THE WHISTLE

by Sallylyn Hill

For the second year in a row, Georgia Tech has graduated more minority engineers than any program in the country, according to the Engineering Manpower Commission. Tech was second only to the University of Illinois in the total number of graduating engineers in both undergraduate and graduate levels, (UI-1903, GT -1748).

These accomplishments demonstrate the institute's efforts in meeting one of President Crecine's 1996 goals - to become the nation's largest producer of African-American and minority Ph.D.s in engineering and science.

Georgia Tech is also leading the nation in the number of African-American faculty members with 15. Crecine still wants to triple the number of African-American professors
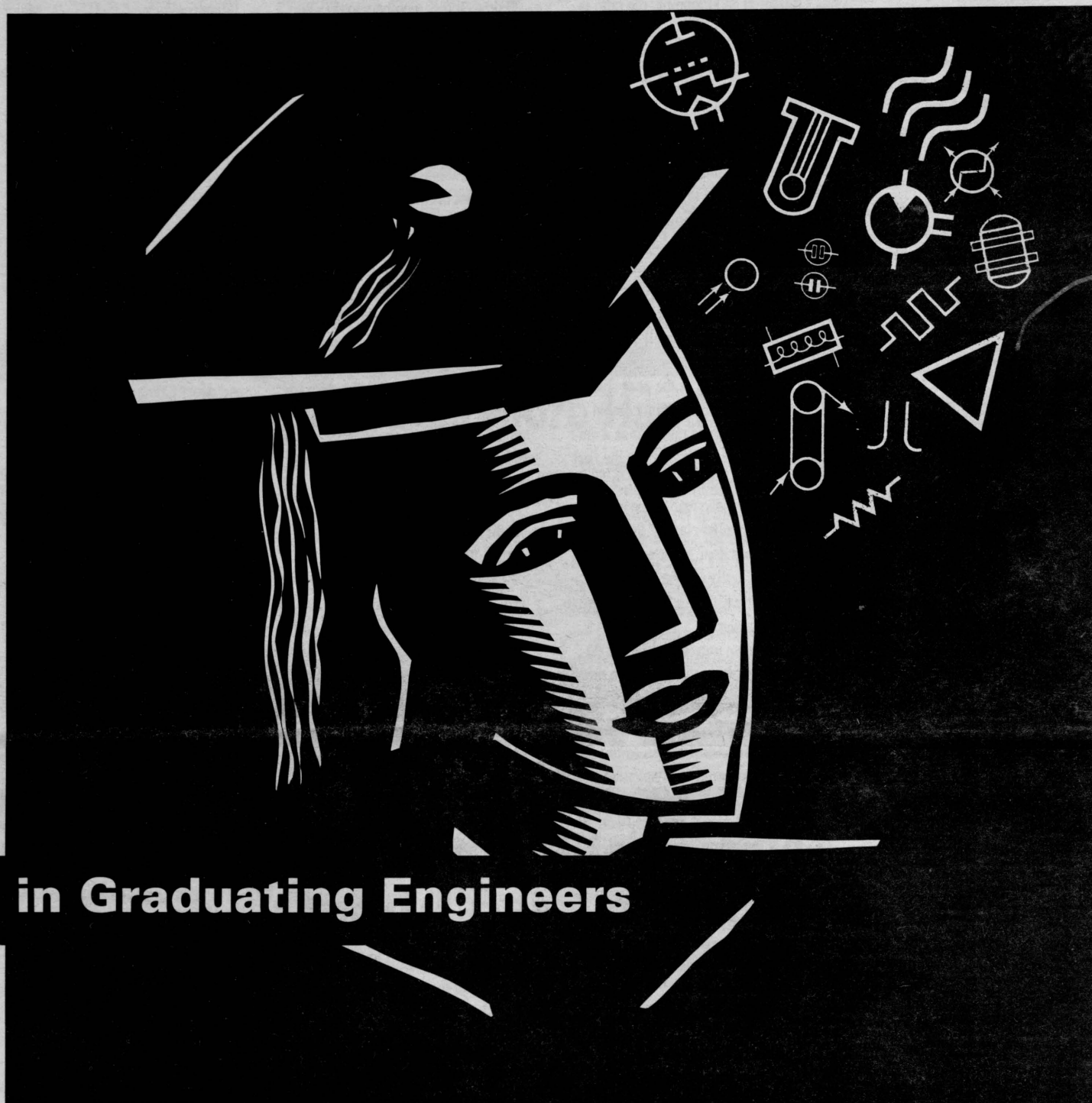
Tech Tops in Graduating Engineers

on campus, however, the limited number of African-Americans with Ph.D.s is making it difficult. There were only 12 new in the country last year. Tech was able to hire two.

Since the office of Minority and Special Programs opened in 1974, Tech has progressed in its mission of encouraging minorities to pursue careers in engineering and sciences said Dr. Lytia Howard, assistant dean, Minority and Special Programs.

Tech wants to be the front runner of the future, said Dr. Howard. By the year 2000 the nation will be 70 percent non white, according to the 1990 census. "So if they are not in engineering, then who will shape the technological foundation for our country," asked Dr. Howard. "It's a matter of survival for our nation that minorities be included in science an engineering.

"I think we have made excellent strides. In just 20 years,we have gone from not admitting African-Americans to being in the forefront in the country," Dr. Howard said. "I think Georgia Tech needs to give itself some credit in that it has made a consistent effort in trying to attract African-Americans."

Despite Tech's successes in grad-

uating minority engineers, it's not without some problems. While about 65 percent of all minority students graduate only about 45 percent of the African-Americans graduate, according to statistics provided by the Office of Minority Educational Development (OMED).

The drop-out rate for African-Americans is higher because they have to make more of an adjustment, said Raymond Hart, president of Georgia Tech African-American Association.

"About 80 percent of African-Americans who come to Tech come from predominately black schools," explained Hart. "They are used to more of a community-type atmosphere, where the entire community is looking out for you."

Dr. Howard disagreed with Hart saying adjustment is not as hard at Tech as it would be at other predominately white campuses.

"Our students have a gold mine here, but they don't realize it," she

said. "A lot of the isolation is self-imposed and it is not because the other students or the administrators are not available to them. Of course, this is a very unpopular viewpoint."

Dr. Howard agrees there are some problems, but feels if work continues, some areas will improve. "Attempts are being made to meet the needs as soon as those needs are identified," she said.

Several programs are underway to help undergraduate minority students. For example, Students at Tech Expand your Potential (STEP) is a free tutorial service providing assistance primarily for engineering students who need help in freshman-level math and science courses. There is also Undecided Engineering College (UEC) for freshmen who have not chosen a specific major within the College of Engineering. The director of Special Programs helps schedule proper courses and provides counseling for academically troubled students.

