Technology Day showcases faculty innovations moving toward commercialization

Jane Sanders
Research News and Publications

Georgia Tech’s VentureLab, a center for commercialization of university research, recently gave about 200 investors and industry representatives a first look at early-stage technologies during Technology Day. VentureLab showcased 10 faculty-developed technologies at varying stages in the technology transfer process, opened laboratories for tours and gave brief presentations in the GCATT auditorium. Attendees had the opportunity to spend time with individual Georgia Tech faculty members and VentureLab staff to discuss the technology prospects in detail. (For a complete list of companies, see page 2.)

President Wayne Clough spoke to attendees, noting that while Tech is breaking ground in technology transfer activities, economic development is not a new mission for the university. The state created Georgia Tech in 1885 to help move the South’s economy from an agrarian to an industrial one, so economic development has always been on par with its education, research and service missions, he said.

“Today our mission is only different in that we are in an age of information and services,” Clough explained. “We serve the original intent of our economic development mission in a different way.”

Building upon extensive federally funded research in science and engineering, Tech faculty and students are creating innovative technologies with commercial potential. “We have many great new ideas boiling away, and many of them will make their way into the commercial arena,” Clough said.

Since its formation a year ago, VentureLab has evaluated 90 research innovations involving more than 100 faculty. A dozen of those innovations were identified as having commercial potential. Of those with commercial interest, four have so far

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Tech names new director of Security and Police

Elizabeth Campbell
Institute Communications and Public Affairs

To quote the familiar phrase: there’s a new sheriff in town. Or at least there will be soon.

Last week, Georgia Tech announced it had named Teresa Crocker as the new director of Security and Police. Crocker currently serves as director and chief of police at East Carolina University, the third largest university in North Carolina. Effective January 6, Crocker fills the position formerly held by Chief Jack Vickery, who retired last summer.

“Teresa comes to Georgia Tech with impeccable police credentials,” said Robert Thompson, senior vice president for Administration and Finance. “She brings considerable experience in higher education, rising from police officer to assistant director/chief of public safety during her 12 years at North Carolina State University and nine years as chief at East Carolina. We are delighted that she has agreed to join the Tech team in this extremely important position and look forward to working with her in creating an even safer, more secure campus environment.”

“I am excited to take on the new challenge of leading Georgia Tech’s growing Police Department,” said Crocker. “The Department’s responsibility for campus security is growing as part of national homeland security efforts as well as the continued expansion of campus into the heart of Midtown Atlanta.”

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Tech sets record for annual Charitable Campaign

Michael Hagerty
Institute Communications and Public Affairs

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truly didn’t know if we were going to make it this year. It’s just amazing.”

At last week’s luncheon celebrating the completion of the 2002 Charitable Campaign, Carolyn Schneider presided over a room full of campus coordinators who burst into applause upon learning that the fruits of their labor amounted to a total of $557,000 raised for local and national charities. Not only does it exceed the goal set back in September, but also sets a new institute record.

An administrative manager in Enrollment Services, Schneider took the reins this year as the campaign facilitator, coordinating several dozen volunteers and tracking the incoming contributions. But she spared no effort in giving the credit for the success to those who freely gave their time to the cause.

Schneider also expressed her deepest thanks to the campaign committee.

“Each one of these committee members played a key role in making this year’s campaign such a great success. I would like to thank them for their hard work and dedication to making this year easier for me. This was my first campaign as facilitator, and without their help I would have had a much more difficult time.”

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been the basis for the formation of new companies. Two of them – Qept Technologies and Radatec, Inc. – have already been admitted to the ATDC.

Both Clough and Provost Jean-Lou Chameau cited several reasons for Georgia Tech’s entrepreneurial success.

ATDC, VentureLab, the Georgia Tech Research Corporation and its Office of Technology Licensing, $520 million a year in externally funded research, eminent scholars funded by the Georgia Research Alliance, relations with industry partners and strong state support, and its emphasis on collaboration among Georgia Tech research institutions.

In addition, the administration strongly encourages faculty and students to become entrepreneurs.

Despite its success, Chameau said the university wants to do more. He cited the Washington Advisory Group study commissioned by Tech and the recommendations that resulted from it. One recommendation was the creation of VentureLab as a one-stop center for entrepreneurs and industry.

Another recommendation is the establishment of metrics to measure the university’s economic development success, some of which, he said, are already in place.

“We have a strong commitment to commercialization,” Chameau said.

“It is an important part of our culture at Georgia Tech. Now we have people who want to come here because of our commercialization support. So we are fairly successful.... But we are not satisfied. We will keep improving.”

Clough encouraged both faculty and industry representatives to familiarize themselves with VentureLab.

“It is a mechanism to simplify interaction between industry and faculty,” he said.

“It is one-stop shopping for faculty. VentureLab will help faculty down the long and complicated route to commercialization.”

VentureLab evaluates faculty technologies’ commercial potential, research team experience and business interest. For technologies meeting these criteria, VentureLab provides business support services and advice, connections to outside funding and pre-seed awards to move innovations toward commercialization.

And VentureLab organizes events such as Technology Day to create a bridge between technologists and investors and potential customers.

For more information:
Georgia Tech Venturelab
www.venturelab.gatech.edu

Technology Day Presentations

VentureLab showcased six technologies, two companies and two graduate companies.

OptiPhonics: This technology has proven itself the world’s most sensitive microphone in research conducted by Levent Degertekin, an assistant professor of mechanical engineering at Georgia Tech.

Qept: A VentureLab graduate company, Qept has developed a breakthrough, patented sensing technology called the Scanning Contact Potential Difference (CPD) sensor. It senses electric fields to discern minute physical and chemical features of surfaces.

