted

Books: Numerical Methods & Fortran Prog. McCracken & Dorn: Applied Analysis, Lanczos. Diana, x3-5935.

F rmmate, 24+, 3 BR mod apt nr Porter Sq, K, LR, 2 B, ac, ww, free pkg, own rm, avail 9/1, \$130 + deposit, x3-2629.

F rmmate, share 2 BR mod Camb apt, gd loc, own rm, ac, dishwash, pkg, 5 min MIT, avail Arg or Sept. Call, 492-6263.

Apt, rm or hse-sitting job for f med sch stu during Sept, pref nr MGH. Ursula, x3-5954.

Allston, rmmate lower half hie in res area, pref neat non-smoker, into music, avail 8/1, \$90 + util. Call, 254-5197.

Toaster. Millicent Parks, x3-5831.

Cane seat chrs, any cond. Holly, x3-4152.

Rmmates, 2 MIT m, furn 2 BR in v pleasan tCen Sq apt, avail on or bef 9/1, lg K, dw, porch, lg rm \$120, sm rm \$60, incl ht. Bill, x3-2422.

F rmmate, share lrge, sunny, camb apt w/2 f, own rm, avail 9/1, nr T, \$96 & util. Karen, x3-4781.

M rmmate, furn, ac apt, 2 min walk Cent Sq, avail 8/1, \$126 incl ht. Call, 491-6039, aft 6pm.

Lking for Bedford or Lex 2-3 BR apt, LR, K, nr T, pkg 3 cars. Marianne, x3-3707

Toys: dbl easel, doll hse & furn, Child 3 ladder swing, toy soldiers. Life x8-1476 Draper.

Betty Crocker coupons for worthy YMCA project. Call, 862-1935.

F rmmates, 2 and apt for Sept. x3-5226. Men's bike. Jose, x3-5713, 12n-1pm.

MIT Family Day Care Program needs people to care for pre-school chidrn. Debbie Crocker, x3-3953.

Waffle iron. Jock, x 3-3788.

Rmmate, 2 BR apt in nw bldg, 9/1, \$250. Doris, x149 Linc.

Enthusiastic & sensitive indiv wanted to live in psych half-way hse & help people in transition from hosp to cmnty life, your share rm & brd \$28/wk, nego. Alida, x8-3579 Draper.

Honda 350 eng, must be reas cond &/or needing only minor repair. Chuck, x3-1852.

Lt wt alum or frbrglas boat for 5 hp

F rmmate in 2 BR Bklne apt in hse, nr T, pkg, own BR avail 9/1, \$102.50 + util. Kay, x3-4158.

F rmmate, stu working or both, own rm, safe, cln, nr MIT, avail now, \$105.

Inexpensive refrig, K tbl & chrs, chest drwrs, couch, Harry, x3-6007.

Carpools

Jane, x3-3211, aft Wed.

motor, x3-5561.

Ride Brklne, Clgd Cnr area-MIT &

Miscellaneous

WI do gen & thesis typing. Nina, x8-3333 Draper.

Want to build a 45 w/ch stereo power amp for less than \$40? Details, x8473 Dorm, evgs.

ing, hedges, chop trees, etc, on Sat or Sun. Lisa, x3-5737.

Tutoring in Eng as a foreign lang by frndly Amer. Debbie, x8-1811 Draper.

494-8738. Positions Available

This list includes all non-academic jobs on the Women's kiosk in Building 7, 10-211, and in the Personnel office E19-239, on the day of Tech Talk

publication. Personnel interviewers will refer any qualified applicants on all biweekly jobs Grades I-IV as soon as possible after their receipt in Person nel. Employees at the Institute should continue to contact their Personnel Officers to apply for positions for which they feel they qualify.

Virginia Bishop 3-1591 3-4266 Mike Parr 3-4267 Philip Knight (secretary - Joy Dukowitz) 3-4275 Sally Hansen

3-4269

3-2928

(secretary - Mary Ann Foti) 3-4278 Dick Higham Pat Williams 3-1594 Claudia iebesny 3-1595 (secretary - Dixie Chin)

Jack Newcomb

Evelyn Perez

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

DSR Staff Dietician in the Clinical Research Center will supervise all patients. dietary service to clinic Develop plans of study to be con-ducted, plan diets and menus, order supplies, instruct asssitants in laboratoprocedures; supervise dietary staff. Individual must have a B.S. degree and be ADA registered. 74-721-R (6/26).

DSR Staff in Civil Engineering will work on transportation planning in developing countries. Will spend at least 3 months a year in Africa. MS in Civil Engineering, highway construction experience required. Familiarity with systems engineering, transportation economics, computer programming, transportation modeling important. Candidate must be a US citizen because of foreign travel involved. 74-805-A (7/24).

DSR Staff in the Laboratory for Nuclear Science will participate in fundamental particle research at major accelerators and in data analysis. Candidate must have a Ph.D. with a minimum of two years experience in high energy physics. Detailed knowledge of bubble chamber techniques is essential. 74-223-A (3/13).

Electrical Engineer-DSR Staff in the Research Laboratory of Electronics will work on application of statistical pattern recognition techniques to problems in medicine, involving both diagnostic radiology and cytogenetics. Ph.D. and several years experience in applied pattern recognition required; experience in medical applications preferred. Part-time appointment appointment acceptable, 74-830-A (7/24).

Technical Assistant-Academic Staff for a Biology laboratory studying the molecular of mammalian cells. Prepare samples for and conduct laboratory analytical techniques, cell labelling, fractionation and preparation of nucleic acids in proteins. BS or MS degree required; familiarity with tissue culture techniques desirable. 74-815-R (7/24).

