What is ACM?

The Association for Computing Machinery has over 69,000 individual members as well as 400 university and corporate members. ACM is the oldest scientific and technical association in the computer field.

ACM promotes the development of computer technology and information processing through research, publications, and conferences. Its efforts during the past 37 years have resulted in the development of seminal concepts currently receiving practical application in computer methodologies, systems, programming, and computing applications.

While participating in some national ACM activities, our local student chapter operates independently of the national association. The University of Illinois Chapter of the ACM is the official professional society of the Department of Computer Science. Our student chapter tries to increase the level of computer awareness to students by hosting technical speakers at our general meetings. ACM also sponsors many computer-related technical projects and social events to get its members together. One of ACM's largest local activities is the Programming Contest for Illinois students in grades 7-12.

ACM has something for everyone. If you are interested in any aspect of computing or just want to learn something about computers, join ACM today. Hardware enthusiasts, software enthusiasts, and people dwelling on the business side of computers have all learned a great deal through participation in our events.

— *John Chris Ravencroft*
Chairman, UIUC ACM

Faculty Spotlight

"Banks of the Boneyard" recently interviewed Professor C.W. Gear, who replaced Professor Snyder as Head of the Department of Computer Science this year. Professor Gear came to the University as a graduate student in 1956, before the C.S. Department was created. As a student here, he did his research in numerical computing on the Illiac I, which at that time was one of the largest computers in operation. After graduation, Professor Gear worked for IBM in England where he was involved in the development of the IBM 360. In 1962 he returned to Illinois as an assistant professor. He has published many books and articles, including several textbooks used in U of I courses.

The major problem which Professor Gear faces in the department today is the overcrowding of classes. Enrollment in computer science has increased dramatically in the last few years, and both space and faculty have become scarce. But he does not believe that limiting enrollment is the answer. Instead he hopes to expand the department to keep up with the demand on its resources. This year, seven new people were added to the faculty, and seven more will be hired next year. There are also plans for a new computer facility, due to be completed within the next four years.

Academically, Professor Gear would like to see more students with training in other fields (such as engineering or physics) who will be able to do applications work in those fields. People with this kind of diversity will become increasingly valuable in the future. He cites overspecialization as a common problem among computer science students today.

Although his duties as Head of the Department currently occupy all of his time, Professor Gear wishes to return to his research in numerical computing, if only on a part-time basis. He also expressed his wish to resume teaching, saying "I'll teach any course that needs a professor." While admitting that his schedule is extremely busy, Professor Gear wants people to know that he is there for students, and is willing to hear their problems.

Behind the Scenes

Al Irwin has played a very important behind the scenes role in the development of Computer Science at the University of Illinois. He was always creative and talented. He built his own TV out of an oscilloscope tube in '42. He learned to fly and had both his pilots and aviation mechanics license before graduating from high school.

Arriving at the U of I in 1959, he worked in every phase of the Illiac II construction. He did mechanical design, printed circuit board layout and fabrication. In 1965 he wrote a FORTRAN program in a course taught by current department head professor Gear that he used in the designing of his own home. He used the printouts for the construction of the roof. He did work on the Illiac III as well.

In 1966 he transferred to a circuit research group for professor Poppelbaum. Professors Faiman and Kubitz were both graduate students in that group. He assisted in the development of an online Fourier transform system. In the 1967 fire that destroyed Illiac III and smoked up Illiac II he rescued the groups laser from the burnt laboratory. The fire was apparently started by a heavy duty soldering gun left on by some technician. He also worked on a computerized "Autotutor" before PLATO was developed.

In 1977 he took over the job of maintaining the computer hardware. At that time DCL had some pdp 11/20's and a 11/40. In 1978 the Prime arrived, and then the Vaxen started showing up in 1982. Today he and his staff maintain multiple Vax 11/750's, two 11/780's, two ATT 3B20S's, and large numbers of Sun workstations, laserprinters, disk drives and all the interfacing and communications gear. While he has been here DCL has expanded twice, first doubling to the east, then to the south. He designed and patented a governer for rotor speed control in radio controlled helicopters, and designed the computer controlled tractor pull sledge used at regional county and state fairs. It is fair to say that he has witnessed and assisted in the development of computer science here at the U of I since the dawn of the Computer Age.

ACM Office

The ACM office is located in room 201 at 1204 W. Springfield. The phone number is 333-5828. Throughout the semester it is staffed by ACM officers and exec members.

∞ Membership ∞

In order to become a member of U of I's ACM chapter, simply fill out an application form, located in the lobby of DCL or at the ACM board across from the DCL library (Room 260). Send the form, along with $3.00 annual membership fee, to ACM's mailing address.

Von Neumann

Von Neumann was proving a theorem to his class. He wrote up the first step, paused for a second, and wrote up the conclusion. One student raised his hand and said "I didn't quite follow that, professor." So, Von Neumann erased the board, wrote up the first step, paused for about 10 seconds, and wrote up the conclusion. The same student said "I still don't follow the proof; could you go through it in some more detail?" So, again Von Neumann wrote the first step on the board, paused for a full minute, and wrote the conclusion. Now, the student still seemed confused. Von Neumann said, "Look, I've done it three different ways now. If you don't understand it now, you'll have to work it out for yourself."

Our Next Meeting

Our next general meeting will be on Thursday October 3 at 4:00 in 100 Met & Mining. The speaker will be Professor Harandi of the Department of Computer Science. His talk is entitled "Is Software Artificially Intelligent?" and will deal with the topics of software development and applications of Artificial Intelligence. Everyone is invited!