Tech's support role for many of these students begins as early as elementary school. Some of these programs include Operation Reach for high school students. It may entail an on-campus visit with tours of selected schools of engineering. Minority Introduction to Engineering (MITE), for senior minority students, consists of two one-week summer sessions. Activities include film and slide presentations, field trips and recreational events. Juniors can participate in a similar program called Tech Prep.

One of the biggest obstacles in recruiting minority students is finding students who are prepared academically before they apply to Tech, Dr. Howard said.

"Minorities don't think about becoming an engineer because it is not around them" she said. "Not only can they be engineers, but it is the most viable option in a society that is not getting less technical, but more technical."

One of the overriding factors in attracting minority students to Tech is beating out the competition. More colleges are beginning programs similar to Tech's. And while they may not offer the support systems, the others are offering something that's hard to turn down - money. Tech is not matching the financial commitments made by others schools, Howard said. One student wanted to attend Tech, but decided to go to Emory University after being offered a full scholarship. Tech offered him $500. Tech is very good about giving students help near the end of their degree, but we don't make a commitment to the entering student. She could not explain why that difference exists.

"All I know is we've lost very good student because we don't match their scholarship," she added. ▲

Appropriations Increased; Still Short of Needs

by Victor Rogers

Georgia Tech is committed to the break-up of large classes, an action that is essential to the quest to be the nation's premier technological institution by the 21st century. But ambitious plans don't come cheap.

Tech received $8 million or 12.5 percent of the $65 million in new state appropriations for the Board of Regents for FY 1993. Tech's total increased funding is $11,173,591 including designated and discretionary funding.

"We're grateful for what we got, but we've got a long way to go. Our needs are far in excess of what we received," said Dr. Mike Thomas, executive vice president.

One need cited often is additional faculty. Andrew Harris, director of state relations and special assistant to the president, said the student-to-faculty ratio was emphasized again this year.

"We zeroed in specifically on our needs and made those needs known to the chancellor and his staff," Harris said.

"This year we had an outside third party, the Accreditation Board for Engineering and Technology (ABET), to confirm what we've been saying for the past several years, 'Look, we need some help with our student-to-faculty ratio and with our facilities," Harris said.

The report from the 1990-91 visiting committee of the Engineering Accreditation Commission of ABET cites an inadequate student-to-faculty ratio as a major deficiency of Georgia Tech. According to Institutional Research and Planning, the ratio is 21 to 1.

"We're just not doing justice to the students -- some of the brightest in the nation -- by having them, particularly in the lower level core curriculum classes, in classes with 75, 100 or 150 students," Harris said.

Dr. Narl Davidson, associate dean, College of Engineering, said large classes make it hard for the instructor to gauge how well his or her message is getting through to the students. "A professor can be much more effective in a small class. Large classes inhibit interaction," he said.

Large classes, or the poor student-to-faculty ratio, are often cited in various collegiate rankings as a reason for keeping Tech out of the first tier of universities.

Students also realize the importance of smaller classes. Student evaluations done at the end of the quarter usually list the large class size as a negative factor, according to Dr. Davidson.

"My own view is that, if we do not add more resources to hire more faculty, our choices are: lose the momentum to become a prime player on the national and international scene; or, cut back on the number of students we service," Dr. Davidson said.

According to Dr. Thomas, part of Tech's allocation will be used to add 20 new faculty members to the current 607 full-time faculty, bringing the student-to-faculty ratio to 20.4 to 1. President Crecine wants to reduce the student-to-faculty ratio to 15 to 1 by 1996.

Five of the new faculty—four permanent and one temporary—will join the School of Mathematics beginning fall quarter. This will have a dramatic impact on the size of lecture classes, according to Dr. Fred Andrew, the school's associate director.

Currently the School of Mathematics has 48 full time faculty, and lecture classes have about 180 students. The additional faculty will reduce the average lecture class size to about 45 students. Reducing the number of students in math classes is very important because virtually every Georgia Tech student has to take two years of math, according to Dr. Shui-Nee Chow, the school's director.

Dr. Chow said he would like to reduce the average class size to 30 students. "If we can continue to add faculty members at the rate of four or five per year, we can expect to have 30 students per class in about four or five years," he said.

In addition to the poor faculty-to-student ratio the 1991 ABET report cited the poor condition of certain facilities—specifically the deterioration of the Daniel Laboratory—as a serious concern. In FY 92, the Regents allocated $500,000 in Major Repairs and Renovation Funding (MRRF) to Tech for renovation of the laboratory. The estimated total cost of the renovation of the laboratory is $1,820,000. Therefore, the funding requirements for this facility carry over into FY 93.

In February, the Space Committee, comprised of representatives from Tech colleges and departments, and chaired by Associate V. P. for Facilities Bill Ray, began soliciting requests for MRRF projects. The committee's suggestions were given to the Institute Resource Allocation Advisory Committee (IRAAC) in April. From there, recommendations were given to President Crecine who made final recommendations to the Board of Regents on May 15. The Regents are expected to consider staff suggestions at their July meeting.

Georgia Tech is one of 34 units in the University System of Georgia vying for state funds. Each college or university has specific needs which sometimes are not fully funded by the state, particularly in times of economic hardship. This is where the individual university's fund raising efforts can and do play a major role.

Barbara B. Rose, Georgia Tech's executive director for development, said the mission of the Development Office is to bring support into the institution. "Although money is our major concern, support is more than money. It can also be volunteers, equipment, services or gifts-in-kind," she said.

According to a Council on Financial Aid to Education (CFAE) report of private contributions, Georgia Tech received $27,386,197 from July 1991 to March 1992. Sources of contributions include alumni, foundations, corporations and other individuals. The funds are used to improve the quality of life at Georgia Tech through scholarships, fellowships and financial aid for students, endowed chairs for professors, research, buildings and equipment.

A feasibility study is currently underway to determine if a capital campaign should be initiated. The study will be completed in early June, and the findings will be reviewed by the Georgia Tech Foundation to help determine the course of a major institute-wide fund raising endeavor. ▲

National Fellowship Awards Give Tech More to Brag About

Five years ago when Dr. Helen Grenga decided to work toward increasing the number of National Science Foundation Fellowships awarded to Georgia Tech graduate students, less than one percent of the Fellowships were given to Tech students. Today, it has increased to 2.4 percent.

Although the number of National Science Foundation Graduate Fellowship awards decreased by 21 percent between 1991 and '92, Georgia Tech's percentage of NSF awards increased because the number of awards was less. This year, 16 Georgia Tech graduate students, received NSF Fellowships. Five minority Fellowships were also given. Twenty-nine Tech students won honorable mentions. Six of the 10 recipients who did their undergraduate work at Georgia Tech are continuing their graduate studies here.