DSR Staff-Economic Staff Advisor at the Joint Center for Urban Studies will advise the Presidents of MIT and Harvard on the state of the economy and labor force of Cambridge, and prospects for future economic development; evaluate and develop economic development proposals; review and evaluate proposals in fields of health, education, housing, transportation, and community development in view of their impact on the local economy. Will be assisted by an advisory committee of faculty and administration members from both institutions. Doctoral degree or equivalent experience in urban economics, manpower, community development required. Ability to work effectively with local government and university officials. Ability to plan and conduct

research. 74-753-A (7/17).

DSR Staff member in the Electronic Systems Lab will study the application of modern control theory to optimize freeway traffic flow. Develop mathematical models algorithms. Evaluate feasibility of using other control policies with existing freeways. Ph.D. in Systems related discipline, including working knowledge of techniques in stochastic optimal control theory, state estimation, etc. Familiarity with vehicular traffic flow theory highly desirable; practical experience in electronic traffic sensors and signal processing helpful. 74-777-A(7/17).

DSR Staff for the Cell Culture Facility will perform work involving a considerable amount of quality control; test media and serum for bacterial or mycoplasma contamination and for the ability to promote the growth of various cell lines. BS or BA in Biology; knowledge of tissue culture and media preparation required. 74-761-A (7/10).

Technical Assistant Academic Staff in the Biophysics Laboratory of Nutrition and Food Science will assist in protein cell fractionation studies and kinetic spectrophotometric analysis. BS degree in Life or Physical Science with course work in biochemistry required; general laboratory experience required, 74-751-A (7/10).

Technical Assistant-Academic Staff in Biology will work on a project

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Huffy 10 spd racer, 2 yrs, exc cond; 5 spd w/ref hndlbars & seat, yr, exc

'74 VW beetle, red, exc cond, lving

cntry, \$2,400. Manuel, x3-5940.

some body rust, \$150. Edith, x3-6733.

x7733 Linc.

\$795. Dave, x7241 Linc.

6th fl, d&d, ac, avail 8/1, \$210. Ruth,

over \$20,000. Mrs. Wright, x3-7287.

8/17-Sept, \$220/wk. Natalie, x3-7594.

Marblehead, charming 2 BR antique

x8-3386 Draper.

Wayland, 5 BR hse abutting 80 acre wildlife preserve, \$500. Call, 358-7541.

x3-5314.

home, wi share exp. Christine,

WI do gardening, lawn mowing, weed-

WI babysit full or part time. Call,

currently available on the MIT campus. Duplicate lists are posted each Tuesday preceding Tech Talk publication date outside the Office of Minority Affairs, concerned with the analysis of macro molecular changes in differentiating myoblasts. Will use cell and tissue culture techniques, electrophoresis, abelling with radiocative isotopes and general biochemical methods. Minimum BS degree in Biology, Biochemstry or related fields; laboratory experience essential. Previous tissue rulture experience preferred, 74-759-R 7/10).

Administrative Staff-Editorial Manager in the Institute Information Services will coordinate the organization, de sign, editing, production, mailing, and budgeting for the General Catalogue, the President and Chancellor's report and other issues of the MIT Bulletin. Additional duties involve work on various projects, ad hoc special reports association with the Analytical Studies and Planning Group. Bachelor's degree required; graduate work or equivalent experience preferred. Editorial and proofreading skills, excellent command of the English language required. Knowledge and experience with various aspects of graphic design and production very helpful. Ability to organize detailed information regarding academic and other activities, to work with large numbers of people throughthe Institute, and to plan and execute publishing tasks under pressure deadlines important. 74-692-R (6/19).

DSR Staff at the National Magnet Laboratory will perform experimental and theoretical research on laser-induced plasmas in magnetic fields and laser-plasma interactions; develop optimal, X-ray, magnetic plasma diagnostics; operate advanced CO₂ and far infrared laser systems for plasma research. Ph.D. or equivalent in Physics and minimum 2 years research experience in X-ray and optical experimental techniques required. 74-689-R (6/19).

DSR Staff in Meteorology will work on diagnostic studies of Climate of the past. Candidate should have an interest in climatic change and have a willingness to acquire some knowledge of scale and radiative transfer theory. Ph.D. in physics, atmospheric, ocean, or earth sciences required. 74-650-A (6/12).

Technical Assistant-Academic Staff in Biology will do work involving nucleic acid isolation enzymology, and biochemical assays; growth and maintenance of bacteriological and bacteriophage stocks. Well-organized person with previous technical assistant experience or graduate level laboratory work preferred. 74-730-R (6/26).

Technical Assistant-Academic Staff-Temporary in Nutrition and Food Science will help in preparation and teaching of a laboratory course in biochemical research methods. Knowledge of chemistry or biochemistry laboratory techniques required; BS degree desired. (8/1-12/31/74). 74-719-R (6/26).

Staff Recruiter (Admin. Staff) will report to the Employment Officer; will e responsible for coordination of search for well-qualifed 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 (6/26).

DSR Staff Physicist in the Research Laboratory of Electronics will work on development of radio interferometry. The project will combine development of computer-controlled electronic systems and participation in the observations. Ph.D. Physicist with several years experience in radio astronomy or allied field required. 74-626-R (6/5).

Managing Editor-Administrative Staff for the Technology Review (Alumni publication) will commission articles; review submitted articles; edit articles for publication; write reports of papers, seminars, meetings; assist with the management of the magazine and participate in all editorial activities. Familiarity with current science and engineering, events essential. 4-5 years editorial experience required, preferably on material relating to science and/or engineering, with background in one or more fields of science, engineering, related social science as well as writing and science journalism. 74-591-A(5/29).

