FOCUS EMU

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TECHNOLOGY ISSUE

TALE OF TWO LABS

CATE Lab makes life easier for disabled students

By Carol Anderson

There's a new "twist" in the Center for Adaptive Technology Education (CATE) lab. Literally.

To accommodate people with a a variety of physical and learning disabilities, the lab's large-screen, flat-panel computer monitor has an arm that rotates 360 degrees for purposes of providing comfort and functionality.

Anna Dusbiber, an Eastern Michigan University sophomore with cerebral palsy, uses the new monitor and the lab five days a week, both before and after class.

When comparing EMU facilities to those of her former school, Washtenaw Community College, she said she prefers the CATE lab since more technology is available. So much so that she has convinced her parents to purchase a large-screen monitor and accompanying equipment for home use.

The monitor can be moved very close or far away, twisted vertically or horizontally, slanted at an angle, positioned upside down or projected downward to be read from a prone position.

The flexibility of the robotic arm helps people who can't keep their head upright rotate the screen to a comfortable viewing position, said Jenny Clark, CATE lab coordinator. Also, users with eye fatigue or older people with diminishing eyesight can move the screen closer, Clark said.

"This monitor has generated many inquiries," Clark said. "The director of the University of Michigan's facility came in to see it the day after installation."

Many campuses in Michigan have some adaptive equipment, but EMU is the only one in the state with a full-time person available to teach disabled students how to use the equipment, said Donald Anderson, director of EMU's Access Services.

"Other universities spend money on equipment (for the disabled) and wonder why no one uses it," Anderson said. "The equipment is complex and requires instruction on how to use it efficiently. The variety of equipment we have in the CATE lab rivals Michigan State University."

Dusbiber, a communications major, also uses the voice-recognition equipment and a second, newly purchased infrared device de-

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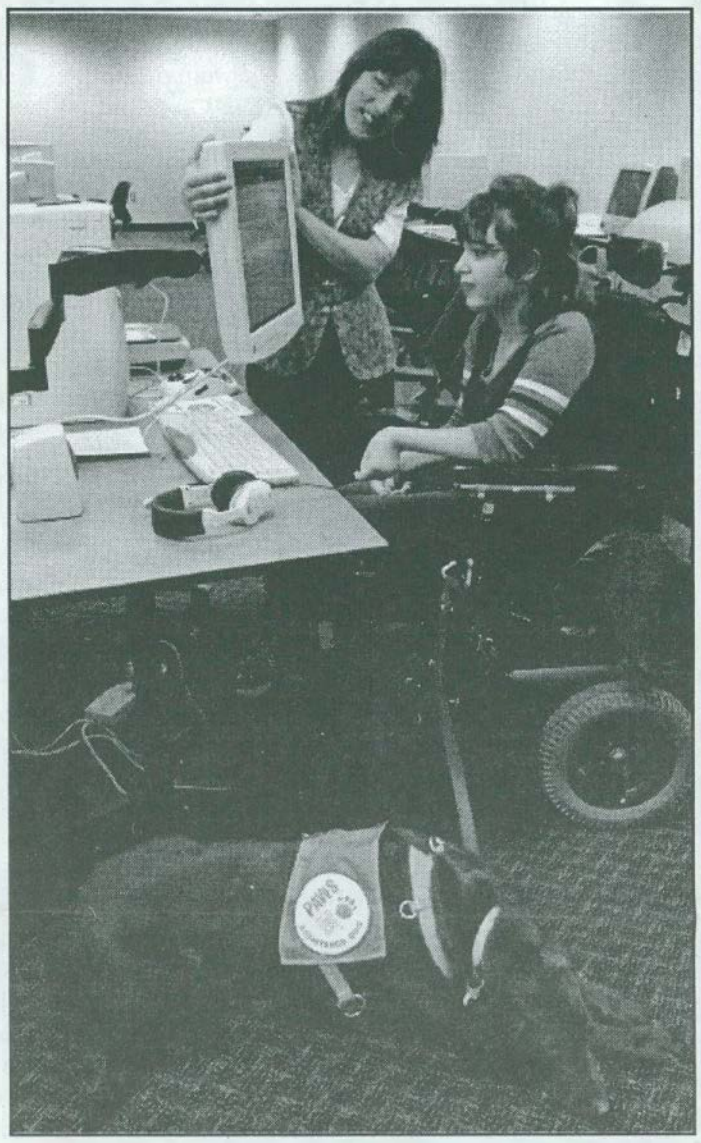

