whistle

THE GEORGIA TECH WHISTLE VOLUME 16, NUMBER 36 - DECEMBER 10, 1990

School Of Electrical Engineering Receives $14.2 Million Software Grant-In-Kind—Largest In Tech History

By Pam Rountree

Valid Logic Systems Inc. and Georgia Tech have formed a major partnership which will have a profound effect on the electrical engineering community in the Southeastern United States.

On Dec. 5, Valid announced a ***$14.2 million*** software grant-in-kind to Tech's School of Electrical Engineering which will result in the establishment and dedication of the Valid CAD (Computer-Aided-Design) Center.

It is the largest in-kind gift in the history of Georgia Tech.

"We are pleased to be able to help an outstanding engineering school like Georgia Tech keep its students on the leading edge of design automation technology," said Joe Prang, vice president of marketing for Valid. "The tools and the courses provided through this partnership will help ensure a steady stream of new engineers who are up to date with the latest technology and real-world design methodologies."

Prang said he believes that the Tech grant is the largest university donation ever made by an EDA (electronic design automation) vendor.

Georgia Tech President John P. Crecine said of the announcement: "We at Georgia Tech are overwhelmed by the generosity of Valid. Their contribution helps solidify our position as the top technological university in the South."

Electrical Engineering Professor Jay Schlag said that "this donation will make a significant impact in the ability of the School of Electrical Engineering to teach modern digital design techniques to the graduate and undergraduate students. This type of strong commitment from industry is required to provide computer design tools for student education that are beyond the economic reach of a state assisted school."

Applications of the Valid gift also include the Microelectronics Research Center, where students and faculty will use the tools to design a variety of electronic as well as photonic integrated circuits. The Microelectronics Center will provide a unified testing facility to allow students and faculty to test the performance of integrated circuits designed using the Valid software.

"The gift represents a significant enhancement of our resources," said

See Valid, page 3

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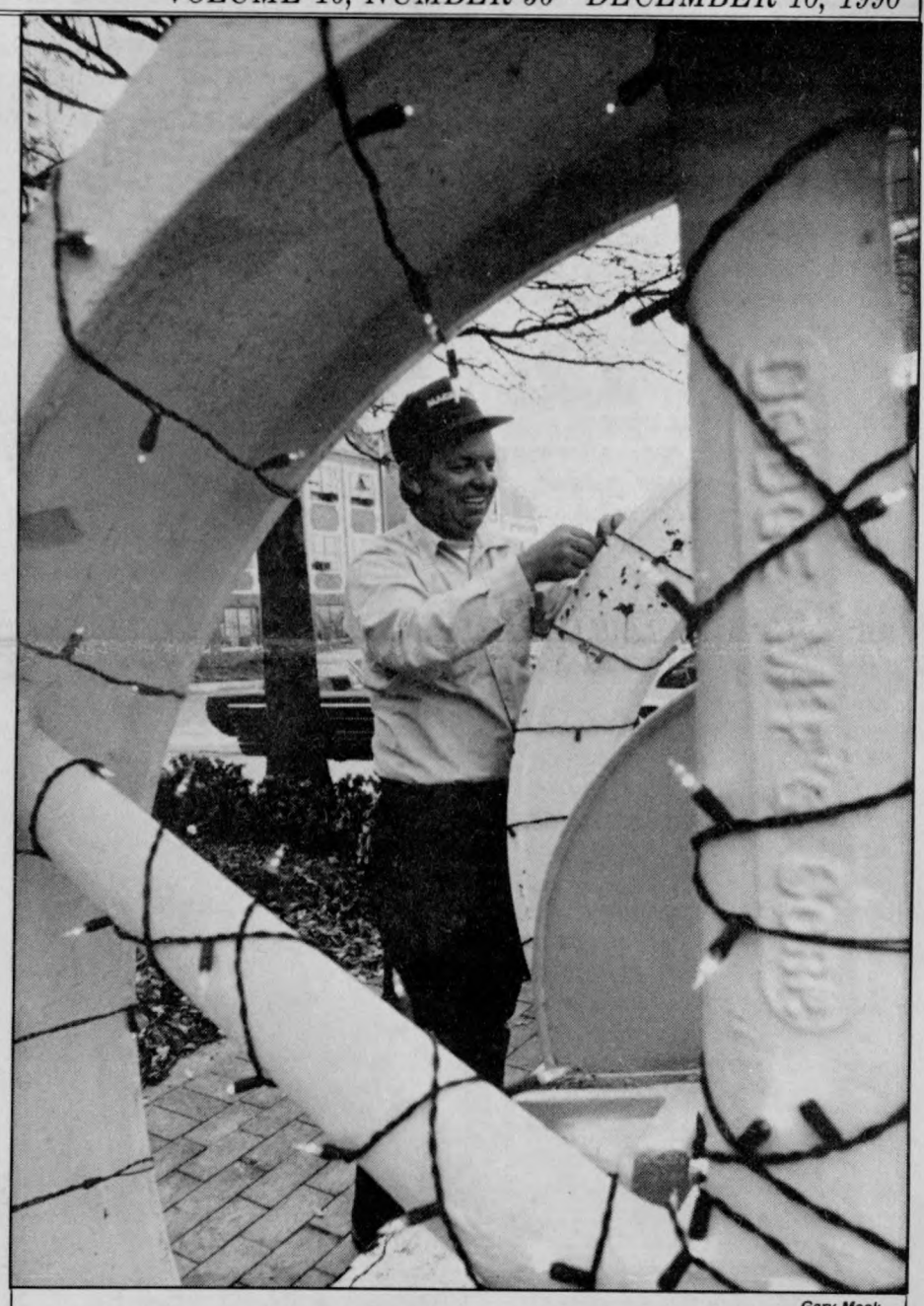


Gary Meek

Johnny Hutcheson, a tree surgeon from the Plant Operations Division, decorates the steam engine with lights for the upcoming holiday season.

Atlanta Mayor Maynard Jackson To Speak At Fall Commencement

The honorable Maynard Jackson, mayor of the City of Atlanta, will deliver the fall quarter commencement address at Alexander Memorial Coliseum on Dec. 15 at 10 a.m. to graduates and their invited guests.

Jackson, now serving his third term as Atlanta's mayor, is leading the city into a new era and level of international recognition as it approaches its position in the world's spotlight during the 1996 Summer Olympic Games.

"The coming years will present great opportunities for us to make Atlanta a far better city for all who live, play and work here," Jackson said in a pre-campaign presentation outlining his priorities for the future. "We must look ahead, plan

See Jackson, page 2

Gary Meek

Atlanta Mayor Maynard Jackson, shown here during the June 27 Nelson Mandela rally, will speak at fall quarter commencement on Dec. 15 at 10 a.m. The ceremonies will be held at Alexander Memorial Coliseum.

Jackson . . .

continued on page 1

strategically, and be prepared to take advantage of those opportunities."

Jackson's top priority while in office is to aggressively fight drugs and crime by, among other methods, designing and implementing neighborhood-based policing and uniting people and police. Other goals include providing better housing for all, aggressive economic development, effective government, and a higher quality of life.

One of six children, Jackson distinguished himself academically early on. As a Ford Foundation Early Admission Scholar, he graduated from Morehouse College at age 18, with a B.A. in Political Science and History. Jackson later earned the Juris Doctor (cum laude) from the School of Law at North Carolina Central University.

