Building a legacy
G. Wayne Clough honored at CULC groundbreaking

ROBERT NESMETH COMMUNICATIONS & MARKETING

Georgia Tech alumnus and former President G. Wayne Clough returned to campus last week as part of the groundbreaking for the Clough Undergraduate Learning Commons (CULC).

During the ceremony, President Bud Peterson and University System of Georgia Chancellor Erroll B. Davis Jr. presented to Clough a proclamation declaring him President Emeritus of the Georgia Institute of Technology.

“G. Wayne Clough is regarded as a truly transformative president,” Davis said.

“But above all of that, he is a teacher and an educator. He had an uncommon passion for the education of undergraduate students here at Tech. This new Learning Commons will be a legacy—the bricks-and-mortar legacy of Dr. G. Wayne Clough.”

After receiving the proclamation, Clough said what a pleasure it was to return to campus. “I spent two significant portions of my life here, once as a student, and once as the president. As the first alumnus to be president, I was privileged to have a unique perspective of Georgia Tech. I often met other alumni, and it wasn’t unusual to hear from them that they did not enjoy the experience.”

“I had this near-radical idea that Georgia Tech should be a place that not only challenged students, but one that also was dedicated to the idea that we wanted them to be successful,” Clough said. “I was convinced both objectives

CoC dean named
Zvi Galil takes Computing helm July 1

Following a national search, Georgia Tech Provost Gary B. Schuster has announced that Zvi Galil will become the next dean of the College of Computing effective July 1.

“Professor Zvi Galil comes to Georgia Tech with extensive experience as a scholar and an academic administrator,” Schuster said.

“He has expressed a firm and forward-looking vision for computing and for advancing the College of Computing at Georgia Tech. Computing has evolved to become a central component of so much of what Georgia Tech does across all disciplines, and Professor Galil recognizes the key role that computing must play in advancing our leadership worldwide.”

Galil will occupy the John P. Imlay Jr. Dean’s Chair within the College. As the chief academic and administrative officer, Galil will report to the provost and provide overall strategic direction for the College, with particular focus on the faculty’s aspiration to define a new generation of computing through its three academic units: the School of Computer Science, the School of Interactive Computing and the School of Computational Science and Engineering.

“Georgia Tech’s College of Computing has an enviable framework: it is a leader in computer education, with extensive interdisciplinary research and excellent relationships with industry,” Galil said. “I am honored to have the opportunity to build upon that foundation.”

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Maintaining integrity
Institute underscores ethics in business, research

COMMUNICATIONS & MARKETING

Tied to the release of the Institute’s Strategic Plan later this spring, Institute administrators have charged both staff and faculty to complete the Board of Regents-mandated annual ethics training prior to the end of the semester.

Faculty and classified staff members can log in and complete a 15-minute training module available on the Institute Ethics Web site.

In order to be compliant with both state and federal mandates, Tech and other USG member institutions must demonstrate on an annual basis that their faculty and staff complete ethics training. Last year, Tech was a forerunner in establishing the modules.

Both state and federal mandates require both staff and faculty to complete ethics training after the 2010 deadline. Compliant after the deadline will be forwarded to the USG faculty and staff members from the 35 member institutions must demonstrate on an annual basis that their faculty and staff complete ethics training. Last year, Tech was a forerunner in establishing the modules.

They did not enjoy the experience.”

“Conducting our business with integrity and the highest

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Research

Really small leap

Improved nanogenerators power sensors placed on nanowires

JOHN TOON

RESEARCH NEWS

Tech researchers have created what are believed to be the first self-powered nanometer-scale sensing devices that draw power from the conversion of mechanical energy.

The new devices can measure the pH of liquids or detect the presence of ultraviolet light using electrical current produced from mechanical energy in the environment.

Based on arrays containing as many as 20,000 zinc oxide nanowires in each nanogenerator, the devices can produce up to 1.2 volts of output voltage, and are fabricated with a chemical process designed to facilitate low-cost manufacture on flexible substrates. Tests done with nearly 1,000 nanogenerators—which have no mechanical moving parts—showed that they can operate over time without loss of generating capacity.

Details of the improved nanogenerator and self-powered nanosensors were reported March 28 in the journal Nature Nanotechnology. The research was supported by the National Science Foundation, the Defense Advanced Research Projects Agency and the U.S. Department of Energy.

“We have demonstrated a robust way to harvest energy and use it for powering nanometer-scale sensors,” said Zhong Lin Wang, a Regents’ professor in the School of Materials Science and Engineering at Georgia Tech. “We now have a technology roadmap for scaling these nanogenerators up to make truly practical applications.”

For the past five years, Wang’s research team has been developing nanoscale generators that use the piezoelectric effect, which produces electrical charges when wires made from zinc oxide are subjected to strain. The strain can be produced by simply flexing the wires, and current from many wires can be constructively combined to power small devices. The research effort has recently focused on increasing the amount of current and voltage generated and on making the devices more robust.

