

Physical Chemistry Anniversary Planned

A Nobel laureate, the director of research for the US Department of Energy, the president of E.I. du Pont de Nemours and Company and a distinguished professor of chemistry will be the speakers Nov. 17 at a day-long program marking the 75th anniversary of the Research Laboratory of Physical Chemistry at MIT.

The Laboratory was established in 1903 by the late Dr. Arthur Noyes, who later served as acting president of MIT (1907-1909) and in 1919 left MIT to help develop the newly established California Institute of Technology.

Speakers at the commemorative program will include Dr. Linus C. Pauling, the recipient of two Nobel prizes; Dr. John M. Deutch, director of research for the Department of Chemistry.

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Bruce, Hansen Two Major Appointments Announced

Bruce as ILP Head

Dr. James D. Bruce, associate dean of the School of Engineering since 1971 and a professor of electrical engineering, has been named director of industrial liaison at MIT.

Professor Bruce, a member of the faculty in the Department of Electrical Engineering and Computer Science since 1964, succeeds Dr. Samuel A. Goldblith as director of MIT's efforts to stimulate contacts and information exchanges between faculty members and industry. Dr. Goldblith, Underwood-Prescott Professor of Under Science at MIT, was appointed vice president for resource development last month.

Professor Bruce's appointment, announced by Dr. Goldblith, is effective Jan. 1.

"The Institute is fortunate,"



Professor Bruce

Professor Goldblith said, "in obtaining a faculty member of Professor Bruce's stature to direct its industrial liaison activities. The

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Hansen in Engineering

Dr. Kent F. Hansen, widely noted as an expert in nuclear reactor theory, nuclear fuel management and reactor safety analysis, has been appointed associate dean of the School of Engineering.

Professor Hansen, a faculty member in the Department of Nuclear Engineering since 1961, succeeds Dr. James D. Bruce, who has served as associate dean since 1971. Professor Bruce has been named director of Industrial Liaison at MIT.

The appointment, announced by Dean Robert C. Seamans, Jr., of the School of Engineering, is effective Jan. 1.

"Kent Hansen," Dean Seamans said, "is a talented educator and a skilled administrator. As associate dean, he will add strength and



Professor Hansen

vitality to the School of Engineering by virtue of his keen interest in the application of engineering to the needs of society. I look forward

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OFFICE OF THE CHANCELLOR

To the MIT Community:

Today marks the beginning of the annual MIT-Red Cross Fall Blood Drive. I encourage all eligible members of the MIT Community—faculty, staff and other employees, and students alike—to consider giving of themselves by participating in this important and beneficial activity.

Donating blood is a vital service to the community and to our neighbors and associates, for only if sufficient donations are made will there be an adequate and timely supply for those in need. As in the past, it is Institute policy to allow time off, wherever possible, for employees who wish to donate blood.

The turnout at past blood drives has been so good that MIT has become a significant source of blood for the surrounding Massachusetts-Maine region. I sincerely hope that the response to the drive which begins today will continue this tradition.

Rep. Mitchell to Keynote Conference

The challenge and opportunities that will face minority businesses in the 1980s will be explored at a two-day conference, November 17-18, to be held at MIT.

The keynote address will be given by US Rep. Parren J. Mitchell of Maryland, chairman of the Congressional Black Caucus and a member of the House Budget Committee and the Banking, Finance and Urban Affairs Committee. He will discuss ways to enhance op-

portunities available to minority businesses.

The conference is sponsored by MIT, the National Business League's Boston chapter, and Small Business Development Corp., a consulting firm under contract to the US Department of Commerce to provide management and technical assistance to minority businesses in Massachusetts, Maine and New Hampshire.

Dr. Clarence G. Williams, spe-

cial assistant to the president and to the chancellor at MIT, is coordinating conference arrangements at the Institute. Dr. Williams provides a focus for MIT's efforts to share the knowledge developed by its educational and research programs with individuals and organizations in the minority community.

"MIT is pleased," he said, "to join with the nation's largest and oldest black business organization—the National Business League—as well as with Small Business Development Corp., in focusing attention on the special problems and unique opportunities that will be confronted by minority businesses in the next decade."

Several state and federal officials will take part in the conference as members of a panel dis-

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MIT-Wellesley Exchange Faculty Lectures to Begin

A sixth lecture has been scheduled in the series commemorating the tenth anniversary of the MIT-Wellesley exchange program.