After law school, Jackson settled in Atlanta, where he practiced law with the National Labor Relations Board, offered free legal services to low-income Atlantans through the Emory Community Legal Service Center, and helped establish the private law firm of Jackson, Patterson, Parks and Franklin. At the end of his second term, Jackson returned to the private practice of law as Managing Partner of the Atlanta office of Chapman and Cutler, one of the nations leading firms in corporate, municipal and state finance.

Jackson is a member of the Executive Committees of the Democratic National Committee and the Democratic Party of Georgia. He has served as president of the National Conference of Democratic Mayors; president of the National Black Caucus of Local Elected Officials; chairman of the U.S. Local Government Energy Policy Advisory Committee; founding chairman of the Committee of the Arts, U.S. Conference of Mayors; founding chairman of the Atlanta Economic Development Corp.; chairman of the Urban Residential Finance Authority of the City of Atlanta; and a member of the President's National Commission on Neighborhoods.

Jackson is the father of four daughters and one son and is married to Valerie Richardson Jackson (M.B.A., the Wharton School of Finance and Commerce), a marketing professional and president of Jackmont Inc.

Personnel news

Two Brown Bag Lunch Seminars have been scheduled for December. Each seminar will take place from noon-1 p.m.

"How To Beat The Holiday Blues," Dec. 10. This seminar, conducted by a nurse from Behavioral Medicine Associates, will provide information on how to cope with the seasonal depression that occurs as people begin to anticipate the stress that this season can bring.

"Games People Play - Someone's Watching You," Dec. 12. Co-sponsored by the Tech Police Department. This seminar will help you identify the various con artists who are very active during the holiday season. Learn how not to become one of their victims. For more information on the Brown Bag Lunch Seminar Series and to register, call Deborah Covin Wilson at 4-3850 or Angela Keaton at 4-7535. Inquiries may also be made via PROFS at TRAINING.

Send Those Receipts!

Help Techwood Tutorial Project help others — send your Kroger receipts to TTP at mail code 0458. This is part of a student-organized, campus-wide effort to raise $400,000 in receipts to get computers for the two schools served by the program.

It's Official! John Jarvis Is The New Director Of Top Ranking ISyE School

By Vera L. Dudley

Dr. John J. Jarvis, former professor in the School of Industrial and Systems Engineering, has recently been named director of ISyE, a school that was recently ranked number one in the country by *U.S. News and World Report.*

Jarvis, a twenty-three year veteran of ISyE, had served as the school's acting and interim director for the last two years during Tech's restructuring period. While expressing great pride in the current standing of the school, Jarvis says that there is still much work to be done.

"We need to keep our fingers on the pulse of where the field is going. I hope we continue to get better. There are some things we need to keep doing to remain successful," Jarvis says.

That success, according to Jarvis, can be attributed to a secure "world class faculty, staff and students" who work together in a harmonious environment at ISyE.

"We have sort of an unwritten rule to hire faculty who are better than we are," Jarvis explains. "Doing that has helped us to continually get better and better. We also have a great working relationship amongst a faculty of 56. When you get that many in a room, you had better have a good working relationship. We work hard to maintain a spirit of cooperativeness."

Jarvis, originally from Donnelson, Tenn., came to Tech in 1968 as an assistant professor in ISyE from John Hopkins University in Baltimore Md. He has nearly 20 years of industrial experience including his consulting work with Computer Aided Planning and Scheduling Inc., where he is currently a member of the Board of Directors. He has consulted for numerous concerns including the Hewlett Packard Co., the National Science Foundation, and Coca-Cola.

In addition, Jarvis has authored numerous articles and publications, and has been responsible for several million dollars worth of funded research to Tech. Jarvis is the recipient of many honors and awards and has held memberships and chairmanships in numerous service-oriented engineering organizations.

He brings to ISyE ideas that he hopes will contribute to the longevity of its formidable ranking.

"The responsibility I have is to draw our alumni and friends more closely into the school," Jarvis says. "I'm working hard with our alumni advisory board getting their ideas on how we can further develop the relationship between faculty, alumni and friends in order to establish an even greater sense of community. The fact that we are ranked number one is going to increase everyone's stock in the school. I would hope to get their support in helping us retain that ranking."

Since ISyE is so broad based, Jarvis foresees greater interdisciplinary opportunities with other Tech schools through jointly appointed faculty.

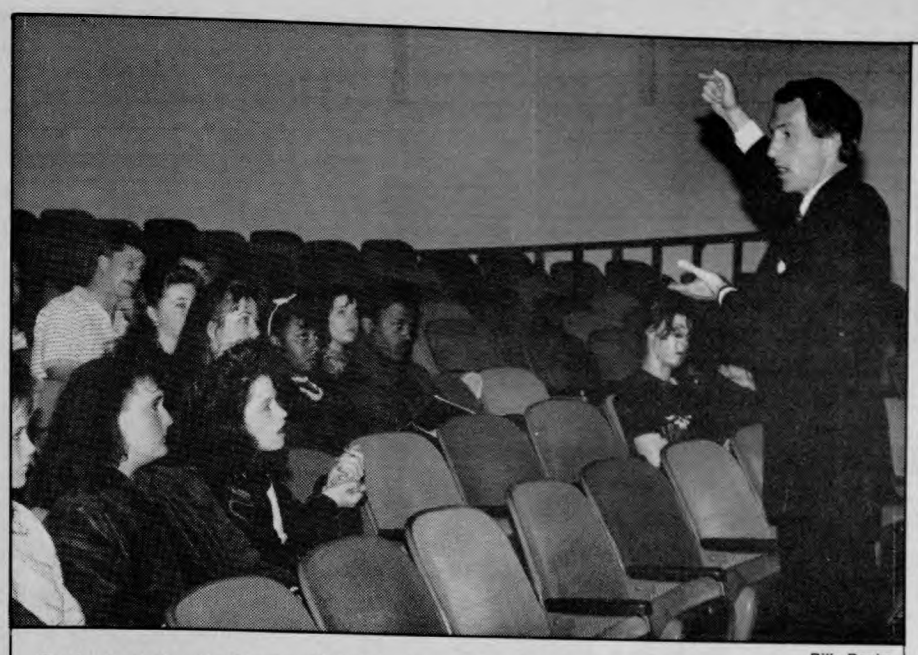
"Having an interdisciplinary relationship with other departments on campus is an important aspect of what we do. It provides a degree of cross-fertilization. We are infused with new technology, and hopefully we are able to fertilize them with some of our ideas and aspirations," Jarvis says.

He feels that since the field of industrial and systems engineering has given the ISyE school the success it now enjoys, there is a debt to be paid and it can be settled with a contribution of quality graduates.

"Through our Ph.D. program, we can give our students the kind of tools that they need and send them out to the field that needs them," Jarvis says.

Gary Meek

A reception was held recently to honor Dr. John J. Jarvis (C), the new director of the School of Industrial and Systems Engineering.



Billy Banks

Students at Fayette County High School recently participated in a Georgia Tech sponsored seminar on careers which was conducted by Jim Shafe (R), president of Career Training Concepts Inc. Coordinated through the Tech Admissions Office, students received some hard facts about choosing a career. A short test allows students to match their interests with career possibilities. A 30-page workbook covers instruction in several areas, including awareness of occupations, and it gives students immediate feedback on the type of occupations that might be best for them. Information is also provided on how to plan for higher education and training, the cost of an education, how to prepare a resume, and establishing a plan of action to fulfill career goals. The pilot project is expanding to other schools with the hope that it will be statewide or even nationwide.

