

Research A&T

DIVISION OF RESEARCH & ECONOMIC DEVELOPMENT
NORTH CAROLINA A&T STATE UNIVERSITY
EDWARD B. FORT INTERDISCIPLINARY RESEARCH CENTER

EDITOR'S NOTE:

*This is the fifth in a series of stories featuring
University Approved Centers.*

Weather Watch

The Interdisciplinary Scientific Environmental Technology Cooperative Science Center (ISET) was established in September 2006 with funding from the National Oceanic and Atmospheric Administration Educational Partnership Program (NOAA-EPP). The NOAA-EPP provides financial assistance through competitive processes to minority serving institutions that support research and training of students in NOAA related sciences. The program's goal is to increase the number of students who are trained and graduate in sciences directly related to NOAA's mission — which is to serve the nation's need for oceanic and atmospheric information.

“We develop research infrastructure, develop faculty expertise and develop programs and courses,” says Dr. Solomon Bililign, Director of ISET and physics professor. The Center is constantly improving and already has quite a few accomplishments to show including starting a meteorology laboratory, upgrading existing laboratories, completing two performance reports (70 pages in length each) and financially supporting eighty-eight students at A&T.

The ISET Cooperative Science Center collaborates with NOAA's Earth System Research Laboratory in Boulder, Colorado and is aligned with NOAA's mission to provide the data needed to address specific climate and weather related concerns, such as hurricanes, droughts, tornadoes, global warming, and



“ISET is a unique center, not only are we inter-departmental, we are an inter-institutional collaboration,” said Dr. Bililign, Director of ISET and physics professor.

UPCOMING EVENTS

Grants.gov - Proposal Submissions Made Easy
Tuesday, October 23, 2007
12:00 p.m.—1 p.m.
Fort IRC Building
Room 410



From The Compliance Office...

An informed consent is required when human subjects are used in a research project. An informed consent ensures that: (1) the human subject is given information regarding the project; (2) the subject is allowed to consider all other options; (3) the subject has asked all questions and had them answered; (4) the information that is provided to the subject is understood; and (5) the human subject agrees to participate in the project. Continuous information may be necessary at the request of the human subject.

There are three ways to attain an informed consent. A written consent, which provides a document for subjects to refer to on an ongoing basis, is best used for biomedical studies. The document must be signed by the subject and the Principal Investigator (PI) and the original must be kept on file for

three years after project is complete. A PI who conducts focus groups and interviews for their research project can use verbal consent. When using verbal consent the PI will only read documents to the subject and s/he will not have a form to refer to in the future. Oral consent is similar to verbal consent except the human subject receives a copy of the document that was read by the PI. Oral consent can also be used for focus groups, interviews, and anonymous surveys.

It is the responsibility of the PI to assure that the human subject is comfortable in their understanding of their participation in the study for the duration of the project.

Weather Watch... cont'd from page 1

ecosystem degradation. ISET partners with 10 academic departments – Physics; Chemistry; Mathematics; Computer Science; Electrical, Civil, Environmental and Chemical Engineering; Hydrology and Atmospheric Science.

“ISET is a unique center, not only are we inter-departmental, we are an inter-institutional collaboration,” said Dr. Bililign. ISET also partners with various institutions including -- University of Alaska Southeast, California State University – Fresno, The City College of the City University of New York, Fisk

University, University of North Carolina at Pembroke, North Carolina State University, University of Minnesota and University of Tennessee.

ISET has also developed courses in Atmospheric Science and Meteorology. A&T's NOAA-ISET Center is the fifth co-operative science center in the United States.



Administrators, faculty and students listened to presentations from honors students who participated in the Summer Undergraduate Research Experience, and faculty who worked for 6 weeks in the Summer Faculty Fellows Program.

