

#### INTERDISCIPLINARY ACADEMIC AFFILIATE UNITS

ANIMAL SCIENCES AGRICULTURAL EDUCATION AGRICULTURAL ECONOMICS ARCHITECTURAL ENGINEERING BIOLOGY **BIOLOGICAL ENGINEERING BUSINESS MANAGEMENT** CHEMICAL ENGINEERING CHEMISTRY CIVIL ENGINEERING COMPUTER SCIENCE **BUILT ENVIRONMENT** EDUCATION ECONOMICS ELECTRICAL ENGINEERING HISTORY FAMILY & CONSUMER SCIENCE INDUSTRIAL SYSTEMS ENGINEERING JOURNALISM AND MASS COMMUNICATIONS LIBERAL STUDIES MATHEMATICS MECHANICAL ENGINEERING NATURAL RESOURCES NURSING POLITICAL SCIENCE PHYSICS PSYCHOLOGY SOCIOLOGY/SOCIAL WORK

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RECYCLE



Interdisciplinary Waste Management Institute

REDUCE

Dr. Godfrey Uzochukwu DIRECTOR Academic Deans Dr. Beryl McEwen PROVOST Dr. Harold L. Martin Sr. CHANCELLOR

# **ENVIR®NEWS** Waste Management Institute

UNDER THE LEADERSHIP OF THE COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCES



#### IBM INTRODUCES RECYCLING DESIGN THINKING FOR COMPLEX PROBLEM SOLVING

IBM's North Carolina A&T State University Engagement Team hosted a Design Thinking Workshop in spring semester 2019. The goal of the IBM Design Thinking Workshop at N.C. A&T was to expose students to a new

way of improving recycling and solving complex problems and to offer students a structured framework for understanding and pursuing creativity and innovation in ways that contribute to societal well being. The Design Thinking Workshop was facilitated by the Office of Career Services. The Interdisciplinary Waste Management Institute (WMI) offers a robust recycling course (WMI 236) for undergraduate students.





Dr. Uzo speaking at IBM Recycling Design Thinking Workshop at N.C. A&T

### NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (NADP)

NC A&T's NC 17 NADP site continues to track atmospheric deposition and its effects on the ecological systems. NC 17 site operates two monitoring networks (the National Trends Network, NTN) and Mercury Deposition Network (MDN). NADP data is critical to public safety, ecosystem services and environmental policies. N.C. A&T students are the site operators.



Dr. Uzo and Nallah Muhammad at NC 17 NADP site at N. C. A&T.

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Nallah Muhammad (undergraduate student) and Daniel A. Obiri (graduate student)

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### UNDERGRADUATE INTERDISCIPLINARY **CERTIFICATE RECIPIENTS**

Alimayu Akono Naser Aldosary Fahad Alhaqbani Chantel Ashwood Myla Barker Brittani Bedford Ronald Bethea Ronnie Blakeney Jr Nuri Brinkley Kheelum Brown Mary Brown Tabitha Carpenter Angelena Castro Reubeneeco Crummy Precious Hairston Alexandra Hauke Breonna Johnson Ebony Jones Ahmeer Majeid Khalil McGruder Abram Miller Nichole Parker JaCorey Patterson Taylor Ransome Malik Robinson Nicholas Scales Willie Smith Samuel Stidwell IV Keshaun Stubbs Timothy White Jr Kiyonna Williams Michael Worthen Jabril Wright

**Civil Engineering Civil Engineering Civil Engineering Environmental Studies Environmental Studies** Food and Nutritional Sciences **Environmental Studies** Applied Engineering Technology **Environmental Studies** Food and Nutritional Sciences **Environmental Studies** Chemical Engineering Journalism and Mass Communication Applied Engineering Technology **Environmental Studies Biological Engineering** Food and Nutritional Sciences **Environmental Studies Environmental Studies Environmental Studies** Architectural Engineering Architectural and Civil Engineering **Environmental Studies Environmental Studies** Sustainable Land Management Civil Engineering **Environmental Studies** Architectural Engineering Mechanical Engineering **Civil Engineering** Food and Nutritional Sciences Architectural Engineering **Environmental Studies** 

#### **KEYNOTE SPEAKERS**



Dr. Mohamed Ahmedna



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Dr. Clay Gloster



Dr. Tonya Smith-Jackson



**RECYCLE REUSE** 

Jacque Powers







Mary Brown and Dr. Uzo

### GRADUATING STUDENTS RECEIVE WASTE MANAGEMENT CERTIFICATES

Thirty-three graduating seniors (B.A./B.S.) and twelve graduate students (M.S./Ph.D.) received Waste Management Certificates in December 2018 and May 2019 at special ceremonies. The students completed their degree and certificate requirements. The keynote speakers were Dr. Mohamed Ahmedna, dean of the College of Agriculture and Environmental Sciences in December 2018 and Dr. Clay Gloster, interim dean, Graduate College in May 2019. Dr. Tonya Smith-Jackson, senior vice provost for academic affairs and Ms. Jacque Powers, interim associate vice provost for enrollment management represented the Division of Academic Affairs. The Waste Management Certificate highlights the training of students in environmental sustainability, security and waste management issues and signals to employers that N.C. A&T graduates are ready to broadly advance waste management and sustainability in their fields. The certificate adds value to the undergraduate and graduate training at N.C. A&T.

