

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY

Ofori-Boadu Receives NSF CAREER Research Award

Award Supports Integrated Research and Education for Professional Identity Development of Women Interested in Undergraduate Architecture, Engineering and Construction Careers

Greensboro, NC – February, 2019 – Dr. Andrea Ofori-Boadu, assistant professor of Construction and Construction Management in N.C. A&T's Department of Built Environment within its College of Science and Technology, has received a CAREER award from the National Science Foundation. The award period starts on March 15, 2019 and ends February 29, 2024, and is expected to total \$559,991. The NSF CAREER award program is a foundation-wide activity that offers NSF's most prestigious awards in support of early-career faculty like Ofori-Boadu who have the potential to serve as academic role models in research and education and to lead advances in the missions of their organizations.



Ofori-Boadu believes that broad STEM interventions that have improved women's representation in some STEM professions have not been as effective in architecture, engineering, and construction (AEC) professions, as they are not robust enough to address profession differences. The U.S. Department of Labor reported that women make up 14% of engineers and the National Association of Women in Construction found that women professionals are only 2.8% of the construction workforce. This lack of diversity in the multi-billion dollar AEC industry is crippling as the effective targeting and preparation of untapped talented women could reduce current AEC workforce shortages, while contributing women's perspectives towards more gender inclusive built environments and AEC professional communities.

With this NSF CAREER award, Ofori-Boadu will research professional identity development processes in emerging women AEC students towards informing educational and institutional transformations that strengthen women's persistence in becoming AEC professionals. Her project integrates research and education by developing a year-round blended Professional Development Certificate Program and establishing the Emerging Built Environment Women center. The construction of robust discipline-specific professional identity development process theories will bridge gaps in identity and diversity theories and inform transformations towards more inclusive AEC educational and institutional environments, which will enhance the early

attraction, preparation, and persistence of the next generation of women AEC professionals. Improved gender inclusive AEC educational environments will expand the pool of qualified AEC women for a more diverse AEC workforce towards more gender inclusive AEC professional practice and 21st century built environments.

Ofori-Boadu's research work on swine-manure bio-char as a partial cement replacement material, the effective delivery of quality green buildings, and the exploration of construction professional identity development has resulted in several grants, citations, publications, and presentations.

About N.C. A&T's Department of Built Environment

The Department of Built Environment at North Carolina Agricultural and Technical State University prepares men and women in the scientific, managerial, and supervisory areas required in the fields of Construction Management, Geomatics, and Environmental Health & Safety.

About NSF CAREER AWARDS

The CAREER awards emphasize the importance NSF places on early development of academic careers in which the excitement of research is enhanced by inspired teaching and dissemination of new knowledge. The program aims to provide stable support at a sufficient level and duration to enable awardees to develop careers not only as outstanding researchers but also as effective, committed educators. CAREER awards encourage faculty and academic institutions to value and support the integration of research and education, in which the process of discovery stimulates learning and assures that research findings are quickly and effectively communicated in a broader context and to a large audience.



North Carolina Agricultural and Technical State University is the nation's largest historically black university. Classified a "higher research" university by the Carnegie Foundation, it is a land-grant member of the University of North Carolina System. A&T is known for its leadership in producing graduates in engineering, agriculture and other STEM fields. The university was founded in 1891 and is located in Greensboro, North Carolina.