DSR Staff with the Energy Laboratory will work with an international project to assess global alternative energy sinategies; participate in formulation and evaluation of regional energy assessments. MS in Management, Economics or Engineering with emphasis on energy, technology assessment and long-term implications of growth necessary. International program management or equivalent experience desired. Demonstrated writing and speaking skills essential. Extensive internation travel required. 74-601-A (5/29).

DSR Staff in the Energy Lab will assist in the construction of a mathematical energy model for US supply and econometric model building and analysis of energy sectors. BS degree in Economics with econometrics and mathematics background desired. Experience in FORTRAN programming and use of Econometric Software Package necessary. Communication skills important. 74-602-A 95/29).

DSR Staff in the Energy Laboratory will prepare and coordinate various proposals for the Waste Heat Management Group. Assist in fund raising activities for facilities and research; prepare plans for construction of new facilities. Develope predictive models based on analytical and experimental techniques and of operational simulation models for economic assessment. Ph.D. required; experience in fluid mechanics (analytical and experimental), water resources management; ability to conduct independent research important. 74-604-A (5/29).

DSR Staff in the Energy Lab will develop a metal-air fuel cell preprototype and conduct research into powdered metal electrodes. MS in electrochemistry or chemical engineering; knowledge of electro-chemistry, semi-conductors; experience in fluid mechanics, academic or industrial exposure to metal-metal oxide systems required. 74-605-A (5/29).

DSR Staff at the National Magnet Laboratory will design, supervise construction of electrical cryogenic and vacuum systems for operation of Alcator Experiment. Design and fabricate electronic circuitry, mechanical structures and vacuum systems for high temperature plasma diagnostic experiments; supervise technical personnel. MS in Physics or EE. Minimum one year experience in operation of high temperature plasma physics experiments and diagnostic equipment design required. Work schedule will require evening and weekend work. 74-448-A (5/22).

DSR Staff Director of Vehicular Testing for the Energy Lab will design, supervise, administer program for testing 200-500 private vehicles operating on varying methanol-gasoline mixtures to evaluate driver reaction, gas mileage, and maintenance difficulties. Ph.D. in ME with minimum 5 years' industrial experience required. Extensive experience in assembly and disassembly of internal combustion engines and administrative experience required. 74-606-A (5/29).

DSR Staff in Electrical Engineering will develop and construct specialized electronic circuits to interface with electrical/electronic equipment such as an electric power system physical scale model, a transmission, and automated electric power meter readers. MS in EE required; experience in the design, construction and testing of electronic circuits and computer interface equipment and in the operation of switching surge simulators necessary. 74-333-A (5/22).

DSR Staff Engineer in Earth and Planetary Science will supervise the design and implementation of electroptical data acquisition systems for astronomical application; develop a solid state imager as a photometric data system; act as technical consultant to student projects. Degree or strong background in EE; extensive experience in analog and digital circuit design and mechanical hardwork design. 74-429-A (5/15).

DSR Staff Engineer in the Energy Laboratory will work in the Sloan Automotive Laboratory. Participate in basic and applied research programs on combustion problems related to performance and emission characteristics of automotive engines. Research will be experimental and theoretical. Ph.D. in Mech. Engineering or equivalent academic training, with good background in combustion, thermodynamics and fluid mechanics required. Experience in design and operation of optical, electronic and spectroscopic instrumentation used in basic aerodynamic, combustion and engine related experiments important. Ability to work closely with faculty students essential. 74-415-A (5/15).

DSR Staff in the Energy Lab must have minimum of 5 yrs experience in defining, securing support, organizing and supervising research in heat transfer related to energy production and utilization. Familiarity with MIT; experience in supervising student theses research and staff; Ph.D. in Mechanical Engineering required. 74-359-A (5/1).

Administrative Staff-Associate Director of the Alumni Fund will be responsible for staff support to alumni boards and committees engaged in the annual solicitation programs. Duties require extensive interaction with senior alumni and corporation executives throughout the country, at MIT. Individual must be an alumnus/alumna of MIT. Position entails a moderate amount of travel. 74-347-R (4/24).

ing skills essential. Extensive internation travel required 74.601.A. Staff at the MIT Press must have (5/29).... said the second skills in some or all of

the following areas: direct mail. scientific/technical, international, research and planning, trade and library relations. Innovation, creativity, adaptability for goals; ability to work as part of a publishing team in a university environment. Please submit resume with educational background; accompanying letter must describe in detail marketing methods in achievements. 74-313-R (4/17).

DSR Staff in the Laboratory for Nuclear Science will participate in fundamental particle research at major accelerators and in data analysis. Candidate must have Ph.D. in high energy physics or a related field with experience in scintillation counter and spark chamber techniques and familiarity with large computer data analysis. 74-221-A (3/13).

Programming Analyst for the MIT Information Processing Center must have experience and knowledge of large-scale time-sharing computer systems. PL/1 and FORTRAN language. Documentation and communication skills are necessary qualifications. The User Services Group requires an individual who understand and is responsive to needs of the Center's users.

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 short courses. 74-178 (2/27), 74-632-R (6/5).

Systems Analyst (DSR) in Laboratory of Architecture & Planning (Overlap Project) will implement series of mathematical programs originally developed in FORTRAN for other computers and command interfaces for routines. Participate in level design; some original design of mathematical and other routines. Fluency in FORTRAN and PL/1, including knowledge of IBM or Univac and Multics version of FORTRAN. Knowledge of Multics command, programming and debugging environment. Ability to deal with major issues in mathematical programming. 74-795-A (7/17).

Programmer/Analyst-Administrative Staff in the new Resource/Alumni Data Systems group in Resource Planning will be responsible for existing DOS PL/1 computer systems; develop and program new applications under OS and DOS for Resource Development, Alumni Fund and Association. Three years PL/1 programming experience required. Previous experience with university data processing systems highly desirable. 74-330-A (6/19).

