TEES
TEXAS A&M ENGINEERING EXPERIMENT STATION

MORE THAN 100 YEARS OF ENGINEERING INNOVATION AT WORK
AGENCY OVERVIEW

M. Katherine Banks, Ph.D., P.E.
Vice Chancellor and Dean of Engineering
Director, Texas A&M Engineering Experiment Station
Harold J. Haynes Dean’s Chair Professor

Dimitris C. Lagoudas, Ph.D., P.E.
Deputy Director, Texas A&M Engineering Experiment Station
Senior Associate Dean for Research
Associate Vice Chancellor for Engineering Research
University Distinguished Professor
John and Bea Slattery Chair
Texas A&M System Leadership

Mr. John Sharp
Chancellor
The Texas A&M University System

Texas A&M Engineering Program
Dr. M. Katherine Banks
Vice Chancellor and Dean of Engineering

Texas A&M Agriculture Program
Dr. Mark Hussey
Vice Chancellor and Dean of Agriculture

11 Universities
- Texas A&M University
- Prairie View A&M University
- Texas A&M University-Commerce
- Tarleton State University
- West Texas A&M University
- Texas A&M University-Kingsville
- Texas A&M University-Corpus Christi
- Texas A&M International University
- Texas A&M University-Texarkana
- Texas A&M University-Central Texas
- Texas A&M University-San Antonio
Engineering Agencies

Performs high impact research driven by real-world problems, strengthens and expands the state’s technology workforce through education and training, and partners with industry to develop and commercialize transformational technology.

Solves transportation problems through research and transfer of technology, and develops diverse human resources to meet the transportation challenges of tomorrow.

Develops a skilled and trained workforce that enhances public safety, security, and the economic growth of Texas and the nation through training, technical assistance, and emergency response.
Our Mission

1. Perform quality research to address society’s needs,
2. Support the state’s workforce through continuing and professional education, and
3. Develop and transfer technology to industry
Research Focus Areas

- Energy Systems and Services
- Materials and Manufacturing
- Healthcare
- Infrastructure
- Information Systems and Sensors
- National Security and Safety
- Engineering Education
Energy Systems & Services

- Texas A&M Energy Institute *(Joint with TAMU)*
- Energy Systems Laboratory
- Smart Grid Center
- Global Petroleum Research Institute
- Turbomachinery Laboratory
- Crisman Institute (Petroleum) *(Joint with TAMU)*
- Gas & Fuels Research Center *(TAMUQ Lead)*
Healthcare

- National Center for Therapeutic Manufacturing (NCTM) (*Joint with TAMU*)
- Center for Remote Health Technologies and Systems (CRHTS)
- Center for Bioinformatics & Genomic Systems Engineering (CBGSE) (*Joint with AgriLife*)
Information Systems & Sensors

- Emergency Informatics
- Texas Center for Applied Technology (TCAT)
- Center for AutoNomous Vehicles And Sensor Systems (CANVASS)
- Lone Star UAS Center (LSUASC) (*Joint with TAMU-CC*)
- Aerospace Technology Research & Operations Center (ASTRO)
Materials & Manufacturing

• Polymer Technology Center
• Center for Intelligent Multifunctional Materials and Structures
• National Corrosion and Materials Reliability Center
• Institute for Manufacturing Systems
• Processing Engineering R&D Center
Infrastructure

- Offshore Technology Research Center
- Thomas & Joan Read Center for Distribution Research & Education
National Security & Safety

- Texas A&M Cybersecurity Center (*Joint with TAMU*)
- Mary K. O’Connor Process Safety Center (MKOPSC)
- Nuclear Science Center (NSC)
- National Security Science & Policy Institute (NSSPI) (*Joint with TAMU*)
- Center for Large Scale Scientific Simulations (CLASS) (*Joint with TAMU*)
- Institute for National Security Education & Research (INSER) (*Joint with TAMU*)
- Nuclear Power Institute (NPI) (*Joint with TAMU*)
Engineering Education

• Institute for Engineering Education & Innovation (IEEI) *(Joint with TAMU)*
National Initiatives

- **Goal:** Shape national research agenda

- **Strategy:** Focus on improving ties to funding agencies and national labs
  - ARL, AFRL, NRL
  - Philips, NASA, Methodist
  - Fund travel to National Labs & Funding agencies
  - Fund workshops, Seed grants
  - Proposal Writing help
    - Laurie Garton & Sharon McCord
  - Proposal Opportunities mailing
National Initiatives

• Get to know different Funding Agencies
  • Each Agency has a different model for funding
  • NSF/NIH: Peer Reviews
  • All Agencies: Knowing Program Manager helps
  • AFOSR/ONR/ARO: Talking to PMs a must
• Small/Large, Single/Multi PI, Fundamental/Applied
• Talk to Senior Faculty
• Make trips to DC
• Make longer trips to Labs –DOE/DOD Labs as well.
Workforce Development