Believing that Georgia Tech has some of the best and brightest students in the nation, Dr. Grenga, the associate vice president and dean of Graduate Studies and Research, and Dr. Jeff Donnell, a student development specialist in the school of Mechanical Engineering are working toward increasing the number of recipients of the National Science Foundation Fellowship. The Fellowship is considered the "Heisman Trophy" of all the graduate fellowship awards.

Last year Dr. Grenga was able to get money for seminars taught by Dr. Donnell. The seminars helped students with the complicated application process. So far seminars have been scheduled for Physics, Chemical Engineering and Mechanical Engineering. However, more departments need to participate, Dr. Grenga said.

One of the first steps, and possibly the most complicated step in obtaining a NSF Fellowship, is accurately completing the application, said Dr. Donnell. The selection process is very competitive, therefore the application must be very professional and well thought out. Students cannot wait until the night before the deadline to fill it out.

"They have to approach it as if they are out in the real world and begin functioning as a professional," he explained.

Graduate Fellowship recipients receive $14,000 plus tuition and fees for a 12 month period for up to three years. But, the money is not the only reason for applying for the Fellowship. It's the "bragging rights," Dr. Donnell explained. "The best schools get a lot of NSF scholarships and I feel the students here should do as well."

This year, Georgia Tech tied for fifth place with Stanford University for NSF Fellowship awards in engineering to a bachelor's institution. Nine undergraduate students at each university were awarded fellowships. MIT undergraduate students received the highest number of awards in engineering with 19. Purdue and the University of Illinois were second with 13, followed by University of California, Berkeley with 11.

Georgia Tech also ranked fifth as the proposed graduate institution among regular NSF fellows in engineering, with 11 awards, and fourth among NSF minority fellows in engineering, receiving three. Again, MIT was first as the proposed graduate institution, with 45 regular engineering awards and nine minority awards.

In sciences, Tech undergraduates received three regular graduate Fellowships in Mathematics, Atmospheric Sciences and Biology, and two minority Fellowships in Physics, and Political Science. Three of the five students are graduate students here.

"My goal within the next three or four years is to have 75 to 100 NSF Fellows at Georgia Tech. Which may be a little optimistic, but I think it's quite possible," Dr. Grenga said. "We have the quality students, we have had the quality of students at GT for many years. The program simply has not been promoted."

Nationally, during fiscal year 1992, NSF awarded 250 regular fellowships in engineering and 490 in the sciences, 43 minority fellowships in engineering and 77 in the sciences.

To be eligible for a NSF Fellowship students must be a U.S. citizen, new or in their first year of graduate school. They must have good grades, record scores, references and research experience. Their graduate research must lead to a master's or doctoral degree in the fields of mathematics, physical, biological, engineering and social sciences; history and philosophy of sciences.

It is a "promise of the future," he said of students receiving the Fellowship. "It marks you as one of the best in your field."

If you are interested in scheduling a seminar please contact Dr. Donnell at 853-9499. Applications are also available in the Graduates Studies and Research office in the Savant building. ▲

> "My goal within the next three or four years is to have 75 to 100 NSF Fellows at Georgia Tech. Which may be a little optimistic, but I think it's quite possible"
>
> --Dr. Helen Grenga

Update: Strategic Planning

by David Kennedy

Most unit deans and directors will know soon if they like the strategic planning process. It is, after all, the process that determined where 50 percent of the new state appropriations go for fiscal year '93. That means half of the eight million dollars given Tech in new state money for FY '93, or about four million dollars was allocated as a direct result of unit's strategic plans according to Tim Gilmour, vice president for Strategic Planning.

While the plans haven't been fully digested, Gilmour said, "The principle thing we've accomplished through strategic planning is the allocation of resources to planning priorities. I think we did a pretty good job of getting money to places where the most promise exists right now." Gilmour said the important thing to remember is that, money was given to units which had the best developed plans for implementation. There are other units that Tech will help reach that state of readiness to be eligible for funding next year. "It was not a matter of not having enough good ideas, but of not having enough money. ... There were priorities we wanted to fund, but things like benefits set their own priorities. Benefit costs are ratcheting up and up and up and that chews up a fair amount of money."

Gilmour says its clear that if we're going to achieve our objective, that of being the premier technological university of the 21st century, we have to think hard about expanding our programs. These programs should expand into new areas in which Tech has not previously had great stride. Gilmour said, " I think we have some promising options. One of which is health enhancement. The perception was that Georgia Tech had not done well with regard to national institute of health (NIH) funding. What they were able to show by examining the funding is that if you took contracts and grants that members of this group have and add it all up, you have $8 to $10 million in NIH funding, out of $150 million, that far exceeds anything we thought we had."

Areas in which the Vice President says Tech hopes to take the lead include: telecommunications; manufacturing; environmental engineering; advanced materials and defense electronics.

"We are beginning to fully review the plans, and will, over this summer get feedback to the units. We're in the process of thinking about the next cycle and how we'll organize that. We're looking at options for putting the planning process on an electronic basis so the plans can be submitted in a common format. We might even be in a position that we can provide some guidance for the units through the computer itself. From what we learned this first year, I think we'll end up staggering the plans so we don't end up hearing them all at once," said Gilmour.

Strategic planning has the potential to reach into every corner and make Tech a better place to get an education and a better place to work. Gilmour says in addition to identifying critical areas for funding, he hopes the planning will help create an undergraduate program that is truly excellent. Creating an undergraduate "experience" that is well rounded is also a strategic planning priority. Gilmour said, "When we talk about leadership, we talk about having the vision and providing the support to make things happen. What we don't have, and I think its particularly apparent in Student Services, is some of the players that we need in place to make these things happen.

▲

Computer Helps Health Care Become More Hands-On

by Sallylyn Hill

In a typical day a home health care provider may visit five to six patients, around 35 a week. Depending on the area, a provider spends about 20 minutes driving to each patient, between 30 to 60 minutes administering care and approximately 20 minutes documenting the visit.

If it is the first visit, then admission information must be recorded. This entails a series of questions, a complete physical including the entire patient history, temperature, blood pressure, pulse, and a review of medication being taken. If a new symptom appears, a physician has to be called who will give verbal orders over the telephone. This information must also be written down by the visiting nurse. These two things could add an additional 10 minutes to completion of a patient's paperwork.

Possibly as soon as this summer, a high tech hand-held computer may help home health care providers break the "paper chain."

On the average about 40 percent of a nurse's time—two eight-hour days—is spent completing paperwork. Little more than half of a nurse's time is spent doing what she was actually trained to do- care for patients.

Patient Care Technologies, Inc., PtCT, founded in January, 1991, developed a hand-held computer and software that will produce and track medical records, virtually eliminating the need for paper medical records.

The unit is being developed through the Advanced Technology Development Center (ATDC) located on Tenth St., N.W. Georgia Tech campus. Georgia Tech administers funding to ATDC to help newly formed companies develop high tech products.

