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PROMOTING INNOVATIVE SPACE-BASED SOLUTIONS AND SPACE EDUCATION IN FUTA

**Abstract**

The Centre for Space Research and Applications (CESRA) was established by The Federal University of Technology, Akure (FUTA) to embark on internationally competitive research on space science and technology and make meaningful contribution to the emergence of indigenous space technology in Nigeria. Since its establishment, the centre has become a key participant in the Federal Government's Space Programme in order to make Nigeria relevant in space exploration and exploitation. Over the years, the Centre has carried out research in the area of remote sensing technology and GIS for sustainable development, built innovative solutions using space technologies, built the largest Space club in West Africa and has collaborated with several Space organizations like ARCSSTEE, UNISEC, SLOOH, NASRDA etc. in promoting space education and outreach across Nigeria - recently, in collaboration with the Space Generation Advisory Council, the centre hosted the 1st African Space Generation Workshop. In 2015, the Centre joined the Joint Global Multi-Nation Birds Satellite project acronym as "Birds project" - a cross-border interdisciplinary satellite project for non-space faring countries supported by Japan. The centre's participation in this project led to the development of the Nation's first Nanosatellite; the NigeriaEduSAT-1. The major objective of Nigeria Edusat-1 is capacity building, i.e. domesticating the satellite technology in the university and making the technology a common business in the university for the purpose of research, resources, environmental management and sustainable socio-economic development of the nation. The satellite technology development in the long run shall have spill over effects on Science, Technology, Engineering and Mathematics (STEM) education that is an essential tool for a country industrial development. This paper detail the Centre's influence towards developing innovative space technologies for sustainable development in the country and how the centre is building on the success of NigeriaEduSAT-1 towards concretize its leading position in cutting edge space researches and scientific breakthroughs.