GTRC Awards Seed Funding For Eleven Interdisciplinary Projects

By Jackie Nemeth

The Georgia Tech Research Corporation (GTRC) has provided $300,000 of seed funding for interdisciplinary research projects, Dr. Demetrius T. Paris announced. He is vice president for Research and Graduate Programs.

Out of more than 80 proposals, 11 projects earned portions of the GTRC money. These undertakings range from improving solar power efficiency to finding disease remedies.

One of these research initiatives, "Characterization of Polycrystalline Silicon for High Efficiency Solar Cells," was started by Dr. W.B. Carter (School of Materials Engineering) and Dr. Ajeet Rohatgi (School of Electrical Engineering). While solar cells that convert sunlight to electricity are presently used in some solar powered pocket calculators, they have also been used — not always successfully — in experimental cars. Dr. Carter said, "we would like to find methods, through our research, that increase the economical competitiveness of solar cells with other sources of power."

Currently under development, polycrystalline silicon (polysilicon) based solar cells may offer a possible economical alternative to single crystal silicon. "Aluminum gettering" is a technique for improving silicon solar cell efficiency, in particular, polysilicon solar cells. But Tech researchers want to know by what mechanism aluminum gettering improves cell performance. They believe microstructural defects in polysilicon play a role in aluminum gettering.

Another funded project is "Peptide Hormone Processing in Endothelial Cells" by Dr. Sheldon W. May (School of Chemistry and Biochemistry). Dr. Robert M. Nerem and Dr. Peggy E. Girard (George W. Woodruff School of Mechanical Engineering).

Dr. May said this research project will investigate how neuroendocrine peptide molecules are involved with living cells' functions. The researchers will also explore whether a new enzyme of neuroendocrine processing, recently discovered in his laboratory, possibly functions in endothelial cells (cells lining blood vessels).

"Many diseases are characterized by imbalances in neuroendocrine hormones," Dr. May explained. "This research could lead to discoveries of new molecules that could obtain a balance between hormones causing heart disease, hypertension and neurological disorders."

New Funding Opportunities Sought For Maintaining Research Award Levels

By Jackie Nemeth

While Georgia Tech faculty has maintained consistent performance in attracting new research contracts and grant awards from industry and federal agencies, Dr. Demetrius T. Paris, vice president for Research and Graduate Programs, said it must search in new places and compete harder because of economic recession, uncertainty about the Persian Gulf War and government funding decisions.

"Academic and research faculty must continue to search for new sources of funding, rather than relying strictly on defense industry funding," Paris said. "We must continue to look at funding agencies that we have not used as much in the past or not at all, such as the National Institutes of Health, for funding and project possibilities."

Georgia Tech's new research contract and grant awards totaled $87,495,701 for the first seven months.

Tech Researchers Will Explore Repairs To Damaged U.S./Japan Trade Relations

Hoping for ideas to repair damaged U.S./Japanese trade relations, the Defense Department's Institute of Defense Analysis (IDA) has awarded Georgia Tech a $10,000 grant to finance studies on how the two countries can reconcile their trade differences.

The unrestricted grant goes to the fledgling Center for International Strategy, Technology and Policy (CISTP) whose director, Dr. John Endicott is a recognized expert on Japanese economics, politics and defense. Dr. Endicott said he developed a working relationship with the IDA during his 31 years of government service and credited that familiarity with his work for the award.

The grant also follows his recent trip to China and Japan, along with Dr. Robert Kennedy of International Affairs, and Dr. C.S. Kiang of Earth and Atmospheric Sciences. They finalized planning for an upcoming conference on global warming.
**Trade Relations... continued from page 1**

Dr. John E. Endicott, a School of International Affairs professor, said his research will concentrate on repairing damages from a series of recent "confrontational" trade talks. Japanese and Americans accuse each other of unwillingness to reform their trade rules and economies to facilitate trade harmony between the two countries. For instance, the U.S. says Japan's high savings rates lower demand for American goods and their restrictive trade practices close American companies out of Japanese consumer markets, Dr. Endicott said. The Japanese, however, point to the Americans' huge consumer and government debt not offset by savings as making the U.S. competitive.