The hardware looks like a battery-operated Nintendo Gameboy, which gave inspiration for the product. The system itself is built around a proprietary user interface which stresses simplicity and a structured, data base driven, patient record.

It is very simple to operate. The operator can complete a medical chart and record all pertinent data, using one hand.

"This is important in clinical practice, because if you are confirming information with a patient, you like to make eye contact," said Mark L. Braunstein, a physician and one of PtCT founders.

Braunstein and four other founders began this endeavor about two years ago, in an effort to find a way to record information more efficiently, with more structure.

According to a research group studying aging, a major problem in the medical industry is poor information flow and work organization. Information about patients is often lost, garbled or duplicated incorrectly, notes are illegible, or information is not recorded adequately, the report stated.

A key concept to the hand-held computer is "documenting as you do," Braunstein said. Information is recorded faster into a computer and transferred to the central base without having to be copied, mistakes are less likely to occur.

The study also stated that medical costs are skyrocketing and need to be controlled. Between 1967-91 spending on medical care rose, from $51 billion to $738 billion a year, Braunstein explained. It rose from 6.3 percent of our Gross National Product to 12.5 percent of GNP.

"The spending by businesses on health care is greater than the total after-tax profit of U.S. businesses," Braunstein said. "The medical industry has to increase quality. An increase in quality in health care, like any business, is based on information.

"By having the structured computer based records, they can begin to build quality control in the system," he explained.

While the product has many uses, the home health care industry was targeted as its primary user because of the burden of paperwork that befalls home care providers, he explained.

About 40 percent of a home health care nurse's time is spent doing paperwork, according to Kay Huelsbeck, clinical information systems specialist for the non-profit Visiting Nurse Association of Metropolitan Atlanta, Inc.

"That's not what they want to be doing. What they want to be doing is providing the care," she said. "They don't want to be explaining what they are doing for a patient repeatedly."
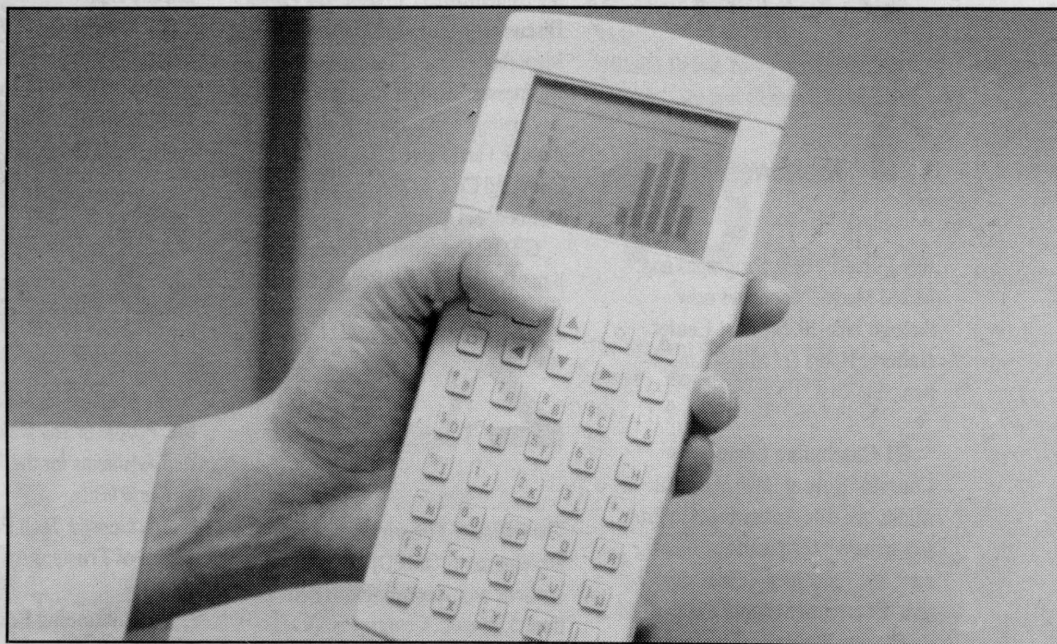
Another problem is when a physician needs to be called to change a patients care. The doctor does not have a duplicate record. Recommendations are based on information the nurses give by telephone and personal knowledge, not a patient record, Huelsbeck said. The nurse is the only one with the information until it's turned in to the central office. The office staff then makes duplicate copies of the record. Not only does this delay the information but it increases chances of error.

The hand-held computer would eliminate that problem because a physician could pull up the most up-to-date information in the computer whatever the location. The hand-held computer would help eliminate the communication gap between other medical personnel treating the same patient, said Huelsbeck. For example, a nurse was treating a patient who had developed a blood clot in his leg. The physical therapist needed to be aware of this problem. So the nurse called the central office, reported the information and tried to stress how important it was that the physical therapist knew about the clot. With a computer such as the one being developed, this information could be immediately recorded and available to everyone working with the patient, without using a middleman.

Another important factor is that the computer provides a checklist of all the things that are relevant to a particular subject. Therefore it can notify a health care provider that they may be making a mistake by not checking for something or checking on something that is not relevant to that particular treatment,

explained Braunstein. This factor should increase the patients confidence in getting the proper care.

Finally, outside of direct patient care, the new technology will be able to speed up insurance claims by providing more complete information to the payer sources, thus eliminating the middle man again, said Braunstein. Usually the information has to be copied by an administrative person then submitted to an insurance company. The computer will have the capability to send the information directly to the payer source. Again, this reduces the chance of errors.

The hand-held medical record computer will provide a service to the patient, the medical provider, and the insurance company, he said. Those advantages include reducing the amount of time spent documenting information, less paperwork, an increase in availability and timeliness of information, and fewer errors. It also will improve productivity, increase patient confidence in getting proper care and speed up filing proper claims.

