If the project is approved by the AEC, the installation will be tested this summer at Brookhaven National Laboratory, Upton, N.Y., and moved in September to the basement of Butler Hall on N.Y.U.'s University Heights campus in the Bronx. The reactor will consist of a 5-ft tank of water in which 2 tons of uranium rods are placed. The neutron source, consisting of polonium and beryllium, will be housed beneath floor level and can be hoisted up among the uranium rods by remote control.

The program in engineering science will lead to the degree of bachelor of engineering science. It is designed chiefly for students who intend to do postgraduate work directed toward research and development. Thus, after a 4-year program in engineering science, a student could take postgraduate work in any of the specialized engineering fields: civil, aeronautical, chemical electrical, mechanical, nuclear, and metallurgical.

■ Training in the fundamental background for the design and operation of automatic control systems for science and industry will be the basis of a new graduate program to be offered at Harvard University next fall. The program in control systems engineering will offer educational opportunities leading to both the M.S. and the Ph.D. degree through the division of engineering and applied physics, Graduate School of Arts and Sciences.

Applications of control systems range from the processing of raw materials to the packaging of finished goods. Specific uses apply to oil refining, machining of metals, classification of freight cars, traffic control, telephone operation, and scientific computation. The Harvard program will stress design of integrated control systems, veering away from the present practices of building components and attempting to fit these into a system.

The program material will draw on a variety of disciplines, including mathematics and mechanical and electrical engineering. Requirements for the M.S. degree include successful completion of eight half courses that are selected by the student with faculty approval. The new course should be completed in one academic year. The doctor's degree will entail a minimum residence of 2 years, culminating in a thesis describing original research.

These curriculums are open only to students who have been admitted to the graduate school. Applications for admission to the first class this fall may be filed *until 15 Aug.* at the office of the Dean of the Graduate School of Arts and Sciences, 24 Quincy St., Cambridge 38, Mass. After the first year (1956–57) and following, applications and supporting papers should be filed before 1 May.

Grants, Fellowships, and Awards

■ At its recent annual meeting in New York, the Engineering Foundation of 29 W. 39 St., New York 18, approved applications totaling $61,850 for the 1955–56 fiscal year. In a number of cases the grant is contingent upon the project's being able to raise outside support.

The grants will further 26 research programs being carried out in university laboratories all over the country under sponsorship of the major engineering societies. The investigations range from column research, which has been under way long enough to give definite promise of safer and less expensive structures, to a new research program for predicting disastrous storm surges in time to prevent serious loss of life.

■ The Louis W. and Maud Hill Family Foundation has made a grant of $54,000 to the University of Minnesota for the purpose of inaugurating a 4-year program of summer institutes for high-school teachers of the physical sciences and mathematics. The grant will cover the costs for the first 2 years, when it may be extended if the program is successful. The departments of physics, chemistry, and mathematics will cooperate in organizing a program designed to fit the needs of the teacher now serving in the secondary schools.

■ The American Dermatological Association is again offering a series of prizes for the best essays submitted for original work, not previously published, related to some fundamental aspect of dermatology or syphilology. The purpose of this contest is to stimulate investigators to original work in these fields. Cash prizes will be awarded as follows: $500, $400, $300, and $200 for first, second, third, and fourth place, respectively. Manuscripts typed in English with double spacing and ample margins, together with illustrations, charts, and tables, all of which must be in triplicate, are to be submitted *not later than 15 Nov.*

The manuscripts should be sent to Dr. J. Lamar Callaway, Secretary, American Dermatological Association, Duke Hospital, Durham, N.C. Applications that are incomplete in any of the afore-mentioned respects will not be considered. Manuscripts should be limited to 10,000 words or less, and the time required for presentation of the prize essay may not exceed 30 min.

In order to aid fair judgment, papers should be submitted under a nom de plume with no information anywhere in the paper regarding the institution or clinic where the work was done. Along with the paper by "John Smith" for example, a plain sealed envelope bearing the nom de plume and the full name and address of the author should also be submitted. Only after all the papers have been judged and returned to the chairman are the sealed envelopes opened and the winners known.