Applications Analyst-Administrative Staff at the Information Processing Center will work in the Application services group to advise users on procedures and techniques in setting up a statistical problem for computer solution. The equivalent of a master's degree in statistics or social science with statistical training required. Experience in programming and solving problems is essential. 74-403-R (5/8).

DSR Staff Systems Programmer at Project MAC will perform system analysis and system programming on a research version of Multics operating system. SM or EE degree required; 2-3 years programming experience in the supervisor of some advanced operating system required. Ability to contribute to research and work with students important. 74-1234-R (11/14).

Computer Operator IV in the Office of Administrative Information Systems will operate the IBM 370/135 Computer and monitor system performance via console messages. Report operational problems, take corrective action where called for; process production and testing as scheduled. Minimum 1 year operations experience preferably IBM 360 or 370, DOS multi programming or DOS/VS environment required. 74-620-R (6/5).

Senior Keypunch Operator III in the Office of Administrative Information Systems will operate the IBM 029 keypunch machine. Punch into computer input cards formated and unformated documents. Minimum 2 years experience operating IBM 029 or comparable equipment. 74-764-R (7/10).

Administrative Assistant-Exempt in Civil Engineering will handle administrative duties for active research group: responsible for fiscal management for research accounts, budgets, payrolls; compile, edit, compose reports for lay audiences; manage production of all reports; maintain liaison with staff, faculty, students; handle international correspondence. Coordinate a variety of activities; arrange workshops and conferences at MIT. Ability to organize, work independently, exercise tact and good judgment required. 74-806-R (7/24).

Nurse-Exempt-Part-time in the Arteriosclerosis Center will take blood, do ECG's, handle other general duties. RN with 5-8 years experience required; knowledge of ASHD and lipid metabolism, medical computer data banks necessary. 24 hour work week, all day hours. 74-827-A (7/24).

Accounting Assistant-Exempt in the Comptroller's Accounting Office will prepare monthly dining operating statements and supporting work papers for the MIT Dining Service and Faculty Club; reconcile accounting statements. Education and experience in Accounting required. 74-768-R (7/10).

Food Production Supervisor-Exempt in Food Service will be responsible for all operations of the Kitchen and its food production personnel: daily duction, inventory control, quality control and sanitation. Assist in menu planning and estimating food quantities. Manage administrative details in areas of personnel, payroll, budgeting, purchasing. Degree or experience in food production, menu planning, and operation of a food production facility required. Ability to train personnel important. Hours 6am-3pm, M-F; occasional weekend work. 74-562-A (5/22), 74-837-A (7/24), 2nd opening: irregular hours and weekends.

Area Food Supervisor-Exempt in Food Service will be responsible for the unit serving areas: flow of food and utensils during meal periods; portion controls, santiation. Will train and supervise pantry employees. Technical knowledge of food production; ability to work under pressure, irregular hours and weekends required. 74-455-A (5/22), 74-834-A 74-835-A, 74-836-A (7/24).

Employment Coordinator-Exempt in the Office of Personnel Services will assist the Employment Officer in the development and administration of policy and procedures in the Employment Section. Responsible for the coordination of the entire employment process, including the administration of appointment scheduing, job posting, advertising, resume flow. Supervise two receptionists and one part-time secretary and the activities of the reception area. Responsible for internal liaison and communication between members of the Personnel Services staff: and external communication about job availability. College background and 3 year experience preferred; demonstrated administrative, supervisory, and organizational skills required. Knowledge of MIT policy and procedures especially helpful. Maturity, tact, ability to work under pressure of deadlines, and act effectively in "tense" situations essential. Excellent coordination skills needed to work with many interrupptions; and to keep details of several different projects under control simultaneously. 74-775-R (7/10).

Assistant Food Production Suprevisor-Exempt in Food Service will assist in all areas of daily production, inventory and quality control, purchasing and a sanitation program. Will assume full responsibility in the absence of the Food Production Supervisor. Degree or experience in food production, knowledge of menu planning, food production, quality control, food purchasing required. Must be able to work irregular hours and weekends, 3 days 7am-4pm; 2 days 10:30am-7:20pm. 74-454-A (5/22).

Application Programmer-Exempt or DSR Staff will work with the space plasma group in the Center for Space Research. Work includes the data, computer graphics, numerical analysis. Knowledge of FORTRAN IV, familiarity with I/0 on an IBM 360/370, strong mathematical background required. Familiarity with assembly language, small computers, operating experience on a large computer system desired. 74-665-R (6/12).

Building Services Assistant-Exempt for Physical Plant will supervise custodians, polishers and other Building Services hourly personnel. Requires working on various shifts for indefinite periods of time. Minimum of 2 years supervisory experience is required. 40 hour work week. 74-695-R, 74-696-R (6/19).

Technical Training Supervisor-Exempt will assist supervisors and employees in establishing standard cleaning procedures, and to acquaint them with techniques and products through use of audio-visual aids, demonstrations, etc. Requires working on various shifts for indefinite periods of time. Industrial Engineering Degree and/or applicable experience required. 40 hour work week. 74-697-R (6/19).

Radio Telescope Operator-Technical Assistant V or Exempt at the Haystack Observatory, Westford, MA, will run the antenna, and real-time pointing and control programs of the U-490 computer and the radiometric systems. Responsibilities include set-up and operation of computer and RF equipment. Must work independently, and frequently alone; average 40 hours a week on a rotating shift basis. Electronics background, BS in Electronics Engineering or Physics required; astronomy interest an asset. Possibility of DSR Staff level, depending on individual. 74-833-R (7/24).

