

PRAIRIE VIEW A&M UNIVERSITY

Selected Research and Technology Transfer at Prairie View A&M University

February 2009

Willie F. Trotty, PhD
Vice President for Research and
Development



Research at Prairie View A&M University

- Major Research Programs
 - Center for Communications Systems Technology Research
 - Center for Battlefield Communications
 - NASA Center for Radiation Engineering and Science for Space Exploration (CRESSE)
 - International Goat Research Center
 - Thermal Science Research Center
 - Prairie View Solar Observatory
 - Surface Mining Project
- Technology Transfer

Selected Research



PRAIRIE VIEW A&M UNIVERSITY

International Goat Research Center



- ***Ethiopia Sheep and Goats Productivity Improvement Program (ESGPIP)***
- Funded by United States Agency for International Development
- Goal is to improve productivity and carcass yield of sheep and goats. This will be achieved by crossing Dorper Sheep and Boer Goats with native sheep and goats of Ethiopia.

Center of Excellence for Battlefield Communications Research



- ***Funded by Army Research Office and Army Research Lab***
- Goal is to develop a novel battlefield communications network architecture that supports multi-service applications (voice, data, and video) using seamless IP
- Ad hoc wireless networking

Determination of Sulfur Species in Acid Mine Drainage X-Ray Photoelectron Spectroscopy



- ***Funded by Department of Interior, Office of Surface Mining***
- Apply X-ray photoelectron spectroscopy to routinely characterize mine site materials for its elemental and minerals composition.
- Identify and quantify reactive sulfide species relative to all other sulfates in mine samples.
- Distinguish among sulfur mineral compounds (Barite, Anhydrite, Jarosite) in samples with XPS.

Center for Communications Systems Technology Research



- ***Funded by Texas Instruments, Sprint, DoD, others***
- Seeks solutions to problems that plague both military and commercial satellite and radar-based communications systems
- Communications Control Systems
- High Speed Broadband Communications Systems

Thermal Science Research Center (TSRC)



- ***Funded by Department of Energy, Nuclear Regulatory Commission, Sandia national Laboratories***
- Studies mechanisms and quantitative factors controlling high heat flux removal in engineering components
- Modeling and Simulations
- U.S. Patent (NO. 6,824,305)



PRAIRIE VIEW A&M UNIVERSITY

NASA Center for Radiation Engineering and Science for Space Exploration (CRESSE)



- ***Funded by the National Aeronautics and Space Administration (NASA).***
- Goal-to find new ways to keep future astronauts and their flight instruments safe from the harmful radiation for up to three years in deep space.
- Consists of scientists in fields associated with radiation research, instrumentation, environmental modeling, materials research and electronic components.
- Utilize scientifically accurate “recipes” of earthly materials to recreate Martian and lunar soil in order to build above ground and underground “habitats.”

NASA Center for Radiation Engineering and Science for Space Exploration (CRESSE)



- These structures will be bombarded with radiation particles that mimic surface and subterranean exposures found on Mars and the moon.
- Experimental and theoretical radiation studies will utilize leading edge particle accelerators at Brookhaven National Laboratory, Loma Linda University Medical Center, Los Alamos National Laboratory.
- CRESSE will support three doctoral, 12 masters and approximately 20 undergraduate researchers

Prairie View Solar Observatory



- ***NASA/Marshall Space Flight Center, Nuclear Regulatory Commission***
- Monitors Solar Flares
- Fusion Plasma Research Project
- First ground-based solar research facility in the State of Texas

Technology Transfer

Texas A&M University System

- ***Universities (9)***

- Tarleton State
- Prairie View A&M
- Texas A&M International
- Texas A&M Kingsville
- West Texas A&M
- Texas A&M Commerce
- Texas A&M Texarkana

- Texas A&M Health
Science Center

- ***Agencies (7)***

- Texas Agrilife
- Texas Engineering
Experiment Station
- Texas Agrilife Extension
Service
- Texas Forest Service
- Texas Engineering
Extension
- Texas Transportation
Institute
- Texas Veterinary Medical
Diagnostic Laboratory

Office of Technology Commercialization (OTC)

- Researchers submit a disclosure form to OTC for all inventions and copyrightable works
- OTC assigns disclosure form to licensing officer
- Licensing officer conducts patentability and commercial assessment on technology
- Licensing officer begins process of protecting, marketing and eventually negotiating a license agreement with a commercial partner.

Office of Technology Commercialization (OTC)

- Royalties, license fees and sale proceeds received by the OTC from the licensing or sale of the intellectual property, less expenses, are distributed in the following manner:
 - Inventor (s)--37.5% as personal income
 - System Member--37.5% for research and administration
 - OTC—25% for protecting, marketing and licensing the technology

Contact Information

Willie F. Trotty, PhD

Vice President

Office of Research and Development

T: (936) 261-1550

F: (936) 261-2189

wftrotty@pvamu.edu

P.O. Box 519, MS 1200

Drew Complex, Suite 202

Prairie View, Texas 77446

Office of Technology Commercialization

<http://otc.tamu.edu>

PRAIRIE VIEW A&M UNIVERSITY