NEW LABORATORIES

STANFORD PLANS ELECTRONIC LABS

Two new electronics laboratories, one for applied research and the other for student electrical engineering activities, are to be constructed at Stanford University, according to word from California. At the same time it was announced that the University has received an Office of Naval Research contract for a research program in applied electronics. The grants, sum of which was not disclosed, supplement existing basic research contracts held by the University with ONR, the Air Force, Signal Corps, and the National Bureau of Standards.

Construction of the student electrical engineering laboratory, which will be in the form of a wing adjoining the applied research center, was made possible through a gift from Hewlett-Packard Company of Palo Alto, electronics equipment manufacturing firm headed by two Stanford graduates, William Hewlett and David Packard. It will be the center of electronics instruction at the University, and will include classrooms, laboratories, workshops, a library, and student lounge.

The applied research laboratory and the student activities wing will be of contemporary design, with a wood-framed structure, concrete floor, exterior walls of concrete blocks, wood, and glass, and with a slightly sloping roof, resembling in general appearance the University's Microwave Laboratory and the Organic Chemistry Laboratory, both constructed in recent years.

NEW CANADIAN COSMIC RAY STATION

A çosmic ray observatory has been built and put into operation by the National Research Council of Canada at its Montreal Road property in the eastern part of Ottawa. Designed and built by the plant engineering staff of the Canadian NRC, the observatory features a roof reinforced at one end for heavy loads up to ten tons, and an opening in the center of the building through a trap door, exposing the laboratory to the sky. Continuous recording of cosmic-ray intensities is carried on by a research staff of five, including three postdoctoral fellows, one from France and two from India.

FELLOWSHIPS AND AWARDS

TEXTILE RESEARCH INSTITUTE

The Textile Research Institute of Princeton, N. J. has announced the establishment of two participating fellowships during recent weeks. The first, sponsored by the Carbide and Carbon Chemicals Corporation, is for the study of static electricity in textile fibers; the second, established by the Goodyear Tire and Rubber Company, is for research in the two-dimensional stress-strain properties of airship type fabrics. The Institute's participating fellowship plan permits the donor to suggest a field of fundamental research to be undertaken by a graduate student supported by the fellowship. If the suggested field is accepted by the Institute as suitable in the light of its general program of long-range textile research, the participating fellowship is set up for a period of two years. The fellowship donation is $5000 per year, which covers stipend, tuition, supervision, apparatus, and laboratory overhead costs.

Founded more than twenty years ago by a group of textile industrialists to provide research facilities for the industry, the Textile Research Institute had no laboratories of its own until 1944, when a stone mansion and thirty acres of ground were purchased from Princeton University. During its first two years in its own laboratories, the Institute was directed by Henry Eyring, now of the University of Utah. Since 1946 John H. Dillon has served as director of research. Responsibility for control of the Institute is vested in a board of twenty-four directors who are elected by the textile firms associated with the Institute.

Throughout most of its history the Textile Research Institute worked closely with the Textile Foundation, which was established in 1930 by an Act of Congress to administer certain accumulated funds and to apply them to textile research. Just one year ago, the Textile Foundation formally transferred its research and educational functions to the Institute. Expansion of the Foundation's work had been made increasingly difficult because of limited funds, and since the Institute, as an active and qualified textile industry organization, was felt to give promise of being able to accept much of the Foundation's long-range responsibilities, it was decided that the Foundation's remaining funds (amounting roughly to $250,000) should be appropriated to expand the Institute's work in textile research.

FIRST ALBERT EINSTEIN PRIZES AWARDED

Presentation of the first Albert Einstein award, consisting of a gold medal and $15,000, was made in Princeton by Professor Einstein himself last March 14th during a luncheon held at the Princeton Inn to celebrate his seventy-second birthday. Julian Schwinger, Harvard theoretical physicist, and Kurt Godel, mathematician from the Institute for Advanced Study, received the award, split on this occasion between the two winners, for outstanding contributions to quantum electrodynamics by Dr. Schwinger and to mathematical logic by Dr. Godel. Host at the luncheon was former Atomic Energy Commissioner Lewis L. Strauss, who established the award in honor of Dr. Einstein and in memory of Mr. Strauss' parents, the late Lewis and Rosa Strauss. The award is to be presented every three years.

