

Sittin' by the dock on the lake.... Sunbathers catch a few rays at Holmes Lake Thursday during a break in May's rainy weather.

Design computer will aid engineers

BY JENNI BURROWS

Pao said that a survey done two years ago by his department revealed that 50 companies Nebraska team born on blustery holiday

A team had three downs to make five

The painstaking, time consuming, and precise hand drawing and measuring common to nearly every area of engineering will soon be a thing of the past for engineering students at the University of Nebraska-Lincoln.

Instead, a computer will do all the work.

Dr. Yen-Ching Pao, professor of engineering mechanics at UN-L, received a \$22,000 grant from the University of Nebraska Foundation "to purchase something essential," he said. The essential something purchased was a Tektronix 4054 computer display system with two terminals.

The system aids engineers in design and manufacture of the products they create, and is usually referred to as CAD-CAM, which stands for computer aided design-computer aided manufacture.

The college will also receive terminals that can perform, at a lower level, some of the abilities of the higher quality Tektronix terminals.

The new computer, Pao said, "will help to design, and the main feature of the computer is the high speed. We will get very fast feedback. We're talking about seconds, a minute, even less, compared to hours, days, weeks" which is how long a project would take when done manually.

## **Computer cuts times**

Using a computer program recorded on tape, the computer operator can construct a design, or line drawing, on the terminal screen. The image, similar to that which a draftsman would produce by hand, the computer can do in a fraction of the time.

The computer then alters any dimensions or makes changes that the operator wishes, and prints a copy of the image in about one second. This procedure would take hours if done manually, Pao said.

Pao gave the example of an engineer designing a bridge. "If he takes the design to his boss, and his boss says 'change it,' he can do it right on the screen instead of having to draw it again by hand."

Storytelling festival is Monday on ETV

Nebraska ETV Network presents the benefits of writing about the past on "The Grand Generations" Monday at 7 p.m.

Mel Krutz, co-chairperson of "Writing and Storytelling Festival for Older Nebraskan," and poet William Kloefkorn will present techniques on how to record personal experiences. in the United States were using CAD-CAM. "I wouldn't be surprised if now that number has increased by 10-or 20-fold," said Pao.

Pao said he submitted a proposal to the University of Nebraska Foundation in October, 1981, to request money to purchase the CAD-/CAM. Pao said he hopes to receive funds to attend a workshop this summer at Michigan State University to learn more about the CAD/CAM.

#### UN-L at the back of the pack

"Lots of universities are already way ahead of us," Pao said. "At Michigan State University they have 20 units. They have a wide screen TV terminal. It can accommodate a great number of students for classroom instruction," compared to the five or six that can observe a regular-size terminal like those at UN-L.

Pao cited lack of money and the loss of top engineering instructors to higher-paying, nonteaching positions as the reasons for UN-L's lagging technical engineering opportunites.

Pao said he plans to develop a new course based on the CAD-CAM, which may be offered next spring. The course will be open to sophomores and juniors who have earned a certain number of hours in computer science and engineering.

In two or three years UN-L may be caught up with other engineering schools, Pao said. Ile said the university is only beginning to break into the CAD-CAM program. Pao said he hopes that his department can "prove that we have the potential to be a top quality institution, then industry will support us."

Pao said he was very glad that the foundation saw what he calls "an urgent need" for the new system. The system will benefit every department in the college of engineering, Pao said.

"We only have our foot in the door" to places that other schools have already been, said Pao.

The computer is in Bancroft Hall.

# Deadline is June 10 for degree applicants

The deadline for those applying for degrees to be received July 9 is June 10. Applications can be filled out at the University of Nebraska-Lincoln Records Office, 208 Administration, between 7:30 a.m. and 4:30 p.m. on weekdays.

## BY MICHAEL R. BERKE

University of Nebraska-Lincoln football began in 1890 when 500 students accompanied a 12-man squad to Omaha on a blustery Thanksgiving Day.

Accounts of the Nebraska victory over the Omaha YMCA don't reveal the action as it is reported today, but a disgruntled writer from the Omaha World-Herald pointed out that "the Lincoln team had the better teamwork and the locals had the better players, who failed to play into each other's hands.

"It was the first game of rugby football that had been seen in Omaha and there were several hundred out to see the boys enjoy themselves and break each other's shins. It resembled the old-fashioned game of log-heap more than anything else."

The eastern pastime that Nebraska students had wanted since 1882 had finally arrived. Coached by Harvard graduate, Dr. Langdon Frothingham, the "Old Gold Knights," as the team was called, played another game that year against Doane, winning 18-0.

### Mockett and Skiles remember first days

Old Lincoln Star-Journal clippings unveiled some interesting facts about Nebraska football's first days.

The 1890 team captain and left back Ebenezer E. Mockett and right end Charles M.Skiles, told about the early scrimmages.

"Things were different in the olden days," these players both agreed. They both remembered that the football players wore no padding. The 1951 Journal-Star report noted Skiles still had a bill which charged the university \$36 for 11 suits; there was no mention of padding.

The rules were different, according to Mockett and Skiles. A touchdown earned only four points, and a field goal two points. The teams didn't plot in huddles, but called their plays at the scrimmage line.

**Ball not dead where stopped** As Mockett said, the opposing team often could anticipate the play. But the ball was not "dead" where it was first stopped, so whether the other team was prepared for the play or not, the offensive team still could push the pigskin forward. yards. It was illegal to throw a forward pass. The ball was described in the rules as a "prolate spheroid."

A player who wore a helmet was branded a sissy. Long hair was considered enough protection.

According to "Go Big Red," a Nebraska football history by Silber, Denney, and Limprecht, football was a rugged sport, sometimes brutal. It had gained popularity with the advent of the flying wedge, in which the ball carrier advanced inside the point of a V-formation.

Nebraska defeated for first time The 1891 team played three games, all aginst Doane. Doane won the second game; for the first time, Nebraska tasted defeat.

In 1892, Nebraska joined the newly-formed Western Collegitate Football Association, but there was to be no championship that year. The team by this time, dubbed the "Rattlesnake Boys," the "Antelopes," or the "Bug-Eaters," managed only a 2-2-1 season. One forfeit victory came from Missouri, which refused to play Nebraska because Negro George Flippin was a team member. But the other victory was a resounding one — the university's first over a major state university: Nebraska 6, Illinois 0.

Illinois' Slater forgot In "Go Big Red," an onlooker described the action:

"The ball was given to Illinois' Slater, but in his hurry to make a brilliant play, he forgot to take the ball along, so Flippin fell on it. This gave the ball to Nebraska. Then our boys lined up and gave Flippin the ball, which he laid down over the goal. This gave Nebraska four. Then the ball was taken to the field and Oliver gave it a light tap with his toe and sent it spinning between the goal posts, scoring two more."

Nebraska's football continued to thrive in those early years. The Conrhuskers suffered only three losing seasons in their first 50 years.

Notice the word "Cornhuskers." In 1900, the name was attached to the team. C.S. (Cy) Sherman became irritated with the young players being called "Bug-Eaters," and "Rattlesnake Boys," so he called them the Cornhuskers and the name stuck.

## ETV will present Houseman Wednesday

The Nebraska ETV Network presents actor John Houseman at work in "Stages: Houseman Directs Lear," at 9 p.m. on Wednesday.

Houseman is known to his audience as Prof. Kingsfield in "The Paper Chase" series. Houseman is also a champion of classic theater and supports development and training of American actors.

The film gives a day-to-day journal of the production of Shakespeare's "King Lear," and a look at the theatrical rehearsal process.