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PROPOSAL FOR A SMALL SATELLITE CONSTRUCTION PLATFORM USED FOR ACADEMIC  
PURPOSES

**Abstract**

The dissemination of knowledge related to science and space technology is a subject that deserves priority, immediate solutions for the Angolan Youth. Through a lecture and a presentation for my undergraduate research project based on the “Proposal for a CANSAT Small Satellite Construction Platform”, (Cansat is a functional representation of a real satellite, integrated in the volume of a can of soda ), my interest is in developing a very broad and deep view of the satellite industry and learning how to apply this knowledge in various projects, to raise awareness of the importance of space exploration, thus giving other students their first experience in projects related to space science and technology. With participation in the 2023 IAF Emerging Space Leaders Grant Program, I will be presenting and sharing the Small Satellites Module paper – Space Mission Design and Cansat Assembly, with the aim of providing other students with hands-on design experience real spacecraft, with the study of small satellites used for academic purposes. To demystify the space engineering industry for Angolan youth, I present the opportunity to understand aspects related to the design of a conventional satellite, help other young people, understand the design of space missions for small satellites, basic concepts of small satellites, Cansats designs and its subsystems, assembly practices and telemetry reception. In the particular case of my country, with very dispersed populations, satellites play a very important role in telecommunications, earth observation, exploration and science. Through the study of these small satellites we can invest in space science and technology, thus ensuring the resolution of various problems and helping populations, such as, for example, improving communications throughout the Angolan territory, people who live far from the city to have medical consultations and distance education. Among other tasks such as drought monitoring in southern Angola, identifying user needs with regard to the use of earth observation data for monitoring the ocean and coastal regions, defining the technical requirements of the satellite constellation, the detection of fires, the detection and monitoring of deforestation, the mapping of sugar cane, and urban expansion.

Keywords: knowledge, science, space technology, Small Satellites, Cansat.