Jean Byars

Last week, Catonsville Community College entered a partnership with IBM. In return for training new students and retraining those already in computer-aided manufacturing positions, CCC will receive $250,000 worth of computer equipment plus valuable software programs and the expertise of IBM consultants.

On Thursday, Feb. 16, CCC formally became one of International Business Machines Co.'s computer-integrated manufacturing (CIM) training program sites. One of 48 selected colleges and universities in the country and the only one in Maryland to accept the three-year training programs, IBM chose CCC because of its courses in computer technology which support industry and its willingness to provide demonstrations, training, and classes to IBM's customers as well as to students and employees of manufacturing businesses.

The CIM process uses computers in a manufacturing firm to connect every department from design through manufacture to sales. The three major components of the project are design engineering, production control and shop floor operations management.

An ultimate goal is to strengthen Maryland's economy by encouraging industrial use of state-of-the-art equipment and providing business with employees trained in the use of the most advanced manufacturing technology.

College officials consider the department in good shape to get the new programs up and running because a sophisticated IBM system already has been installed. The task over the next few months will be to add on the donated equipment and familiarize teachers with the new software. One instructor said if all the manuals for the new programs were set side by side, the line would be 30 feet long.

A new noncredit course is expected to be ready for the summer with more in place by the fall.

Receivables of IBM explained their part in the program as a catalyst between education and manufacturing. "The whole idea is to see what we can do using our technology and equipment to solve problems," said Don Fisher, a systems engineer for IBM.

One advantage, he explained, is to have CCC become a showcase to demonstrate for manufacturers what can be done with IBM equipment and software. The advantage to regional businesses, he said, is to "provide training and skill for people going into manufacturing.""Wallace Knapp, CCC's director of computer services, gives much of the credit for the college's role in computer technology to John M. Kingsmore, the college's president. "Kingsmore said eight years ago that he wanted CCC to be 'a leader in computer.' It's this 'dedication from the top' that has made the partnership with IBM possible, he said.

During an address at the ceremonial signing on Thursday, Kingsmore emphasized the need for more 'experts on loan' from manufacturing firms to work with the college.

The IBM/CCC partnership is expected to integrate manufacturing and computing in many of the state's small and medium-sized manufacturers. Knapp said there are approximately 400 manufacturers within 100 miles of the CCC campus."

"This program is to deal with doers," Knapp said. The United States has put too much emphasis on theory and not enough on practice. Those going into management, whereas countries such as Japan require future managers to spend time on the line to learn how products are manufactured.

Michael Ehrlinger, who heads CCC's department of industrial technology, agreed. "In the past, education emphasized reading, writing, and arithmetic. What we've found is that skill are not enough. The U.S. has fallen behind in manufacturing."

Ehrlinger explained that the courses currently taught at CCC are programs which have eliminated many of the errors between engineers and manufacturers. The new IBM programs, he said, will break down the wall between manufacturing and business. Computer-aided design means more then using computers to design tools and machines. Ehrlinger added. The new IBM software can be used for any kind of designing: architectural, landscaping and electronic.
IBM Education Partnership Offers CIM facilities in 48 Institutions

A new education partnership program announced in late November by International Business Machines Corporation (IBM) is expected to establish computer-integrated manufacturing (CIM) facilities in 48 U.S. colleges and universities.

Intended to offset the shortage of instructional materials in CIM and increase opportunities for students to work on state-of-the-art equipment before entering industry, the program calls for participating institutions to establish CIM education and hands-on training and demonstration facilities. In return, they will receive IBM equipment with an average value of $25,000—tailored to their needs, along with IBM software and consulting and technical support.

IBM has selected the 48 two- and four-year institutions based on such factors as course offerings that support local industries, institutional commitment to CIM education and the number of graduates in CIM-related fields. The company hopes to expand the program to other institutions. Selected institutions must also be willing to provide CIM demonstrations, training, and classes to their faculty and students, local industries, and to IBM and its customers.

These are the first 48 schools selected by IBM:
- Applied Technology Training Center (Everett, Wash.)
- Brooklyn Polytechnic University
- Broome Community College (N.Y.)
- California State University-Fresno, Cam- den Community College (N.J.)
- Catawba Community College (N.C.)
- Central Piedmont Community College (N.C.)
- Coral Gables Community College (Calif.)
- Chattahoochee Technical College
- City College of San Francisco
- College of Marin
- College of San Mateo
- College of the Redwoods
- College of the Sequoias
- College of the Siskiyous
- Connors State College (Okla.)
- Corvallis Community College
- Dartmouth College
- De Anza College (Calif.)
- East Tennessee State University
- Fox Valley Technical College (Wisc.)
- Grand Rapids Community College (Mich.)
- Indiana Vocational Technical College
- Irvine Valley College (Calif.)
- Marshall University (W. Va.)
- Michigan Technological University
- Monroe Community College (N.Y.)
- New York City Technical College
- Northern Michigan University
- Oakland Community College (Mich.)
- Rock Valley Community College (Ill.)
- San Joaquin Delta College
- SUNY-Buffalo
- SUNY-Farmingdale
- Thayer Christian College (N.Y.)
- University of Connecticut
- University of Kentucky
- University of Missouri-Rolla
- University of Nevada-Reno
- University of New Mexico
- University of North Dakota
- University of Oregon
- University of Pennsylvania
- University of South Carolina
- University of South Florida
- University of Tennessee
- University of the Pacific
- University of Wisconsin-Milwaukee
- University of Wisconsin-Madison
- University of Wyoming
- Virginia Polytechnic Institute
- Washington State University
- Washington University (St. Louis)
- Western Kentucky University
- Western Washington State College
- Willamette University
- Wilson Community College (Okla.)
- William Paterson College of New Jersey (N.J.)
- Wittenberg University
- York College of Pennsylvania
- Yuba College
- York Technical College
- Youngstown State University
- Zane State College

The program is open to IBM employees and students, as well as other businesses that want to help establish CIM programs. IBM expects the program to benefit students, industries, and universities alike.

IBM will provide the schools with software, hardware, and training materials to help them establish CIM programs at their institutions. The schools will then be able to offer their students hands-on training in CIM, which will help prepare them for careers in this emerging field.

This partnership is one of several initiatives IBM has undertaken to support education in the areas of CIM and other emerging technologies. Other education partners include universities, community colleges, and vocational schools across the country.

The goal of the IBM Education Partnership is to help schools establish CIM programs and provide students with the skills they need to succeed in today's manufacturing and technology workforce. By working closely with educators and industry partners, IBM can help ensure that students receive the training they need to compete in the global economy.

For more information about IBM's Education Partnership, please visit ibm.com/education/cim.