Accounting Assistant V in the Investment Accounting Office will maintain and update the Investment Security Catalog from computer reports; post entries for the pension accounts; prepare related duties, Strong accounting background; some business school

or accounting courses required. 74-813-R (7/24).

Editorial Assistant V for the Alumni Association's Technology Review will verify and edit reports from the Class Secretaries; manage photographs and layout of 24-32 page section in each issue; process alumni news from other sources; write brief features about alumni activities. Editorial, writing, proofreading skills required. Ability to work with people important. Depending on individual's level of experience and skills, this position has possibility of being Exempt. 74-839-R (7/24).

Editorial Assistant V at the MIT Press will coordinate and service all aspects of international sales: handle correspondence with foreign accounts, distributors; reroute orders; distribute catalogues, promotion copies of books, book jackets, monthly inventory, and other relevant information. Coordinate international publicity; update advance book information for Publisher's Weekly; maintain files and assist exhibit unit. Responsible, motivated individual must be able to deal with a wide range of responsibilities, establish priorities, communicate with people. 74-739-R (7/10).

Administrative Assistant V- As Foundations Analyst in the Development Office will handle requests from senior Institute Officers regarding fund-raising objectives. Will maintain central files and records on foundations, evaluate donors for specific requests, write background memoranda. Supervise Sr. Clerk. Good writing and organizing skills, accurate typing. Minimum three years experience; tact and mature judgment essential. Offers significant internal visibility. 74-800-R (7/17).

Administrative Assistant V in Architecture Department will process student departmental registration, roll cards, class schedules and catalog copy for course descriptions. Familiarity with Registrar's procedures; ability to understand and give out curriculum information. 74-787-R (7/17).

Senior Secretary V in Resource Development will be personal secretary to the Vice President. Excellent organizational skills needed to prepare complex organizing schedules, ferences, coordinate daily busy schedules and other office functions; maintain reference files; prepare written summaries of correspondence, phone calls, and visits for quick reference by the V.P. Excellent typing and shorthand skills required. Maturity and poise in dealing with prominent people, both inside and outside MIT; ability to make decisions and exercise judgment required. Must be willing to work overtime when needed. 74-722-R (6/26).

Sr. Secretary V- Secretary to Division Head in Civil Engineering. Monitor accounts, maintain payrolls, prepare budgets. Arrange seminars and travel, compose and type correspondence. Excellent secretarial and organizational skills. Ability to handle financial records. Tact in dealing with students and staff. 74-799-R (7/17).s,

Editorial Secretary IV or Editorial Assistant V for the Sea Grant Program Office will handle general secretarial duties half-time for the Advisory Services Staff; type documents; plan details for conferences and symposia. Will assist half-time in writing a book on Fish Protein concentrate; handle correspondence, some writing and editing; research in library; coordinate deadlines, organize reprints. Excellent typing, secretarial and office management experience, ability to do library research required. Science background and familirity with German or Russian helpful. 74-814-R (7/24).

Technical Assistant IV-V in the Psychology Department's Neurophysiology Laboratory will train and care for animals; assist in surgery, recording sessions, computer analysis of data. B.S., A.B. or B.A. in Biology, Electrical Engineering or Computer Science required; familiarity with elementary electronics and digital logic is welcomed. This could be a DSR Staff member if applicant has appropriate, strong experience. 74-811-R (7/24).

Secretary IV or Senior Secretary V for Vice President in the office of the President and Chancellor will handle a variety of duties in a very busy office. Arrange and coordinate complicated appointment and meeting schedules; maintain communications among many people and offices of the Institute. Excellent typing, shorthand, organizational skills and command of language are essential; ability to anticipate, recognize and organize priorities and work as part of a team, resourcefulness for handling complex situations, discretion, tact, and good judgment important. 37½ hour work week. 74-343-R (5/24).

Secretary IV or Senior Secretary V for the Energy Laboratory will handle secretarial duties for the Director and Assistant of the Energy Workshop (Continued on page 8)

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Positions Available

(Continued from page 7)

organized to assess the energy options of North America, Europe and Japan. Set up filing system; type correspondence, manuscripts and papers; coordinate travel, appointments, schedules; handle financial records; organize other office functions. Minimum 5 years experience, college background, excellent typing required; shorthand/speedwriting/dictaphone experience helpful; ability to communicate effectively with international participants essential. 74-755-R (7/10).

Secretary IV in the Laboratory for Nuclear Science will handle all general secretarial duties for an active high energy physics group. Excellent typing needed for memos, reports, correspondence, papers, (some technical). Shorthand skills desirable but not essential. Ability to work independently; good organizational skills important. 74-807-R (7/24).

Secretary IV in the Artificial Intelligence Laboratory will handle general secretarial and administrative duties: type correspondence, (independently answering some), quizzes, manuscripts technical); maintain schedule busy office calendar; arrange meetings, classes, travel. Will be trained to type and edit manuscripts in the computer. Good typing, organizational skills required. Ability to exercise good judgment and act with discretion important. MIT experience, college background in science helpful. 74-817-R (7/24).

Secretary IV at Endicott House. Dedham, MA, will handle a variety of general secretarial duties: prepare payrolls for hourly and voucher em-ployees, prepare and type bills, maintain inventory of supplies, schedule reservations, welcome visitors. Accurate typing and bookkeeping skills essential; ability to work independently and with guests and staff in a high pressure environment important, 40 hour work week. 74-823-R (7/24).

Secretary IV in the Center for International Studies will handle general secretarial duties for 3 faculty members involved in research projects nuclear power and urban economics. Schedule meetings, seminars, travel arrangements; type correspondence, papers. Technical typing ability desired; college background or equivalent experience preferred. Some flexibility in hours possible. 74-824-A (7/24).