Competition in this contest is open to scientists generally, not necessarily to physicians. The essays are judged on the following considerations: (i) originality of ideas; (ii) potential importance of the work; (iii) experimental methods and use of controls; (iv) evaluation of results; (v) clarity of presentation. This contest is planned as an annual one, but if in any year no paper is considered worthy of a prize, the award may be omitted.

The results will be announced prior to 1 Jan. 1956, and papers not winning a prize become the authors' property and will be returned promptly. Any paper that wins a prize becomes the property of the American Dermatological Association.

The candidate winning first prize may be invited to present his paper before the annual meeting of the American Dermatological Association with expenses paid in addition to the $500 prize. Further information regarding this essay contest may be obtained by writing to the secretary of the American Dermatological Association.

In the Laboratories

■ Two Norelco X-ray Diffraction Schools will be sponsored by the Research and Control Instruments Division, North American Philips Co., Inc., 750 South Fulton Ave., Mount Vernon, N.Y., during the coming months. The 21st week-long series of sessions will be held at the Sir Francis Drake Hotel, San Francisco, 26–30 Sept., and the 22nd series is to take place at the Hotel Knickerbocker, Chicago, Ill., 10–14 Oct.

Morning sessions will be devoted to lectures, and afternoon meetings will involve powder camera techniques, the x-ray diffractometer (diffraction goniometer), and the x-ray spectrograph (fluorescence analysis).

On Friday the schools will devote the day to actual application problems from the field, and a number of speakers will discuss details and methods in use in industrial plants and laboratories. No registration fee is charged, and those who wish to attend are urged to register as soon as possible, since accommodations will be limited.

■ At least half of 200 large companies engaged in research and development—all of them in essential industries—report shortages of research scientists and engineers, according to Alan T. Waterman, director of the National Science Foundation. On 6 June Waterman made

public the preliminary findings of a study of industrial research being made by the Bureau of Labor Statistics as part of the foundation's national survey of scientific research and development. He described the survey to the 6th Annual Conference on Industrial Research held by the Department of Industrial and Management Engineering of Columbia University in Harriman, N.Y.

Waterman said that the 200 companies interviewed in the study employ a substantial proportion of all scientists and engineers engaged in industrial research. About two-thirds of the companies with shortages reported that the shortages were major. All companies agreed that there is need for better qualified, more highly trained scientists and engineers. A sizable number of firms said that they had been forced to curtail projected increases in their research and development programs because of lack of qualified personnel.

■ De Beers Consolidated Mines has found a 572¼-carat diamond in its Jagersfontein mine near Kimberley, South Africa. This is the third largest ever found at this mine; the largest was the 971-carat Excelsior diamond, discovered in 1893. The Cullinan diamond, found at the Premier mine, weighed 3024¾ carats.

The company said that the latest find was "rather disappointing in that its color is not good and there are a number of spots and cracks, and its quality is therefore not of a high standard." The stone was found by a native. It is 1 in. thick, 2 in. long, and 1¾ in. wide.

■ An 80-year-old engine, one of the few of its kind in existence, has been restored at the Cooper-Bessemer Corp., Mount Vernon, Ohio. The 7000-lb, 15-hp engine that was used for threshing was built about 1875 by the firm's predecessor, the C. & G. Cooper Co. Cooper-Bessemer plans to build a museum in the near future.

■ The Rensselaer Polytechnic Institute library has been designated by the U.S. Atomic Energy Commission as an information depository for atomic data to serve northeastern New York and adjacent New England areas. More than 12,000 nonclassified documents are on file in the library, and additional material is being received each week.

As a part of Rensselaer's services-to-industry program, the atomic data will be available to industrial firms and individuals, who formerly have had to contact the AEC Technical Information Service in Oak Ridge, Tenn., in order to obtain information.

The documents, which include data from Atomic Energy of Canada, Ltd., and the Atomic Energy Research Establishment of Great Britain, are on file in bound pamphlets and on microprint cards.

New Journals

Endocrinologia Japonica, vol. 1, No. 1, Sept. 1954. (In English.) Yosoji Ito, Ed. Endocrinological Society of Japan (Eastern Branch), Institute of Physiological Chemistry, Department of Pharmacy, Faculty of Medicine, Tokyo University, Motofuji, Bunkyo-ku, Tokyo, Japan. Quarterly. $6 per year (except for vol. 1, 2 issues, $3.)

