Eniac’s 35th anniversary celebrated at Penn

Ancient by the standards of the current computer age and a unique historical landmark, Eniac is now officially 35 years old. Built at the Moore School of the University of Pennsylvania School of Engineering and Applied Science, the massive Eniac, with eight-foot high sections containing thousands of vacuum tubes, was the first all-electronic, general-purpose, large-scale digital computer.

To celebrate the anniversary, students at Penn compared Eniac with pre-computer hand calculation and with more modern computers, small and large. Side by side with sections of the original Eniac and with the hand calculation demonstration, a small home computer used by undergraduates in the Faculty of Arts and Sciences ran programs similar to those used in Eniac.

One test used for comparison was the squaring of all integers from one to 10,000. Eniac could do this task in what was then the unbelievably short time of six seconds. The home computer executed the same program in one-third second.

In a sense, Eniac began the computer age as we know it today, incorporating many of the elements found in modern computers. It was built for the Army during World War II, and a copy of it at Aberdeen proving ground helped keep US artillery shells on target.

First unveiled to the public on February 15, 1946, Eniac has been in mothballs—most of it stored in the Smithsonian Institution—for more than a quarter of a century. But the knowledge gained building it was quickly applied to other kinds of useful calculations, such as in business administration, for which it became famous. The builders of Eniac, J. Presper Eckert and John Mauchly, went on to found Sperry Univac.

Today, there is far more to computing at the University of Pennsylvania than the administrative matters of calculating payrolls, keeping track of library books, tuition, admissions, and alumni and corporate gifts—all of which are at least in part handled by computer.

Students at the Wharton School, for example, can tune in the news at their terminals. Wharton’s DEC-10 system, through a national network of computers, supplies text from the New York Times and the wire services.

In the Faculty of Arts and Sciences, computers (including a new IBM 4341, the first computer of its kind to be successfully installed in an academic environment) are helping catalogue musical themes of famous composers, sorting out the intricacies of Black English, and helping produce concordances of Biblical texts.

In the cognitive science program at Penn, research is under way to enable computers to recognize visual scenes and to deal more easily with natural language. In chemistry, a computer draws pictures of compounds synthesized in Penn laboratories.

The computer is woven into the fabric of society. At Penn, the weaving process began earlier than at many other places, because Eniac and earlier mechanical and electromechanical computing devices were built there.

LCN firm publishes monthly newsletter

Architecture Technology Corporation, a new company specializing in the systems aspects of local computer networks, will begin publication of the LOCALNeter in April 1981. The monthly newsletter will cover international developments in the LCN area and will include a monthly product profile, according to Kenneth J. Thurber, editor and president of the new firm. Thurber plans to publish information on the HYPERbus when it is introduced, profiles of equipment like NET/ONE and HYPERchannel, and updates on local network standards activities. Yearly subscriptions are $250 (US) and $300 (foreign).

To subscribe or to submit news and product announcements, contact Kenneth J. Thurber, Architecture Technology Corporation, 4623 Drexel Avenue So., Minneapolis, MN 55424.

Charles Babbage Institute to award fellowship

The Charles Babbage Institute for the History of Information Processing is accepting applications for a graduate fellowship to be awarded for the 1981-1982 academic year.

Applications, including biographical data and a research plan or design, should be sent by April 15 to Prof. Roger H. Stuewer, Acting Director, The Charles Babbage Institute, University of Minnesota, 104 Walter Library, 117 Pleasant Street S.E., Minneapolis, MN 55455. Applicants should arrange for three letters of reference, certified transcripts of college credits, and GRE scores to be sent directly to Prof. Stuewer.

New floating-point project authorized

The Computer Standards Committee of the IEEE Computer Society recently authorized project P854: Radix and Format-Independent Floating-Point Arithmetic Standard. The project is to prepare a draft standard that is upward compatible with the standard for binary floating-point arithmetic recently drafted by project P754 (see Computer, March 1981, pp. 51-62).