"Hellenism and Romanticism: Changing European Views of Greece as an Artistic and Political Entity from Late Classicism to Romanticism," will be presented by Jonathan B. Knudsen, assistant professor of history at Wellesley, on Wednesday, Feb. 21, at 4pm in Rm. 66-110. MIT host for the lecture will be Robert E. Jones, professor of French and humanities.

Meanwhile, the series of exchange lectures will begin today (Wednesday, Nov. 1) with a lecture by Marshall I. Goldman, professor of economics at Wellesley and associate director of the Russian Research Center at Harvard, at 4:30pm in Rm. 66-110. His topic will be "Can the USSR Become an

Autarky by 1984?" Professor Evsey D. Domer of the MIT economics department will be respondent.

Two lectures are planned on Wednesday, Nov. 8, one here and one at Wellesley.

Speaking here, in Rm. E53-482 at 4pm, will be Wellesley professor Marion R. Just on "Media Pathology: TV and the Democratic Process." Her respondent will be MIT professor Walter Dean Burnham.

Samuel J. Keyser, professor and head of the Department of Linguistics and Philosophy, will speak at Wellesley at 7:30pm on "A Linguist's Approach to Literary Analysis." The lecture will be held in the Margaret Clapp Lecture Hall in the Wellesley Library and the respondent will be Michel Grimaud, assistant professor of French at Wellesley.

Paper Beaver

Oh to be a sportswriter.

We have always envied sportswriters. Within the guild of journalism, they form a special brotherhood. The elite of the picaresque, they have special privileges. They can write one-sentence lead paragraphs. They can write short sentences. They can even write one-word sentences. Paf! They get to use, seriously, neat words like destiny and gonfalon. They get free tickets. They get the front seats at the human comedy. And they are our most knowledgeable critics, for unlike theater reviewers they cover not only first nights but the

entire season of a given band of roving players. If the Bard were alive today, he'd be writing sports, chronicling the tragic demise of the '78 Red Sox rather than that of an obscure Danish swordsman. Is not sport the essence of living theater? The real difference between a Hamlet and a Grogan, as we watch the one scramble in the grave and the other out of the pocket, is that the Prince is played by an actor and the Patriot by . . . himself. At his best, the dramatist writes so that we may suspend our disbelief. At his best, the sportswriter writes to sustain our belief and to con-

vince us for a brief spell that all the world's a playing field. The true accomplishment of a George Plimpton in a book like *Paper Lion* is to reduce the imaginary distance between spectator and player, to reinforce the illusion—or the truth—that we are all in some sense player-participants in the greatest game of them all.

Yessiree Bob! For old-fashioned, straightforward, mind-bending, cliché-ridden, hard-hitting prose (paf!), give us a sportswriter. We know what we have to do. Paf!

So it was with not a little anticipation that we set off to cover the MIT football game with Siena College last Saturday. It was a fine day with firsts. This was

MIT's first intercollegiate football season in 77 years. This was the first (and only) home game of the season. It might be MIT's first win, for despite an 0-4 record to date, fan sentiment was at a three-quarter of a century high. It was the first time, as far as we knew, that a university of worldwide reputation had taken the gridiron against a foe we'd never heard of before. And it was also our first sports assignment. Consequently, when it appeared that our date would be a bit delayed we left her to play catch up and legged it for Steinbrenner Stadium with all the zeal of a Deep Threat doing the 40 into the end zone. We made it just before the kickoff and found ourself

standing on the MIT sideline next to an attractive young woman who turned out to be Harriet Pearce, head women's trainer in the MIT Athletic Department and one of the team's two trainers. As the teams took the field, a player rushed up to her. "Got any sticky stuff?" he asked.

MIT kicks off, a wobbly job that goes all the way to the Siena 38 yard line. Siena's first play is a run for three yards. Second and seven from the 41. "Get him," shouts an MIT player from the sideline. They don't get him. Siena first and ten from the 50. Siena runs again. First and ten from the MIT 40. Again the run,

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Iannis Xenakis To Give Lecture On Composition

MIT will host renowned architect, mathematician, musician and composer Iannis Xenakis in a lecture on "Approaches to Problems in Music Composition," Monday, Nov. 6, at 4:30pm in Huntington Hall (10-250).

A mathematician at heart, Mr. Xenakis freely composes his works as a result of highly complex calculations blended with an unquestionable musical endowment. He is presently associated with the Center for Mathematical and Automated Music in Paris and is exhibiting at the Center Beauborg, in a building which he designed.

