Improving First Response

The September 11 attacks and subsequent anthrax scares have underscored the work of Georgia Tech’s three-year-old Center for Emergency Response Technology, Instruction, and Policy (CERTIP).

Now partnered with the Georgia Emergency Management Agency, U.S. Marine Corps, medical professionals, firefighting agencies and others, CERTIP has organized two forums on emergency response, conducted a major chemical release disaster exercise called Project Atlanta and demonstrated these five promising first-responder technologies:

- An integrated-optic sensor that can detect the presence of multiple biological and chemical agents, such as salmonella and chlorine, in seconds.
- The Medical Reachback System that transmits vital patient information via the Web from first responders in a “hot zone” to physicians who can remotely assess victims and order treatment.
- The ChemBio Decision Aid software program that runs on a personal digital assistant allowing emergency medical technicians to quickly determine a chemical or biological agent based on a victim’s symptoms.
- The Situation-Awareness Geographic Information System that can track location of people and chemical/biological agents, transmit building blueprints and predict contaminant dispersion.
- The RADAR flashlight that can detect the presence of a person, such as a criminal suspect or unconscious victim, through walls and doors up to eight inches thick.

www.certip.org

Genuinely Helpful

Genuine Parts, headquartered in Atlanta and the 10th largest public company in Georgia, was experiencing rising utility costs and turned to Georgia Tech energy and environmental management specialists for help in evaluating its energy situation.

Staff provided strategies for smart energy purchasing and informed management about electrical and natural gas deregulation issues. They also helped the firm with outsourcing management of utility data, bill payment and rate analysis.

Overall, this assistance enabled the firm to develop a sound strategy and solutions, and estimated energy savings total more than $800,000 annually.

www.industry.gatech.edu

Save Your Energy

Georgia Tech’s Energy and Environmental Management Center (EEMC) in FY 2001 conducted 35 plantwide assessments, more than 80 technical assists and 45 environmental network meetings statewide. EEMC also implemented pilot programs with Delta Air Lines, the U.S. Postal Service and Collins & Aikman to implement MSE 2000, a comprehensive energy management system and national standard that EEMC developed.

Groundwork for a Plan

In southwest Georgia, Mitchell County asked Georgia Tech’s Economic Development Institute to conduct a community assessment that would provide guidance to county leaders in creating a long-term strategic economic development plan.

Implementations based on study recommendations so far include a housing needs study, selection of an industrial park site, creation of a targeted industry list, formation of a sales team to address industry prospects, and the addition of an economic development professional to the school council to help with improvements in the school system. Overall, community leaders have developed a list of 15 goals, many initiated from the study results, they will implement over five years.

www.ceds.gatech.edu
Protection That’s Skin-Deep

Georgia Tech researchers are devising a novel gel to treat combat wounds such as burns or abrasions. The gel is a liquid emulsion that acts as a second skin, forming a protective layer permeable to air and water but guards against infection via control-released antimicrobial compounds. It can be sprayed or rolled on and withstand rain, mud and other elements for two weeks.

Developed at Tech’s School of Chemical Engineering, the gel could also benefit civilian victims of fires and natural disasters. Currently in clinical trials, it could be available to the military within a year.

www.news-info.gatech.edu/news_releases/gel.html

Nurturing New Business

Columbus will soon have a business incubator, and a feasibility study by Georgia Tech’s Economic Development Institute (EDI) and the Advanced Technology Development Center (ATDC) were key to the decision-making process.

The success of the local transaction processing industry renewed interest in a concept that originated a decade ago. At the request of the Greater Columbus Chamber of Commerce, EDI and ATDC undertook the project last year, using interviews, Internet searches, on-site visits and reviews of previous studies to assess timing, support, business mix, entrepreneurial activity and the potential market. Researchers concluded that a technology-related incubator is feasible for Columbus and surrounding counties.

The incubator, slated to be part of a new facility at Columbus State University, could be open in early 2003.

Reducing the Waste Line

Georgia Tech’s Economic Development Institute and the state Pollution Prevention Assistance Division have developed a program to recover and foster reuse of waste materials by companies located near each other. The goals of ScrapMatchGA are to (1) increase the competitiveness of Georgia firms, (2) reduce waste going to landfills and (3) enhance sustainable use of natural resources.

Some 30 companies already have expressed interest in ScrapMatchGA. They represent wood products, textiles and other industries and range from Augusta, Dalton and Gainesville to Albany, Columbus and Douglas.

770/535-5844

Cybersynergy

In December 2000, the American Electronics Association (AeA) released a report ranking U.S. cities in terms of high-tech employment. Metro Atlanta placed fourth as the best high-tech job creator nationwide.

The AeA calls such metro areas “cybercities” and notes that seven states have more than one. The Department of Industry, Trade and Tourism wants to see Georgia on that list and is sponsoring a project by Georgia Tech’s Economic Development Institute to study how Augusta, Savannah, Macon and Columbus might achieve cybercity status. The two-year effort, called CyberGeorgia, will examine each city’s high-tech sectors, assets that can help them grow high-tech firms and types of community-led projects that would attract high-tech companies.

www.ceds.gatech.edu

Around the State

In Americus, Simplex Nails was losing business to imported nails and asked Georgia Tech for assistance. Field staff suggested switching from a forecasting production method to made-to-customer-order and applying lean enterprise techniques. The firm has now returned to profitability, reduced inventory costs by 52 percent and freed 20 percent of its plant space for future production.

When Yamaha Music Manufacturing implemented its ISO 14000 environmental management system, energy was a top concern. Georgia Tech staff conducted a plantwide energy audit and made recommendations that could trim some $140,000 from annual operating costs for the Thomaston manufacturer of pianos and speakers.

A kraft linerboard manufacturer in Riceboro wanted to improve order delivery and turned to Georgia Tech for help. Field staff reconfigured a warehouse design for Interstate Paper and helped develop a written inventory locator system. This increased accuracy of locating paper rolls from under 70 percent to 99 percent and cut time for staging loads for shipping.

For more information:
Assistance to Georgia businesses, communities and economic developers: www.edtv.gatech.edu • Applied research: www.gtri.gatech.edu • Continuing education: www.conted.gatech.edu/home/ • Georgia Tech home page: www.gatech.edu