A TECHNOLOGICAL ASSIST: Eastern Michigan University student Anna Dusbiber (right) uses the large screen monitor while Jenny Clark, adaptive technology coordinator of EMU's CATE lab, helps position the monitor. Cal, Dusbiber's assistance dog, picks up objects, opens doors and helps with her coat.

Distance learning lab brings knowledge closer

By Sara Witt

At first glance, it may look like just a modernized classroom. But the distance learning classroom in the Bonisteel Computer Lab is anything but ordinary.

The lab has occupied room 205-A in the Porter Building for a little more than a year. But it has already been used for educational technology classes, doctoral dissertation defenses and the Comer Schools grant project, which links Eastern Michigan University with Yale University.

"This classroom not only allows for a multimedia approach to teaching, but it allows EMU students to benefit from classes being taught elsewhere in the country," said Bonisteel lab manager Marina McCormack.

The lab is open for use by all colleges and departments; instructors must simply fill out a request form to reserve the room. Laptop computers may also be reserved for student use in the classroom.

"Although many teachers have heard of distance learning and are excited to use the new classroom, they may be intimidated by the idea of running a technologically advanced classroom on their own," McCormack said.

The first time instructors use the classroom, they are shown how to use touch-screen operations, establish a connection, use video controls, send images, handle the microphone and operate camera controls. Instructors also are provided with a resource list of other schools capable of video conferencing.

"The training session also shows prospective users how to connect to a remote site; position video and microphone equipment for optimal class participation; as well as incorporate fax, printer, the Internet, and video into their lessons," McCormack said. "In addition, the distance learning technologist also provides on-site support upon request."

The room may be set up in a traditional fashion, but it's stocked with an array of technical equipment. A large screen LCD projector allows the instructor to not only show slides or notes, but also provides the ability for instructors to show the "distant" classroom they are linked with on a Web browser. Students in the back of the room can easily hear and be heard because of the vast ceiling speaker and microphone network. Students also can be seen easily with two ceiling mounted video

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WebPolis helps citizens communicate with government

By Carol Anderson

Ypsilanti residents will soon have the opportunity to test the theory that more public input produces better government.

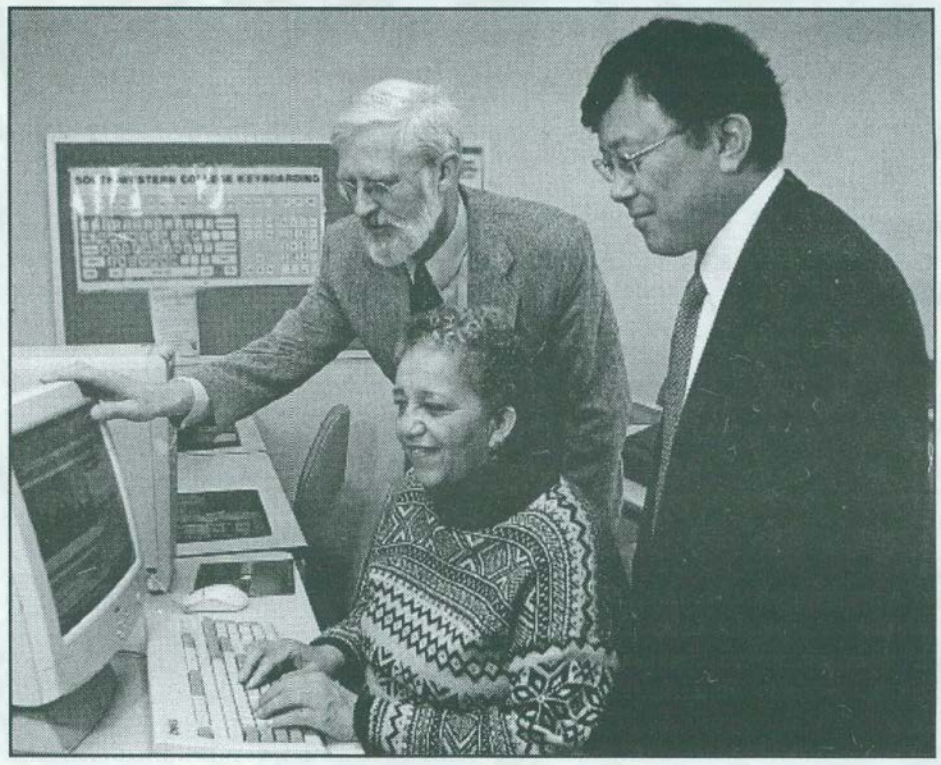
Norman Tyler, professor of urban and regional planning, and Yichun Xie, director of the Institute for Geospatial Research and Education, are using a $241,000 federal grant from the U.S. Department of Commerce to continue a community communications project called WebPolis Consortium. Through the use of the Internet, the project encourages greater community involvement in local government decision-making.