After graduating from the Athens Institute of Technology, Mr. Xenakis studied composition in France with Arthur Honegger, Darius Milhaud and Olivier Messiaen. As an architect, he collaborated with Le Corbusier for several years, designing with him the Philips Pavilion at the Brussels World's Fair, 1958. More recently, he designed the Polytope of the French Pavilion at the Montreal Expo '67.

Although his main interest is the composition of music, Mr. Xenakis continues to write mathematical and architectural essays. At the Center for Mathematical and Automated Music he works with a group of mathematicians, psychologists, aestheticians, anthropologists and representatives of IBM, with the objective of analyzing the fundamental structures of music and transposing those findings into sound by means of electronics.

The lecture at MIT will be free and open to the public.

DSRE Sponsors Halsey Lecture

The MIT Division for Study and Research in Education (DSRE) will sponsor a seminar featuring A.H. Halsey, known universally as "Chelly," on "Change in British Society: Relations Between the Generations."

The seminar will be held this afternoon (Wednesday, Nov. 1) in Rm. 20C-117, noon-2pm.

An eminent sociologist of education, Dr. Halsey is professor of sociology and director of the Department of Social and Administrative Studies at the University of Oxford, Professorial Fellow of Nuffield College at Oxford and visiting professor at the Center for Study of Higher Education, University of California, Berkeley.

Dr. Halsey was Reith Lecturer earlier this year and is author of numerous books and monographs, including *Education, Economy and Society* (1961); *The British Academics with Martin Trow* (1971); and editor of *Power and Ideology in Education with Jerome Karabel* (1977). He is also an energetic contributor to British and American journals of sociology and education as well as more general publications, such as the *New Statesman*, *Times Literary Supplement* and the *Times Higher Education Supplement*.

MTG to Present Musical 'Zorba'

The MIT Musical Theatre Guild will present "Zorba," based on the book and film "Zorba the Greek," at Kresge Auditorium at 8pm, November 3, 4, 9, 10 and 11, with a matinee at 3pm, November 5.

David Waggett, second-year architecture student, will take the lead role of Zorba. Producers will be Jack Peers, '72, and Jon Golblithe. The production will be directed by Joe Cacaci.

The Musical Theatre Guild includes some 100 members who are MIT students, faculty, staff and Boston area residents. The group usually presents two major productions in the academic year.

Tickets for "Zorba" may be purchased for \$4 or \$2.50 with an MIT ID for the evening performances, and \$3.50 or \$2 for the matinee. For reservations call x3-6294 or stop by the MTG ticket booth in Lobby 10.



2.70 WINNER—John Dieken of Oklahoma City, a junior in mechanical engineering, won this year's design contest—The Brass Rat Race—surviving the "academic rat race" in better shape than the 177 other contestants. Wearing an appropriate tee shirt for a rat race, Mr. Dieken holds up his prize—a stuffed beaver—and his winning machine.

Academic Brass Rat Race Teaches Design Principles

By ROBERT C. DI IORIO
Staff Writer

Trust MIT to find a way to turn the academic rat race into a method for teaching the principles of engineering design through a contest—The Brass Rat Race.

And trust the students in 2.70, Introduction to Design, to rise to the challenge with machines that walked, stalked, flew, and catapulted their way through the hazards of Academic Substance, some more successfully than others.

When the polystyrene pellet dust cleared (the Academic Substance was a seven-inch deep bed of polystyrene pellets in an Academic Arena eight feet by three feet) the winner, last Oct. 26, was John M. Dieken, a junior in mechanical engineering from Oklahoma City. His device out-achieved that of Keith Kasunic, who is double-majoring in management and engineering. Mr. Kasunic is from East Brunswick, N.J.

Among those congratulating the winner were his parents, Mr. and Mrs. Jack Dieken, who had come east from Oklahoma on business and to see their son play in a water polo tournament. The 2.70 contest was an unexpected bonus, Mrs. Dieken said.

The winner of the Brass Rat Race had to win eight contests, said Professor Woodie Flowers, coordinator of the design class offered in the Department of Mechanical Engineering. One hundred seventy-eight students competed.

Each device had to carry a four-ounce replica of the Brass Rat as it sought to out-achieve the opponent device. The Brass Rat replicas were hooked together through a pulley attached to a rod mounted on the starting line. The machine in the lead thus could pull its opponent backward as it advanced.

The annual contests, Professor Flowers said, are intended to give

students a feeling of the kinds of trade-offs confronted in the real world by engineers.

