

## INSTALLATION OF A PDP8/E COMPUTER AT THE LABORATORY

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The Institute of Phonetics has obtained a grant from the University of Copenhagen to buy a "Digital Equipment Cooperation" computer. The first part of the computer system was ordered in July 1972 and has been installed in January 1973.

This set-up includes a PDP8/e central processor, which is a parallel-transfer computer with single addressing and fixed word length using 12-bits, 2's complement arithmetic. The cycle time of the 8196-words random address magnetic core memory is 1.2 microseconds, which allows 385,000 additions per second. Standard features are indirect addressing, instruction skip, and program interrupt. Five 12-bits registers which can be loaded directly from the programmer's console are used for control of programs and addresses and for intermediate data storing.

The communication with the central processor unit takes place via a DECwriter data terminal type LA30 (electric typewriter) with parallel interface. Output and input devices for punched paper tapes (GNT reader and GNT puncher both with a speed of 70 characters/sec.) have been interfaced.

The programming can be made in two ways: (1) in higher level language such as the interactive FOCAL or BASIC, or in a compiler language such as FORTRAN; (2) in assembly languages which are translated directly into machine language commands.

The total set-up is to include a dual drive DECTape unit with control unit, a hardware arithmetic unit, a programmable digital clock, an 8 channel analog-to-digital converter with multiplexer, a 16 channel digital-to-analog converter with demultiplexer, and an X/Y recorder.