WebPolis will create interactive applications to enhance city government decision-making. Officials can share technologies, resources and information with other communities while citizens can become more informed about local issues.

"The interactivity of WebPolis is a big draw," Tyler said. "Local officials can talk to one another and to residents. Computers overwhelm people but when you enter the portal, it's a simple interface. The only thing you need is a computer with an Internet browser. We don't want to scare off residents from using it (WebPolis)."

According to Ypsilanti city planner Nathan Voght, WebPolis will enable citizens to send comments and opinions to city officials, as well as see the comments of other citizens and replies from officials. Voght said it would be similar to an electronic bulletin board. Citizens also would be able to evaluate comments by checking a box, indicating they found an opinion valuable.

"We are constantly challenged to find cost-saving methods for making government more efficient, reliable and accessible to our citizens," said Ypsilanti Mayor Cheryl Farmer. "The WebPolis Consortium has the potential to do all of this. We are thrilled to learn that EMU faculty members have been awarded a grant that will allow them to work collaboratively with us, their host city, on this promising e-project."



GOVERNMENT THROUGH TECHNOLOGY: (standing, from left) Norman Tyler, professor of urban and regional planning, and Yichun Xie, director of EMU's Institute for Geospatial Research and Education, observe Ypsilanti City Councilwoman Lois Richardson use the WebPolis Consortium. WebPolis, a project funded with a $241,000 federal grant, allows citizens to provide input to local government decision making and can be used by communities to share information.

One of Ypsilanti's demonstration sites for WebPolis will be the Riverwalk project. Residents will be asked about the location of a pedestrian crosswalk across Michigan Avenue. An additional application for WebPolis could be a proposed parking lot in Ypsilanti. Residents would be able to log on to the site and find cost analysis of alternate schemes; GIS (geographic information systems) mapping of a parking lot with various layers of information, including streets and building locations; discussions between residents or a resident and an official; or a survey on the need for a parking lot, Tyler said.

A decision to build a parking lot in Ypsilanti could be reviewed by residents of the consortium in member cities, thus providing a learning opportunity from the experience of others, he said.

Possible additional uses for WebPolis are online voting, recording of local history, mentoring of school children, and a newsletter and Web video social service programs for seniors and shut-ins.

The site will be ready for public use in March. The project is in its second year and is due to be completed in 2005.

"Dr. Tyler and Dr. Xie are truly among a select group of proposal writers. Of the 741 applications submitted, only 25 were funded," said Brian Anderson, EMU director, office of research development.

In addition to EMU, partners in the consortium include the city of Ypsilanti, the city of Albion, the Washtenaw County Administrator's Office, Forks Organization of Calhoun County, Albion Economic Development Corporation, Albion College and the Michigan Society of Planners.