### ADVANCED WASTE MANAGEMENT **CERTIFICATE RECIPIENTS**

Ese Ekhator Hietam Elhoone Indigo Green Nnenna Ihebuzor Eric Ntow Uchenna Okefi Oluyemi Olatunji Ayodele Olofinsao Raheem Outlaw Omoyeni Salawu Chiagozie Uzochukwu Roger Vorsah

Agricultural and Environmental Systems Industrial and Systems Engineering Chemical Engineering Agricultural ad Environmental Systems Chemistry Agricultural Business Agricultural Business Agribusiness and Food Industry Management Natural Resources and Environmental Systems Agribusiness and Food Industry Management Chemical Engineering Agricultural and Environmental Systems

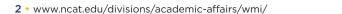


Dr. Uzo and Chiagozie Uzochukwu

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## CAREER PATHS FOR GRADUATES WHO RECEIVED THE WMI CERTIFICATES

#### MAJOR

**Animal Science** Biology **Business** Chemistry Communication **Construction Management Criminal Justice** Economics Education Environmental Studies/Science Engineering Journalism Landscape Architecture **Mathematics** Nursing Occupational Safety and Health Other Physics **Political Science** Psychology Sociology Social Work

#### **CAREER PATH**

**Environmental Health and Science Environmental Biology Environmental Business Environmental Chemistry Environmental Communication Environmental Safety Environmental Crimes Environmental Economics Environmental Education** Environmental Scientists/Consultants/Specialists **Environmental Engineering Environmental Journalism** Environ Design/Visual Resource Specialist **Environmental Mathematics/Statistics** Environmental Health/Occupational Safety **Environmental Safety Environmental Consultants Environmental Physics Environmental Policy/Politics Environmental Psychology Environmental Sociology Environmental Social Justice** 

## ENVIRONMENTAL SECURITY, SUSTAINABILITY AND WASTE MANAGEMENT WORKSHOP

Pre-College Workshop on Environmental Security, Sustainability and Waste Management was conducted for 40 high school students and teachers in June and July 2018. The theme of the workshop was "Environmental Security and Waste Management" highlighting challenging environmental security, sustainability and waste management questions.

## ENVIRONMENTAL AND WASTE MANAGEMENT GUEST SPEAKERS (Big Ideas and New Perspectives)

- O'Brien & Gere Ltd Site Remediation
- Waste Industries USA Tour of Landfill Bio Gas to Electricity
- Environmental Protection Agency Environmental Compliance
- City of Greensboro Waste Reduction and Recycling
- Hackley and Associates Ethics and leadership
- Peace Corps Global Environmental Issues
- South Carolina State University Course Driven Internship





Dale Wyrik

Mike Hall



Chris Walker













Students are addressing the convergence of physical sciences, social sciences, engineering, technology and life sciences for accelerating environmental solutions.



Student Round Table Discussion and Presentation of Waste Management Issues



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#### Sustainability Leadership at A&T

North Carolina Agricultural and Technical State University has a history of providing leadership in addressing sustainability issues such as infrastructure, energy and climate, waste management, water usage, transportation and education. Interdisciplinary collaborations have made the university a major contributor to understanding sustainability on a global scale. The university has taken advantage of Higher Education Sustainability Bill (The Higher Education Opportunity Act-P.L. 110-315) signed by President George W. Bush in 2008. In March 2011, Chancellor Harold Martin Sr. launched a robust sustainability program and encouraged everyone to integrate sustainability into their daily operations.





## WMI Noteworthy

- Campus-wide resource for faculty and students
- Implementing Recycling Design Thinking
- Awarded 2,157 WMI Certificates
- Adding Value to degree programs
- Facilitated top 2 percent (No. 14 overall) and No. 4 in USA rankings UI Green Metric – University Sustainability World Ranking for N.C. A&T 2017
- Selected No. 1 by the Environmental Careers Organization
- Recognized by the Greensboro Chamber of Commerce as an innovative environmental program
- Top 28 interdisciplinary institute/center in USA (2013 NCSE report 360 were profiled)
- Enhances student retention and graduation scholarships and internships
- Forum for Big Ideas created EES PhD
- Forum for exchange of big ideas among students from different disciplines
- Forum for exchange of big ideas among faculty members from different disciplines
- Brings environmental industry leaders to campus
- Promotes economic growth for the City of Greensboro through national conferences
- Offers best interdisciplinary support courses
- Promotes Big Ideas of Sustainability Infrastructure, Energy and Power, Transportation, Water Conservation, Waste Management and Education.

#### We welcome creative ideas that are suitable for inclusion in the EnviroNews. Send a brief summary of your ideas to: WMI, Carver Hall • 261 North Carolina A&T • Greensboro, NC 27411

- PHONE: 336 334-7030
- FAX: 336 334-7399

Email: uzo@ncat.edu

North Carolina A&T State University is a land-grant doctoral/research university and AA/EEO employer

#### From the Editorial Staff:

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WMI Mission: Enhance awareness and understanding of waste problems and their management in our society and develop programs to improve the quality of life and protect the environment.

This newsletter is a publication of the Waste Management Institute of North Carolina Agricultural and Technical State University. It is intended to increase the awareness of teachers, students, industry, government and community groups about environmental, sustainability and Waste Management issues.

#### Interdisciplinary WMI Program Committee and Think Tank

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