Secretary IV to two professors at Project MAC will handle general duties including preparation of course materials; assist in the coordination of a major interdisciplinary research project. Excellent organizational and secretarial skills required; ability to assist in various aspects of the research, involving medicine and computer science. 74-828-R (7/24).

Secretary IV to two Chemistry professors will handle all general secretarial duties; monitor office accounts; type technical manuscripts, grant proposals, class notes, maintain files. Good typing required; technical typing skills desired. 74-832-R (7/24).

Secretary IV will handle standard secretarial duties for a Civil Engineering professor. Type technical papers, proposals; schedule appointments, travel; maintain files and accounts. Good typing required; ability to work under pressure of deadlines, to organize office procedures important. Flair with figures and financial records needed. 74-749-R (7/10).

Secretary IV in the Real Estate Office will transcribe shorthand dictation; order supplies; maintain inventory and records; occasionally assist with figure work; handle other general office duties. Good typing, shorthand skills required; ability to organize and to work with figures important. 74-663-R (6/12).

Secretary IV will handle general secretarial duties for three professors and one lecturer in Chemistry. Will type correspondence, reports, course materials, and a textbook manuscript (some technical material); monitor accounts; maintain files. May also do some technical illustrating for use in special seminars. Good typing required; ability to organize and work independently important. 74-756-R (7/10).

Secretary IV for a group of Chemistry faculty will handle all general secretarial duties; monitor office accounts; schedule weekly seminars, and appointments. Type technical manuscripts, class materials, reports. Compose and type some correspondence; maintain files and stock of supplies. Good typing required. Ability to establish priorities, organize and work independently important. 74-757-R (5/29).

Secretary IV in the Office of Personnel Relations will provide secretarial and statistical support for the Wage and Salary Section. Answer correspondence, arrange schedules and meetings; assist with the organization and maintenance of a complex subject filing system and a job classification file; process unemployment compensation claims. May also input data at a computer console. Good typing required (some technical); ability to work with figures and to handle responsibilities important. 74-774-R

Secretary IV for the Urban Studies and Planning Community Fellows Program will handle a variety of daily administrative and clerical duties. Attend a weekly Tuesday evening seminar, transcribe recorded tapes of the seminar. Will also attend a 10-day orientation program and a 3-day wrap-up program off-campus. Previous secretarial experience, good office skills, ability to work for several people required. 40 hour work week. 74-715-R (6/26).

Secretary IV in Resource Development will handle diversified office duties; type letter-perfect correspondence; maintain busy schedules. Excellent typing required; organizational ability, ability to work independently and under pressure when necessary important. 37½ hour work week. 74-723-R (6/26).

Secretary IV in the Arteriosclerosis Center will perform general secretarial duties for medical doctors and other members; transcribe schedule appointments; type abstracts and manuscripts. Good typing, ability to work independently required. Secretarial school graduate with previous experience desired (preferably in a medical setting). 74-670-R (6/19).

Secretary IV in Medical will handle secretarial duties for two psychiatrists and assist with support for the part-time psychiatric staff and fellows. Transcribe patient case histories; maintain accurate records and schedules. Excellent typing required; mautrity, ability to work under pressure and to deal with patients important. 37½ hour work week. 74-685-R (6/19).

Secretary IV to two geology professors in Earth and Planetary Sciences will closely with the department's Affirmative Action Committee. Handle some administrative tasks; maintain affirmative action statistics; type correspondence, class material, proposals, manuscripts. Good typing skills required; ability to act with tact and discretion when dealing with sensitive procedures helpful. Much contact with students in this non-smoking office. 74-688-R (6/19).

Secretary IV for Mechanical Engineering will handle general secretarial duties for several professors in thermodynamics. Type technical reports and manuscripts; maintain accounts. Excellent typing required, technical typist preferred; knowledge of office procedures; ability to organize, set priorities important. 74-256-R (6/5).

Secretary IV will be responsible for secretarial support for full-time physicians in the Medical Department. Schedule appointments; transcribe patient case histories, correspondence and reports. Excellent typing skills required; shorthand and knowledge of medical terminology preferred. Previous secretarial experience important. 74-581-R (5/29).

Secretary IV in Resource Development will handle all secretarial duties for the Institute Secretary. Plan travel schedules, make arrangements; assist in gathering and collating information on corporations. Previous experience; excellent typing required; shorthand preferred but not essential. Ability to organize and work independently important. 74-579-R (5/29).

Secretary IV in Project MAC will type technical manuscripts, class notes and correspondence for two professors. Maintain documents on the PDP/10 computer, answer some correspondence independently. Good typing, knowledge of office procedures, ability to organize and establish priorities required. 74-596-R (5/29).

Secretary IV to the Executive Officer of Chemical Engineering will handle general secretarial duties; maintain petty cash account; make travel arrangements; receive visitors. Good typing, shorthand, and dictaphone skills required; previous experience (MIT preferred) or secretarial schooling; ability to work independently, maturity, tact essential. 74-398-R (5/8).

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. 74-332-R (4/24).

Secretary IV in the Office of Administrative Information Systems will handle general secretarial duties; maintain inventory of technical manuals, program test logs, files; type memos, reports, documents. Excellent typing, dictation skills required. Knowledge of English grammar and general office procedures important. 74-617-R (6/5).

Secretary III-IV to the Assistant to the logue information service, assist with President and Chancellor will handle all secretarial duties in one-person office. Maintain appointment calendar, files; excellent typing skills needed for correspondence, occasional heavy typing under pressure. Office works closely with senior administrative offices and faculty groups with a wide variety of tasks. Flexibility, adaptability and cooperation; ability to organize and work independently, ease with visitors important. Occasional overtime necessary, MIT experience useful. 35 or 37½ hour work week. 74-821-R (7/24).