"We tried to scale the problem this year so that it was difficult to decide exactly what to do. The result was very diverse solutions. And that led to the fact that more students lost because of Murphy's Law than for any other reason."

The identical kits of parts from which each student had to build a machine offered two power sources—an electric motor (donated by Polaroid Corp.) from the SX-70 camera, and some springs. Mr. Dieken's winning device relied on spring power to catapult his Brass Rat forward.

Other students ignored the "keep it simple" dictum and produced some complex devices.

Some of the more remarkable designs included:

A device that launched a biplane which flew over the Academic Substance, then folded one of its wings into a shape that served as an anchor in the polystyrene pellets and dived in. A winch on the device back at the starting line was supposed to pull the portion of the device carrying the Brass Rat forward.

A device that deployed a small fence into the path of the opponent machine. The fence deployed properly, but not where it would interfere with the opponent.

As usual, the contest drew a large, enthusiastic audience to 26-100. Cheers, a trumpet sounding the cavalry charge, jeers and hisses filled the air.

Others involved in teaching 2.70 are Professor Robert W. Mann, Whitaker Professor of Biomedical Engineering, Professor David Gordon Wilson, associate professor Shawn Buckley, associate professor Igor Paul, assistant professor Warren Seering, lecturers Ernest Blanco and Neville Hogan, technical instructor Roy Richard, Joseph Smith and Peter Griffith.

'Human Knowledge' Lectures to Begin

The first in a series of lectures on "Human Knowledge" sponsored by the Department of Linguistics and Philosophy will be given by Professor Jeremy Bernstein of the Stevens Institute of Technology on Friday (Nov. 3) at 4pm in Rm. 4-231. He will speak on "Ernst Mach and the Quarks."

Professor Bernstein holds a PhD in physics from Harvard University. He has held posts at the Princeton Institute for Advanced Research, Brookhaven, C.E.R.N., Oxford University and Rockefeller University. He is a staff writer for *New Yorker* magazine, and is the

author of nine books, including *Einstein, The Analytical Engine and Experiencing Science*.

The "Human Knowledge" lectures, which will be delivered by scientists and philosophers, are financed in part by a grant from the Franklin J. Matchette Foundation.

The dates of future lectures will be announced. They will include talks by Professor Nelson Goodman of the Harvard philosophy department, Professor Harry Frankfurt of the Yale philosophy department, and Professor Gerald Holton of Harvard and MIT.

Hansen Named Associate Dean in Engineering School

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to the same close association with Kent Hansen that I have enjoyed with Jim Bruce."

Professor Hansen, who served as executive officer of the Department of Nuclear Engineering from 1972-74 and as acting department head in 1975, received the SB in physics in 1953 and the ScD in nuclear engineering in 1959, both from MIT.

His professional interests, developed during 25 years of study, research and consulting in the field of nuclear engineering, include numerical analysis, computational methods, modeling of engineering systems, nuclear reactor theory and mathematics, reactor safety analysis, nuclear fuel management and engineering education.

From 1958-59, Professor Hansen was a senior research engineer at Sylvania Electric Products. From 1959-60 he was a research associate at the MIT Computation Center. From 1960-61 he was a Ford Post-doctoral Fellow at MIT.

He was appointed an assistant professor in the Department of Nuclear Engineering here in 1961. Four years later, in 1965, he became an associate professor. In 1969 he was appointed a professor.

Professor Hansen has been a consultant to the US Veterans Administration, the US Air Force, Wolf Research and Development Corp., MITRE Corp., General Electric Co., Westinghouse Elec-

tric Co., Gulf General Atomic Corp., E.I. duPont, Savannah River Laboratory, Electricite de France, Boston Edison Co., the Nuclear Regulatory Commission and Brookhaven National Laboratory.

President Carter, in June, 1977, nominated Professor Hansen as a commissioner of the Nuclear Regulatory Commission. The nomination failed to receive the required confirmation from the US Senate.

Professor Hansen, 47, a native of Chicago, is a member of the Society for Industrial and Applied Mathematics, the Association for Computing Machinery, the American Society for Engineering Education, the American Nuclear Society, the Society of Sigma Xi and Sigma Chi Fraternity.

From 1965-69 he was a member of the executive committee of the American Nuclear Society's Mathematics and Computation Division, the division's vice chairman from 1967-68 and its chairman from 1968-69. He served on the board of directors of the society from 1971-74 and was elected a Fellow of the society in 1973.