SUMMER OFFERINGS

NUCLEAR ENGINEERING AT NORTH CAROLINA

A summer program in nuclear engineering, consisting of two successive six-week terms beginning June 11 and July 23, has been announced by North Carolina State College of Agriculture and Engineering at Raleigh. The program has been devised to meet the needs of undergraduate and graduate students who are either enrolled in the nuclear engineering curriculum or who wish to transfer into it at advanced levels, and of research workers, laboratory technicians, civilian defense personnel, and others desiring specialized training in specific subjects. The following courses, carrying full academic credit toward nuclear engineering degrees, will be given: introduction to modern physics, nuclear instrumentation, health physics, physical technology in radioactivity, advanced nuclear physics, quantum mechanics, advanced general physics, review in physics, review in mathematics, special mathematics courses as demanded, and research in the general fields of nuclear technology and engineering and of solid state physics. Application blanks, detailed course descriptions, and information on financial arrangements and living quarters may be secured from the Physics Department, the School of Engineering, or the Registration Office of the College.

POLYMERS AND X-RAY DIFFRACTION

This year's series of intensive one and two-week summer laboratory courses to be given by the Graduate School of Physics and the Institute of Polymer Research of the Polytechnic Institute of Brooklyn will take place during the period from May 28th to August 3rd. The following five courses are scheduled: Industrial Applications of X-Ray Diffraction (May 28–June 8); Experimental Methods in Physical Biochemistry (June 25–29); Determination of Molecular Weight and Shape of Polymers in Solution (July 16–20); Recent Progress in Polymerization and Copolymerization Techniques (July 23–27); and Polyelectrolytes—Their Synthesis, Structure, and Application (July 30–August 3). Started in 1944 as an experimental program for teaching modern laboratory techniques, the summer courses are intended to meet the demand for advanced instruction in the use of specialized instruments in physics and chemistry. Inquiries should be addressed either to Professor I. Fankuchen or to Professor H. F. Mark, Polytechnic Institute of Brooklyn, 85 Livingston Street, Brooklyn 2, N. Y.

RADIOISOTOPE TECHNIQUES AT ORINS

Three basic courses in radioisotope techniques of four weeks duration will be offered this summer by the Special Training Division of the Oak Ridge Institute of Nuclear Studies. Scheduled to begin on June 11, July 9, and August 15, the courses combine lectures, demonstrations, and individual laboratory work. Each course, for which registration is $25, will accept a total of thirty-two participants. Additional information may be obtained upon request from Ralph T. Overman, Chairman, Special Training Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee.

RADIOISOTOPE HANDLING SCHOOL AT HARWELL

A school designed to meet the requirements of medical and industrial workers concerned with radioisotope techniques has been organized by the British Ministry of Supply at the Atomic Energy Research Establishment at Harwell and is intended to give students of graduate level detailed instruction in the fundamental, practical, and theoretical problems encountered when radioactive materials are used in normal laboratory quantities. The first course, lasting six weeks, began April 2nd; the next two courses are scheduled for four weeks and are planned to begin on May 15th and June 12th.

THEORETICAL PHYSICS IN THE FRENCH ALPS

Word has been received that the University of Grenoble is planning a summer school in theoretical physics this year to be held from July 15th to September 15th in the French Alps (Les Revêts—La Côte des Chavants par les Houches, Haute Savoie). The session, which will be concerned with modern theoretical problems, will include courses covering quantum mechanics (L. Van Hove, Brussels), quantum field theory and quantum theory of action at a distance (Res Jost, Princeton), and two- and three-body problems in theoretical nuclear physics (M. Verde, Turin). Seminars are to be given by V. Weisskopf, B. Rossi, and W. Heitler. It is expected that several other courses and seminars will be given by professors whose summer plans are not yet decided. Since this year's session is considered to be more or less experimental, the school is planned for only about twenty students. Additional information may be obtained by writing to Mademoiselle Cécile Morette, 74 Rue Madame, Paris 6°, France.

LECTURES IN PHYSICS AT WISCONSIN

This year's summer session at the University of Wisconsin will feature lectures by E. P. Wigner of Princeton University and John Bardeen of the Bell Telephone Laboratories. Professor Wigner will lecture on special topics in nuclear physics, while Dr. Bardeen will give a seminar on low temperature physics and a course on the electrical properties of solids. The summer session will last from June 25th to August 17th and involves a registration fee of $60. Additional information may be obtained by writing to the Dean of the Summer Session, 111 Education Building, University of Wisconsin, Madison 6, Wisconsin.