"They are very interested in seeing a very productive American economic base because Congress will deny them market access if it becomes too one-sided. There will be political intervention and that is what they are trying to make sure doesn't happen," Dr. Endicott said.

**OMED's Gamble Named Outstanding Administrator**

Dr. William J. Gamble, director of the Office of Minority Educational Development, has won the 1990 Outstanding Administrator Award from the National Association of Minority Education Program Administrators (NAMEPA).

NAMEPA is an association of university administrators, corporate representatives and pre-college program administrators who support the minority engineering effort to increase the number of underrepresented minorities in the profession.

Dr. Gamble, one of NAMEPA's founders and the association's first president, has also led departments of Minority Student Affairs at Florida State University and Michigan State University, College of Engineering.

In addition to his work with NAMEPA, Gamble has served on the Committee on Minorities in Engineering for the National Research Council and the national reorganizing task force of the National Advisory Council for Minorities in Engineering.

**People**

**Recent Publications**


**Send Those Receipts!**

Help Techwood Tutorial Project help others — send your Kroger receipts to TTP at mail code 9458. 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.

**Update On Tech Construction Projects**

Groundbreakings, construction and renovations are all signs of a school on the move. Tech has never ceased to expand since its establishment over 100 years ago. Its size has actually tripled over the last 20 years, and we are all still finding places to erect new structures. Here is an update on the new and improved around campus.

- **Student Galleria:** $7.5 million, funded by the Callaway Foundation/State. The structure will house student services including, vice president of student services, the Counseling and Career Planning Center, newspaper and yearbook offices, Housing, Office of Minority Educational Development, and International Student Services and Programs. The Galleria, located behind the Student Center, will also include a 1,200-seat multipurpose theater. Construction began in 1989. Expected completion date is Spring 1991.

- **Manufacturing Research Center:** $15 million, State funded. Located near the School of Industrial and Systems Engineering, construction on this 120,000 square foot academic/research facility began in January 1990. Expected completion date is Fall 1991.

- **Institute for Paper Science and Technology (IPST):** $20 million, State and IPST funded. IPST is a small privately supported graduate research university that moved to Atlanta from Appleton, Wisconsin to establish an alliance with Georgia Tech. The building's 161,000 square feet of space is designed for educational, research and service activities plus a 244-seat multi-purpose auditorium. Construction began in May 1990. Expected completion date is winter 1993.

- **Lyman Hall and Emerson Buildings:** $8 million, State and Tech funded. Renovation of these buildings will accommodate comfortable office space for the Office of Planning, Budget and Finance which is currently located in the Knowles Building. Reconstruction began in September 1988. Expected finish date is November 1991. Knowles will eventually be renovated to house the Student Success Center, containing Student Recruitment, Placement and Financial Aid offices.

**Funding... continued from page 1**

months of the current fiscal year compared to $81,555,575 for the same period last year, Paris said. The Georgia Tech Research Institute elevated its awards intake to $57.5 million, while awards in the College of Engineering were $17.4 million, the College of Sciences $5.6 million, centers and other research operations $3.6 million, the College of Computing almost $1.9 million, the College of Architecture $1 million and the Ivan Allen College of Management, Policy and International Affairs $636,522.

The office of the President is evaluating 31 proposals submitted under the Focus Research Program. Paris anticipates President John P. Crecine will soon make up to five, $20,000 maximum per year awards.

**Job Hunting?**

If you're looking for employment opportunities, call the Job Line in the personnel office—ext. 4.4592.

**whistle**

*News for the Georgia Tech Community*

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Georgia Tech is a unit of the University System of Georgia
Use Awareness And Caution . . . Avoid Becoming Crime's Next Victim

By Jackie Nemeth

According to Tech Police Lt. James Thomas, the entire Tech community must play a role in making the campus a safer place.