He was married in 1959 to the former Katherine Elizabeth Kavanaugh, who died Dec. 3, 1975. Their children are Thomas Kay, 18, and Katherine Mary, 16. In June, 1977, Professor Hansen and Deborah Hill were married. The family lives in Bedford, Mass.

The IAP Corner

300+ Varieties Listed

In First Guide to January

By MARY ENTERLINE
Editor, IAP Guide

Whether you want to tour Boston or Paris, learn about the geochronology of the Amazon River or of beer, play your guitar in a classical style or your violin as an "old timey" fiddle, you will find something to your liking in the First Guide to IAP '79. Distributed on campus today, the First Guide lists 320 activities being planned for Independent Activities Period, January 8-31.

Although a couple hundred other offerings will probably be added by publication of the Final Guide in early December, the listings in the First Guide are plentiful enough to make you start worrying how to fit everything you like into three-and-a-half weeks.

IAP '79 will start off with a "Seabrook Week" of activities sponsored by the nuclear engineering department, and it will end with two other "weeks" which coincide—"Ocean Week," sponsored by the Sea Grant Program, and "Spanish Dance Week," sponsored by the Ballroom Dance Club and Club Latino and featuring Ramon de los Reyes Spanish Dance Theatre. In between and during these weeks, lots more will be going on.

One of the most active groups during IAP '79 will be the mathematics department. The 22 math offerings include serious fare, like lectures on the Ax-Kochen transfer principle, chemical oscillations and wave patterns, and the Big Bang, and some not-so-serious fare, such as sessions on mental mathematics, building ships in bottles, knotting, gambling, and even a musical recital by members of the department.

In ocean engineering, there's a lecture series entitled "Untold Stories of the Ocean Engineering Faculty," during which professors may talk about anything they wish except things they teach in regular classes. The psychology department has titled its series "Can You Fool All of the People All of the Time?" Other lecture series will deal with topics ranging from animal psychology to "ESP and Parapsychology."

In addition to lecture series, IAP '79 will have a number of film series on topics such as cellular and developmental biology, water resources development, aeronau-

tics and astronautics, mathematics, earth and planetary sciences, and microwave optics. Barker Engineering Library is scheduling its own series of movies called "Action and Animation Under the Dome."

Other IAP offerings are inter-departmental efforts. Professor Leo Marx of Humanities, Professor Richard Leacock of Architecture, and Professor Robert Hollister of Urban Studies and Planning are collaborating on an activity entitled "Visions of the City," in which participants will study urban portraits in print and on film and then create their own versions of cities. Professor Reginald Newell of Meteorology proposes that meteorologists look at discontinuities in the climate for the past 6,000 years as revealed in physical records while historians look for discontinuities in human history, for example, settlement abandonments, and then they compare their findings to see if history has been shaped by climate fluctuations.

The Center for Cancer Research is gathering representatives of different departments together to discuss "The Biological Basis of Behavior," while the psychology department is sponsoring a symposium on the specific issue, "Female vs. Male: Biological Correlates of Sex Differences in Behavior."

If you have old photographs in need of restoration, IAP offers two activities to help you. The Institute Archives and the Historical Collections are sponsoring a one-day open house when their experts will give advice on preserving not only photographs, but old books, documents, and other papers. Or you can join William Fecych of the Nuclear Reactor Laboratory in using a neutron beam from the MIT reactor to restore old photographs.

IAP '79 also marks a revival of interest in wall painting, dormant at MIT since the main corridors were painted in the late 1960s. A group of students wants to paint murals for MIT and other places, while the architecture department is sponsoring a minicourse studying "Popular Wall Hanging" in the United States, Europe and Africa.

Bruce Appointed Director Of Industrial Liaison Program

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appointment of such a senior member of its faculty to this position underscores the importance the Institute places on the vital interchange of information between MIT and industry.

"In discharging his new responsibility in industrial liaison, Professor Bruce will continue to play a key part in the MIT Leadership Campaign to raise \$225 million in capital funds by April, 1980. Professor Bruce has already made significant contributions to the Leadership Campaign effort while serving as associate dean of the School of Engineering."

A primary goal in his new position, Professor Bruce said, will be the continued development of both the Industrial Liaison Program and the MIT Associates Program. In both these programs, he noted, there is the opportunity to continue the pattern of growth begun under Professor Goldblith's leadership and to increase, in quality and kind, the services these programs offer to their member companies.