Teachers help students learn English with aid of LEP-TNet

By Summer Wilhelm

The average person can speak anywhere from 100-150 words per minute. That may sound like a lot. But, in reality, we can process 300-500 words a minute, which is invaluable if a person is talking fast.

Now imagine only knowing one, two, or no words in the English language. Those simple 100 words a minute spoken in restaurants, schools, stores and everywhere else in America can prove as incomprehensible as a movie without volume.

This is the point where teachers come in to help Limited English Proficient (LEP) students learn the reading, writing, speech, mathematics and scientific skills needed to function in America. Sometimes though, teachers need a little help, too. And that's when Phyllis Noda and Stuart Karabenick step up.

The Limited English Proficient Teaching Network (LEP-TNet) is EMU's Teacher and Personnel Training Project, a field-based program that offers customized training courses to help teachers with LEP students.

"The goal the program promotes is to assist kids with math, science, reading and other subjects using the home language as a bridge until they acquire enough English skills to succeed in a classroom setting," said Noda, director of EMU's bilingual education teacher training program.

The LEP-TNet program is in its fifth year and assists 542 teachers representing 75 school districts across the state who serve LEP students. The program is the only one in the country and was recently recognized as a Best Practices Model by the U.S. Department of Education.

A Best Practices Model is based on 42 distinct points, including cost effectiveness, client satisfaction and unexpected outcomes or innovations. Out of the 245 grants and projects reviewed, LEP-TNet came out on top. Noda and Karabenick, director of EMU's Center for Research Support, were invited to be presenters at the U.S. Department of Education's Professional Development Round Table, which is a National Invitational Conference that occurred in Washington, D.C. Sept. 21-23, 2002.

"We were highly honored by the invitation," Karabenick said. "We're very gratified to serve the students in the state by the professional development we can bring the teachers."

The LEP-TNet program features a public Web site and a password-protected Web site for registered teachers, which allows them to communicate with each other through a discussion board. The site also provides lesson downloads, links to resources and technical assistance.

"Teachers are very isolated," Karabenick said. "This Web site is a way to bring them together."

Aside from Internet communication, Noda actually visits the school districts, which are based on need as a result of communication from school administrators. Noda speaks to instructors, implementing the personalized training courses designed to fit the unique needs of every school and its LEP students.

"It's always live and it's always fresh," said Noda, who also puts the training information on the Web site.

As part of the program, Noda sends a weekly newsletter to the participating teachers. The bulletins provide instructional strategies on current research, and new rules and regulations from the U.S. Department of Education related to LEP students and parents.

For more information on the LEP-TNet project, call Noda at 487-0370 or visit the Web site at www.leptnet-emu.org.

Student designed software making a splash overseas

By Sara Witt

Students in Badie Farah's Information Systems Development and Projects course (IS 696) are required to design and implement a computer system for a real organization.

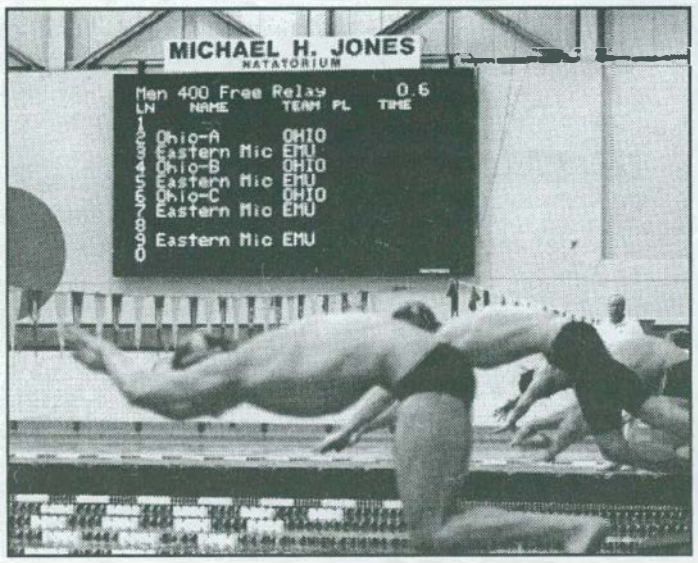
Six students took the project to another level.

