

## Intel development systems on line at PCC

Portland Community College's Electronics Engineering Technology (EET) program got a boost from Intel recently when the company donated seven microcomputer development systems to the college's Sylvania lab. The seven, all Intel 225's are used to write, develop and debug programs for microprocessors.

"This is state of the art equipment," says Douglas V. Hall, instructor in PCC's EET and Computer Software Technology (CST) programs. "It's the same equipment that's being used at Intel now."

EET instructor David Hata, who serves as liaison between the college and Intel both with donations such as this one and in the college's successful cooperative education program with that firm, agrees. "Equipment like this is an absolute necessity if you're going to have an EET program," he says.

The Intel 225's, each with an approximate value of \$15,000, have the capability to work with eight-bit (Intel 8085) and 16-bit (Intel 8086) processors to develop programs for microprocessor-based equipment now used in all phases of everyday life. Examples of such microprocessor-based equipment in common use are digital gasoline pumps, scales at grocery check-out counters and the newer model sewing machines.

When using the Intel 225's, students enter programs they have written into the system, edit them and transfer the edited versions to a floppy disc. During the second step, another program in the system, the assembler converts the original pro-



Northeast Portland resident Hank Barnes (left) practices on one of the Intel microcomputer development systems now being used in PCC's Computer Software Technology (CST) and Electronic Engineering Technology (EET) programs at the Sylvania Campus. Barnes is a second year EET student here supervised by electronics instructor Doug Hall.

gram to computer language. This is also stored on a floppy disc. During the third phase, the development system's emulator loads the machine code from floppy disc to

the memory of a microcomputer board. The microcomputer board is the tiny device which governs the gas pump, grocery scale or other finished appliance.

Hata explains that technicians and engineers who already have bachelor's or master's degrees attend PCC microcomputer classes during evening hours to upgrade their skills. "Part of what they're learning here is how to use a development system," he says.

Development systems are the basics of the computer industry, according to Hata and Hall. "It's not just a few big companies that use development systems to write programs," says Hall. "It's the little companies, too — robotics, pollution control, the biomedical industry. Possibilities are endless for these types of things."

Hata monitors changes in the electronics industry's needs through weekly contact with local management people. Part of his work revolves around a large cooperative training program formulated and run by PCC and Intel. In this role he is able to ensure that PCC's EET and CST programs are up-to-date with the needs of prospective employers.

"The equipment Intel donated was given to PCC based on the quality of our program and our record of supplying industry with a large number of highly qualified technicians," says Hall. "It was also based on the performance of our co-op students."

"The type of training we offer is very unique at the community college level and it's unique because of industry's support," Hata explains. "I view this as being a very successful model for future cooperation between industry and education."

## Women's Bureau issues guide to employment rights

A 1983 edition of "A Working Woman's Guide to Her Job Rights" has been released by the Women's Bureau. The 54-page leaflet contains general information about laws that protect workers in the job seeking process, while on the job, and after retirement.

The guide outlines the basic protections afforded by federal and some state laws, executive order and regulations, and explains what individuals should do if they think there has been a violation. Brief outlines of actual court cases illustrate the kinds of situations that are covered. Some of the topics included are: discrimination based on age, sex, race, color, religion, national origin, or handicap; wages and hours; equal pay; sexual harassment; unemployment and disability compensation; occupational safety and health; child care credits; social security; and private pension plans.

"While employment laws offer

the same protections to both men and women," said Women's Bureau Director Dr. Lenora Cole Alexander, "we think that a guide specifically for women is still needed. Many women are unaware of their employment rights, and lack the basic information necessary to take advantage of the protections provided to workers by federal law. We hope this booklet will help women gain full access to jobs, promotions, pay, and retirement benefits."

Free single copies are available upon request from the Women's Bureau, U.S. Department of Labor, Washington, D.C. 20210. A self-addressed mailing label will expedite request. Copies may also be purchased, either singly or in bulk, from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for \$4.50 each. A discount of 25 percent is allowed on orders of 100 copies or more of the publication mailed to one address.

## Applicants sought for Independent Living Scholarships

Applications are being taken for two Independent Living Scholarships in the amount of \$1,000 each offered under the auspices of the Portland Community College Foundation, Inc., and PCC's Handicapped Student Services.

The two will be awarded for the 1983-84 school year to persons who have attended PCC for at least one year as full-time, credited students prior to applying and who have a verifiable physical disability which limits one or more of life's major activities.

Applicants must be able to define specific goals which will eventually lead them to independent living situations. Final selection of the winners is contingent upon formal acceptance to a four-year college or university.

The scholarships are made possible by a gift from Tim Gilmer, a former PCC faculty member.

Purpose of the scholarships is to reward achievement, to encourage physically disabled students to continue professional and academic studies at four year colleges and universities, and to eventually establish independence.

Interested applicants should fill out application forms available at PCC to be accompanied by three letters of recommendation from instructors at PCC or any other college which the applicant has attended during the past two years. Finalists will be interviewed by the selection committee.

To apply for an Independent Living Scholarship, contact the department coordinator, PCC Handicapped Students Services, 244-6111.

## Discrimination, drop-out rate hurt black youth

Calling the rate of black teenage unemployment "extraordinarily high," a high Labor Department official warned that it is the high school dropout "who really faces the most significant unemployment problems." Dr. Janet Norwood, Commissioner of the Bureau of Labor Statistics, notes that in the extremely tight labor market, school dropouts must compete with students for temporary jobs.

She added that in many cases high

school dropouts "permanently lack the necessary educational credentials to be hired for a large number of long-term kinds of jobs."

In October, 1982, the unemployment rate among dropouts in the 16- to 24-year age group was 31.8 percent, compared to 17.3 percent for high school graduates. Nearly 20 percent of all high school dropouts are black, Norwood added.

The Labor Department official also pointed out that the kinds of

jobs filled by college graduates are constantly changing. In addition to the rising competition for jobs requiring a college education, college graduates often compete with high school graduates for many jobs that do not necessarily require a college degree, and in such cases, the college educated youth are more successful.

This trend, she added, is likely to continue through the 1980s as the entrance into the labor force of col-

lege graduates is expected to exceed the number of jobs requiring a college degree.

## Career Cycles to repeat

Career Cycles, a free, four-part presentation into the phases leading to making a career decision, will repeat at Portland Community College's Cascade Campus on May

27 and June 4. The Wednesday evening sessions run from 6-8 p.m. and are open to the public.

Persons may attend one or all of four Career Cycles, which will be

taught in the following order: "Who Am I Careerwise?," "Who Will Hire Me?," "How Do I Get the Job?" and "How Do I Keep the Job?" call PCC Cascade, 283-2541.

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