Proposal Preparation Tips

- Always acquire/read sponsor proposal guidelines and funding solicitations
- Always follow guidelines exactly
- Always allow adequate time to develop the proposal
- Always contact program officer or point-of-contact for clarification
- Always adequately show how the research addresses the mission of the funding agency
- Always provide adequate justification /explanation of budgeted costs
- Always allow colleagues to critique proposals
- Always express ideas clearly for individuals who are not versed in your field
- Always calculate indirect costs correctly
- Always submit Notice of Intent forms to the Division of Research & Economic Development

For assistance with proposal writing or to find funding opportunities, contact
Dr. Peggy Bolick:
(336) 334-7995
mrbolick@ncat.edu

FUNDED PROPOSALS October 1-8, 2007

<u>PI</u>	<u>COLLEGE /SCHOOL</u>	<u>PROJECT TITLE</u>	<u>FUNDED AMOUNT</u>
Abolghasem Shahbazi	SCHOOL OF AGRICULTURE AND ENVIRONMENTAL SCIENCES	MINORITY UNIVERSITY RESEARCH ASSOCIATES (MURA) PROGRAM FOR SOLAR ENERGY TECHNOLOGY	\$ 20,500
Rosa Purcell	SCHOOL OF AGRICULTURE AND ENVIRONMENTAL SCIENCES	HEAD START HISTORICALLY BLACK COLLEGE AND UNIVERSITY PARTNERSHIP	\$ 150,000
Joyce Brown	ADMINISTRATIVE UNITS	RONALD E. MCNAIR POST-BACCALAUREATE ACHIEVEMENT PROGRAM	\$ 256,591
Catherine White	COLLEGE OF ARTS AND SCIENCES	The Effect of Gravitational Change on Virulence Associated Determinants of Haemophilus Influenzae	\$ 25,000
Beverly Wallace	ADMINISTRATIVE UNITS	N.C. A&T STATE UNIVERSITY UPWARD BOUND MATH AND SCIENCE PROGRAM	\$ 250,000
Godfrey Uzochukwu	SCHOOL OF AGRICULTURE AND ENVIRONMENTAL SCIENCES	Support for Grease Reduction Public Environmental Campaign	\$ 15,000
Godfrey Gayle	SCHOOL OF AGRICULTURE AND ENVIRONMENTAL SCIENCES	STUDENT SUPPORT INITIATIVES: To Increase Enrollment and Enhance Technical Expertise of Majors in Biological Engineering and Related Disciplines That Will Impact USDA-NRCS	\$ 50,000
Sameer Hamoush	COLLEGE OF ENGINEERING	STUDENT RESEARCH ASSOCIATE PROGRAM DEFENSE THREAT REDUCTION AGENCY	\$ 91,106
Abdollah Homaifar	COLLEGE OF ENGINEERING	AUCTION BASED COORDINATION OF UAVS	\$ 100,000
Jagannathan Sankar	COLLEGE OF ENGINEERING	NSFC: CENTER FOR NANO-CHEMICAL-ELECTRICAL-MECHANICAL-MANUFACTURING SYSTEMS	\$ 100,000

Funding Notices

Cyber Trust - NSF 07-500

National Science Foundation
Deadline: November 14, 2007
 Upper Amount: \$2,000,000
 Citizenship or Residency:

United States
 To improve national cyber security, the National Science Foundation (NSF) will support a collection of projects that together advance the relevant knowledge base; creatively integrate research and education for the benefit of technical specialists and the general populace; and integrate the study of technology with the policy, economic, institutional, and usability factors that often determine its deployment and use.
<http://www.nsf.gov/pubs/2007/nsf07500/nsf07500.htm>

Foundations of Data and

Visual Analytics (FODAVA) - NSF 07-583

National Science Foundation
Deadline: November 20, 2007
 Upper Amount: \$3,000,000
 Citizenship or Residency:

United States
 The National Science Foundation (NSF) and the Department of Homeland Security (DHS) invite research proposals that capitalize on knowledge and expertise in the fields of mathematics, computational science, and intelligent systems to produce new data representations and transformations to enable data stakeholders to detect the expected and discover the unexpected in massive data sets. New mathematical and computational algorithms and techniques are sought that will fundamentally improve our ability to transform large, often streaming

data sets into representations that better support visualization and analytic reasoning.
 URL for more information: <http://www.nsf.gov/pubs/2007/nsf07583/nsf07583.htm>

Nursing NINR Nursing Science Research on Interventions in Chronic Illness (P01)

