

SPOTLIGHT

Faculty Research in the News

Georgia Tech researchers' work is covered in the news media.



PHOTO BY GARY MECK

R&D Magazine, *Electronic Design* and national television science service *Discoveries and Breakthroughs Inside Science* featured Georgia Tech Research Institute work on a wireless captioning system for the deaf and hearing impaired. The system allows persons with hearing limitations to receive text-based announcements on PDAs and other devices at events such as public meetings, sporting competitions, worship services and theaters. **Leanne West** is leading the project. See the *Research Horizons* article @ gtresearchnews.gatech.edu/reshor/rh-w05/captioning.html

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USA Today, *The Atlanta Journal-Constitution*, *WXIA-TV*, *National Defense*, *MSNBC* and *Rolling Stone* magazine covered the Georgia Tech Research Institute's work on a concept vehicle designed to illustrate technology options for improving survivability and mobility in future military combat vehicles. Known as Ultra-AP, the vehicle would provide better protection for crew members, a more powerful engine and advanced systems such as stability control. **Gary Caille** is leading the effort. See the article on **page 39**.

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National Geographic.com covered news of the discovery by Georgia Tech researchers of 10 new molecular structures with pharmaceutical potential. Researchers **Mark Hay**, **Julia Kubanek** and their colleagues found the new structures in a

species of red seaweed that lives in the shallow coral reef along the coastline of Fiji in the south Pacific Ocean. An *Atlanta Journal-Constitution* article also mentioned the environmental conservation part of this project in Fiji. See the cover story section beginning on **page 6**.

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Science News Online, the Web site of this popular weekly science magazine, described Sea Maven, a Web portal that gives students access to data collected at naval platforms 60 miles off the Georgia coast. The project, operated by the Georgia Tech Research Institute in collaboration with the Skidaway Institute of Oceanography, allows students to understand the kind of work that researchers do. **Jim Demmers** directed the project for GTRI. The *Newnan Times-Herald* also covered this project. See the *Research Horizons* article @ gtresearchnews.gatech.edu/reshor/rh-ss05/seamaven.html

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Chemical & Engineering News, *Electronic Engineering Times*, *Semiconductor International*, *Machine Design*, *Nanotechweb* and *The Engineer* covered **Z.L.Wang's** new superlattice zinc oxide nanostructure reported in the journal *Science*. The structure, dubbed a nanohelix, resembles the helical structure of DNA. Also, *R&D magazine* profiled Wang as a "nanotechnology guru." And he was quoted on the future of nanotechnology in a CNN special called "Flash Forward." See the article on his report in *Science* on **page 22**.

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Machine Design, *Photonics Spectra* and *Sensors* magazines reported on the Georgia Tech Research Institute's work on a vision system designed to catch potential plastic contami-

nation on production lines used for food. The system, under development by **John Stewart**, **Doug Britton** and others, uses color differences to spot plastic items that could get into food supplies. See the article on **page 4**.

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Poultry and Meat Processing magazines reported on Georgia Tech's new Food Processing Technology Building, which houses **Georgia Tech Research Institute** research into food processing improvements. The building was constructed with both state and industry support. See the *Research News* article @ gtresearchnews.gatech.edu/newsrelease/food-processing.htm

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Occupational Health & Safety, *Police Magazine* and *Covington News* quoted a Georgia Tech Research Institute researcher on the methamphetamine problem. **Kevin Caravati** was quoted concerning the extent of the meth problem and the risks it poses for public safety officials. See the *Research News* article @ gtresearchnews.gatech.edu/newsrelease/meth-training.htm

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Computerworld and *The Engineer Online*, a Web site for the British publication *The Engineer*, described Georgia Tech work on applying augmented reality technology to the food processing industry. The system being developed by Georgia Tech Research Institute and College of Computing researchers would allow communication between

automated inspection systems and factory workers. *Automation World*, *Industrial Engineer*, *Computer Zeitung* and *Watt Poultry* also covered the research. **Blair Macintyre** and **Craig Wyvill** were quoted. See the article on **page 32**.

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Geospatial Solutions covered a collaborative project between School of Electrical and Computer Engineering and NASA researchers that could improve access to data from the space agency's Earth-observing satellites. **Mary Ann Ingram** is leading the research for Georgia Tech. Other news outlets covering the research include: *Physorg.com*, *RF Design* and *Space Daily*. See the *Research Horizons* article @ gtresearchnews.gatech.edu/reshor/rh-ss05/array.html

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Newsday, *Health* magazine and *The Futurist* covered Georgia Tech research on the social implications of music sharing in the workplace. The study, by researchers in the College of Computing's Graphics, Visualization and Usability Center, showed that workers made judgments about others based on music they shared using the iTunes sharing program — and that workers selected the music they were willing to share in order to shape impressions. **Amy Volda**, **Becki Grinter** and **Keith Edwards** conducted the research. See the *Research Horizons* article @ gtresearchnews.gatech.edu/reshor/rh-ss05/musicshare.html



PHOTO BY GARY MECK

Awards & Honors

Georgia Tech faculty and staff receive recognition.

