



# NASA's HBCU/MI Engagement Forum at **Johnson C. Smith University**

**South Carolina  
State University**

**Dr. Jennifer Cash**

# Overview of SC State University

- South Carolina State University (SCSU) is a land-grant, Historical Black College and University (HBCU) located in Orangeburg, South Carolina. The main campus consists of 177 acres and is 45 miles east of the state capital of Columbia. SCSU is regionally accredited by the Southern Association of Colleges and Schools (SAC-COC).
- Originally established on March 3, 1896, through an act passed by the General Assembly of the South Carolina Legislature the institution has grown to a comprehensive teaching university with a strong legacy in its land-grant mission of teaching, research, and community service. Through instruction, research and service activities, the University prepares highly skilled, competent, economically and socially aware graduates to meet life's challenges and demands that enable them to work and live productively in a dynamic society.



# University Academic Capability

- SCSU is one of 12 senior public postsecondary educational institutions in South Carolina and the state's only historically Black public four-year institution. Serving as the only state-assisted HBCU in South Carolina, the University has more than 175 full time faculty members and a student body of 2,942 traditional students of which 93.4% are African-American.
- SCSU has five major academic divisions: College of Graduate and Professional Studies; College of Education, Humanities and Social Sciences; College of Science, Mathematics Engineering and Technology; School of Business and the Honors College. Within these divisions, the University offers 43 bachelor's degree programs in 67 concentrations, 1 post baccalaureate degree program, an undergraduate certificate in Agribusiness Innovation and Entrepreneurship, 11 master's degree program, 1 Educational Specialist degree program and a doctorate in Educational Administration. SCSU is consistently among the national leaders in producing African-American students with baccalaureate degrees in biology, education, business, engineering technology, computer science/mathematics, and English language/literature.



# University Research Capability

- **Physics, Manufacture Engineering:** Observational and computational astronomy, medical and health physics, computational physics, fluid dynamics, algorithms test & development analysis, coherent-based simple dynamics equivalent research, composite materials manufacturing technologies, computer graphics & aided engineering design & analysis, expert systems/fuzzy logic/intelligent control, bio-robotics and bio-fabrication, structural optimization, data acquisition, temporal data mining
- **Energy Security and Environmental Management:** Biomass research, environmental & ecological chemistry, environmental engineering, environmental science & technology, environmental remediation, hydrogen storage and production, Geo- environmental engineering
- **Homeland Security and National Security:** Cyber security, integrated simulation platform, material manufacturing, flexible robot manipulator with a prismatic joint, wireless sensors, nuclear safeguard
- **Transportation:** Transportation planning and traffic operations, transportation safety, energy and environment in transportation, alternative fuel, RFID technology, intelligent transportation system
- **Health Disparities and Public Health:** Health physics, community development /rural health education & outreach, geriatric education, handicapped/disabled student & employee education, cancer disparities research, health and wellness, speech/hearing screening and treatment, health sciences/speech pathology and audiology, health South Carolina initiative, social and economic impact of childhood obesity
- **Agricultural and Food Sciences:** Agribusiness entrepreneurship, Agricultural credit/loan analysis, food consumption/analysis/quality/safety/health, evaluation of agricultural land technologies, marketability & adaptability of water technology for agriculture
- **Business, Education and Outreach:** Small business development, technology transfer, foreign currency, tax preparation, financial literacy, conflict resolution study, curriculum development & enhancement, distance learning/continuing education, high level thinking skills, behavior modification & leaning style research in students
- **Humanities and the Arts:** assessment/evaluation of criminal justice practices, ethics, American politics, American civil rights, faculty development, culture diversity

# University Research Capability

- ❖ SC State's Center for NASA Research and Technology
- ❖ Basic Elemental Analysis Laboratory (BEAL)
- ❖ Consortium for K-20 Cybersecurity Workforce Pipeline
- ❖ Environmental Field Station
- ❖ James E. Clyburn University Transportation Center
- ❖ The Center for Energy Studies
- ❖ Radiation Data Mining Laboratory (RDML)
- ❖ Applied Radiation Science Laboratory (ARSL)
- ❖ SC State Small Business Development Center
- ❖ Child Development Learning Center (CDLC)
- ❖ I.P. Stanback Museum and Planetarium



# University Past Performance

- As South Carolina's only public, historically black college and university (HBCU), there are several programs unique to SC State University.
- A Top 10 ranking for most enrolled ROTC cadets (No.1 in HBCU) and No.1 ranking in social mobility for three years (2006, 2007, and 2009) from Washington Monthly.
- The only HBCU to be ranked as an over performing College in the U.S. and No. 5 among national public HBCUs by U.S. News and World Report.
- SC State's Beta Gamma Sigma chapter was named an Exemplary Chapter International Honor Society in Fall 2012.
- Identified as the exclusive HBCU for research in the State of South Carolina by Forbes Magazine.
- **Points of Contacts:**

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