"To accomplish this," Professor Bruce said, "we must continue to rely upon the Institute's faculty who already participate to an impressive extent—over 50 per cent of the faculty during the past academic year—in industrial liaison activities. Interaction of our faculty with the member companies is the key to the program's success and it is much appreciated by both the companies and the program staff."

The MIT Industrial Liaison Program—now international in scope—was organized in 1948 to give large companies access to the state-of-the-art in the fields of engineering, science, architecture, the humanities, labor relations, economics, finance and management. This is done in a number of ways, including the assigning of an industrial liaison officer to each company, faculty visits to companies, research briefings, seminars and symposia at MIT.

The MIT Associates Program was founded in 1961 as a result of MIT's Second Century Campaign and performs similar services for smaller companies, located largely in the Northeast.

As associate dean, Professor Bruce has been responsible for resource management and development within the School of Engineering. In this connection he has developed several computer-based systems useful as decision-making aids for both long-range planning and daily operation in academic institutions.

Portions of these systems he developed for the School are now used on an Institute-wide basis. In his last year as associate dean he carried the full responsibilities as dean following the resignation of Professor Alfred A.H. Keil from that post.

Last June, at Technology Day ceremonies, Professor Bruce was presented the Gordon Y. Billard Award for service to the MIT community. The citation read in part: "With seemingly unlimited energy, he has successfully combined research, teaching and administration with each contributing in a highly effective way to the others. With great skill and insight he has applied his knowledge of computational systems to the management of large and complex academic structures, generously sharing his time, his knowledge and his programs with others struggling less successfully to master this task."

Professor Bruce, born in Livingston, Texas, in 1936, received BS degrees in electrical engineering and mathematics from Lamar State College of Technology, Beaumont, Texas, in 1958. He received the SM and ScD degrees in electrical engineering from MIT in 1960 and 1964.

During the 1964-65 academic

year Professor Bruce was a Ford Foundation Postdoctoral Fellow in Engineering at MIT. That same year he was appointed an assistant professor of electrical engineering. He was promoted to associate professor in 1968 and the following year was named executive officer of the department. His appointment as a professor came in 1973.

He has consulted extensively for industry and government, including teaching seminars in digital signal processing on a nationwide basis in that field's infancy.

Professor Bruce's current research and professional interests include information management systems, developing an understanding and model of universities, and digital signal processing.

He is a member of the Institute of Electrical and Electronics Engineers, the American Society for Engineering Education, Sigma Xi, Tau Beta Pi and Eta Kappa Nu. He has served on numerous national committees and task forces including the Black Engineering Colleges Development Committee and the Task Force on Graduate Education of the National Research Council's Committee on Minorities in Engineering. He is currently serving on a committee studying programs and curricula in engineering education.

For the last two years, Professor Bruce, his wife, the former Eleanor MacLaren, and their three children have lived in Lexington, Mass. For several years before moving to Lexington, the family lived at Burton-Connor House where they were the Senior Faculty Family in Residence.

Report on Negotiations

(The following report was prepared by the MIT Office of Labor Relations.)

At a meeting called by the Federal Mediator on October 30, the Research, Development and Technical Employees Union Committee agreed for the first time in six appearances before the Mediation Service to meet face to face with the Institute Committee. We, accordingly, submitted in writing a new and complete offer to the Union.

Another Mediation Session has been scheduled for Wednesday, November 1, to further discuss this offer. Copies of the complete offer are available in the Office of Labor Relations on Campus and at the Lincoln Laboratory Personnel Office for interested members of the community. Terms of this offer are summarized below:

TERM. three (3) years.

WAGE INCREASES. Increases of seven (7) per cent, effective on or about July 1 of 1978, 1979 and 1980. The increase will be computed on the basis of the average rates paid for each classification, or for each group of classifications presently having the same maximum rate, as explained in detail in the written offer.

BLUE CROSS-BLUE SHIELD MASTER MEDICAL PLAN. The rate paid by employees will remain at 13.7% of the total cost, estimated in the usual manner for each year of the Agreement. Improved in-hospital maternity coverage, having a maximum of \$1,000 as compared with the present \$400, is available at the election of the Union at an additional cost to family members of \$1.18 per month.

PENSION (RPE) IMPROVEMENTS 1. *Early Retirement*

a. Employees with 20 years of service may retire at age 62 or thereafter with no reduction in the earned benefit.

b. Date of eligibility for early retirement changed from July 1 following birthday to first of month following birthday.

