Title: Drones, remote sensing, and GIS to map and analyze CO2 and land change for climate change and public health decision making

Institution: Fayetteville State University
City/State: Fayetteville, NC
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Summary:
Fayetteville State University (FSU) is proposing to establish a two-week-long residential STEM Precollege Summer Institute (FSU PSI) for rising 10th through 12th grade high school students recruited from 18 high schools in Cumberland County, North Carolina. With the theme of “Drones, remote sensing, and GIS to map and analyze CO2 and land change for climate change and public health decision making,” the overarching goal of this FSU PSI is to increase interest in STEM of high school students, especially underrepresented/underserved students, and equip them with the tools necessary for their success in college STEM degree programs leading to STEM careers through their engagement and interaction with NASA’s Earth Science.

To ensure that students not only learn STEM concepts and skills but also engage with STEM professionals, the project partners with NASA Jet Propulsion Laboratory, Langley Research Center, North Carolina State University (NC State) State Climate Office, NC State Center for Geospatial Analytics, Emerging Technology Institute, SpatialGIS, FSU TRIO Talent Search Program, and FSU TRIO Upward Bound Math & Science Program to deliver STEM lessons, workshops, information about potential jobs and internships relevant to Earth Science, geospatial science and technology, as well as admission procedures and benefits of becoming students at FSU.