Mohammad Zubair, Thiru Pandian, Sri Ganesh, Timo Helbig, Erik Mueller and Dirk Wiltzsch created software that can compute swimming results. And they did it for a foreign client.

"This is the first time students from our program did a project in German, where the sponsor was located overseas, and the end product was useful to so many people. This team completed a truly global assignment," Farah said.

Typically, students usually come up with sponsors' names and approach them for possible projects, which Farah said he helps shape so the project is doable in one term. In the past, several teams completd projects for departments within the University, Farah said.

When brainstorming for a project last spring, Wiltzsch recalled the computer system he had used as an assistant swim coach for the Swimming Association of the Federal State of Baden, Germany (BSV).



POOLED RESOURCES: Students from Badie Farah's Information Systems Development and Projects course developed computer software that can be used by swim coaches to record times at practices and meets, like this recent action at Jones Natatorium.

"I knew that we always had a need for a new software system for administration of swimmers and all their data," Wiltzsch said. "Our current coaching support software back then was 10 years old and, by far, did not fulfill all of the requirements that came up over the years."

The idea for a new software system was on coaches' minds for a while before the class took on the project. BSV had not been able to develop a new system because professional implementation was too expensive.

"He (Wiltzsch) approached the coach (Arnd Zimmerman) for computerizing a manual system that the swimming teams used," Farah said. "The current system was hard to use, inefficient and not accessible by most of the stakeholders. The coach was excited about the opportunity."

The students developed a system, called Swim Utilization, that records swimmers' times for practices and competitions, sets competition times, registers swimmers and collects° dues. Swimmers and their families use the system to check meet times, pay fees and view competition results.

"The result of this development process conforms completely and exactly to all our specifications," said Zimmermann, a BSV coach for about 19 years who worked with Wiltzsch. "The group spent a lot of extra effort in changes and enhancements without just once refusing. I wish a lot of professional people would act that way."

The team faced two major obstacles: designing a user interface in German (which some of the students didn't speak) and designing software for a competitive sport with rules and regulations most of the

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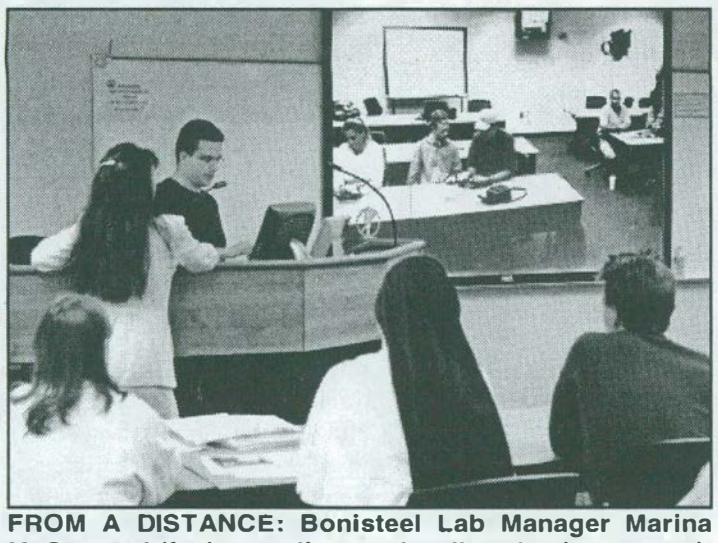
DISTANCE, from page 1



FROM A DISTANCE: Bonisteel Lab Manager Marina McCormack(facing podium and wall projection screen), and Semih Emical (behind podium), a distance learning technologist, make it possible for students in the lab to interact with other students at an off-campus location.