Valid . . .

continued from page 1

center Director Richard J. Higgins, "providing industrial-strength software and a unified design platform for our students."

The partnership of Valid and Tech offers clear benefits to four distinct groups:

- ***Georgia Tech***—The university gets a fully integrated CAD system, a $14.2 million value for a nominal maintenance cost.
- ***Tech Students***—The students gain access to a fully integrated toolset which contains all of the EDA software tools under Valid's framework. The student uses tools at the university which are widely accepted in industry.
- ***Industry***—Companies hiring Tech graduates get electrical engineers with experience on real world tools.
- ***Valid***—On a long-term basis, the proliferation of Valid-trained engineers will help to generate increased sales of Valid tools.

Valid has also made significant grants to other Southeastern universities, namely the University of Florida, Clemson University, and North Carolina State University.

Between Georgia Tech, Florida, Clemson, and North Carolina State, a significant number of electrical engineers are entering the business world with in-depth experience with Valid's EDA tools. In terms of numbers of electrical engineers produced each year by the four institutions, most recent figures show the breakdown as: 1,025 bachelor's degrees, 445 master's degrees and 35 doctoral degrees.

Valid designs, manufactures, markets and supports EDA solutions based on industry standard hardware, operating systems and networks. Valid products are used to develop electronic systems, including integrated circuits (ICs), application-specific ICs and printed circuit boards.

Valid has sales and support operations in more than 40 locations worldwide. Valid corporate headquarters are located at 2820 Orchard Parkway, San Jose, Calif. 95134. Telephone: (408) 432-9400.

The partnership will extend to joint workshops and seminars for Tech's industrial affiliates as well as short courses taught by a combination of Valid and Tech staff. Valid and the Institute are also discussing extending the grant to cover Tech's new operation in Lorraine, France.

GTL (Georgia Tech-Lorraine) is a partnership between Tech and local French authorities that will result in the first complete engineering graduate program offered by an American university in Europe.

Tech Outlines Procedures For Hazardous Weather

As winter approaches, inclement weather may make it necessary for Georgia Tech to declare the main CAMPUS CLOSED. When the CAMPUS CLOSED condition is in effect, all academic classes and institutional laboratories are suspended, and only certain services are maintained. Employees are not to report to work, except those previously designated by their department.

If your organizational unit has special on-going activities which cannot be curtailed when the campus is closed, arrangements should be made at the departmental level—coordinated with the Vice President for Operations and/or the Plant Operations Division.

When the decision is made by the president to declare the CAMPUS CLOSED, the Georgia Tech News Bureau director will notify the local radio and television stations in accordance with previously made arrangements.

Employees and students should listen to WREK (FM 91.1)—THE OFFICIAL GEORGIA TECH WEATHER INFORMATION STATION—to obtain the most up-to-date and accurate campus status information. If WREK cannot be received, radio stations WSB (AM 750), WGST (AM 640) and WCNN (AM 680) will also carry campus status information.

Briefly...

ATDC Open House - The Advanced Technology Development Center (ATDC) will host an open house event on Dec. 13 from 1-3 p.m. in suites N-104/105. Tech faculty and staff will see some of the leading edge technology companies in the country that started right here in Georgia. These ATDC assisted companies have developed notable technologies in many areas including software, electronics, biotechnology and engineering. For more information, call Rita Warwick at 4-5217.

Counseling And Career Planning Welcomes You! - Georgia Tech's Student Counseling and Career Planning Center has just earned full accreditation by the International Association of Counseling Services. The center will host an open house on Dec. 18 from 9-11 a.m. Call Virginia Cooper at 4-2575 for more information.

PEACH Banquet - The PEACH program, Georgia Tech's fitness program for faculty, staff and alumni, is celebrating its tenth anniversary. A special banquet and program is planned for Wednesday, Jan. 16, 1991 and will feature as the speaker Dr. Steven Blair, director of epidemiology, Aerobics Institute for Research in Dallas. He will speak on "Delaying Death by Staying Fit." Call Linda Rosskopf in the Department of Health and Performance Sciences at 4-3449 for information on the banquet and/or the presentation.

Institute Holidays For 1991

Georgia Tech has announced the campus holidays for 1991 to be: Jan. 1, New Year's Day; Jan. 21, Martin Luther King Jr.'s Birthday; May 27, Memorial Day; July 4, Independence Day; Sept. 2, Labor Day; Nov. 28-29, Thanksgiving; Dec. 23-27, Winter Break; and Jan. 1, 1992, New Year's Day.

For more information, call Dr. Dick Fuller at 3-9030.

Georgia Tech Crime Statistics Report

The safety of more than 12,000 students, 4,000 faculty and staff, and thousands of visitors each year to its campus is a top priority for Georgia Tech. The Institute maintains its own police force of approximately 36 officers. Located in the heart of Atlanta, Georgia Tech is an open campus and is subject to the types of crime reflected in general society.

Georgia Tech is required by state law to report crime statistics to the Georgia Crime Information Center. This information is then passed along to the Federal Bureau of Investigation. These statistics on Georgia Tech are based on reported crimes committed directly on the Tech campus and can also include crimes committed within 500 yards outside the boundary of the Tech campus.

Georgia Tech encourages the reporting of crime and reporting it factually and honestly. This information greatly assists campus police in evaluating needs and crime prevention procedures and techniques. Recently, Georgia Tech was asked to participate in a *USA Today* Campus Security Survey.