Dr. Cindy Lawley
Assistant Agency Director for Workforce Development

Melissa Walden
Director of Professional and Continuing Education
TEES supports the state's workforce through education and training
Current Initiatives

Outreach
- PreK – 5th Grade Learning Modules
- ExxonMobil Texas State Science and Engineering Fair

Career Development
- Texas A&M Engineering Academies
- Research Experiences for Undergraduates

Continuing Education
- Advanced technical and professional trainings (certificates, conferences, short courses)
- Both in-person and remote
Commercialization and Entrepreneurship

Dr. Balakrishna Haridas
Executive Director
TEES develops and transfers technology to industry

- Non-Standard Industry Contracts
- IP Policies & Procedures
- Drive & Invest Licensing | IP | Startups | Research
- Enhance Industry Interactions
Goal: Build an Innovation Ecosystem

Innovation Ecosystem

- Governments
- Associations
- Businesses
- Facilities
- Incubators
- Research
- Capital
- Entrepreneurs
- Workforce
- Education
Ecosystem Partners

Achieve our goals by driving a commercialization and entrepreneurial culture at the TAMUS, which includes the following:

• Work with the TAMUS infrastructure to improve efficacy and outcomes of our four roles

• Engage a large network of savvy commercialization experts, through hiring or partnership, to improve TEES C&E
May 28, 2015: 91 companies, $250K awarded

- Sets annual cycle for commercialization programs and building TEES startups

- http://www.texasnvc.org/

- Next event: May 19, 2016
Corporate Relations

Chip Hill
Executive Director for Corporate Relations
Facilitates industry interactions with Texas A&M Engineering to achieve TEES mission through:

- Research partnership agreements
- Technical Assistance Program (TAP) for small businesses
- JIPs/multidisciplinary consortia
- Workshops and forums
- TEES center programs support
- Connectivity to regional partners
- Site and campus visits
Industry Partnerships

Tenaris
Research initiatives, student projects, sponsorship, professors of practice and internships

"Tenaris has always believed that no matter how much we invest in technology, what's important is how much we invest in the human element and in the communities where we operate. Our partnership is a logical step forward in our commitment to education and innovation and we look forward to continued partnership with TEES."

Germán Curá, President, Tenaris North America

Global Petroleum Research Institute (GPRI)
Marine Vibrator Project
Partnered with ExxonMobil, Royal Dutch Shell and Total Petro to develop a commercially-viable marine vibrator to provide a more environmental friendly option for marine seismic surveys.
Local and College of Engineering Divisions

Dr. N.K. Anand
Associate Agency Director
Regional Divisions

Ms. Cindy Wall
Assistant Agency Director for Regional Divisions
Regional Divisions

Angelo State University
Blinn College
Del Mar College
Lamar University
New Mexico State University
Prairie View A&M University
Tarleton State University
Texas A&M International University
Texas A&M University
Texas A&M University at Galveston
Texas A&M University-Central Texas
Texas A&M University-Commerce
Texas A&M University-Corpus Christi
Texas A&M University-Kingsville
Texas A&M University-San Antonio
Texas A&M University-Texarkana
Texas State University
Texas Woman’s University
University of North Texas
West Texas A&M University

Regional Offices

Houston
Mesquite
Current TEES Support for Regional Divisions

Joint center example

LONE STAR UAS
CENTER OF EXCELLENCE & INNOVATION

TExAS A&M UNIVERSITY CORPUS CHRISTI

TEES

Monthly research opportunity newsletter

Engineering Research Digest
A weekly newsletter for Engineering PIs interested in funding opportunities and news

Prepared by TEES Research Development

Research Exchanges

TEXAS A&M UNIVERSITY
TEXARKANA

ATM

BIOMEDICAL ENGINEERING
TEXAS A&M UNIVERSITY

CENTER FOR AUTONOMOUS VEHICLES & SENSOR SYSTEMS
TEXAS A&M ENGINEERING EXPERIMENT STATION
Target Industry Clusters

- **Manufacturing, Info Systems**
- **Energy, Biomedical, Manufacturing**
- **Defense, Cyber, Manufacturing**
TEES Field Offices
Work Space – Conference Rooms – Support

**Houston Office**
15835 Park Ten Place, Suite 160
Houston, Texas 77084
Phone: (281) 829-9246
Contact: Brian Conroy | bconroy@tamu.edu

- Three furnished offices and conference room, videoconferencing

**Mesquite Office**
15515 I-20
Mesquite, Texas 75181
Phone: (800) 723-3811
Staffing TBD, support provided by TEEX
Contact: Cindy Wall | c-wall2@tamu.edu

- Two furnished offices, access to shared conference room
Global Initiatives

Dr. Mark Weichold
Executive Director for Global Initiatives
Global Initiatives

- **Goal:** Find new opportunities, research problems, partners and new datasets
- **Strategy:** Leverage existing relationships and strengths
- Be opportunistic
- Support individual faculty efforts
- Collaborate with AFOSR & ONR global programs
- Brazil, Mexico, Europe offices