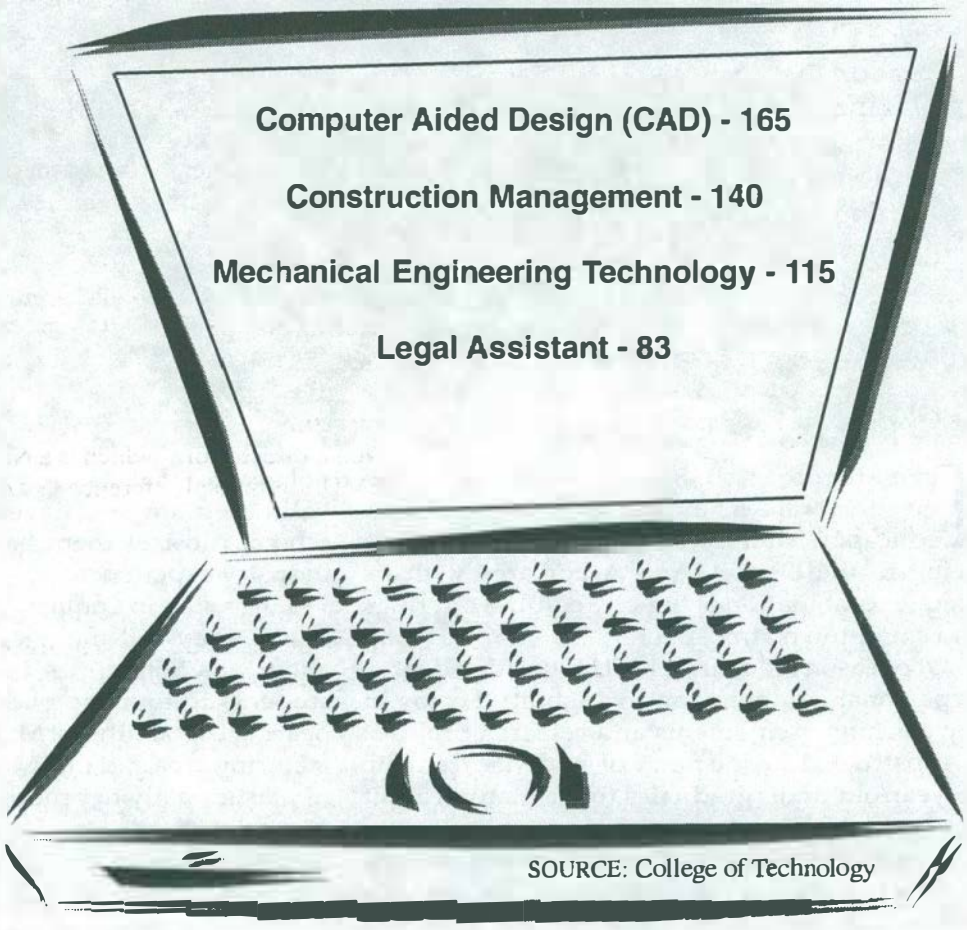
monitors that allows the instructor to transmit two views of the classroom.

Behind the podium, instructors have a wealth of teaching power at their fingertips, including a podium-mounted "active touch" flat screen computer monitor and control screen. Other podium equipment includes a VCR and DVD/CD player for showing video and professional recording; a visual presenter; a fax machine; computer-to-video converter; a built-in computer; routing and converting devices; and an interface plate with connections for a laptop computer, video, audio, and the Internet.

"We would like to continue to be a leader with the modeling of technology for our students," said Michael Bretting, associate dean of the College of Education. "The distance learning classroom allows us to be anywhere in the world that education is taking place or is needed. The lab has and will allow us to connect with various EMU cohorts for numerous reasons without leaving the Porter Building."

EMU BY THE NUMBERS

The College of Technology has roots at EMU that date back to 1901, when a one-person program was established. One hundred years later, the COT has 1,476 students enrolled in four departments and 27 programs of study. Below are the top four undergraduate programs by enrollment.