▲
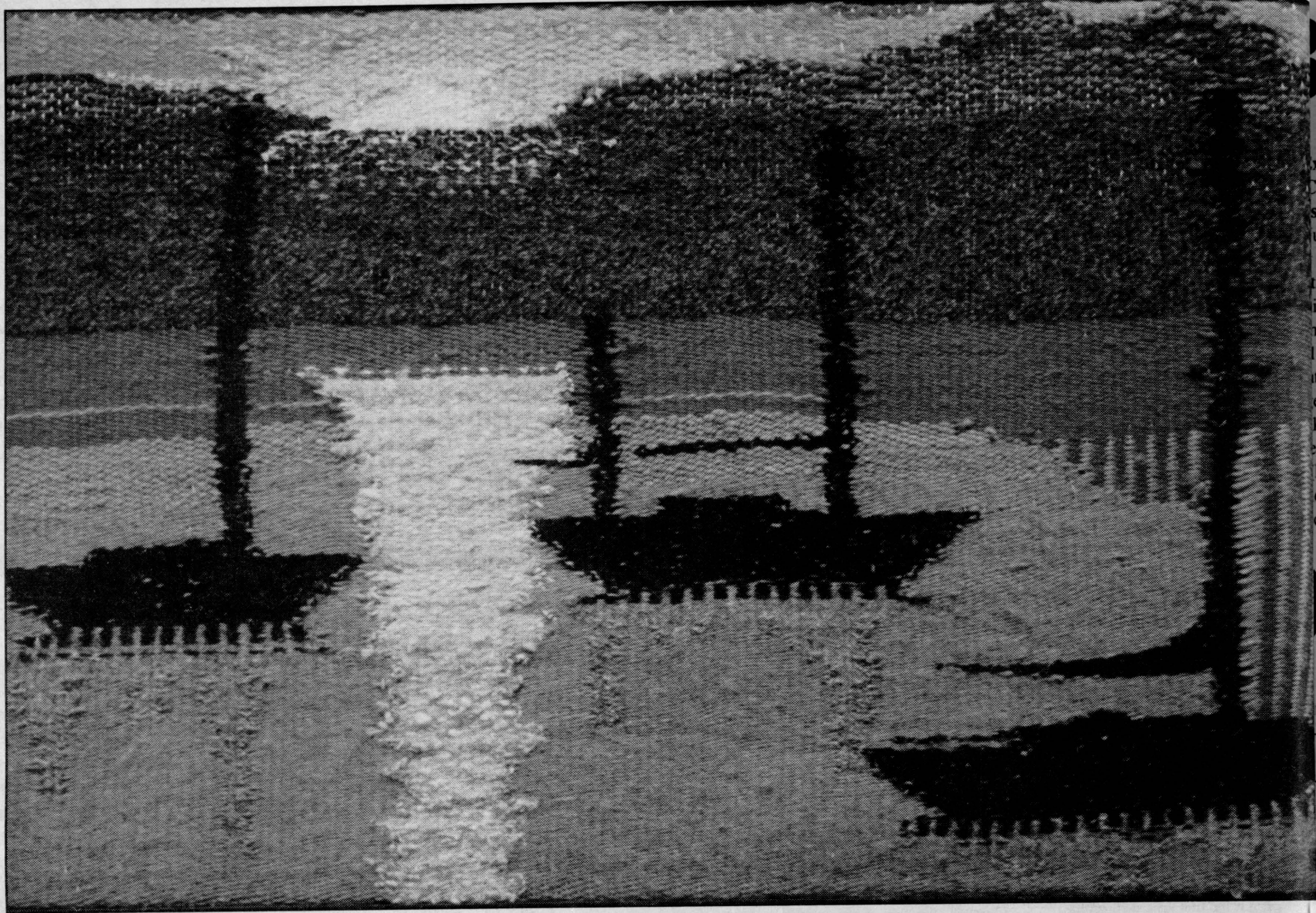
Sails At Sundet (mixed media) by Sharon L. Tsepas

Tsepas' work was just one of many student works on display during the recent Blooming Artists exhibit in the Georgia Tech Student Center Gallery.

JUNE

1 MONDAY

Ray Durrell, "Oils, Serigraphs and Mixed Media," continues now through June 19, **Student Center Gallery.** Hours are M-F 9 a.m.- 4 p.m., Sat.-Sun. 1 p.m.- 5 p.m.

GT **Continuing Education Courses** "Role of Environmental Audits and Site Assessments in Property transfers (Environmental Science and Technology 136)," June 1-5 and "Hazardous Material Control and Emergency Response (Environmental Science and Technology 110)," June 1-5. To register for these courses call 894-2547.

2 TUESDAY

The Office of Minority Educational Development (OMED) Annual **Awards and Recognition Celebration,** 5:30 p.m., Georgia Pacific Building Auditorium. For info call 894-3959.

SGA Town Hall **Meeting** , 7:30

Computer Integrated Manufacturing Systems/MOT Consultants **Panel Discussion**--"Consulting Practices in Manufacturing and Technology-Based Businesses," Robert Anclien (Arthur Anderson,) Wally Buran (Deloitte and Touche,) and Steve Macadam (McKinsey and Co.), 4:00 p.m., room 105, Instructional Center.

GTOC Executive Meeting, 5:15 p.m., President's Conference Room.

p.m., room 117, Student Services Lecture Hall.

GT **Continuing Education Course** "Corrugated Box Performance (Institute of Paper Science and Technology 668)," June 2-4. To register call 894-2547.

3 WEDNESDAY

Noon **deadline** for submitting Calendar, People In The News and Classified Ads items for the June 15 issue of *The Whistle*.

The Georgia Tech Foundation **Board of Trustees** Annual **Meeting,** June 3-4.

GT **Continuing Education Course** "Writing Better Computer Software Documentation (Computing 112)," June 3-5. To register call 894-2547.

4 THURSDAY

Eileen Kraemer, "The Animation Choreographer," Graphics, Visualization and Usability (**GVU**) **Brown Bag** Series, noon, room 101, College of Computing.

Today is the deadline to join the **Georgia Tech At Work Weight Watchers Group.** The group's third session begins June 8. For info call Chris Dreger at 894-2819.

GTOC General Meeting, 5:30 p.m., Tennenbaum Auditorium. Faculty, staff, students and alumni welcome.

5 FRIDAY

Last day of class.

Don Fisher, University chusetts, "Visual Search a Codes," **Cognitive Science quium,** 12 p.m.-1:30 p.m. College of Computing.

GT School of Biology Dr. Clarence Clark, associ sor, Department of Biolog Morehouse College, 4 p.m 320, Cherry-Emerson Buil

"Tribute to Leonard Be featuring the Georgia Tech and the Technicalities, 8 p gia Tech **Theatre for the** ticket info call 894-9600.

AR

MONDAY

:ams begin.

ontinuing Education
, "Hypermedia (Computing
une 8; "ISO 9000: Internal
(Quality 101)," June 8-9;
ing Buildings for Asbestos
ng Materials (Environmen-
:e and Technology 114),"
0; "Connectivity Workshop
ting 116)," June 8-12 and
ement of Underground Stor-
k Systems: Installation,
tection and Corrective
:nvironmental Science and
gy 135)," June 8-12. To
call 894-2547.

TUESDAY

tinuing Education Course
Oriented Design (Comput-
," June 9-11. To register
:547.

0 WEDNESDAY

tinuing Education Course
hell Programming (Comput-
," June 10-12. To register
:547.

1 THURSDAY

tinuing Education Cours-
iging Asbestos in Buildings
imental Science and Tech-
17)," June 11-12 and
y Capacity Workshop
irtation Training and
i Center 104)," June 11-12.
er call 894-2547.