In 1990, 16 robberies were reported at Georgia Tech. Of all violent crimes plaguing the community, armed robbery is the most frequently committed stranger-to-stranger crime. While a robber wants money or property, the crime always involves force or threat of force.

At a recent “Crimes on Campus” seminar, Thomas said no murders, two rapes, 11 aggravated assaults, 102 burglaries, no arson cases, 271 entering autos, 38 motor vehicle thefts, 307 theft by taking cases, five simple assaults and 20 simple battery cases also took place on the Tech campus in 1990.

“Many people feel they are immune to crime,” Thomas said.

“Some people think just because a crime has never been committed in the area where they work that nothing will ever happen to them,” he said.

Faculty and staff members attending the seminar said they take crime preventive measures such as making extra car keys, locking homes and offices, securing and engraving office equipment in open office areas and walking with coworkers after dark. If they walked alone after dark, several participants said they carry a whistle or mace for protection. Besides lack of car doors, several people said they keep purses and any other valuables under their seats or in the trunk, and they check their back seats and under their cars before entering.

Asked whether or not to approach a suspicious person in a campus building, Thomas said keeping your distance from the stranger, asking if he/she needs help and alerting the building attendant are the wisest precautions to take.

“If a stranger threatens you with a weapon, hand over what he wants and do not fight for the property,” Thomas said. “Trying to get your property back is not worth risking your life. You have to be realistic about your ability to protect yourself.”

If you become a crime victim, Thomas said observing the perpetrator’s appearance, clothing, voice, weapons and any other identifying marks will help police find the assailant.

“You have to be careful when you are in a dangerous situation,” he said. “You have to do the best you can at that time—whether you feel comfortable confronting the assailant, screaming for help or even trying to talk the person out of harming you.”

When on the street, Tech police encourage walking confidently and alertly, not taking shortcuts through unlit areas, carrying as little cash as possible and a noisemaker, and not carrying a weapon because it could be used against you.

Due to a recent robbery in the Burge Parking Deck, Thomas said some policemen are on foot patrol in the North Avenue area during “coming to work” and “leaving work” hours. He also said Tech police constantly monitor all campus emergency phones and will provide escorts for employees and students at any time.

For more information about crime prevention, call the Tech Police Crime Prevention Unit at 3-3900.

On Your Mark, Get Set, Watch Those Ramblin’ Wrecks Go!

By Jackie Nemeth

It looked like playtime at Georgia Tech...but with an important purpose.

We found students from six metro Atlanta high schools assembling model cars to watch them shake, rattle and roll during the second annual Mini Ramblin’ Wreck High School Design Contest.

Sponsored by Pi Tau Sigma, the George W. Woodruff School of Mechanical Engineering’s honor fraternity, students from Newman, Tri-Cities, Fayette County, Forest Park, North Cobb and Parkview High Schools displayed and raced their vehicles made out of metal, wood, string, weights and a variety of odds and ends.

Jerry Sheldon, Pi Tau Sigma secretary, said while the students had a great time during the contests, they also toured the campus, mechanical engineering classes and laboratories with fraternity members. Pi Tau Sigma will donate the contest entrance fees to the families of troops in the Persian Gulf War.

“We wanted to show these students what Georgia Tech is all about and how fun engineering and science can be,” Sheldon said.

To qualify, the “ramblin’ wrecks” must run on mechanical power, travel a straight path and at least eight meters, and constantly maintain at least three points of contact with the ground surface at all times.

As racing their self-propelled contraptions, the high school student teams engineered the tallest wooden structure. If this sounds easy, then try placing a half dozen eggs on top of the structure and see if it remains standing. The teams carefully added eggs, and Pi Tau Sigma members and students cheered on everyone’s efforts, even the ones that turned messy at the last moment.

“Storefront” Campus Master Plan Office Now Open In Library

Vice President for Strategic Planning Joseph E. “Tim” Gilmour and the Tech Facilities Office has established a “storefront” campus master planning office in the Willy Room on the Library’s lower level.