JOBSLINE

An Affirmative Action/ Equal Opportunity Employer

To be considered for vacant positions, all Promotional Openings Application Forms MUST BE SUBMITTED directly to the Compensation/Employment Services Office and received no later than 5 p.m., Monday, March 3. NOTE: LATE OR INCOMPLETE FORMS WILL NOT BE ACCEPTED.

Vacancy information may also be obtained by calling our 24-hour Jobs Line at 487-0016. Compensation/Employment Services office hours are Monday - Friday, 8 a.m. to 5 p.m.

PROFESSIONAL/TECHNICAL
(Hiring Range)

PTUR0302 PT06 $21,671.20-25,310.40 Site Coordinator, Institute for Community and Regional Development (ICARD), (80% - 32 hrs. per week). Nine month appointment for duration of grant (normal 9 month appointment 9/1-5/30). After school program/evening hours required.

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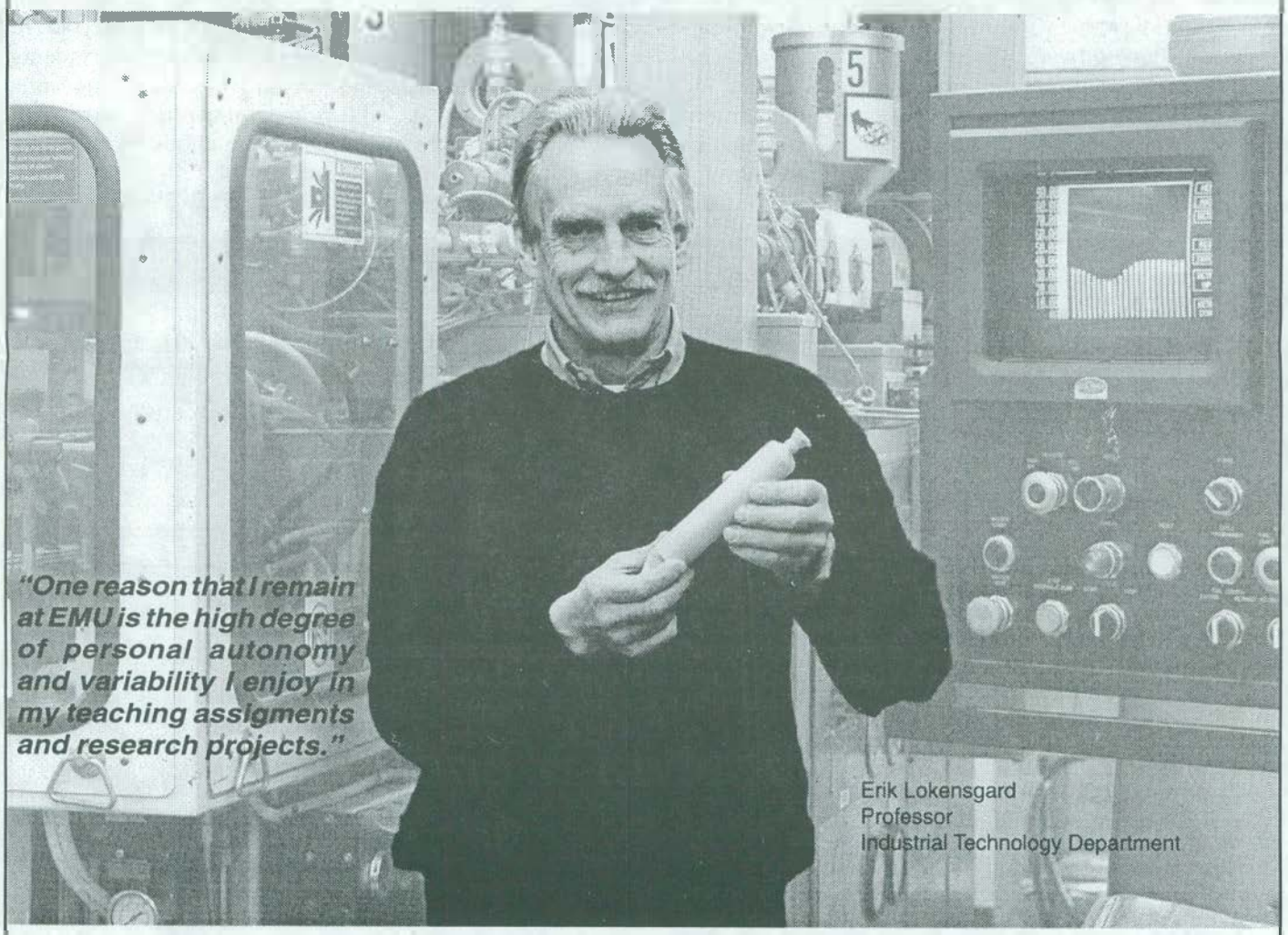
FOOD SERVICE/MAINT.
(Hiring Rate)