RFA-NR-08-001
 National Institutes of Health
Deadline: November 26, 2007
 Non-required letters of intent are due on October 29, 2007.
 Upper Amount: \$3,500,000
 Citizenship or Residency:

United States
 The purpose of the proposed grant program is to significantly advance the science through an interdisciplinary, biobehavioral research program focused on interventions to improve the

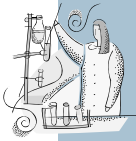
quality of life and/or promote health/prevent disease in persons with chronic illnesses and their informal caregivers.
 URL for more information: <http://grants1.nih.gov/grants/guide/rfa-files/RFA-NR-08-001.html>

MURI Fiber Optics Sensor Technology -- NRL-WIDE

BAA 56-07-07
 Naval Research Laboratory
Deadline: December 31, 2008
 Upper Amount: \$2,000,000
 URL for more information: <http://heron.nrl.navy.mil/contracts/0708baa/baa.htm>

Advanced Distributed Sensor Technologies -- NRL-WIDE

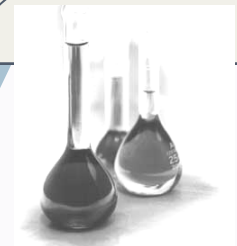
BAA 57-07-07
 Naval Research Laboratory (NRL)
Deadline: December 31, 2008
 Upper Amount: \$2,000,000



Outreach & Economic Development Success Stories

RESEARCH
A&T

Issue 6 Vol. 1
October 2007



PROVAGEN SPIN-OFF

Provagen is a company founded by Protein V inventor, Dr. John W. Allen, professor in the School of Agriculture & Environmental Sciences. The company manufactures the Protein V— an antibody binding protein technology, with the potential to dramatically enhance the chances for commercializing new diagnosis and treatment protocols for diseases ranging from cancer to rheumatoid arthritis and diabetes. Protein V is based on seven pending patents developed by Dr. Allen. The antibody has potential market value of 350 million dollars.

Essentially, the technology involves using commercially available sensors deployed in a unique configuration to acoustically monitor structural integrity to remotely detect and address standard flaws via acoustic emission signals. Sundaresan's technology, originally funded by the Department of Defense is licensed by UTEK Corporation. He holds two patents for the acoustic emission sensor technology and has one patent pending.

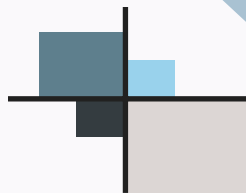
DAMAGE DETECTING SENSORS

Dr. Mannur Sundaresan, professor of mechanical engineering, has developed a single channel continuous sensor that has the potential to detect and locate early crack growth in structures, thereby providing timely information to prevent catastrophic failures. This single channel continuous sensor can detect the leading edge of the acoustic emission event, occurring anywhere in the region covered by the sensor.

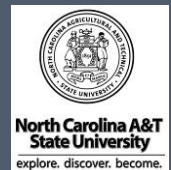
PREMIERE ANALYTICS SPIN-OFF

Premiere Analytics is a software company that develops analytical tools for the financial management industry. The software developed by Dr. Christopher Doss, Assistant Professor in Electrical and Computer Engineering, allows options investors to make better investment choices by analyzing their profits and losses before making an actual trade.

For more information about the Office of Outreach and Technology Transfer in the Division of Research & Economic Development, contact Louis Judge, Senior Licensing Associate at 334-7995 or louis.judge@ncat.edu



Research A&T is published by
The Division of Research &
Economic Development
North Carolina A&T State University
1601 E. Market Street
Greensboro, NC 27411
(336) 334-7995
(336) 334-7086 (Fax)
<http://research.ncat.edu/>



N. Radhakrishnan,
Vice Chancellor for Research &
Economic Development

Editor
Shena L. Crittendon
Assistant Vice Chancellor for
Communications & Operations

Contributing Writers
Whitney J.G. Code
Student Assistant

Terrisine Spicer
Student Assistant

Contributing Photographers
Whitney J. G. Code

Terrisine Spicer

Layout & Design
Whitney J. G. Code

Terrisine Spicer



Division of Research &
Economic Development
North Carolina A&T State Univ.
1601 E. Market Street
Greensboro, NC 27411