Sasaki Associates, a comprehensive master planning firm from Watertown, Mass., has been hired to develop Georgia Tech’s master plan. They will develop a campus facility development plan for the year 2010 and will coordinate with the Olympic planners, according to Susan Loftis of the Facilities Office.

Anyone with ideas and suggestions can come by the office from 8 a.m.-noon, Monday-Friday. All recommendations will go to Sasaki. For more information, call Loftis at 4-4610.

Georgia Tech Surpasses Winter Quarter Blood Drive Goal

This donor gets his temperature taken before giving blood during Tech’s winter quarter drive. The three-day-long effort, sponsored by the Student Center Programs Area and Co-Op Club I, drew 775 participants and acquired 270 units of blood. To find out about regularly scheduled blood drives and the need for blood due to the Persian Gulf War, call the American Red Cross at 881-9909. Georgia Tech’s spring quarter blood drive is April 21-25.
ACADEMICS
February 22 - March 13
Early Registration, (Phase I) for spring 1991. March 1.
Deadline for graduate admissions & readmission for spring quarter 1991.

ARTS & ENTERTAINMENT
February 25 - March 1
Art Exhibit, "Our Fragile Earth," Student Center Gallery, weekdays 10 a.m. - 4 p.m., weekends, 1 p.m. - 5 p.m.
International Film, "My Life As A Dog," February 28, 7 p.m., Student Center Theatre, $2.
February 25 - March 1
Movie, "Ghost," 7 p.m., 9:30 p.m., & midnight, Architecture Auditorium, $2.

LECTURES & SEMINARS
February 20
School of International Affairs, "The Media and the Military," D. M. Smith Bldg., Rm. 105.
February 28

Nuclear Engineering & Health Physics, C.E. Thomas, "Diagnostics Instrumentation Research at Georgia Tech for Magnetic Fusion Devices," 4 p.m., ESM Bldg., Rm. 109.
March 4
Mechanical Engineering, Richard Shaluk, University of California, San Diego, "Capability Flow and Hemostatis," 3:30 p.m., Coon Bldg., Rm. 217.

Classifieds
For Sale - 1988 Ford F150 XLT Lariat, red, 5-spd., custom seats, low mileage, Call 842-3171.
For Sale - Exercise bike, $25. Call Susan at 4-6019.
For Rent - BR w/sep. BA in newly renovated home close to Tech. Beautiful kitchen, wall to wall carpet, walk-in closet, ceiling fan, sep. phone line, basic cable, fplc., CH/CA and much more. Non-smoker, $300mo. plus 1/2 utils. Call 416-3643. Leave message.
For Sale - Computer memory, 2-6450668 1 Meg. modules for PS/2 Model 70 E-63. Current list: $80. Asking $50 ea. OBO. Call 4-8905.
For Rent - 2 BR, 2 BA condo in Windy Hill area, wall-to-wall carpeting, porch, wooded backyard, fplc., $600mo. Call 382-5819.
For Rent - Duplex ½ block from Irwin Park MARTA station, 1 BR, 8'x11' bonus room, second BR, 900 sq. ft. total, CH/CA, $450. Can partially furnish for students. Call 872-0085.
For Sale - '87 Nissan Maxima Wagon GXE, 6 cyl. auto, white/brown, all options, only 20K, $10,500. Call 295-6925.

Blood Drive - Tech's Cadet Air Force Detachment will sponsor a blood drive on Friday, March 1 from 9:30 a.m.-3:30 p.m. in the Eagles Nest Lounge, D.M. Smith Building.
Mocktail Making Contest - In recognition of National Collegiate Drug Awareness Week, the student group, "Get a Buzz On Life," will sponsor a non-alcoholic drink making contest on March 7 at 11 a.m. on the Student Center Steps. The group promotes awareness of hazards related to substance abuse in the Tech community.

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