3 SATURDAY

'ommencement, 9:00 a.m.,
:r Memorial Coliseum,
s Dick Truly, former head
A and Class of '59 Georgia
Iuate.
is Wide **Steam Outage**--
us steam supply will be
f at 8:00 p.m. and will
f until noon, June 20.

Kingfest, Auburn Avenue, Martin
Luther King Center. For info call
524-1956.

14 SUNDAY

Flag Day

15 MONDAY

GT Continuing Education Courses
"Intermediate C (Computing 101),"
June 15-17 and "Fundamentals of
Environmental Toxicology (Environ-
mental Science and Technology),"
June 15-19. To register call 894-
2547.

16 TUESDAY

GT Continuing Education Courses
"Occupational Respiratory Protection
(Environmental Science and Technol-
ogy 120)," June 16-18 and "Indoor
Air Quality Symposium (Environ-
mental Science and Technology
102)," June 16-19. To register call
894-2547.

17 WEDNESDAY

Noon **deadline** for submitting Calen-
dar, People In The News and Classi-
fied Ads items for the June 29 issue
of *The Whistle*.
    **GT Continuing Education
Courses** UNIX Internals (Computing
115)," June 17-19 and "Transporta-
tion Demand Management (Trans-
portation Training and Research
Center 114)," June 17-19 in Long
Beach, California. To register call
894-2547.

20 SATURDAY

Kingfest continues, Auburn Avenue,
Martin Luther King Center. For info
call 524-1956.
    First day of summer

---

21 SUNDAY

Father's Day

22 MONDAY

Registration Summer Quarter.
    "tech television network" summer
movie "Indiana Jones," all day, June
22-28, 1st floor monitors and Music
Listening Room, Student Center.
    **GT Continuing Education
Courses** "Storm Water Management
(Civil Engineering 112)," June 22-24
and "C++ (Computing 104)," June
22-24. To register call 894-2547.
    The Great Race, Peachtree Street
at Peachtree Center. For info call
614-5000.
    The Benson and Hedges Blues
Festival **Brown Bag Concerts**, June
22-26, Woodruff Park. For info call
653-7160.

23 TUESDAY

Summer Quarter classes begin.
    **GT Continuing Education
Courses** "Introduction to GIS (Geo-
graphic Information Systems 102),"
June 23-25 and "Ada: Real-Time
Embedded Systems Programming
(Computing 119)," June 23-26. To
register call 894-2547.
    Chris Daley, "The Balanced
Brain," June 23-July 17, **Student
Center Gallery**. Daley is an estab-
lished Atlanta artist and Georgia
Tech alumnus. Gallery hours are M-
F 9 a.m.- 4 p.m., Sat.-Sun. 1 p.m.- 5
p.m.

24 WEDNESDAY

GT Continuing Education Course
"Controlling Occupational Exposure
to Bloodborne Pathogens (Environ-
mental Science and Technology
132)," June 24. To register call 894-
2547.

25 THURSDAY

GT Continuing Education Courses
"Introduction to Image Processing
(Geographic Information Systems
103)," June 25-26 and "Practical and

Theoretical Issues in Scientific and
Engineering Visualization (Comput-
ing 125)," June 25-26. To register
call 894-2547.

27 SATURDAY

Gay Pride Celebration, Piedmont
Park. For more info call 325-4435.

28 SUNDAY

Symphony In The Park, featuring
the Atlanta Symphony Orchestra,
Grant Park. For info call the Atlanta
Symphony at 898-1182.
    A **Festival of Cultures,** Under-
ground Atlanta, June 28-July 28. For
info call 523-2311.

29 MONDAY

Options **Juggling Demo**, 11:05 a.m.-
noon, Student Center Steps.
    Options Class Registration, June
29-July 3, PO Lobby, Student Cen-
ter, 10 a.m.- 2 p.m.
    **GT Continuing Education
Course** "UNIX System Administra-
tion (Computing 110)," June 29-July
1. To register call 894-2547.
    "tech television network" summer
movie "Green Card," all day, June
29-July 5, 1st floor monitors and
Music Listening Room, Student Cen-
ter.

30 Tuesday

Reggae Concert, 11:05 a.m.- noon,
Student Center Steps.
    Volunteer Fair, 11:05 a.m.- 1
p.m., Student Center Walkway.

JULY

1 WEDNESDAY

Noon **deadline** for submitting Calen-
dar, People In The News and Classi-
fied Ads items for the July 13 issue
of *The Whistle*.

Reminder-- the organizing meeting
for metro Atlanta **1993 Engineer's
Week**, August 20, 3:30 p.m., Georgia
Society of Professional Engineers.
Contact John Philips 921-0312 or
Jackie Kimberly 355-0177.
    Come **Tie Dye**, 11:05 a.m.-noon,
Student Center Lawn.

4 SATURDAY

HOLIDAY-- Independence Day

5 SUNDAY

Selections from the Permanent Stu-
dent Center Art Collection on display
July 5-December 31, **Richards
Gallery**, Georgia Tech Theatre for
the Arts.

6 MONDAY

"tech television network" summer
movie "Monty Python Live at Holly-
wood," all day, July 6-12, 1st floor
monitors and Music Listening Room,
Student Center.

7 TUESDAY

The King's Singers, a male sextet
from England, on stage 8 p.m., **Geor-
gia Tech Theatre for the Arts**. For
tickets call 894-9600.
    Laser Karaoke, 10:30 a.m.- 1:30
p.m., Music Listening Room, Student
Center.
    Blood Drive, July 7-8, 10:30 a.m.-
4:00 p.m., Student Center Ballroom.

10 FRIDAY

The **Student Center Theater** pre-
sents the movie "Space Balls," July
10 & 11, 9 p.m., $1.50, Student Cen-
ter.

Georgia Tech's Annual Retirement Dinner was held on May 19 in the Wardlaw Center farewell to the 1992 Retirees listed here with original dates of employment:

Rudolf M. Ahrens
Physics
Professor
9/1/57

Dwight Allen
Aerospace Engineering
Assistant to the Director
7/1/66

William F. Ames
Mathematics
Regents Professor
7/1/75

Harland B. Armitage
GTRI-Countermeasures Development (CMDL)
Senior Research Engineer
3/1/82

George H. Bearce
GTRI Mechanical Services
Instrument maker
7/17/67

Aubrey M. Bush
Electrical Engineering
Professor
9/19/60

Avanell S. Brush
GTRI-Threat Systems Development (TSDL)
Electronics Tech II
1978

Jerry L. Burge
GTRI-Threat Systems Development (TSDL)
Electronics Tech III
1976

John Caudell
Aerospace Engineering
Research Associate I
7/1/56

Anne W. Chastain
Vice President-Interdisciplinary Programs
Staff Assistant
4/23/87 (3/48-2/58)

Howard D. Edwards
Office of Academic and Research Support (OARS)
Principal Research Engineer
1/1/59