ELECTRON MICROSCOPY AT CORNELL

Cornell University's summer laboratory course in techniques and applications of the electron microscope will be given again this year by the Laboratory of Electron Microscopy in the department of engineering physics. The course, which will extend from July 9th to 21st, is designed for those research workers, institutional and industrial, who have recently entered the field of electron microscopy or who are now planning to undertake research problems involving applications of this instrument. Further inquiries should be addressed to Professor Benjamin M. Siegel, Department of Engineering Physics, Rockefeller Hall, Cornell University, Ithaca, New York.

SCIENCE COURSES AT HARVARD SUMMER SCHOOL

The Harvard University Summer School of Arts and Sciences and of Education is scheduling a total of 165 courses, each giving the equivalent of four college semester-hours. In a recent communication, A. E. Benfield, assistant director of the Harvard Summer School, has suggested that readers of this journal may be particularly interested in three of the courses. I. Bernard Cohen of Harvard will give a course in the history of modern science, 18th to 20th Centuries, in which attention will be paid to those scientific discoveries and issues which have most affected theology, philosophy, literature, and social and political theory. A course covering the philosophy of modern science will be given by Philipp G. Frank, also of Harvard. This course will be built around the problem: what are the respective roles of experience, reasoning, and imagination in science? In a course dealing with field and laboratory work in biology, Albert E. Navez will lay stress on the necessity of modifying, or revising, in many cases our present views and methods on the teaching of biology. Further information may be obtained by writing to the offices of the Harvard Summer School at 2 Weld Hall, Cambridge 38, Massachusetts.

COURSE IN SERVOMECHANISMS AT MIT

The theory and applications of feedback control systems (servomechanisms), and the broad concept of "system engineering", will be the subject of a special course during the 1951 summer session at the Massachusetts Institute of Technology, from August 20th to 31st. The course will include a survey of the theory of feedback systems with emphasis on dynamic operations and system synthesis. Industrial applications of feedback control systems now being employed in such diverse fields as steel making, printing, petroleum

processing, wood working, textile manufacturing, chemical processing, and power distribution will be discussed. Assisting Donald P. Campbell, professor of electrical engineering at MIT, will be Gordon S. Brown, director of the MIT servomechanisms laboratory, and Paul E. Smith, Jr. and Leonard A. Gould, instructors in the electrical engineering feedback control laboratory.

Further information on this and other special summer activities may be obtained from Professor Gale at Room 3-107, Massachusetts Institute of Technology, Cambridge 39.

PHOTOGRAPHIC EXHIBIT IN BRITAIN

The 96th annual exhibition of the Royal Photographic Society will be held in London from September 14 to October 14, 1951; and afterwards in Scotland. All aspects of photography (including narrow-gauge kinematography) are welcomed, from members and non-members alike. The closing date for entries is July 31, 1951 and details can be obtained from The Secretary, 16 Princes Gate, London, S.W. 7.

William D. Harkins

William D. Harkins, Andrew MacLeish Distinguished Service Professor of Chemistry at the University of Chicago, died March 7th of coronary thrombosis at a hospital on the University campus. He was seventy-seven years old. In 1915 Dr. Harkins published his original calculations on the amount of energy produced by the conversion of hydrogen into helium, and suggested that such a transformation of energy was responsible for solar radiation. Educated at Stanford University, Dr. Harkins had been a member of the Chicago faculty since 1912. He received the Willard Gibbs medal of the American Chemical Society in 1928.

John W. Hornbeck

John W. Hornbeck, head of the department of physics at Kalamazoo College in Michigan, died February 28 at the age of sixty-nine in Borgess Hospital in Kalamazoo. Professor Hornbeck received the doctor's degree in physics from the University of Illinois in 1913, and later taught at both Cornell University and Carleton College before joining the faculty of Kalamazoo in 1925. A member of both the American Physical Society and the American Association of Physics Teachers, he was honored less than a month before his death by the AAPT, which presented him with its Oersted Medal in recognition of his many contributions to the art of teaching physics. The presentation was made during the joint ceremonial session of the Physical Society and the AAPT which was held at the McMillin Theater on the Columbia University campus last February 2nd.

Cheng-Yang Hsu

Cheng-Yang Hsu, head of the department of physics at Hampton Institute in Virginia, died following a cerebral hemorrhage on February 17th. His age was 53. Born in Kwangtung, China, he was a graduate of the University of Richmond and received the master's degree from the University of Chicago in 1923 and the PhD degree from Cornell University ten years later. From 1933 until 1948 he taught in China and for five years of that period he was head of the physics department at Lingnan University in Canton. Upon his return to the United States he taught for a time at Cornell and at Vassar College before joining the Hampton Institute faculty.