RFID: Engineers have developed a technology from radio-frequency identification tags that tracks the location and condition of high-value assets, ranging from pharmaceutical drugs to aircraft engines.

Ortho: Ortho is an early-stage tissue engineering company developing advanced biomaterials that will promote bone growth and adhesion.

Radatec: A VentureLab graduate company, Radatec has developed a proprietary system to predict fatigue in previously inaccessible industrial environments, including those with extremely hot, dirty and dynamic conditions.

Vivionetics: Vivionetics’ product is a probe created from a novel combination of molecular beacons and resonance energy transfer (RET) probes, making them the first true living cell gene expression imaging company.

Innovative Fluidics: This technology uses its patented synthetic jets (SynJets) to deliver highly efficient air cooling of devices such as laptop computers at a fraction of the flow rate of traditional fans.

Jacket Micro Devices: Jacket Micro Devices has developed a proprietary, high-performance organic fabrication technology to produce radio-frequency (RF) devices that are smaller and more cost effective than existing ones.

Diabetes Tissue Engineering: This suite of proprietary tissue engineering technologies collectively offers the potential for a comprehensive solution to the management of patients with insulin-dependent diabetes.

MEMS Inspection Technologies: This “laser interferometer on a chip” can calculate sub-nanometer, out-of-plane distances in the inspection of micro electromechanical systems (MEMS).
Snyder to chair Materials Science and Engineering

Larry Bowie
Institute Communications and Public Affairs

Georgia Tech has selected Robert Snyder, professor and chair of the Department of Materials Science and Engineering at Ohio State University, as the new chair of the School of Materials Science and Engineering (MSE).

Snyder begins Jan. 2, succeeding Regents' Professor Ashok Saxena, who has chaired MSE since 1993, but now plans to devote more time to research and teaching in MSE.

Don Giddens, dean of the College of Engineering, said, “Bob Snyder brings a wealth of enthusiasm, energy and vision are just the right combination for us at this time. He will emphasize the multidisciplinary nature of materials science and engineering in both education and research. He will be a fine collaborator with other schools at Georgia Tech. I join the MSE faculty, students and staff in looking forward eagerly to his arrival.”


“MSE is a national treasure in engineering, and the School of Materials Science and Engineering is among the best in the world,” Snyder said. “I am delighted to join this distinguished faculty and look forward to working with them to meet the challenges of our ever-changing technology. It will require every bit of the excellence that has been achieved at Georgia Tech to maintain America’s technological leadership, which is being increasingly challenged throughout the world.”

U.S. News & World Report recently ranked the School’s undergraduate program at No. 10 in the nation and the graduate program at No. 11. The School comprises 21 full-time faculty members and two joint faculty members.

Snyder’s research has focused on understanding and then manipulating the structure-property relationships in advanced materials. In particular, Snyder has worked to bring characterization techniques to an “in situ” dynamic mode to support the next major development in materials science: computational materials design.

Snyder received his doctoral degree from Fordham University in chemistry and X-ray crystallography and a bachelor’s degree in chemistry, mathematics and philosophy from Marist College in upstate New York.

Two new image archives capture Tech’s history

Searching for historic photographs of Grant Field, rat caps or the Ramblin’ Wreck Parade is easier thanks to a new, on-line interface of the Institute’s Visual Arts Collection, part of the Library and Information Center’s ongoing digitalization efforts.

About 300 images from the collection now are available for viewing at http://video.library.gatech.edu/GTCPCFigs/gpc.html. A team of Georgia Tech librarians and systems staff developed the new Web site. Information on use and copyright of the images is available on the site or by calling Archives staff at 894-4586.

“The images were created by a variety of organizations, including the school yearbook and other campus publications,” Archivist Anne Saller said. “Another 500 images will be added in the next year, and more images will be added on a regular basis after that.”

Another collection of historic images in the George Griffin Photograph Collection is available on-line at www.library.gatech.edu/griffin.

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It consists of 646 unique photographs relating to all aspects of Georgia Tech and its history, including students, faculty, administrators, alumni, sports, and buildings. The photographs range in date from circa 1885 to 1985 and offer a unique perspective on the people and places from Georgia Tech’s past.

Preventing Internet attacks

Last month, it was announced that Lancope, Inc., a company founded by Georgia Tech Eminent Scholar John Copeland, will team with national defense agencies to beef up security on classified data networks using Lancope’s patented intrusion detection technology, called StealthWatch.

Atlanta-based Lancope will work with the National Security Agency (NSA) and joint Department of Defense research teams to develop “Therminator” – a system for both government and private deployment to detect incoming and outgoing network attacks and sophisticated denial of service attacks in real time.

“Therminator will identify sophisticated cyber war attacks launched by rogue states or terrorist organizations that cannot be detected using traditional signature-based intrusion detection systems,” said Copeland, chair and chief scientist with Lancope, and the technology transfer chair in the School of Electrical and Computer Engineering.

The StealthWatch technology combats hacking exploits and corporate network misuse on enterprise networks by using techniques that show the paths they took by listing equipment used to access networks. It operates at giga-speeds, and provides intelligent alarming, advanced network surveillance and forensic data on network activity.

Wine program features Tech

Do you know a Georgia Tech alumnus or someone who will be soon? The Alumni Association recently announced the Georgia Tech Alumni Wine Program, a new program featuring a hand-selected portfolio of wines that are smooth tasting by friends and alumni of Tech. Each bottle bears an exclusive commemorative Georgia Tech label and is the first edition in an annual commemorative series that will depict landmarks and familiar images from around campus. To place an order or inquire further, call (888) 968-7946.

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