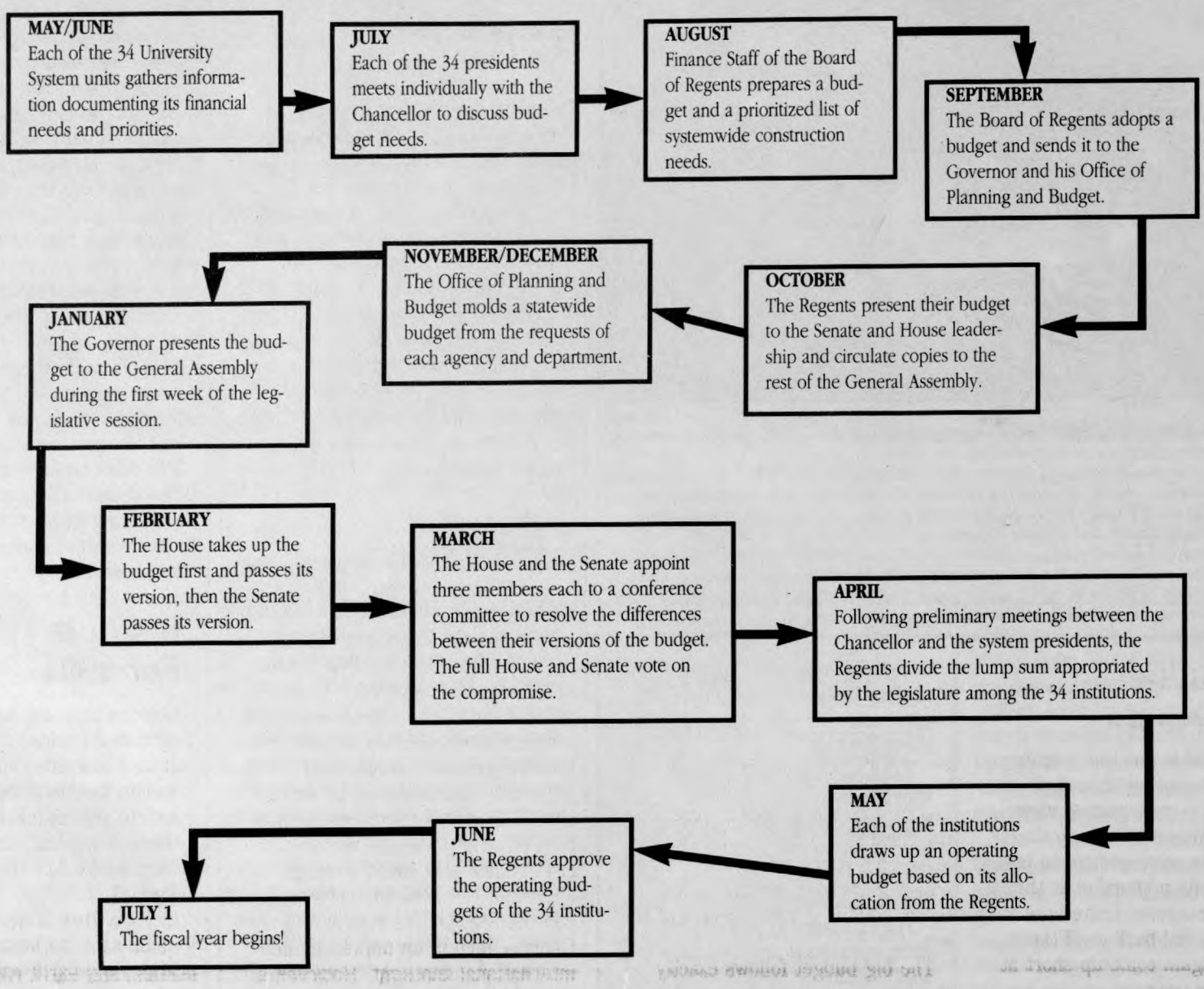
The following information was provided by Georgia Tech and the categories are those included in FBI Uniform Crime Reports:

Crime	*1988*	*1989*	*January-June 1990*
Homicide	0	0	0
Rape	2	0	2
Robbery	14	21	9
Aggravated Assault	8	4	6
Burglary	164	213	88
Larceny/Theft	720	940	423
Motor Vehicle Theft	41	80	29
Arson	1	4	0

Some additional information that was also provided to *USA Today*.

	1988	*1989*	*January-June 1990*
Drinking law violations	83	61	39
Drug law violations	4	7	5
Gang-related incidents	0	0	0
Non-aggravated assaults	25	32	25
Vandalism incidents	153	279	119
"Hate" crimes	0	1	0

Hot On The Trail Of The State Budget



By Sarah Eby-Ebersole
Civic Affairs

Mention the state budget and most people's eyes glaze over as they envision endless columns of numbers whose significance can only be grasped by that lone breed of humans known as CPAs.

Indeed, the in-house budget analysts are probably the only ones who take the time to understand the meaning of all the numbers in the 400-plus pages of the state budget. Nevertheless, it is not only possible but important for the rest of us ordinary mortals to understand the process and to know when the windows of opportunity for particular decisions occur.

The state fiscal year may be 365 days long—from July 1 to the following June 30—but the process of preparing the budget, from its beginnings at the institutional level until its final approval on the eve of a new fiscal year, spans more than 12 months. In other words, before one fiscal year has even begun, Tech's administration has already started work on the next.

The General Assembly appropriates most of the state funds for the University System in a couple of systemwide lump sums. The largest is for instructional costs and is based on a mathematical formula. Figures from each institution relative to the number of quarter hours taken by various levels of students in various types of disciplines, the square footage of campus buildings and the like, are plugged into the formula. The crank is turned, and out comes a lump sum for the General Assembly to appropriate for instruction.

Other lump sums include the Quality Improvement Program, which is one percent of the instructional formula lump sum, and the Special Initiative Fund, which is now at $14 million.

Once the General Assembly has appropriated lump sums in these broad categories, the Board of Regents has total discretion as to how these funds are divided among its 34 units.

A second portion of the University System's appropriation covers special non-instructional functions around the system, which the General Assembly addresses individually. For Tech, this section includes state funds coming into GTRI and the ATDC.

The third part of the System's budget involves the construction of buildings. The Board of Regents compiles a master, prioritized construction list from lists submitted by each of its 34 institutions. The General Assembly starts down the list and provides funds for however many projects it feels it can afford through bonded indebtedness. In Georgia's case, the operating budget must be balanced, but "mortgages" in the form of bonds are allowed for construction projects.

The funding requests that Tech submits at the beginning of the budget process are subject to somewhat the same winnowing process as a Christmas list. When President John P. Crecine meets with University System Chancellor Dean Propst in the summer, he brings a wish list of what he would like to have to accomplish his vision for the Institute.

As the Board of Regents works 34 wish lists from the individual units into a systemwide budget, it trims down each list to make the total fit its perception of how much it can appropriately request from the Governor.

Next the Office of Planning and Budget (OPB), at the direction of the Governor, shapes the funding requests from the Board of Regents and all other state agencies into THE state budget. In the process, it cuts those requests back to a level of expenditure the state can afford based on how much revenue it expects to receive—a sum determined by the Governor's economist.

The sum of the various budget requests from state agencies to the Governor is always significantly higher than the revenues expected to be available, so that OPB is never able to fund all or even most of what state agencies request, even in good revenue years.

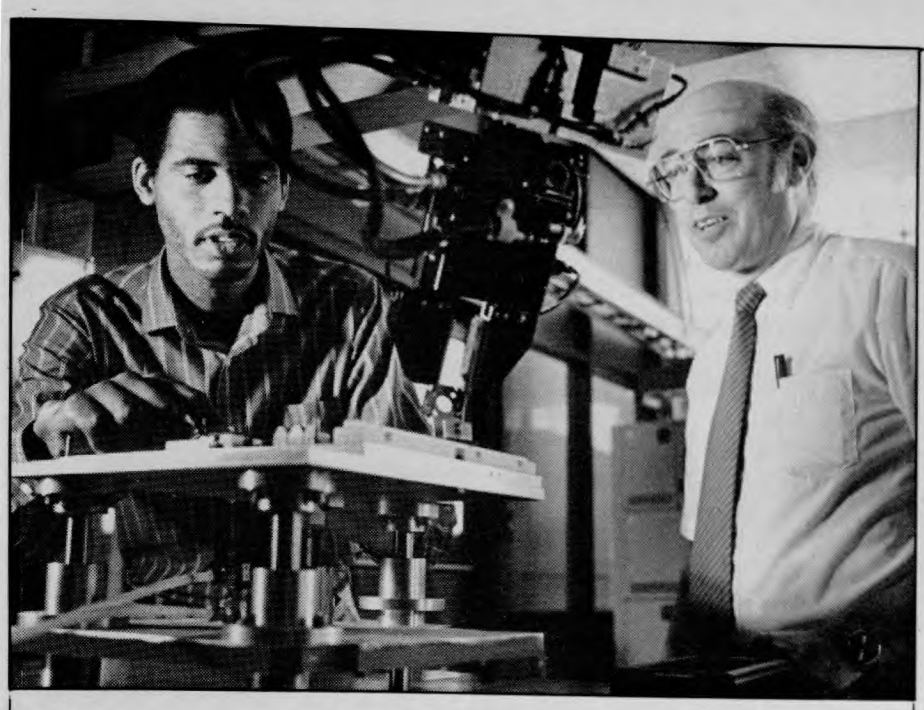
The Governor presents his budget to the General Assembly in a joint session of the House of Representatives and the Senate toward the end of the first week of the legislative session. In his budget address, he explains his priorities in choosing what to fund.