Secretary III-IV for three professors at the Sloan School will handle general secretarial duties in one-person office; make travel arrangements; type and arrange duplication of course materials including manuscript and technical typing. Secretarial training, experience in technical typing, and ability to organize and work with a minimum of supervision required. 74-829-R (7/24).

Secretary III-IV in the Research Laboratory of Electronics will handle general secretarial duties; type course notes, problem sets and other technical material; maintain special files. Accurate typing; ability to neatly draw diagrams, to work independently important. 74-673-R (6/19).

Secretary III in Urban Studies and Planning will type manuscripts, correspondence, reports; schedule appointments: maintain files and records for several faculty members. Excellent typing, previous secretarial experience required. 74-818-R (7/24).

Secretary III will assist with the secretarial duties in the Environmental Design Group, Urban Studies and Planning. Type correspondence, drafts of proposals and papers, classnotes for several faculty. Previous secretarial experience, excellent typing required. 74-819-R (7/24).

Secretary/Receptionist III will receive all visitors for the Office of the President and Chancellor; type correspondence, reports and memos; log in mail; maintain office supplies. Good typing essential, ability to meet a variety of people important. Previous office experience desired. 74-820-R (7/24).

Secretary III- Secretary to Associate Director of Admissions and Associate Advisor to Foreign Students. Compose and type letters, prepare immigration forms, etc. At least three years of clerical experience. Excellent skills, ability to organize, cope with interruptions. Some seasonal pressure. Tact dealing with students. 74-798-R

Secretary III in Operations Research Center will perform secretarial functions for one professor; some typing for other staff members. General office work includes errands to various MIT departments, processing invoices and checking accounting statements. Willingness to acquire technical typing skills by taking the MIT Personnel Development course. Ability to work with students, faculty and other MIT employees. 74-777-R (7/17).

Secretary III for Project MAC will share secretarial duties for the Automatic Programming group; type technical manuscripts, class notes and correspondence; maintain files, schedule appointments. Excellent technical typing skills required; ability to organize important; previous experience helpful, 74-731-A (6/26).

Secretary III in the Office of Exhibitions will handle general secretarial duties; arrange for poster distribution; monitor magazine subscriptions; maintain files for the annual art lottery. College liberal arts background pre-ferred. Good typing required. 74-771-R (7/10).

Secretary III will handle general secretarial duties for several Energy Secretary III will handle Lab staff members. Type proposals, reports, correspondence (some techni-cal); handle some classwork-related activities; good typing, dictaphone skills required; ability to work for several people and to determine priorities important. 74-603-R (6/5).

Secretary III in the Research Laboratory of Electronics will take shorthand, handle correspondence, make appointments, type course notes, problem sets, quizzes, some involving technical typing; will maintain a small library for journals and technical reports. Some secretarial experience or schooling required. 74-634-R (6/5).

Secretary III in Chemical Engineering will type quizzes, reports, technical manuscripts, proposals for three associate professors. Will arrange appointments, file, act as receptionist for the office. Dictation from tapes; technical typing experience preferred. Prompt, dependable, able to accept supervision follow through on details. 74-162-R (2/20).

Library Assistant IV in the Engineering Library will be responsible for library operation on nights and weekends. Train student employees and coordinate the work of night and weekend personnel. Perform routine circulation desk duties, provide cataprocessing the reserve collection, stack and shelve books. Previous library circulation experience desirable; college background and study in library science helpful. Mature, responsible individual needed to work Sun.-Thurs. evenings. 74-826-R (7/24).

Senior Library Assistant IV in the Aeronautics and Astronautics Library will prepare orders and process all material received by the library; maintain card catalogue; train and supervise personnel assisting with other library duties. Accurate typing, library experience, knowledge of cataloguing required; supervisory capabilities important. 74-709-R (6/26).

Senior Clerk IV in Medical Records will be responsible for control of new records, maintain patient index, handle correspondence, act as liaison between medical records and other areas of the Medical Department. College background, previous record room experience required. Ability to work independently and tactfully on com-plex problems important. 74-838-R (7/24).

Senior Clerk IV in the Summer Sessions Office will handle a variety of clerical duties; type letters and memos, distribute mail, keep inventory of office supplies, file purchase orders, process bills and keep track of applications for programs. Will also assist with summer registration, training office assistant, Excellent typing required; ability to work under pressure. 74-789-R (7/17).

Senior Clerk III in the Office of Sponsored Programs will work in the Security Records Section. Ability to work with details, to file accurately, to be responsible for classified documents, to deal with people essential. Discretion and a good attendance record required. Background in record keeping helpful. AEC and DOD se-curity clearances will be required. 74-812-R (7/24).

Statistical Technical Typist III in small 'word-processing center" at the Sloan School will type manuscripts, letters, memos; maintain records and files of magnetic cards. Will be trained by IBM to operate automatic typewriter. Good typing, ability to work independently with minimal supervision required. 74-822-A (7/24).

Receptionist/Sr. Clerk III in Student Accounts will assist Student Counselors in servicing student financial aid requirements. Answer questions, provide forms, answer telephone, type letters. Participate in review of accounts. Poise in dealing with students; ability to retain composure in very busy area; ability to communicate clearly. 74-785-R (7/17).

Senior Clerk III-Assistant to Corpora tions Analyst will handle information requests from senior Institute Officers regarding fund-raising objectives. Help maintain files, evaluate donors and prospects, write background memoranda. Excellent opportunity for promotion. Excellent skills; dictaphone. Mature and experienced individual. 74-801-R (7/17).