Anyone willing to assist in the effort or wishing to add his name to the project mailing list should write to the project chairman: W. J. Cody, Applied Mathematics Division, Argonne National Laboratory, Argonne, IL 60439.
DoD initiates Small Business Advanced Technology Program

The Department of Defense has announced establishment of the Defense Small Business Advanced Technology Program to capitalize on the historic creative potential of small, high-technology firms.

Approximately 20 research and development project areas of particular interest to the Army, Navy, Air Force, and Defense Advanced Research Projects Agency will be identified for exploration under a three-phase program.

Phase I awards of up to $50,000 each are contemplated for preliminary research and development to demonstrate the feasibility of those proposals deemed most likely to yield solutions to R&D problems identified by the military departments and DARPA.

Branstad honored for work on data encryption

Dennis K. Branstad of Gaithersburg, Maryland, has received the Gold Medal, the highest award conferred upon an employee by the Department of Commerce. He was honored at the Eighth Annual NBS Awards Ceremony held recently at the bureau’s headquarters in Gaithersburg.

A computer scientist in the Institute for Computer Sciences and Technology, Branstad was cited for his exceptional leadership and technical contributions in the development of the Federal Data Encryption Standards and its associated validation service.

Branstad graduated from Iowa State with a BS in mathematics in 1961 and received his PhD in computer science from Iowa State in 1970. He is a member of the IEEE Computer Society.

Computer Swap America set for April in San Jose

The Spring '81 Computer Swap America (formerly California Computer Swap Meets) will be held on Saturday, April 25, from 10 am to 6 pm at the Santa Clara County Fairgrounds, 344 Tully Rd., San Jose, California.

This semiannual swap meet for the personal computing field is sponsored by John Craig, publisher of InfoWorld. "Having a good time at this event is not optional—it's mandatory," according to Craig.

For the past six years, manufacturers, computer stores, software vendors, and individuals have been coming to the meet with both top-of-the-line and used merchandise, ranging from complete microcomputer systems to ICs, from disk drives to diskettes, and from application programs to games, books, magazines, and T-shirts.

A consignment table will be available for selling one or two items, and a free literature table is available to anyone within the industry. Admission to buyers is $2.50. Sellers, both individuals and companies, should call (415) 966-6546 for booth prices, availability, and reservations, or write to Computer Swap America, PO Box 52, Palo Alto, CA 94302.

SHORT COURSES & SEMINARS

Microcomputer System Design: June 29-July 10, Dublin, Ireland, IR £300.
Dr. D.P. McCarthy, Microcomputer System Design Course Director, Dept. of Computer Science, Trinity College, Dublin 2, Ireland.

Arlene Rosenberg, Office Manager, Production Automation Project, College of Engineering & Applied Science, The University of Rochester, Rochester, NY 14627; (716) 275-3775.

Continuing Education in Engineering and Mathematics, UCLA Extension, PO Box 24902, Los Angeles, CA 90024; (213) 825-1047.

James E. Nicholls, Department of Engineering, University of Wisconsin—Extension, 432 N. Lake St., Madison, WI 53706.

CEA/INRIA/EDF Numerical Analysis Summer School on Transport Equations: June 22-July 10, Clamart, France.
CEA/INRIA/EDF Computer Summer School on Distributed Processing and Reliability: July 15-31, Clamart, France.
Secrétariat des Ecoles d'Été, 1 Avenue du Général de Gaulle, 92140 Clamart, France.

Local Area Computer Networks: April 20-22, S500.
Comparative Database Management Systems: May 4-8, S715.
Computer Communications Protocols: May 27-29, S575.

Director, Continuing Engineering Education, George Washington University, Washington, DC; (800) 424-9773 or (202) 676-6106.

VLSI Design—A Structured Approach to Custom IC Design: April 27-29, Palo Alto, California; June 22-24, Boston, Massachusetts; July 13-15, Los Angeles, California; S695.

Error Correcting and Detecting Codes with Applications to Computer System Design: May 18-20, Los Angeles, California; June 22-24, Chicago, Illinois; S695.

Hellman Associates, 299 S. California Ave., Palo Alto, CA 94306; (415) 328-4091.