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Building the University--Community Partnership in Disaster Management

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COASTAL HAZARDS CENTER

A U.S. Department of Homeland Security Center of Excellence

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About the CHC and CDID at Jackson State University

- The Coastal Hazard Center at Jackson State focuses on natural hazards and decision support software for emergency management end users such as cities, counties, states, and universities.

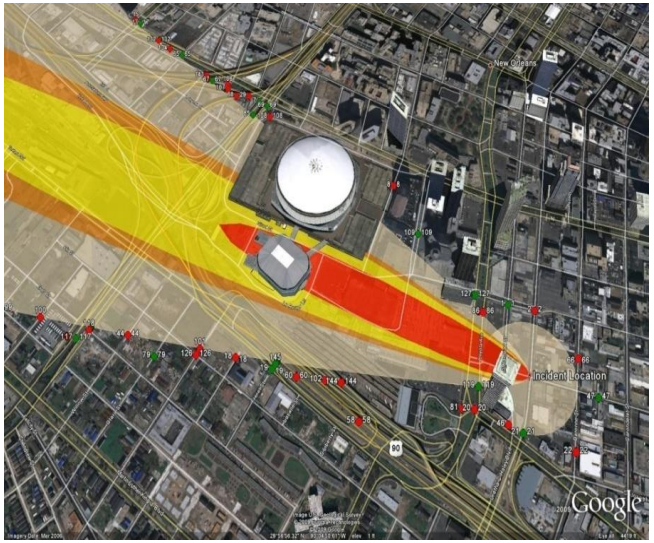
- Center for Defense Integrated Data (CDID): Located in the School of Engineering with the mission to provide comprehensive research and development in the fields of data fusion, intelligent decision support and risk assessment.

Disaster Response Intelligent System (DRIS)

- GIS-based mapping technology developed after Hurricane Katrina for county-level emergency managers to plan, respond, recover, and mitigate the impact of disasters
- Adaptable for specific applications in the public and private sector and universities
- Fundamental design premise: regardless of hazard, all disasters are localized and require input of basic information for practical decision-support

System Overview

- Provides Common Operational Picture in Emergency Management
- Includes Government-Approved Tools
- Provides Layers of GIS Data Commonly Used in Emergency Management



DRIS Analytics

- ALOHA (Areal Locations of Hazardous Atmospheres)
- SLOSH (Sea, Land…
- DRIS SHELTER MANAGEMENT SYSTEM (DRIS-SMS)
- DRIS ROUTE ANALYSIS TOOL

Current DRIS Installations

Adaptable for specific applications in the public and private sector and universities

- Local and State Government Agencies
- Private Utility Company
- Universities (JCSU; LSU)

DRIS Education Model: Objectives

1. Infuse DRIS into the teaching curriculum
2. Promote development of new DRIS analysis or display capabilities by students and faculty
3. Facilitate connectivity with the emergency management community in which each university resides

Linking DRIS and Institutions of Higher Learning

- Supports other institutions of higher learning to develop curricula addressing natural hazards and emergency management within the context of their existing degree programs.

- Provides a campus mapping system that minimizes the university's vulnerability to any emergency that may result in the loss of critical resources such as buildings, equipment, infrastructure, technology, or personnel.

- **Current institutions:** Alcorn State University, the University of Houston, Johnson C. Smith University, Louisiana State University, and Tougaloo College.

Johnson C. Smith University

Teaching---Phase I

- ArcGIS/ESRI software and basic principles of GIS particularly as related to disaster/emergency management

Training---Phase II

- Provide training to students to develop a campus mapping system

Development---Phase III

- Encourage students to improve upon existing functionality

Louisiana State University

Technology and Emergency Management
(DSM 3200) – 3 credit hours

Covers application of technology that may be applied in emergency planning, response, recovery, and mitigation; current and emerging technology applications; special issues and problems associated with the use of technology in emergency management.

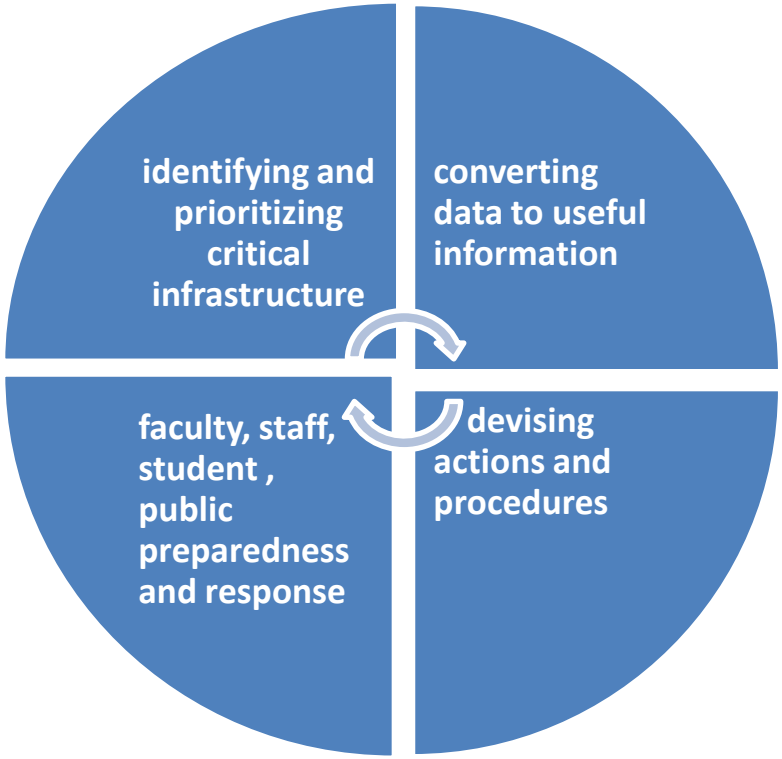
Taught in-classroom and as an online course on a rotational basis. Whether online or in-classroom, students will work in groups to complete projects that incorporate DRIS application.

Linking the University to Community Infrastructure

- **Linking publicly accessible local community data with university campus information helps students gain a holistic perspective on emergency management**

- **Participation from local non-profit organizations and businesses can help both students and the community broaden perspective for potential collaborative disaster planning**

University-Community Collaboration



Future Directions

- Actively involve representatives from local, state and federal agencies in executing and devising plans for program development
- Provide situational awareness models and maps to improve timeliness and responsiveness for communities and universities
- Develop branding strategy to position DRIS application for universities in the ARCH Center of Excellence
- Devise system to allow DRIS to support daily university operations
- Develop performance metrics for more standardized evaluation of application

"The only thing tougher than planning for a disaster is explaining why you didn't."
— Bob Fields, Manager of Emergency Services for Santa Clara County