Victor Ellis
Plant Operations Division
Custodian II
1974

Donald A. Esper
GTRI-Threat Systems Development (TSDL)
Electronics Technician III
7/20/81

Robert B. Evans
Mechanical Engineering
Assistant Professor
9/28/70

J. Edmund Fitzgerald
Civil Engineering
Professor
7/17/75

Eredean Muckle

Eredean W. Muckle started working as a custodian for Georgia Tec[h]
She said while many things changed during that period, many staye[d]
Custodians for Tech stopped doing dormitory housekeeping chores[.]
Muckle said that change was a great improvement in the quality of [...]
dians. Facilities for custodians got better in the past three or four ye[ars]
Muckle. While things have gotten better, Muckle believes custodia[ns...]
somewhat of a standstill. If she could change one thing at Tech, she [...]
improve the career path for her co-workers to help them advance bo[...]
outside their department. The mother of four and grandmother of fi[ve...]
all, good things happened to her while she was at Tech and "The jo[b...]
what you make of it. Good things will come to you if you do the be[st...]

Margaret E. Hunnicutt
Civil Engineering
Staff Assistant
2/15/73

Robert L. Jackson
Plant Operations Division
Dept Manager-Administrative
3/8/62

Alton P. Jensen (Pete)
College of Computing
Professor
9/10/56

Cecil G. Johnson
Industrial & Systems Engineering
Professor
9/1/55

Loraine L. Jones
Plant Operations Division
Staff Assistant
4/28/78

H. Daniel Kimberly
Print & Photo Center-OCA
Senior Offset Press Operator
9/25/61

Edwin P. Kohler
VP Student Affairs
Associate Vice President
9/13/63

Anne O. Martin
Campus Police
Public Safety Dispatcher
8/6/79

David W. Martin
Physics
Professor
2/13/57

Edward E. Martin
GTRI- Radar Instrumentation Development (RIDL)
Senior Research Engineer
9/1/66

Virgil McConnell
Mechanical Engineering
Mechanical Technician III
1/5/78

George Alford Mille[r]
Chemistry/Biochemis[try]
Professor
9/1/58

Mack A. Moore
Economics
Professor
9/1/63

Eredean W. Muckle
Plant Operations Divi[sion]
Custodian I
9/30/55

Henry M. Neumann
Chemistry and Bioche[m]
Professor
1956

William D. Pristupa
Plant Operations Divi[sion]
Chiller Plant Operator[...]
9/25/75

Roger F. Rupnow
Corporate Relations
Associate Director
1966

Charles E. Ryan
GTRI
Principle Research E[n]
2/15/71

Paul H. Sanders
Civil Engineering
Professor
9/1/61

Janice Gosdin Sang[...]
Alumni Affairs
Assistant to the Direc[tor]
1/21/63

Cecil Gray Johnson

Dr. Cecil Johnson began his Tech experience as a student in 1945 and then as an Industrial Engineering professor in '55. He received four degrees from Tech, including his Ph.D., and is estimated to have taught over 16,000 engineering students. He prides himself on being balanced and has tried to achieve that balance in his research and educational responsibilities. In 1992, he received the Institute of Industrial Engineers (IIE) Albert G. Holtzman Distinguished Educator Award in Chicago and says his experience at Tech has been one of variety. Johnson's experience as an Air Force fighter pilot taught him that he enjoyed variety. "I'm interested in a lot of things. I do a lot of things reasonably well and don't really want to pay the price to be the best at any one thing."

Michael C. Bernard
Civil Engineering
Associate Professor
9/1/64

W. Carl Biven
Economics
Professor
9/1/58

Sarah Born
Economics
Administrative Secretary
(1954-1956) (1965)

Henry C. Bourne
Electrical Engineering
Professor
8/15/81

Robert M. Boyd
Office of Academic and Research Support (OARS)
Senior Research Associate
1/2/64

Anthony J. Chimera
GTRI-Threat Systems Development (TSDL)
Senior Research Engineer
8/28/78

Joseph D. Clement
Nuclear Engineering
Professor
4/1/65

Virginia Cooper
Vice President-Student Affairs
Senior Administrative Secretary
9/9/68

Dorothy G. Curry
Human Resources
Staff Benefits Manager
6/9/69

James E. Dull
VP Student Affairs
Vice President
8/1/57

Douglas L. Fowlkes
Health & Performance Science
Assistant Professor
9/19/60

Richard Fuller (Dick)
VP Operations
Vice President
9/1/70

Floyd E. Garland
Print & Photo Center-OCA
Graphics Tech I
4/21/80

Martha J. Giglio
Vice President-Interdisciplinary Programs
Administrative Secretary
9/27/84

Jerry L. Hitt
Office of Registrar
Director, Administrative
6/28/65

William

Smythe has been teachi[ng]
retire this year, students[...]
ing teaching math part[...]
4 years ago, he probabl[y...]
was promoted to assoc[iate...]
Tech. He is married to [...]
tary for Georgia Tech. [...]
fondest memory of Tec[h...]
students. He said, "Its h[...]

histle in saluting and saying

Charles E. Weaver
Earth & Atmospheric Sciences
Professor
9/1/63

Gerald K. Webb
GTRI
Artist II
9/4/62

Gerald A. Wempner
Civil Engineering
Professor
9/1/73

Robert W. Williams
Plant Operations Division
Air Conditioning Mechanic II
5/1/72

Helen C. Wiltse
Library
Associate Director-Administrative
7/1/63

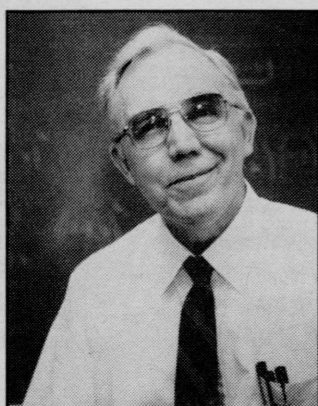**James C. Wiltse**
GTRI
Associate Director
4/3/78

Patricia M. Winn
GTRI-Office of the Director
(OOD)
Senior Secretary
12/8/80

James W. Woods
Information Systems & Services
Systems Analyst II
7/1/56

Clyde M. Wyman
GTRI-Physical Sciences (PSL)
Research Technician II
11/15/77

Betty C. Yarborough
Human Resources
Director Administrative
7/8/63

Pranas Zunde
College of Computing
Professor
10/1/65

w E. Sikorski
& Fiber Engineering
ch Scientist II

. Small
ment Manager-Adminis-

d Smith Jr.
Health Services
Aide

n R. Smythe Jr.
natics
te Professor

A. Thompson
perations Division
ian I

an Nostrand
or

T. Wang
ngineering
or

yne Watson
f Engineering
nt to the Dean

Jr.
lthough he will officially
him in the Skiles build-
wed by a stroke almost
g when he did. Smythe
years after coming to
an administrative secre-
randchildren. Smythe's
among the faculty and
t gone yet."