After the first week of the session, the legislature recesses for a week for joint budget hearings. These hearings give the House and Senate Appropriations Committees a chance to communicate directly with department heads about their budgets. The Chancellor makes a presentation to the committees on behalf of the System and answers any questions they may have.

Then the General Assembly begins work. First through the process is the supplemental budget, a tool to make mid-year adjustments to the current year's budget. In good revenue times when the state ends one year with a surplus, it will use the supplemental budget to inject the surplus funds into the next fiscal year at mid-year.

In years like this one, however, when revenues are not living up to expectations, the supplemental

See State Budget, page 5



File Photo

Georgia Tech's ability to offer a rigorous and relevant curriculum, to conduct research that strengthens Georgia's industries, and to provide direct services to communities throughout the state all stem from the quality of its faculty.

State Budget . . .

continued from page 4

budget is a tool to cut the budget. This year's supplemental budget will take a very conservative view of expected revenues, because the state's reserves were exhausted last June to make up a shortfall at the end of the fiscal year. There is now nothing left to fall back on if the state should again come up short at the end of this year.

By constitutional directive, work on all budget measures begins in the House. The actual work is done by a subcommittee of the House Appropriations Committee known as the "Green Door" Committee.

The "Green Door" Committee cuts funds from various projects and programs, then uses the money freed up by the cuts to fund some of its priorities. Its recommendations are voted on by the full Appropriations Committee, then the full House.

After the House passes the budget, it goes to the Senate. In the Senate's case, the working subcommittee of the Appropriations Committee is called the Continuation Committee, but the process is the same as it was in the House.

Once each body has passed its version of the supplemental budget, the Speaker of the House and the Lieutenant Governor, who doubles as President of the Senate, each choose three members of their respective bodies to negotiate a compromise. These six legislators constitute a conference committee.

When at least four of the six are willing to sign their names to a version of the budget, that compromise goes to the floor of each chamber for a vote. If it passes, as it usually does, it then goes to the Governor for his immediate signature so that no more of the fiscal year slips away before it goes into effect.

The House waits until the supplemental budget is resolved before beginning work on the "big budget," as the budget for the coming fiscal year is called. House leadership wants to know for sure where they stand on one budget before finalizing their version of the next.

The big budget follows exactly the same process as the supplemental budget. The 40 days of the legislative session will have nearly expired by the time both budgets have been passed.

Contrary to the impression the news media may give, only a very small portion of the budget comes under discussion by the General Assembly. The bulk of the budget involves programs like schools, prisons, Medicaid and mental health facilities over which there is limited discretion because of funding responsibilities set forth by either the state constitution or the federal government.

Once the budget for the upcoming fiscal year has been passed in March, the Chancellor again meets with the System's 34 presidents to discuss tentative allocations of the lump sums it includes. Official allocation and adoption of pay raise guidelines are done in the April meeting of the Board of Regents.

Each institution then prepares an operating budget based on its allocation and submits it for approval by the Regents at their June board meeting. Simultaneously with the preparation of the upcoming fiscal year's budget, finance staffs at the System's 34 institutions are already documenting needs and preparing case statements for the year following, so that before the process has ended, it has already begun again.

Georgia Tech Sets Priorities For 1991 General Assembly

By Sarah Eby-Ebersole
Civic Affairs

In today's tight economy, Georgia Tech's focus is on educational programs that strengthen the technological expertise of the state's workforce, and on research and service programs that enhance existing industry, create jobs and keep Georgia's future on track. With proper financial support, the Institute will help Georgia compete and prosper in the world economy. Tech has developed a series of five-year initiatives to reach its goals. Its legislative priorities for 1991 are built around these initiatives, and they are presented below by initiative.

HONING TECH'S COMPETITIVE EDGE IN THE 90's

Tech has several needs which must be addressed to maintain and hone its competitive edge as an institution of higher education. First, the Institute's position as the South's premier technological university is threatened by an erosion of the state's proportional support of faculty salaries and by a critical lack of student housing.

Second, the 1996 Olympics will put the State of Georgia and Georgia Tech in an unprecedented international spotlight. However, a tremendous amount of planning and work is required to turn the Tech campus into a showcase Olympic village.

Three of Tech's 1991 priorities fall under this initiative:

NEW SYSTEMWIDE FUNDING FORMULA:
$177 million systemwide
To be phased in over several years
$42 million, Tech est.

Georgia Tech's ability to offer a rigorous and relevant curriculum, to conduct research that strengthens Georgia's industries, and to provide direct services to communities throughout the state all stem from the quality of its faculty. For that reason, Tech recruits from among the nation's best faculties. The salaries commanded by such faculty members exceed the average used by the University System's budget. Thus, Tech has maintained quality, but at the expense of quantity. The student/faculty ratio rose from 14/1 in 1974 to 21/1 in 1990, resulting in large classes that have a negative impact on education programs. According to student/faculty ratios set for the University System, Tech is more than 200 faculty members short.

In August the Board of Regents approved a revision in the instructional funding formula that acknowledges the needs of Tech as a specialized research university to a greater extent than the existing formula. The new formula will expand the number of academic discipline categories, recognizing the higher cost of programs like engineering.

It will also base faculty salary recommendations on peer institutions, and shift research dollars toward doctoral programs and concentrations of sponsored research. These and other proposed changes will dramatically improve Tech's ability to recruit and retain faculty as well as to upgrade its programs.

The acceptance of the new formula as the basis for calculating the funding needs of the University System is the top priority both for the Board of Regents and for Georgia Tech for the 1991 General Assembly.

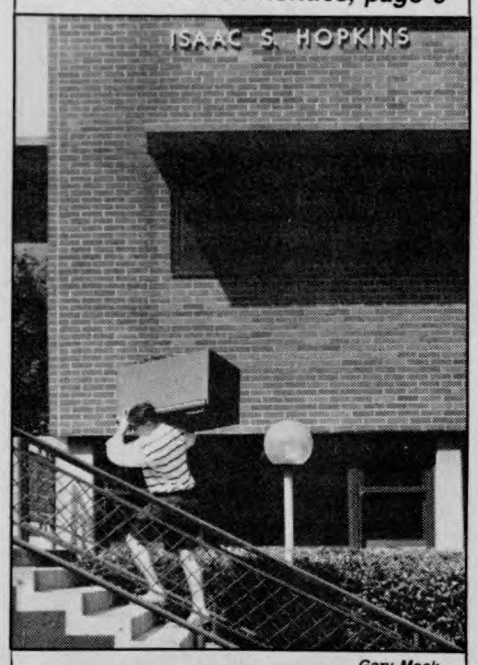
OLYMPIC PLANNING - $250,000

Converting the campus of Georgia Tech into a modern Olympic village will be a massive undertaking that presents the Institute with tremendous opportunities. Tech needs to begin planning immediately in order to take full advantage of the Olympics.