Six Georgia Tech faculty members have been awarded the distinction of AAAS Fellow from the American Association for the Advancement of Science.

- **Barry Bozeman**, Regents professor in the School of Public Policy, for contributions to scholarship, teaching, and mentoring in science and technology policy, particularly for research in evaluating the societal implications of research;



James Foley

- **James Foley**, professor and the Stephen Fleming Chair in Telecommunications in the College of Computing, for early contributions to the fields of computer graphics and user interfaces;
- **James Gole**, professor in the School of Physics, for fundamental studies at the interface of chemistry, physics and materials science in high-temperature molecules, laser spectroscopy, sensors, porous silicon and nanotechnology;
- **Charles Liotta**, vice provost for Research and Dean of Graduate Studies and Regents professor in the School of Chemistry and Biochemistry, for contributions to the field of physical organic chemistry and for outstanding leadership and vision in enhancing academic and industrial research partnerships;



Willie Pearson, Jr.

- **Willie Pearson Jr.**, professor and chair in the School of History, Technology and Society, for contributions to the scholarship of diversity in science and for promotion of broadened participation of underserved populations in the sciences;
- **Peter J. Webster**, professor in the School of Earth and Atmospheric Sciences, for scientific discoveries of the coupled ocean-atmosphere system and for superior scientific and organizational leadership of international field campaigns.

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Atlanta Woman Magazine named two Georgia Tech professors to its annual list of Top 10 Innovators. **Barbara D. Boyan**, the Price Gilbert Jr. Chair in Tissue Engineering in the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory University, deputy director of research for the Georgia Tech/Emory Center for the Engineering of Living Tissues and a Georgia Research Alliance Eminent Scholar, was selected as a Top Innovator in science. **Elizabeth D. Mynatt**, associate professor in the College of Computing and director of the Graphics, Visualization and Usability (GVU) Center at Georgia Tech, was named the Top Innovator in technology.



Elizabeth D. Mynatt

Oliver Brand, an associate professor in the School of Electrical and Computer Engineering, received the 2005 IEEE Donald G. Fink Prize Paper Award.

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Professor **Charles Eckert** in the School of Chemical and Biomolecular Engineering was awarded the 2005 Clarence G. Gerhold Award of the Separations Division of the American Institute of Chemical Engineers.

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Assistant Professor **Stuart Goldberg** in the School of Modern Languages received a Fulbright grant to conduct research in Russia during the 2005-2006 academic year.

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George B. Harrison, the director of strategic initiatives for the Georgia Tech Research Institute, was recently appointed to the Georgia Aviation Hall of Fame board of directors by Georgia Gov. Sonny Perdue

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College of Computing Professor **Mary Jean Harrold**, Assistant Professor **Panagiotis (Pete) Manolios** and Assistant Professor **Alessandro (Alex) Orso** received IBM Faculty Awards for Innovation, an international honor that supports advancement in teaching, research and community-building using open-source technologies.

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Professor **John B. Peatman** in the School of Electrical and Computer Engineering will receive the 2006 IEEE Undergraduate Teaching Award at the 2006 Frontiers in Education Conference

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Professor **F. Michael Saunders** in the School of Civil and Environmental Engineering was selected as the 2005 recipient of the Water Environment Federation's Gordon Maskew Fair Medal for Outstanding Service in Engineering Education.

Professor **Karsten Schwan**, director of the Center for Experimental Research in Computer Systems at the College of Computing received IBM's Faculty Award for Innovation in June 2005

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Manos Tentzeris, an associate professor in the School of Electrical and Computer Engineering, received the 2006 IEEE Microwave Theory and Techniques Symposium (MTT-S) Outstanding Young Engineer of the Year Award.

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Patricio Vela, an assistant professor in the School of Electrical and Computer Engineering, received a Most Promising Engineer Award from the Hispanic Engineer National Achievement Awards Corporation Board of Directors and *TECHNiCA* Magazine.

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Associate Professor **Fei-Ling Wang** in the Sam Nunn School of International Affairs received a Fulbright Program Distinguished Lectureship to spend the 2005-2006 academic year doing research in South Korea. He was also the recent recipient of an international affairs fellowship from the Council on Foreign Relations.

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Hang Lu

School of Chemical and Biomolecular Engineering Assistant Professor **Hang Lu** was named one of *Technology Review's* "Top 35 Innovators Under 35." Lu has designed minute mazes to test how microscopic worms learn using smell, and she constructed micro-scale gas gradients to help identify the sensory pathways that the worms use to detect oxygen levels.