2. *Minimum Pension.* Increased from \$8.00 to \$8.50 per month per year of service.

3. *Contingent Annuities.* Improvements varying according to

Women's Forum

A representative of the Benefits Office will lead a discussion of MIT's benefits program at a meeting of the Women's Forum at 12noon, Monday, Nov. 6, in the Bush Room (10-150).

The Women's Forum meets periodically throughout the academic year. All meetings are held from noon to 1pm in the Bush Room.

Werner W. Burow

Funeral Mass was said at St. Suzanna's Church, West Roxbury, on October 24 for Werner W. Burow, an instrument maker in the chemistry department since 1962, who died following a long illness October 21. He was 54 years old.

Mr. Burow, who lived in Dedham, leaves his wife, Helen (Rettman) Burow, a son, William Burow, a daughter, Jeanne M. Burow, both of Dedham, and a grandson, William W. Burow.

Carl H. Schaub

Carl H. Schaub, a watchman in Physical Plant from 1951 until his retirement in 1961, died October 25 at the age of 77.

Mr. Schaub, who lived in Bedford, leaves his wife, Dorothy B. (Ford) Schaub; two daughters, Barbara A. Bente of Littleton and Marilyn K. Weisentaner of Bedford; a son, Paul A. Schaub, also of Bedford; and eight grandchildren.

Frank J. Dewey

Frank J. Dewey, a janitor at the Physical Plant from 1943 until his retirement in 1955, died September 27 at the age of 89.

Mr. Dewey, who lived in Boston, leaves a niece, Elaine Dewey of Plattsburg, New York.

age and sex of retiree and spouse.

For example, a male employee retiring at age 65 who elects to continue his full pension after his death for his spouse aged 62 will receive a pension which is 16.2% higher under the new tables than under those presently in effect.

4. *Late Retirement.* Pensions applying to female employees who take late retirement (after age 65) will be increased to equal those presently applying to male employees retiring at the same age.

CHILDRENS' SCHOLARSHIPS AT MIT Employees' children who are accepted as full-time undergraduate students at MIT will be entitled to tuition remission as follows:

Employees hired prior to July 1, 1978: Full tuition per academic year for four years.

Employees hired on or after July 1, 1978: \$4,000 per academic year for four years.

SUPERSENIORITY Limits superseniority to principal officers and three Executive Board Members each from the Campus and Lincoln.

ACCRUAL OF VACATION AND SICK LEAVE. Changes and clarifies the basis on which vacation and sick leave are credited when employees are on leave of absence without pay, on extended illness leave or industrial accident leave.

PAY FOR GRIEVANCE TIME. Stipulates the numbers of grievants and Union representatives who will be paid by the Institute for time lost at the various steps of the grievance procedure.

TIME OFF FOR UNION BUSINESS. Establishes criteria to determine when Union representatives will and will not be paid by the Institute for time off for Union business; identifies the responsibilities and obligations of the Institute and its supervisory personnel, and of the Union and its representatives, with respect to such time off; prescribes the procedure to be followed in the event of a dispute about the matter.

NOTE: This offer is necessarily subject to compliance with the President's wage and price guidelines as they may be interpreted and applied to the Institute.

Pauling, Deutch to Speak At Anniversary Program

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ment of Energy; Dr. Edward R. Kane, president of E.I. duPont de Nemours and Company; and Dr. John Ross, Frederick G. Keyes Professor of Chemistry at MIT. The program is open to the public.

Dr. Deutch will speak at 10am and Dr. Kane at 11am, both in MIT's Kresge Auditorium. Dr. Ross will speak at 2pm and Dr. Pauling at 3pm in MIT's Compton Lecture Hall (Rm. 26-100).

Dr. Pauling will give the 1978 Karl Taylor Compton Lecture entitled "Arthur Amos Noyes and the Research Laboratory of Physical Chemistry." Dr. Ross will speak on the present and future of physical chemistry, while Dr. Deutch will describe the contributions of physical chemistry to national needs, particularly energy technologies. Dr. Kane will deliver a lecture entitled, "Restoring the Environment for Research and Development."

Dr. John S. Waugh, Arthur Amos Noyes Professor of Chemistry at MIT, will be chairman of the morning session. Dr. Robert A. Alberty, professor of chemistry and dean of the MIT School of Science, will be chairman of the afternoon session. Dr. Noyes has been called the dean of American physical chemists.