Georgia Tech is first and foremost a quality institution of higher education, and early, comprehensive planning must be done to complete the necessary construction and renovation in stages, ensuring that disruption in the next six years is minimized. However, most Olympic revenues will not become available until sometime after the 1992 Games in Madrid, Spain.

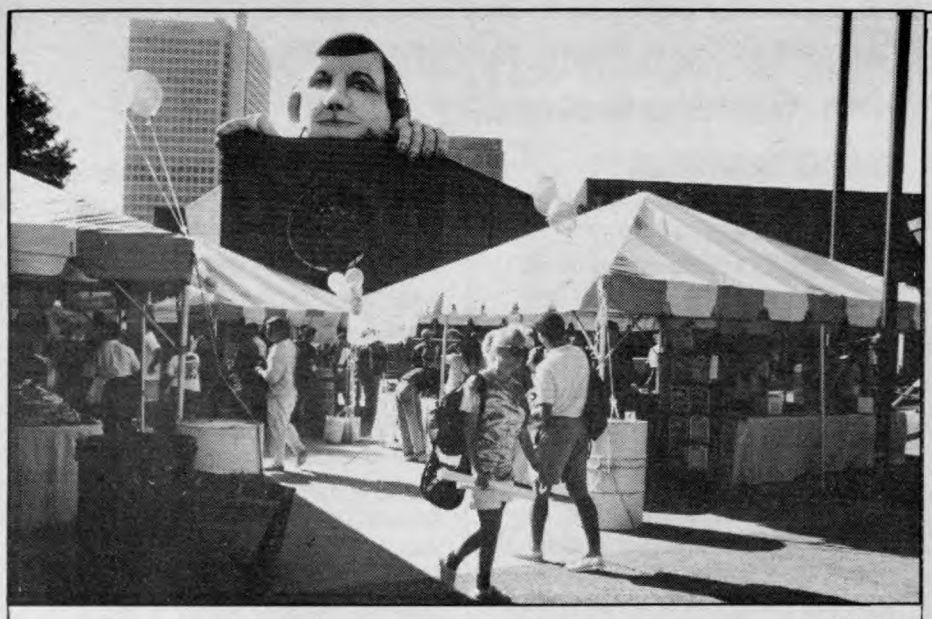
Careful planning is particularly important for the renovation of existing campus residence halls and construction of Olympic housing if

See Tech's Priorities, page 6



Gary Meek

Only 4,000 of Tech's 12,000 students can currently be housed on campus. Eight thousand students must find housing on their own in the metro Atlanta community.



Gary Meek

Campus utilities structure must also be upgraded, food service capacity doubled and entertainment facilities enlarged not only for the Olympics, but for everyday campus use.

Tech's Priorities . . .

continued from page 5

Tech is to avert a housing crisis. The Institute already has a housing shortage, and the present plan for Olympic housing would result in the loss of nearly 1,000 beds at the proposed construction site.

The campus utilities structure must also be upgraded, food service capacity doubled and entertainment facilities enlarged not only for the Olympics, but for everyday campus use.

Some of the needed renovations and repairs are maintenance that has been deferred because sufficient state funding has not been available. In other cases, long-term ownership and benefits will accrue to the University System after the Olympics as the result of proposed improvements. In both cases, some state financial participation can be justified.

CONSTRUCTION PROJECT: STUDENT RESIDENCES – $24 MILLION

Only 4,000 of Tech's 12,000 students can currently be housed on campus. Eight thousand students must find housing on their own in the metro Atlanta community. The safety aspects of living off campus, to say nothing of the cost of rent, food and transportation, are a great concern to many parents and students, especially young women and those from rural areas.

Last year's General Assembly authorized $1 million in bonds to begin planning for 1,000 dormitory beds. However, a revenue shortfall delayed the sale of these bonds, and the 1991 General Assembly will decide if these bonds should remain in the budget or be cut and the debt service funds used elsewhere.

Reinstatement of the planning money approved last year for constructing 1,000 beds is critical for current needs, for phasing the renovation of existing housing prior to the Olympics, and to supplement Olympic-built housing during and after the Games.

The official Olympic plan assumes that these 1,000 beds will be in place for use by Olympic athletes, and they are needed before then to offset the demolition of residence halls now on the site of the proposed Olympic housing construction.

HELPING GEORGIA MANUFACTURERS COMPETE

Manufacturing is the foundation of this state's economy, but constant changes in technology, products, government regulations and markets make it difficult for Georgia manufacturers to compete in a global economy. To survive and prosper, companies must understand these changes and make the necessary adjustments to take advantage of them.

Georgia Tech's world-class program in manufacturing technology is assisting industry, particularly small and medium-sized firms and those in rural areas. For FY 92, program emphasis will be on the enhancement of industrial services and textile/carpet/apparel research. Also, funding for the Manufacturing Disciplines Complex will be a top-priority capital item.

INDUSTRIAL EXTENSION SERVICE ENHANCEMENT $725,221

Eighty percent of Georgia's manufacturing firms have fewer than 100 employees, and small businesses account for two-thirds of the state's new jobs. For the past 30 years, Georgia Tech's network of field offices has been a vital community-based resource to assist small manufacturing firms in areas like technology transfer, technical needs, energy efficiency, plant design, marketing, computerization and management.

Tech proposes expanding the system over the course of five years by opening five new offices and adding staff in five existing offices at a total cost of $1.9 million.

The first stage of the expansion would include new offices in Dalton and Griffin, which are at the heart of the state's carpet and textile manufacturing job market, and an additional engineer for the Carrollton office where one engineer is carrying the workload of two and a half. A contract procurement specialist for the Middle Georgia Technology Development Center in Warner Robins is also included in the $725,221 cost for the first year.

TEXTILE RESEARCH - $500,000

The textile, carpet and apparel industries have a payroll of more than $2 billion and comprise nearly a third of Georgia's manufacturing workforce. Yet the state does not support these industries through research and service the way it supports poultry, agriculture and forest products.

Congress is considering major support for a textile research consortium of four southern universities, including Georgia Tech, but is looking for state initiatives and commitments first. The $500,000 would be the first installment of a research program projected to grow through private/federal investment to $3.7 million over five years.

By focusing Tech's expertise on the state's textile, carpet and apparel manufacturers in a coordinated way at this critical time in their technological development, the state can strengthen an important sector of its own economy, enhance its leadership status in the world economy and potentially attract federal research funds as well.

CONSTRUCTION PROJECT: MANUFACTURING DISCIPLINES COMPLEX - $15.8 million (Phase 1)

Modern manufacturing technology is one of Georgia's most critical economic needs as well as one of the most dynamic and rapidly growing research areas at Georgia Tech. It draws on the resources of mechanical engineering, industrial and systems engineering, materials engineering, and textile engineering.

The Manufacturing Disciplines Complex will gather the academic programs for these disciplines from around campus and put them in close proximity to the Manufacturing Research Center. Here they will be able to interrelate with each other and stay in close touch with Tech's cutting edge research programs. At the same time, the complex will address Tech's pressing need for more academic space and faculty offices.

Architectural design work for this $30 million, four-building complex is already underway. The Regents propose constructing it in two stages and list the first stage as a $15.8 million project.

MAINTAINING GEORGIA'S ENVIRONMENT

Waste management, water quality and supply, air quality and resource conservation are critical issues facing state and local government and industry around Georgia. Georgia Tech is deliberately developing the resources to help address these critical needs through research and direct technical assistance. Waste reduction is the priority for fiscal year 1992.