Journal of Inorganic & Nuclear Chemistry, vol. 1, Nos. 1/2, Mar. 1955. (In English, French, and German.) Joseph J. Katz, H. C. Longuet-Higgins, and H. A. C. McKay, Eds. Pergamon Press, Maxwell House, Marleybone Road, London, N.W.1, England; 122 E. 55 St., New York 22. Issued in parts. $12.60 per vol. ($9.80 for individual subscribers' private use.)

Journal of the Japanese Obstetrical & Gynecological Society (English Edition), vol. 1, No. 1, Jan. 1954. The Society, 5, 2-Chome, Kanda-Surugadai, Chiyoda-ku, Tokyo, Japan. Quarterly.

Journal of the West African Science Association, vol. 1, No. 1, Oct. 1954. (In English, French, and German.) A. S. Boughey, Ed. The Association, University College, Achimota, Gold Coast, West Africa. Annually. 21s per year.

Land Locomotion Bulletin, No. 1, Jan.–Apr. 1955. Land Locomotion Division, Detroit Arsenal, Center Line, Mich.

Mineralogical Journal, vol. 1, No. 3, Oct. 1954. Nobuo Katayama, Ed. Mineralogical Society of Japan, Department of Geology and Mineralogy, Faculty of Science, Hokkaido University, Sapporo, Japan. $1 per issue.

Veterinary Reviews and Annotations, vol. 1, Pt. 1, Apr. 1955. W. A. Pool, Ed. Commonwealth Agricultural Bureaux, Farnham House, Farnham Royal, Nr. Slough, Bucks, England. Semiannually. 25s. per year.

Virology, vol. 1, No. 1, May 1955. George K. Hirst, Ed. Academic Press Inc., 125 E. 23 St., New York 10. $9 for vol. 1.

Miscellaneous

■ The symposium on air pollution that was held at the Berkeley meeting of the AAAS is sumarized in "Some scientific aspects of the urban air pollution problem" by Lauren B. Hitchcock and Helen G. Marcus in the July issue of *The Scientific Monthly.* Other articles in this issue include "Human background of Pacific science," Alexander Spoehr; "Significant scientific discoveries by medical students," William C. Gibson; "An orientation toward modern physical theory," Marshall J. Walker; and "City neighborhood and village," Richard Neutra. Fourteen books are reviewed in this issue.

■ A comprehensive exhibit on the peaceful uses of atomic energy has been sent to Latin America for presentation to audiences in the Central and South American countries as part of the U.S. Overseas Information Program. The display consists of a series of panels and three reactor models describing present and proposed applications of nuclear energy. Loan of the reactor models was arranged through the Atomic Industrial Forum, Inc.

■ Applications are invited by the council of the Indian Institute of Science for the post of the director of the institute. Essential qualifications for the position are high scientific attainment, administrative ability, and experience. The salary will range from R. 2000 to R. 2500 per month ($400–$500), depending on the qualifications of the candidate.

The person selected will be on probation for a period of 2 years, after which, if confirmed, he will continue until his retirement at the age of 60. He will be a member of the institute's Provident Fund Scheme, for which the subscription rate is between 1½ and 2½ annas per rupee; the institute contributes an amount equal to 8 1/3 percent of the salary. Leave and other privileges will be determined by the regulations and bylaws. An unfurnished house situated on the institute grounds will be provided, and rent and other charges will be levied as prescribed.

The appointee is entitled to a one-way travel fare if he is single, or two fares if he is married. For further information and forms, write to the registrar, A. G. Pai, Indian Institute of Science, Bangalore 3, India. *Completed applications must be received by 5 Sept.*

■ At the 44th annual meeting of the International Association of Medical Museums held in Houston, Tex., 5–6 Apr., the name of the association was changed to the International Academy of Pathology. Ever since its organization in 1906, the association has been primarily interested in advancing the teaching of pathology, and it was felt that this change in name would more adequately identify the association's main objective. The association currently has about 800 members consisting chiefly of pathologists.

The next meeting of the association will be held in Cincinnati on 24–25 Apr. 1956. For information, write to the secretary-treasurer, F. K. Mostofi, Armed Forces Institute of Pathology, Washington 25, D.C.