“We can now grow the wires chemically on substrates that are foldable and flexible, and the processing can now be done at substrate temperatures of less than 10 degrees Celsius—about the temperature of coffee,” explained Wang. “That will allow lower-cost fabrication and growth on just about any substrate.”

The alternating current output of the nanogenerators depends on the amount of strain applied. “At a strain rate of less than 2 percent per second, we can produce output voltage of 1.2 volts,” said Wang. “The power output is matched with the external load.”

Wang’s team has so far produced two tiny sensors that are based on zinc oxide nanowires and powered by the nanogenerators.

The new generator and nanoscale sensors open new possibilities for very small sensing devices that can operate without batteries, powered by mechanical energy harvested from the environment. Energy sources could include the motion of tides, sonic waves, mechanical vibration, or the movement of clothing.

“Building devices that are small isn’t sufficient,” Wang said. “We must also be able to power them in a sustainable way that allows them to be mobile. Using our new nanogenerator, we can put these devices into the environment where they can work independently and sustainably without requiring a battery.”

For more information

www.mse.gatech.edu

38 Tech students awarded NSF graduate fellowships

COMMUNICATIONS & MARKETING

The National Science Foundation (NSF) has awarded 38 Georgia Tech students with Graduate Research Fellowships (GRF), more than any other college or university in the state.

The fellowships, valued at more than $100,000 each, include $30,000 per year for three years for graduate study and $10,500 annually for three years for tuition. This year’s recipients, 23 men and 15 women, are comprised of 28 graduate students and 10 undergraduates (seniors).

Areas of study range from artificial intelligence to science policy. In addition, 37 current Georgia Tech students received an honorable mention designation from NSF.

As a result of increased financial support from Stimulus Funding through the American Recovery and Reinvestment Act, NSF made 2,000 awards in 2010 compared to 1,244 awards last year.

The purpose of the GRF initiative, the oldest of NSF’s programs, is to foster experts who will contribute significantly to research, teaching and innovations in science and engineering.

For more information

www.nsf.gov


Reserve your place
Parking permit registration begins April 15

COMMUNICATIONS & MARKETING

Online parking permit registration is from Thursday, April 15, to Wednesday, June 30, for all Georgia Tech students, faculty and staff.

Visit www.parking.gatech.edu and follow the registration prompts. Registration is available for the following permit types: Regular, Evening/Weekend, SmartPark, Motorcycle or Carpool.

Patrons who register online and want to keep their current locations will receive the same location next year. Those planning to change parking locations next year must choose three location preferences and a default location (either E81-Tech Square or W02-Student Center).

The default choice will be assigned if the top three preferences are not available.

Annual permits are $650 for 2010-2011. Carpool permits are $350. All current parking citations must be paid before new permits are issued. Monthly pre-tax payroll deduction is available for faculty and staff. Payment via check, cash or credit/debit cards is also available (must be paid in person).

Those who do not register before June 30 are not likely to receive their preferred parking locations. Choose parking locations wisely to avoid making changes in the fall.

Starting in August 2010, an administrative fee of up to $25 will be charged to anyone who wants to change their parking location.

Parking and Transportation recommends that faculty and staff have their permits mailed, but they can be picked up in person. Faculty and staff can update their addresses in online parking and can make changes to their parking location.

For more information
www.parking.gatech.edu

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of ethical principles, whether in the administrative offices, the lab or in the classroom, is inherent to everything we do at Georgia Tech,” said President Bud Peterson.

“Although the Board of Regents and our federal funding sources require this annual compliance, we need assurance from leaders within all levels of the Institute to ensure 100 percent compliance,” Swant said in the memo.

On Monday of last week, faculty administration and unit administrators received directives from Provost Gary D. Schuster and Executive Vice President for Administration and Finance Steve Swant, respectively, requesting completion of the training modules prior to the end of the semester. “Our duties at Tech, from the Office of the President and faculty chairs to department supervisors and institute support staff, must be carried out with the highest sense of integrity,” Swant said in the memo.

The push is on for faculty members to be compliant, since they may leave campus for the summer to conduct research or attend fellowships.

Ethics training modules are available at www.gatech.edu/president/ethics. Faculty and staff can log in as they would to register for any training classes. A “blue star” graphic guides users to choose the selections leading to the BOR/USG ethics training. A link to complete the modules from off-campus computers is available under “Login Instructions” on the Institute Ethics Web page.

Any questions regarding the modules should be directed to training@orgdev.gatech.edu.