WASTE REDUCTION PROGRAM - $593,297

The competitiveness of Georgia's industries in the 1990's will depend on new technologies to reduce and manage wastes. Industries and communities also need engineering and marketing expertise to help them convert industrial wastes into commercially marketable products as an alternative to waste disposal.

These funds would expand Tech's nationally recognized Hazardous Waste Technical Assistance Program to include in-plant research and technical assistance; a waste exchange and recycling program, and an industry awards program. A special focus would be challenge grants to industry that would provide matching money for in-plant research by Georgia Tech and partner industries on waste reduction and treatment and on recycling wastes.

Georgia Tech Night At The Omni Coming On Dec. 15

Tom Hammonds, along with his NBA team, the Washington Bullets, will be coming to the Omni Dec. 15 to play the Atlanta Hawks at 7:30 p.m.

Discount tickets are available at Tick-A-Tech or show your Georgia Tech ID at the Omni Ticket window; prices are $15, $11 and $7. Limit eight tickets per ID.

For more information, call the Hawks office at 827-DUNK.

Gary Meek

Georgia Tech faculty, staff and students have put numerous hours in helping bring the 1996 Summer Olympics to Atlanta. The Olympics will put the State of Georgia and Georgia Tech in an unprecedented international spotlight.

ESTL Helps Local Fire Departments Test New Materials For Containing Fires

By Rae Adams
GTRI/ESTL

Fire fighters and other environmental response teams traditionally have used foam successfully to contain hazardous materials fires. However, human safety and environmental concerns have prompted these types of teams to investigate alternatives that don't require as much cleanup and at the same time are environmentally safe.

Environmental Science and Technology Laboratory (ESTL) researchers and the Cobb County Fire Department recently performed the first field-tests using new materials, PCE and M.C. #1, for containing hazardous materials fires. The fire fighters also tested Ansul hazardous materials foam, one of the traditional methods for containing these fires. The tests were performed at GTRI's Hazardous Materials Training Center in Cobb County in late November. After ESTL researcher Kevin Kamperman prepared and ignited flammable materials in specially designed burn pits (see photo), fire fighters sprayed the fuels with all three chemicals. Kamperman states, "These preliminary tests showed that under controlled conditions all three products were effective. We will be involved in further testing of these materials."

Researchers in ESTL and Dr. Jerry Hubbard, of Georgia Tech's School of Biology, were particularly interested in the results of PCE because they have been instrumental in product development of PCE. Hubbard performed the biodegradation studies on PCE, which indicated that PCE is completely biodegradable. He found that it immediately degraded when added to garden soil and that within two weeks greater than 95 percent of it had disappeared. Hubbard's studies indicated that PCE doesn't interfere with the normal biodegradation of petroleum products once a fire is extinguished with this material.

One of a new class of cleaning agents, dispersants, and absorbants, PCE can be used for everything from preventing fuel in tanks from igniting, to cleaning up 150,000-gallon jet fuel spills in Alaska, to safely getting grease off your hands.

According to Thomas Boynton, president of BCR International Ltd., developers of the product, PCE not only is biodegradable but also is nontoxic, noncorrosive, and nonflammable.

Unlike foam, which acts by blanketing the fuel and starving it of air, PCE emulsifies and encapsulates the product. It mixes with the fuel to form noncombustibles that won't ignite or reignite. Foam can be used to put out fires and prevent reignition if the foam blanket is undisturbed, but PCE can be used to prevent fires by reacting with the materials before they can ignite. Furthermore, unlike foam, if air reaches the combustibles treated with PCE they will not reignite. ESTL's preliminary tests indicate that not only will PCE put out such fires—it keeps them out, indefinitely.

Gary Dykes, director of the Consumer Products Division for BCR, emphasizes that "PCE emulsifies indefinitely—for weeks or months."

PCE is safe and stable during the time that it is being absorbed by the environment; and once PCE is absorbed entirely, it remains environmentally safe. However, even though the product is completely biodegradable, currently the Environmental Protection Agency requires this product and others similar to it to be contained and recovered after use.

Kamperman notes that "we work very closely with, cooperate with, and participate in the training of the Cobb County Fire Department, the Marietta Fire Department, Dobbins Air Force Fire Department, and the Naval Air Station Atlanta because of the uniqueness of our facilities for testing materials of these types. This type of public cooperation and interaction is an important part of the work we do."

Ivan Allen College Department Trying To Begin Exchange

During these days of walls tumbling down amongst countries that were once adversaries, there are individuals that are attempting to reach out and help people from other cultures understand one another and to share academic expertise and knowledge. Dr. Edith Blicksilver, associate professor in the Department of Literature, Communication and Culture, is one of those people; she is interested in beginning an exchange program between Georgia Tech and an academy in the Soviet Union.

Professor Eugenia Vlasova, a colleague of Blicksilver's who teaches at the Leningrad Academy of Sciences, recently gave a presentation to Tech's Department of Literature, Communication and Culture on English language education in the Soviet Union and the ways it is being transformed by Glasnost.

Vlasova has worked closely with Blicksilver in the past. Blicksilver had visited Leningrad in September 1989 where she gave a talk which was taped and ultimately used as a teaching aid for the students of English at the Department of Foreign Languages at the Leningrad Academy of Sciences. Blicksilver also spoke to the group about Tech's structure, programs and goals.

Blicksilver says that Vlasova is an articulate, perceptive and a stimulating speaker. Vlasova has written three textbooks and numerous articles about teaching English and has often served as an interpretor at international conferences.

The exchange program is open to all kinds of possibilities, Blicksilver says.

"We need to know who would be interested in participating in an exchange program between the two schools and to also get an idea of what direction to take," Blicksilver says. "We would like to build a bridge between the two schools so we can share knowledge with one another."

If you are interested in working with or participating in a Georgia Tech-Leningrad Academy of Sciences exchange program, call Blicksilver at 636-0717 after 4 p.m. or Dr. Ken Knoespel, acting head of the Department of Literature, Communication and Culture, at 4-2730.

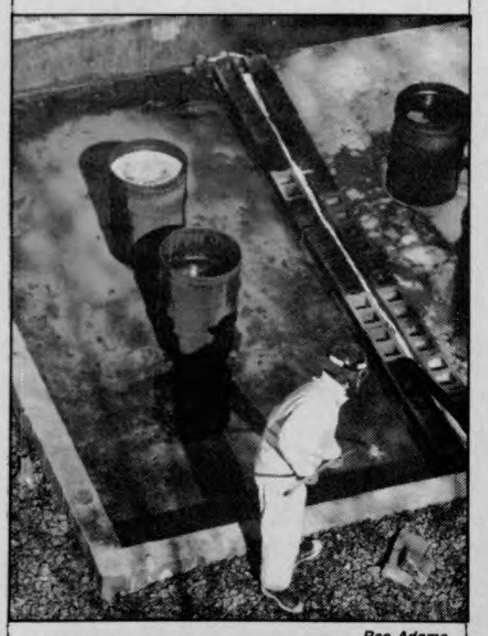
Fulton Elected As ASME Fellow

Dr. Robert E. Fulton, professor in the George W. Woodruff School of Mechanical Engineering, was recently elected a Fellow of the American Society of Mechanical Engineers (ASME). The Fellow grade is conferred by the group's Board of Governors to recognize significant contributions to the field.

