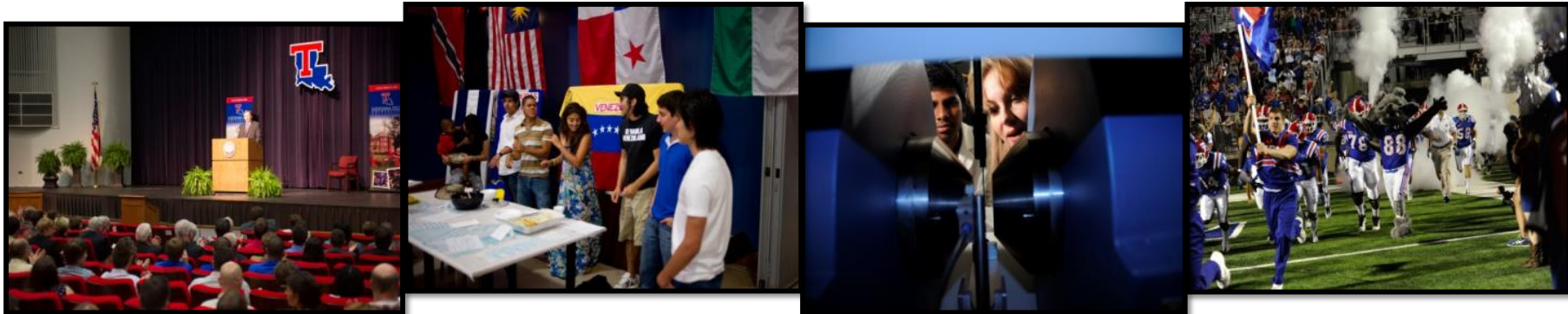# THIS IS LOUISIANA TECH UNIVERSITY

**Achieving national-scale impact for our region**

# THIS IS LOUISIANA TECH UNIVERSITY

✓ Over 12,000 students from 47 states and 68 countries.

✓ Over 100 Bachelors, masters and doctoral programs across Business, Engineering/Science, Education, Natural Sciences, and Liberal Arts

✓ Tier One National University

**Achieving national-scale impact for our region**

# THIS IS LOUISIANA TECH UNIVERSITY



✓ Interdisciplinary culture of entrepreneurship and innovation

✓ Integration of STEM across colleges and disciplines

✓ Priority placed on corporate and non-profit partnerships

✓ Ranked among top universities in startups and technology transfer

**Achieving national-scale impact for our region**

# Universities and Resiliency

➢ Economic resilience can be viewed as a function of three primary attributes:

- The ability to recover quickly from a shock

- The ability to withstand a shock

- The ability to avoid the shock altogether

➢ Communities and regions with more vibrant and diverse economies are more resilient to shocks

# Universities and Resiliency

➢ *Innovation ecosystems* with a strong entrepreneurial spirit are key drivers of diversity and vibrance, and thus, resilience in local and regional economies.

➢ *Universities can lead the way* as Louisiana Tech and many others have in catalyzing regional innovation ecosystems.

➢ This is our *long-term, ongoing* economic sustainability and resiliency initiative.

# Universities and Resiliency

➢ Louisiana Tech decided to take a *leadership role* in regional economic development in 2002.

➢ The region was mostly rural, low income, low education, and heavily reliant on mostly declining resource extraction industries (forest products, oil and gas) and agriculture.

➢ The central focus of the University's strategy was *innovation and entrepreneurship*.

➢ The goal was a more vibrant, diverse, sustainable, and consequently, more *resilient regional economy*.

# Universities and Resiliency

➤ What is the appropriate role for universities?

➤ What is the most effective role?

➤ What strategies support that role?

➤ What institutional structure supports that role?

# Key Features of Effective University Role

- **Innovative** – Leads to comparative advantage
- **Realistic** – Feasible and informed by the market
- **Proactive** – Don't just react to the market
- **Strategic** – Consistent/complimentary with mission
- **Relevant** – Connected to the regional economy

*The TREND Project partnership is a continuation of our own ongoing regional resiliency project.*

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Parle avec; pas dire a.