Technical Typist III will assist in the production of the Neurosciences Reearch Program Bulletin through use of IBM/MTST composer system. Type manuscripts; adapt format, scientific symbols, tabulations, etc. to style of the Bulletin; proofread copy, check bibliographic format. Good typing skills essential, knowledge of publications procedures. Applicant can be trained on MTST. Off-campus location (Brookline); own transportation desirable. 74-803-R (7/17).

Technical Typist III in Chemical Engineering will type large volumes of reports, manuscripts and proposals from rough drafts using a magnetic tape typewriter. Excellent typing skills required; ability to handle equations and chemical symbols, punctuation and paragraphing necessary. 74-741-R

Statistical Typist II-III in the Comptroller's Accounting Office. Grants and Contracts Section, will type billings to industrial and governmental sponsors, grant reports. Excellent typing required. 74-645-R (6/12).

Payroll Clerk II-III in the Comptroller's Payroll Office for the Biweekly payroll will receive Biweekly DINDI's from departments; log distribution changes to individuals; investigate and clear suspense account entries and charges to terminated accounts. Good attendance and the ability to communicate effectively over the telephone are required. 74-796-R (7/17).

Payroll Clerk III in the Comptroller's Payroll Office for the Staff payroll will receive Staff SANDI's from the departments; prepare account changes prior to keypunching, log adjustments, handle vacation cards and credits. Maturity, accuracy, ability to communicate over the telephone are required. 74-797-R (7/17).

P.T. Library Asst. Bookchecker III in the Student Center Library is re-sponsible for operation of Reading Room and other library facilities in absence of librarian. Checks MIT ID cards, charge dates on books; answers questions re: directions, library admissions regulations; tabulate statistics; handle other clerical work as assigned, Maturity, dependability important, alert, pleasant person necessary. hrs./week; 11pm-7am Friday and Saturday. 74-802-R (7/17).

2nd Class Engineer must have a Mass second class Engineer's license or higher. Individual must be willing to work on any shift. 73-182-R (11/24)6.

3rd Class Engineer at the Power Plant may work any and all shifts and do all kinds of work, consistent with self sufficiency of the Plant. Mass. Third Class Stationary Engineer's license or a license of a higher grade required. Experience on high pressure boilers, oil and gas fired with automatic combustion controls, turbine driven auxiliaries: AC and DC generation, switchboard and fed water control required. Some experience on turbine-driven refrigeration equipment is desirable. 74-422-A (5/29).

Cook at Endicott House, Dedham, MA. will cook breakfasts 6 days a week and make desserts for lunches and dinners. May also occasionally prepare lunches and cook dinner one night a week. Expertise in cooking and presenting a variety of breakfast food, desserts, hors d'oeuvres required. Maturity, dependability, honesty important. Must be willing to work on a very irregular and demanding schedule. Will begin at 6am when preparing breakfasts; will need own transportation. 40 hour work week. 74-658-R (6/12).

Reactor Operator IV in Nuclear Engineering will serve as shift operator on the MIT Reactor after passing A.E.C. Operator's Examination. Monitor operation of a 5MW reactor; assist with various technical tasks; maintain logs and check sheets. 3-4 years experience in the Nuclear field will be necessary for preparing for operator's licensing. Knowledge of electronic circuits helpful. Ability to work under pressure of emergencies important. 40 hour work week. 74-766-R (7/10).

Swimming Pool Attendant in Physical Plant must be a fully qualified Life Guard having a Red Cross Senior Life Saving Card, and at least two years experience. Will rescue bathers, administer resusitation as required; enforce safety regulations; maintain order and cleanliness; clean and refill pool, washing high walls and windows. Must be able to pass periodic physical examinations, and complete refresher work as required. Irregular work schedule; will not have two consecutive days off. 74-680-R (7/17).

Jr. Animal Caretaker will clean cages and equipment, feed and water animals, perform related duties and assist other caretakers. High School graduation is required; ability to work without constant supervision. 74-729-R (7/17).

Animal Caretaker in Psychology will feed and water animals (cats, rats, monkeys, hamsters, rabbits); clean cages and equipment; keep the animal facilities clean, neat, and in order. Graduation from high school is required. 74-790-R (7/24).

Laboratory Assistant in Biology will sterilize, wash, clean and prepare glassware for use in experiments. Maturity, reliability, ability to follow directions required. 40 hour work week. 74-816-R (7/24).

Laboratory Assistant for the Cell Culture Facility will wash laboratory glassware (by hand or machine), occasionally this may involve the use of chromic acid cleaning solutions. 40 hour work week. 74-760-A, 74-763-A (7/10).

Dishwasher at the Faculty Club will wash dishes, glassware and silverware; clean dish machine and dish table; set up dishroom; replace clean dishes in some experience helpful. Mon-Fri 12:00-9:00pm; some weekends. R (7/10).

Campus Patrolwoman/Patrolman Minimum 10 years experience required in all phases of law enforcement to include knowledge of court procedures and case preparation, investigation of criminal and other complaints and reporting on same. Rotating shift/40 hour work week. 74-94-A (2/6).

The following positions have been filled since the last issue of Tech Talk.

DSR Staff 74-222-A 74-757-R 74-572-R Secretary IV Clerk Typist III 74-725-R Secretary IV 74-706-R Secretary IV DSR Staff 74-361-R 74-590-A Asst. Ed.-Ex. Prog. Sec.-Admin. Staff Secretary III 74-713-R 74-660-R 74-594-R Secretary IV 74-743-R 74-279-R Secretary III

Appl. Prog.-Admin. Staff Appl. Prog.-Admin. Staff 74-574-R Syst. Analyst-Admin. Staff 74-391-R 74-758-R Tech. Asst.-Acad. Staff Secretary III-IV 74-772-R

Senior Clerk IV

The following position is on HOLD pending final decision:

74-646-A Secretary III-IV

74-647-R