Fulton heads the computer-aided engineering research area in the mechanical engineering school and serves as associate director of the CAE/CAD laboratory of the College of Engineering. At last spring's faculty honors luncheon, he received the Institute's award for Outstanding Faculty Leadership for the Development of Graduate Research Assistants.

A Tech faculty member since 1985, Fulton previously worked at the NASA/George Washington University Joint Institute for Advancement of Flight Sciences. He is the author of more than 100 technical publications and has conducted research on a broad range of structural mechanics and CAD activities.

Earlier this year, he received a Certificate of Appreciation from the U.S. Department of Defense for contributions to the development and implementation of the Computer-aided Acquisition and Logistics Support Initiative (CALS). He is a past president of the National Computer Graphics Association, has served on several National Academy of Science and National Science Foundation committees, and currently chairs the ASME Multidisciplinary Program on Engineering Data Management.



Rae Adams

ESTL's Kevin Kamperman tests hazardous materials to determine if they will reignite after being treated with PCE.

What's next

ACADEMICS

December 11 - The last possible date that information can be accepted by the Registrar's Office for qualifying a student for graduation on December 15 is noon today

December 12 - Undergraduate Curriculum Committee (degree candidates only), 9 a.m.

Graduate Committee (degree candidates only), 2 p.m.

December 14 - Last day for (1) degree petition and/or reactivation of degree petitions and (2) approved programs of study for Master's Candidates to be received by the Registrar's Office for March commencement

December 15 - Commencement, 10 a.m., Alexander Memorial Coliseum

December 17 - All grades due in Registrar's Office from school and departments by 9 a.m.

January 3 - Registration (Phase II) for Winter Quarter, 1991

January 4 - Classes begin (Winter Quarter, 1991)

LECTURES & SEMINARS

January 8 - C.E.T.L. Brown Bag Teaching Seminars, Charles Liotta, School of Chemistry & Biochemistry, & Al Connelly, School of Electrical Engineering, "Using Humor in the Classroom," 12:05 p.m., Management Bldg., Rm. 228

January 7 - Chemical Engineering Seminar, Jennifer Linderman, University of Michigan, "Cell-Cell Signalling in the Immune System: Antigen Presentation," 4 p.m., Bunger-Henry Bldg., Rm. 311

A Note From Whistle Editors

Due to Winter Break, there will not be a *Whistle* coming out until Jan. 14, 1991. The deadline for submitting items to be considered for publication in that issue is ***Friday, Jan. 4.***

News items may be sent to the News Bureau at mail code 0181 or sent to *Whistle* Managing Editor Jackie Nemeth via PROFS at JLNEMETH. Classified ads and "What's Next" information may be sent to Contributing Editor Vera L. Dudley at mail code 0181 or via PROFS at VDUDLEY.

The *Whistle* staff would like to thank everyone in the Tech community for an exciting (and historic!) fall quarter and for their continued support. We look forward to an active winter quarter and encourage you to keep those news items coming to us!

Have a wonderful and safe holiday season!

Classifieds

Free - Full breed Husky & English Pointer have 8 mixed puppies—5 males, 3 females. Call Rachel at 528-7073 or Bonnice after 6 p.m. at 229-9435 if you can give them a good home.

For Sale - Apple IIE computer, monochrome monitor, two 5.25 in. disk drives, modem, and parallel interface card, with software and manuals, plus C. Itoh 8510 Prowriter printer, $375, or $275 without printer. Call 528-7768 or 642-0369.

For Sale - Reclining Umbrella Stroller. Blue/white stripes, great condition, $25; Perego Stroll & play stroller - like new, large basket & activity tray, $15. Call 432-8068.

For Sale - Sony Video 8 Camcorder, auto focus, complete w/case, $450. Call Delores at 528-7773 or 977-6700 after 5 p.m.

Information About Campus Directories

The 1990-91 Campus Directory has now been distributed. As an additional service to the Georgia Tech community, Electronic Mail (e-mail) addresses for faculty, staff and students are now included in the directory.

Questions concerning e-mail should be directed to the Information Technology HELPDESK at 4-7173. New UNIX users may wish to consult the publication entitled "An Introduction to UNIX for Georgia Tech Computer Users," available from the HELPDESK.

A small number of campus directories are missing pages 49-96 as a result of an error during printing and binding. Pages 97-144 appear twice in these defective copies. If you received a defective copy, please contact Personnel Records at 4-3224 for a replacement.

Manivannan Receives Engineering Award

Dr. S. Manivannan, assistant professor in the School of Industrial and Systems Engineering, has been chosen to receive a 1991 Robert B. Douglas Outstanding Young Manufacturing Engineer Award by the Society of Manufacturing Engineers (SME). The award is conferred in recognition of Manivannan's significant achievements and leadership in manufacturing engineering and will be presented at the WESTEC Conference in 1991.

Manivannan received his Ph.D. in industrial engineering from Pennsylvania State University and joined the Tech faculty in fall 1988. His interests are in the areas of robotics and automation, design and analysis of manufacturing cells, and knowledge-based systems. His current research involves the implementation of an on-line simulation system for real-time control of computer integrated manufacturing including the design of a knowledge base; and extensions to two of his recently developed rule-based systems for (i) robotic collision avoidance in a flexible assembly cell, and (ii) earlier prediction of machine tool failures and repairs.

He is a senior member of the Society of Manufacturing Engineers, the Institute of Industrial Engineers, and the American Society of Mechanical Engineers.

People

Management

Leonard Parsons has his biographical sketch included in the just published *Who's Who in America 1990-1991.* Parsons' admission was based on "level of significant achievement attained in a career of noteworthy activity."

Physics

Regents Profssor ***Joseph Ford*** was the recipient of the Jesse Beams Research Award at the annual meeting of the Southeastern Section of the American Physical Society on Nov. 16. The award is for outstanding research by a physicist working in the southeastern region and recognized Ford's contribution to non-linear mechanics, algorithmic complexity and statistical mechanics. Ford was also the after dinner speaker at the meeting's banquet with a talk entitled "Fringe Benefits."

Job Hunting?

If you're looking for employment opportunities, call the Job Line in the personnel office—ext. 4-4592.

Tech's Phi Kappa Tau Chapter Named Best In The Nation

The Phi Kappa Tau National Fraternity recently announced at its annual awards banquet that the Alpha Rho Chapter at Georgia Tech is the 1989-90 recipient of the overall Roland Maxwell Outstanding Chapter Award.

Each year, Phi Kappa Tau names three chapters throughout the U.S. as the most outstanding in their respective categories, with one of the three chosen as the overall winner. The categories in the selection process include fraternity systems with 1-8 chapters, systems with 9-19 chapters and systems with 20 or more chapters.

Alpha Rho Chapter at Tech was chosen as the outstanding chapter in division III, fraternity systems with 20 or more chapters, and was eventually named the overall winner. Winners are selected based on several criteria including performance in all basic operations: financial management, alumni programming, membership orientation, recruitment, housing, academics and tone and morale. Emphasis is also placed on individual involvement within the campus community.

The overall winner of the Maxwell Award receives a traveling trophy, in addition to a permanent plaque.

whistle

News for the Georgia Tech Community

Charles Harmon ..... Editor
Jackie Nemeth ..... Managing Editor
Vera L. Dudley ..... Contributing Editor
Gary Meek ..... Photographer
Margaret Barrett ..... Photographer

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Georgia Tech News Bureau
Wardlaw Center
177 North Avenue
Atlanta, Georgia 30332

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