# Louisiana Tech University Team

Dave Norris
Chief Research and Innovation Officer

Pasquale De Paola
Program Chair, Associate Professor
Architecture

Kirk St.Amant
Professor and Eunice C. Williamson
Endowed Chair in Technical
Communication

Hannah Bustamante
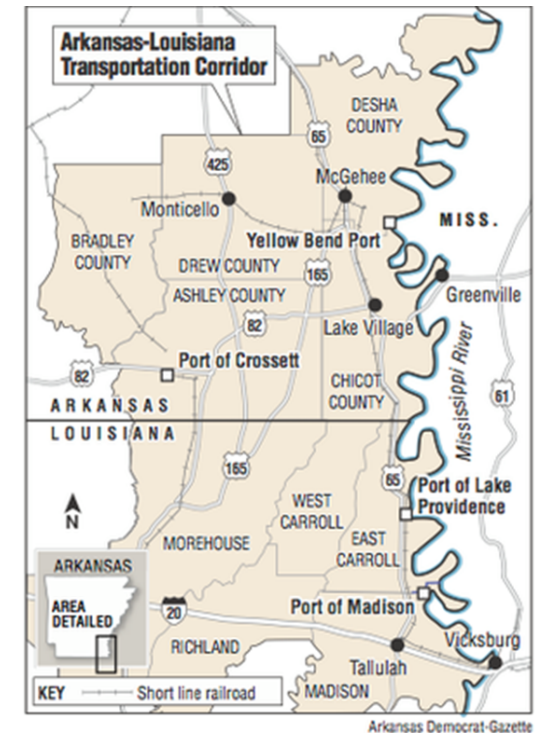Executive Coordinator of Research
and Innovation

# Current Project Focus

➢ ArkLaMEC: Community Resilience in the Mississippi Delta Region (Dr. Dave Norris)

➢ LURAC: Louisiana Universities Resilient Architecture Collaborative (Dr. Pasquale De Paola)

➢ LaTUS-CHI: Louisiana Tech Usability Studies & Communicating Health Initiative (Dr. Kirk St.Amant)

# ArkLaMEC: Community Resilience in the Mississippi Delta Region

➢ Sustainable Land Development & Resiliency Initiative for the Arkansas-Louisiana Multi-modal Economic Corridor

➢ Joint effort of the Arkansas Economic Development Institute (AEDI) and Louisiana Tech

➢ Tools: GIS Mapping, Economic Impact Modeling, Community Focus Groups, Best Practices Reviews

➢ Key Outcomes:

    ➢ Online land mapping and development dataset

    ➢ Disaster preparedness/recovery strategy

    ➢ Strategic Resilience Council covering a 16 county/parish region



Arkansas Democrat-Gazette

# Louisiana Universities Resilient Architecture Collaborative (LURAC)



HIGHWATER
TOWARDS A RESILIENT NORTH LOUISIANA

➢ Focused on the development of techniques, processes, policy and outreach to promote resilient communities through design research and practice.

➢ LURAC is committed to conducting interdisciplinary design and research efforts toward addressing the need for resilient design across the state of Louisiana.

➢ Case studies, physical mapping, community engagement, studio-based design, and synthesis practices inform the scale of building materials and home design, water management strategies, and resilient neighborhood planning.

➢ Design practices tested locally and assembled through LURAC to provide a development, design and policy framework for inland and coastal regions.

# LaTUS-CHI: Louisiana Tech Usability Studies & Communicating Health Initiative

Objective: Develop "ecosystem" plans for exchanging information

➢ Part 1: Develop Communication Infrastructure

   * Establish a system for exchanging information among participants

   * Develop and test design of the interfaces for sharing information


➢ Part 2: Design and Assess Outreach Materials

   * Study how individuals access and use information

   * Develop materials for sharing information with stakeholders


➢ Part 3: Offer Design and Usability Training

   * Provide workshops and tutorials on usability testing and assessment

   * Offer sessions on data collection for product development