For more information
www.orgdev.gatech.edu

www.gatech.edu/president/ethics/EthicsPoint hotline: 1-866-294-5565

Mississippian

April 13
NBA player Shaquille O’Neal and his mother, Lucille O’Neal, will sign copies of her new memoir, “Walk Like Me: Somewhere to Go,” from 7 to 9 p.m. at the Georgia Tech Bookstore.

www.gatech.bicentennial.com

April 16
The Georgia Tech Athletic Association presents a Campus Kick-Off from noon to 1 p.m. in the Student Center Ballroom. RSVP prior to the event.

http://ramblinwreck.gatech.edu/campus_kickoff

April 17
The Georgia Tech Alumni Association presents the 38th Annual Dean Griffin Pi Mu Epsilon Student Center Invitational. Registration is at 7 a.m., and the race begins at 8 a.m. Registration is $25 for faculty and staff before April 7. Beginning April 8, the fee is $30.

www.gtaa.gatech.edu/weekend

Tech Beautification Day will be from 9 a.m. to noon. Teams of students, faculty and staff clean up the campus through planting, spreading ground cover and general cleanup. Volunteer registration for faculty and staff members is open through April 15.

www.gttbd.org

Ongoing

The Campus Recreation Center offers Sun To Sun classes every Tuesday and Thursday from 11:45 a.m. to 12:45 p.m. www.crc.gatech.edu

CATEx (Center for Assistive Technology and Environmental Access) seeks full-time employees with a mobility disability to take part in telephone interviews. Participants will be reimbursed. Call Claire Yang at 385-6589 or e-mail her at haixiang-yo.yang@coa.gatech.edu.

For a comprehensive listing of events updated daily, visit www.gatech.edu/calendar.

Former President G. Wayne Clough and President Bud Peterson with the Ramblin’ Wreck on the construction site of the new Clough Undergraduate Learning Commons.

www.whistle.gatech.edu
Tech again selected for Great Colleges to Work For survey

Georgia Tech has again elected to participate in the “Great Colleges to Work For” survey program conducted for The Chronicle of Higher Education.

Beginning March 22, a random sample of 600 employers received an invitation to participate in the Web-based survey process. The survey will run through April 16, and results will be compiled for a special edition of The Chronicle, to be published this summer, which will highlight best practices and policies in work environments in institutions of higher education.

Last year, Georgia Tech placed in the Top 10 in 10 of 21 categories such as job satisfaction, benefits and compensation, and institutional policies relating to the workplace. For more information about the survey process and results, contact Sandi Bramlett at 4-8874 or sandi@gatech.edu.

In Brief...

Breznitz testifies on federal government’s role in supporting innovation

On March 24, Sam Nunn School of International Affairs Associate Professor Danny Breznitz testified before the House Science and Technology Committee’s Subcommittee on Technology and Innovation at a hearing on the federal government’s role in supporting innovation.

One theme of the hearing was the need for a comprehensive federal strategy to create an environment that is conducive to innovation in the United States.

Breznitz discussed three roles that the government has to play in innovation policy: public financing of private innovation, public production of innovation (i.e. financing of industrial research at non-profit institutions), and facilitation of professional, inter-institutional networks.

For more information, contact Stamps Health Services at 894-1420.

Community

When the Whistle Blows

There is nothing that can replace the joy that a loved one or cherished friend brings to our lives. Each year the Georgia Tech community is deeply saddened by the loss of members of our own community. This spring we will honor the memory of each student, faculty, and staff member who has died in the last year. Join us as we pay tribute to those individuals who have touched our lives and contributed to our community.

Adina Arvaki
Residential Director
Bible

John Baker
Graduate Student; Alumni;

Justin Lefevre
Undergraduate Computer Science

Tayria Bailey
Program Director, Georgia Tech Research Institute

Richard Beekley
Builder Facilities

Saralyn Ceter
Construction Services Supervisor

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pledge to live a more sustainable lifestyle. Giveaways include compact fluorescent light bulbs, reusable water bottles and recycled tote bags.

annual Sustainable Fashion Show, 11:30 a.m. to 12:30 p.m. at the Campanile. Val Peterson will join several other students and volunteers.

April 21: Meet and Greet with artist Pam Longobardi and students designing the Garden of Growth, 3:30 to 4:30 p.m. in the grassy area adjacent to Skiles Walkway.

April 22: Screening of “Coal Country” documentary, from 6 to 8 p.m. in the Clay Theater, with an introductory presentation by Civil and Environmental Engineering Assistant Professor Mulalo Dooyoe.

Institute sponsors of Tech’s Earth Day 2010 include the Brook Byers Institute for Sustainable Systems, the Department of Housing, Office of the Provost, the Georgia Tech Research Institute, Center for Organic Photonics and Electronics, the Athletic Association and the College of Architecture.

External sponsors include Newell Recycling, AT&T, the Coca-Cola Co., Publix, Target, Turner Construction, Waste Management and the Turner Foundation, among others.

For more information online at www.earthday.gatech.edu.