FMBF0336 FM06 $10.52 Custodian, Mark Jefferson/Physical Plant, 11 p.m.-7:30 a.m., Sunday-Thursday.

FMBF0337 FM06 $10.52 Custodian, Bowen/Warner/REC-IM/Physical Plant, 5 a.m.-1:30 p.m., Monday-Friday.

Why I teach at Eastern Michigan University



"One reason that I remain at EMU is the high degree of personal autonomy and variability I enjoy in my teaching assigments and research projects."

Erik Lokensgard
Professor
Industrial Technology Department

I came here to teach 18 years ago after receiving my doctorate in industrial technology and education from Iowa State University. I enjoy living in the Detroit/Ann Arbor area with its unique combination of big-city cultural offerings and small-town atmosphere.

One reason I remain at EMU is the high degree of personal autonomy and variability I enjoy in my teaching assignments and research projects. I've instructed a wide range of students, from the 18-year-old undergraduates to the mature, adult graduate students.

One of the main differences between the two groups is their level of motivation. The just-out-of-high-school students are bumbling around and not sure of what they're going to do. The adult students value their time and have a clear idea of why they're in school. Most of them have a bachelor's degree and industry experience.

I also stay in contact with some of my former students. They call me with technical questions or ask about jobs. Sometimes, they want to bring high school students to tour the plastics lab. The students enjoy hearing that southeast Michigan is a big plastics manufacturing area and that Milan (Mich.) uses railcar loads of plastics daily to produce vehicle gas tanks.

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signed for students with limited use of their hands and the keyboard. The infrared device is positioned on headgear and head movements control the cursor.

A one-handed, voice keyboard, a Kurzwel scanner that reads text aloud, and foot pedals to move and click a computer cursor are other adaptive devices available in the CATE lab.

Of the 600 students classified as disabled on EMU's campus, about 300 are using the lab and the clientele is increasing rapidly, Clark said.

The CATE lab assists students, faculty and staff who have temporary injuries or those with a more permanent disability such as the visually or hearing impaired, paraplegic or quadriplegic, stroke victims, or individuals with multiple sclerosis or learning disabilities.

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students were unfamiliar with.

"It was a very good group," Wiltzsch said. "Everyone put a lot of effort into the project, and communication and organization was very effective. People were very supportive and there was never a problem we could not solve together."

"In this case, team work with intensive communication was essential," Zimmermann said. "The team mastered these difficulties to my best satisfaction. They organized themselves and their tasks very efficiently."

Zimmermann said the program is well liked by other swim coaches and its usage is being expanded.

"For the initial integration of the system, I could convince one of our local clubs to be the pilot client," Zimmermann said. "After months of operation there, the software is now ready to be implemented in more locations like Olympic centers and clubs. All coaches showed a lot of excitement and satisfaction for the software and are willing to use it in the future. We already have requests of several other coaches and clubs to test the software."

Three of the team members — Wiltzsch, Helbig and Mueller — have graduated from EMU and are writing their master's theses for their home school, University of Applied Sciences Karlsruhe, in Germany. All three are completing a double degree program between Eastern Michigan and Karlsruhe.

Need the info?

Go to the public information Web site at http://www.emich.edu/public/public_information/