Two journalists from the Philadelphia Inquirer recently met with Dr. C.S. Kiang as part of Georgia Tech's Journalist-in-Residence Program. (left to right: Ellen Iwamoto, metro copy editor, Paula Fuchsberg, assistant business editor and Dr. C.S. Kiang, Earth and Atmospheric Sciences.)

CUTTING THE RED TAPE

How to Submit a Research Proposal

The Office of Contract Administration (OCA), under the direction of Dr. Mike Thomas, executive vice president, and in partnership with the Office of the President and the Georgia Tech Research Corporation, provides program development assistance and overall contract management for Georgia Tech's research program. Faculty members who want to submit a proposal for research on behalf of Georgia Tech must do so through OCA.

Three divisions of OCA are involved in this procedure: the Contracting Support Division, managed by Barbara Henry; the Program Initiation Division, managed by Dave Hendrix; and the Program Administration Division, managed by Duane Hutchison.

The contracting support division is often the starting point for Principal Investigators (PIs) who are looking for sponsorship. Many of the sponsors announce solicitations and one of Henry's job duties is to make Georgia Tech researchers aware of these opportunities. "We receive literally hundreds of research opportunity announcements in a month. One of the reasons we publish the

Research News is to disseminate those announcements to the campus. Most of the PIs know that our office and the Georgia Tech Research Institute's (GTRI) Program Development Office have a handle on most of the opportunities that are available," Henry said.

The proposal is submitted to Dave Hendrix in the Program Initiation Division where it is reviewed to see that the budget is properly prepared and the language is correct before it is submitted to the sponsors. Once a proposal is submitted, any negotiation between the sponsoring organization and Georgia Tech is handled by the Program Initiation Division. After negotiations are settled, Hendrix signs on behalf of Tech to accept the contract. Once accepted, project numbers are assigned and the contracts are turned over to Duane Hutchison and the Program Administration Division.

Contracting officers in the Program Administration Division read the contract in detail. Hutchison and his staff then put together a project initiation package including a deliverables schedule, which is an itemized list of what Tech committed to deliver and on what date. ▲

CLASSIFIEDS

BOOKS

Going to Europe this summer? Take the '92 Let's Go Europe with you. Excellent condition, only $10. The '92 Guide of all hotels in Europe & the Mediterranean also available. Call Cheri 853-9723.

COMPUTERS

PS/2 50Z, still under warranty, 8513 VGA monitor, 60MB hard drive, 1MB of memory, keyboard, $900. Call Darryl 853-0607.

FURNITURE

Sofa and chair, ivory white with big toss pillows. Like new, $600 (negotiable). Call Tanya 894-4698.

HOUSING

For Rent--3 BR House on Utoy Circle in Southwest Atlanta. $500/month. Call Beverly 894-6948 for appointment.

For Rent-- 2 BR/2 BA House for rent by faculty member on leave. Located 15 minutes from Tech and near a Marta Station, fully renovated in nice neighborhood, nice porches, wood floors, high ceilings, good floor plan for house share, no pets. Available June-December, $900/month + utilities. Call 373-3634 or 853-9305.

For Rent-- 2 BR/2 BA Condominium, washer and dryer, sun porch, $750/month. Call Helen 355-8649.

For Sale--1905 Bungalow, located on Victorian Midtown block, completely renovated, retains original details, but is in new house condition. 2 BR/ 2 BA, all new wiring, heat, plumbing, A/C, easy attic expansion, heart pine floors, $166,000. Call Mary 872-1955.

MISCELLANEOUS

10" Table Saw, Rockwell direct drive on stand, $100. Will deliver within metro area. Call Hugh Denny 894-3522 or PROFS: HDENNY.

Summer Program For Children: KIDS College, June 22-July 31, 7:30 a.m.- 6:00 p.m., Grades K-8. Classes in art, dance, language, computer, math and swimming. For more info call 220-0293 or 220-0205.

Two tickets to see Jimmy Buffet at Lakewood on Wednesday, June 10, 8:00 p.m., section 203 (covered reserved seating), $50. Call Gayle 894-7163.

WANTED

Car Pool to Buford. Call Jane at 894-3460.

Housing for three professors coming from France to give a seminar, co-hosted by Tech, from June 25 to July 18. These professors would like to rent or sublet a reasonably priced house or apartment. Please contact Dr. Catherine Marin at the Department of Modern Languages 894-7327.

Race Numbers for the 1992 Peachtree Road Race. Call Milt (O) 894-3300 or (H) 457-2489.

If you are a member of the Georgia Tech Faculty or Staff, send your classified ads to The Whistle *via mail code 0181, Profs to TMills or Fax us at 853-9187. This is a free service.* ▲

DID YOU KNOW?

The registration deadline for Georgia Tech summer camp programs is June 19th. This years Georgia Tech - Rabun Gap-Nacoochee School Beginning Environmental Sciences Camp runs July 27th - July 31st. The Georgia Tech - Walden Middle School Beginning Science/Space Camp is August 3 - August 7. The programs are designed to help rising sixth, seventh and eighth graders learn about the environment and space through hands on experience while strengthening their science and math skills. For more information or an application, contact Cynthia McCree at University Partnerships at 894-5185.

• • •

Georgia Tech managers are looking for ways to save energy and university money at the same time. Tech Utilities Manager William Potts says the university has a computerized control system at the power plant to optimize boiler and chiller efficiency. Tech buys natural gas on the open market to help reduce operating cost. In addition, the University is using new "EXIT" sign bulbs that will not only reduce energy use, but will reduce labor cost because they last longer. Instead of 700 hours of life, the new bulbs are expected to last 20-thousand hours. Potts says there are many energy and cost saving ideas already in place at Tech, but his department can use all the help employees can give. Turn off your office lights and computers when they're not in use and send your energy saving ideas to William Potts at Plant Operations Mail code 0350.

• • •

Your commercial product idea can become a reality through Georgia Tech's Advanced Technology Development Center (ATDC). ATDC is accepting proposals for its Faculty Research Commercialization Program (FRCP). The program helps take research technology from the conceptual laboratory stage to the commercially viable product stage. The sponsored products are eligible for support up to $50, 000 per project. ATDC hopes to pick three products for development this year from all the submissions within the Georgia Research Alliance (GRA). For more information on the FRCP contact Mike Cassidy or Bob Gemmell at 894-3575. ▲

Governor Zell Miller joins Dr. John P. Crecine and Georgia Tech in preparing for the Earth Summit in June in Brazil. More than 200 people, including government, religious and civic leaders, gathered at Tech recently for the Global Forum of Georgia's conference on Human Survival.