"It is hard to overestimate the importance of the laboratory," chemist Linus Pauling has written in a biographical memoir of Dr. Noyes. "Many of the leading American physical chemists of the past 50 years received training and inspiration in this laboratory, where Dr. Noyes set the high standard for American physical chemistry that contributed to its rapid progress to a preeminent position in the world."

After receiving the SM in organic chemistry from MIT in 1887, Dr. Noyes went to Europe to study with Wilhelm Ostwald, who had just begun lecturing on the new field of physical chemistry. Dr. Noyes received a doctorate in physical chemistry in 1890, and then returned to MIT as a member of the chemistry faculty.

The Research Laboratory of Physical Chemistry was established with Dr. Noyes as director on September 20, 1903. The first PhD ever awarded by MIT was conferred in 1907 on a graduate student working in this laboratory.

Dr. Noyes remained director of the Research Laboratory of Physical Chemistry for 16 years, during which time he contributed half the money for the laboratory's sup-

port. His textbook on physical chemistry, developed at the laboratory, has been credited, according to Dr. Pauling, with "revolutionizing the teaching of physical chemistry in America."

Dr. Pauling, now president of Linus Pauling Institute of Science and Medicine, received his PhD in chemistry from Caltech in 1925 and taught there until 1964, teaching later at the University of California at San Diego and at Stanford University. It was while he was at Caltech that he received the Nobel Prize in Chemistry in 1954 and the Nobel Peace Prize in 1962. In his early years at Caltech, he was an associate of Dr. Noyes.

Dr. Deutch was head of the MIT Department of Chemistry in late 1977 when he was appointed DOE research director by President Carter. He received the SB degree in chemical engineering from MIT in 1961, the ScD degree from MIT in chemistry in 1965 and taught at Princeton until 1969 when he joined the MIT chemistry faculty. He became head of the department in 1976.

Dr. Kane received his PhD in physical chemistry from MIT in 1943, and later the same year joined duPont. He became a vice president in 1969 and president in 1973.

Dr. Ross is a former head of the MIT Department of Chemistry. He received the PhD in chemistry from MIT in 1951, performed research at MIT and Yale and taught at Brown University from 1953 to 1966 when he returned to MIT as head of the Department of Chemistry, the post he held until 1971 when he became Keyes Professor.

An exhibit from the MIT Historical Collections will be displayed. Further information is available from the chemistry headquarters, Rm. 18-399, x3-1801.

Weiner Appointed To Advisory Board

Charles Weiner, professor of the history of science and technology and director of the Oral History Program at MIT, has been named to the newly formed WGBH Radio Humanities Advisory Board.

The board will assist in conducting a survey and assessment of available resources in the traditional humanities disciplines and in the new, interdisciplinary fields such as American studies, women's studies and black studies, to generate humanities program and production format ideas for development by WGBH-FM.

Employment Q & A

Q: In light of the upcoming elections, is there any Institute policy regarding time off for voting?

A: Employees are expected to vote during non-working hours, as the polls in the Commonwealth of Massachusetts are open beyond the hours of most normal work schedules. However, an employee who is unable to vote during non-working hours may request, in advance, time off to vote up to a maximum of two hours, which may be granted on a leave without pay basis. Alternatively, the time may be made up at a mutually agreeable time at the discretion of the supervisor. Such make-up time may not incur overtime expenses.

Q: When I began work several years ago, there was no orientation program for biweekly employees. Would I find attending an orientation program useful now? What topics are covered?

A: The Orientation Program for Biweekly Employees covers three major areas: 1) insured benefits; 2) personnel policies such as vacation, sick leave, salary reviews, probationary period, etc.; and 3) activities, publications and resources available to all employees. Any employees who would like to attend an Orientation Program are welcome. Programs are normally held on Friday mornings, from 9:15 to 12:00, in E18-320. Please call Donna Roux, x4076, at the Office of Personnel Development, for further information.

Q: What is MIT's stance with respect to homosexuals in this community?

A: MIT's practice has been consistent with respect to students, faculty and employees. Sexual orientation is not taken into account in admissions, employment, promotion, compensation or termination. Anyone who feels discriminated against for this reason should feel free to use the grievance procedure as described in *Policies and Procedures, You and MIT*, and other Institute publications.

Questions and answers for this column will be printed periodically, as space allows, without reference to the person who submitted the question. Those not selected for printing will be answered individually when the name and room number of the person is enclosed. Questions of general interest may be submitted in writing to Susan Lester, Communications Officer in the Office of Personnel Services, E19-297.